



**INEQUALITY AND HUMAN CAPITAL ACCUMULATION  
IN LATIN AMERICA  
(WITH SOME LESSONS FOR EGYPT)**

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## FORWARD

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Even economists don't always get it right!. As Birdsall and Londoño point out in this publication, early growth theories viewed expenditures on health and education as a constraint to the accumulation of productive physical capital, and a hindrance to faster economic growth. The more recent endogenous growth models do better in viewing the role of human capital accumulation as growth enhancing. However, the new models' focus on the positive externalities generated by education (new ideas and technologies) essentially ignores three important Ds: *demand*, *distribution* and *delivery*. In this paper the authors hone in on these three "Ds" tackling such relevant issues as: what makes households invest in human capital and whether government expenditures on education "trickle-down" to the poor. The authors examine the question of which model is more efficient in delivering social services: government, market or a hybrid of both?

Latin America has been used in the paper to examine why, despite comparable expenditures on education, the region did less well than East Asia. The paper ascribes Latin America's poor showing to, among other things: its historic policy bias against labor, regressive patterns of public spending on social programs, lack of incentives for private investment in education, and an inefficient centralized approach to the delivery of services. The authors advocate a more efficient hybrid approach combining government mandated rules of play with market-led competitive supply, elaborating elements of the approach and citing recent reform efforts from various countries that have drawn from the newer approach. The paper concludes by offering some comments on the relevance of the Latin American experience for Egypt.

Nancy Birdsall's recent presentation of the paper in Cairo stimulated a lively discussion among the participants who raised issues such as: how to convince politicians of the urgency of reforming Egypt's education system, what are the merits of subsidizing girls' education, whether and how to abandon false entitlements, and what should be the role of the private sector versus the government in training and financing education. From the discussion, it appeared evident that educational reform is a key factor for future economic growth and equity in Egypt.

The road to reform is not easy, in large measure because the pay-off from social services reform comes with considerable time lag. However, Egypt is now well positioned to begin such reforms given that macroeconomic reforms have already been undertaken, and given that there is ample experience to draw upon from other countries. The paper offers considerable insight to this end.

Ahmed Galal  
Executive Director, ECES  
August 1997

**ABOUT THE SPEAKER****NANCY BIRDSALL***Executive Vice President, Inter-American Development Bank*

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Nancy Birdsall is the Executive Vice President of the Inter -American Development Bank and the president's deputy for management operations. Dr. Birdsall is also a member of the board of directors of the International Center for Research on Women and the Population Council, and author of numerous publications on economic development issues in the areas of education, health, population, labor and the environment. She holds a master of arts degree in international relations from the Johns Hopkins School of Advanced International Studies and a doctorate in Economics from Yale University.

Before joining the Inter-American Development Bank Dr. Birdsall held various policy and management positions at the World Bank, most recently as Director of the bank's Policy Research Department. In this capacity she led the World Bank's research on developing countries in such areas as public finance, trade, macroeconomic policy, environment and human resources.

Dr. Birdsall has also been a senior advisor to the Rockefeller Foundation, where she contributed her expertise on the state's role in social programs, and has served on several committees of the National Academy of Sciences, including the Committee on the Human Dimensions of Global Change.

**PART I**

**INEQUALITY AND HUMAN CAPITAL ACCUMULATION**

**IN LATIN AMERICA (WITH SOME LESSONS FOR EGYPT)**

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**1. Introduction**

The early postwar development model emphasized a strong role for the state. The challenge of coordination, of ensuring the complementary public and private investment in industry, transport, and communications needed to jump-start an economy, seemed to justify the state not only assuming a leading role as planner, but also taking the commanding heights of the economy and managing production. In this early development model, spending on such “nonproductive sectors” as health and education was seen as a drain on the accumulation of productive assets, and thus as a cost in terms of growth. Early demographic models, for example, emphasized that rapid population growth in developing countries was draining away public resources on consumption of schooling and health services, thus reducing the availability of productive physical capital per capita.

The newer endogenous growth models introduced and legitimized the concept of “human capital” as a productive investment and of human capital accumulation as critical to the growth process. Sustainable growth in these models is a result, in part, of positive externalities generated by education, an important form of human capital; new ideas and new technologies are critical to high sustained growth, and in turn rely on high levels of human capital.

The newer growth models provide an elegant and compelling justification for human capital investments as efficient and growth-enhancing. In their simplest form, however (as reflected for example in the well-known empirical studies of growth of Barro, Sala-i-Martin, Romer and others), they embody assumptions which are poor guides to policy choices.

- Human capital accumulation is treated as exogenous. The determinants of the accumulation process -- household decisions to invest in human capital, and public policy decisions about the size and allocation of such investments -- are not modeled. The initial distribution across households of adult

education, which is critical to investments in children's education,<sup>1</sup> and the macroeconomic, trade and other economywide policies that also affect household demand for education are not explicitly considered. In effect, demand is ignored.

The emphasis is on human capital accumulation as efficiency-enhancing. The implicit assumption is that sufficient government spending on the accumulation process will eventually embrace all programs and all income groups -- that "trickle-down" accumulation will work. The distribution of human capital is ignored.

- A major role for the state in the delivery of health and education services is implicitly endorsed. The emphasis on positive externalities of human capital is based on the logic of a market failure, particularly in capital markets, which inhibits optimal private investment. Because human capital cannot be appropriated, borrowers cannot use future human capital as collateral; even when agents recognize high returns to private investments in health and schooling, they cannot borrow and their investments are therefore liquidity-constrained. Thus in these models the role of the state is critical, reinforcing the traditional view of government as the major financier and provider of all social services.<sup>2</sup> The problem of efficient and equitable delivery of social services is ignored.

In Latin America, the human capital accumulation process has not worked. Though governments have committed as many or more resources to health and education services as have other developing countries, the region has a poor record taking into account its income. Human capital accumulation has been relatively slow, with negative effects on growth, and has been highly unequal across income groups, exacerbating income inequality.

In this paper, we seek to explain why, and we propose a new approach to help rectify the problem. Our discussion relies on a broader consideration of the three issues mentioned above. *First, demand (for education, for example) does matter.* In Latin America, low accumulation of human capital reflects low household demand for human capital, particularly among the poor. Low household demand in turn reflects historic and continuing inequity in the distribution of assets, including of human capital itself, exacerbated by regressive patterns of public spending on social programs and by economywide policies

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<sup>1</sup>Schultz (1988).

<sup>2</sup>Of course, as we discuss below, the state can play a strong role in the selective financing of social programs, separate from their provision. On this particular issue, the new growth models are silent.

that have discouraged private investment in education.

*Second, distribution.* We emphasize the failure of trickle-down approaches to human capital accumulation in Latin America, where the poor have not benefitted as much as would be optimal from an efficiency point of view from public spending on human capital programs. In the case of social programs, ironically, there is more need for an emphasis on equity, i.e. on which groups benefit from public spending on education and health, if economies are to benefit from the efficiency and growth-enhancing effects of more rapid human capital accumulation.

*Third, delivery of social services.* We will argue that the centralized bureaucratic model of social service delivery has led to both inefficient and inequitable outcomes in Latin America. Recent economywide reforms are increasing the demand for skilled labor in the region, and thus raising the private return to human capital investments. But public spending on the education and health services necessary for human capital accumulation, particularly by the poor, is based on a model of industrial organization which reflects historic social and political inequities and does not serve well the poor. Achieving greater equity (and thus faster rates of human capital accumulation, a key to faster as well as more equitable and sustainable growth) requires what we label a new, horizontal approach to the provision of social services, one which relies on greater targeting of public spending to the poor combined with more competitive and demand-oriented supply of services.

In the first section of this paper, we summarize evidence that, despite adequate public spending, accumulation of human capital in Latin America has been poor and inequitable -- the distribution of education is worsening over time. We show that low and unequal human capital accumulation has resulted in both lower aggregate growth and greater income inequality.

In the second section, we discuss the underlying reasons for low and unequal human capital accumulation, emphasizing the effect of weak demand for education among the poor due to liquidity constraints and the likelihood of low returns to human capital investment in economies biased against labor. On the one hand, history suggests a discouraging vicious circle, in which initial poverty and income inequality have led to slow and unequal human capital accumulation, which has in turn reduced growth and exacerbated inequality. On the other hand, there is a positive implication: more rapid accumulation, with greater emphasis on equal access to improve the distribution of education, can both speed economic growth and reduce income inequality. More and more equal education can enhance both efficiency and equity.

In the third section of the paper, we turn from the issues of distribution and demand to the immediate challenges of how to transform the delivery of social services, including education. We argue that, in Latin America, the current major systems of service delivery reflect and reinforce underlying economic and social inequities. We discuss the limitations of a centralized bureaucratic approach on the one hand, and an atomized, market-reliant approach on the other, for ensuring optimal access for the poor to opportunities to invest in their human capital. We then set out our alternative approach to the organization of service delivery, combining centrally determined rules of the game with market-led competitive supply, and describe emerging examples of this approach in the region. We end the paper with a comment on the relevance of the analysis for Egypt.

## **2. Low and Unequal Human Capital Accumulation in Latin America**

First the facts. Controlling for its per capita income, Latin America's performance in human capital accumulation is weak compared to other regions. This is particularly true for education: average schooling attainment is two years below what would be expected given per capita income, a record barely better than that of sub-Saharan Africa and well below that of South and East Asia. The gap, moreover, has increased over the last three decades. Compared to East and Southeast Asia, Latin America's shortfall in education has increased over the years, from less than one year in 1970 to about 4 years in 1995 (Figure 1a). The shortfall in health is smaller compared to other regions - average life expectancy is about two years below the expected, given income (Figure 1b). This result is perhaps due to a lower gender gap in education than elsewhere, the positive effect of mothers' education on infant mortality, and relatively more spending and innovation in the health sector in Latin America (Inter-American Development Bank, 1996).

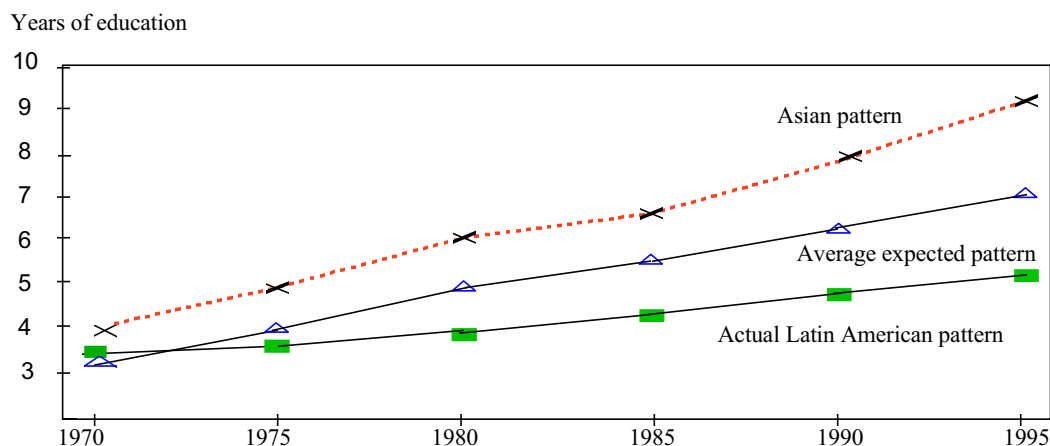
The problem is not primarily one of low public expenditures on health and education; such expenditures are similar to other developing regions, at 6.6 percent of GDP (Table 1).<sup>3</sup> Rather, the problem with human capital in Latin America is one of distribution. Public investment in education has generally been viewed

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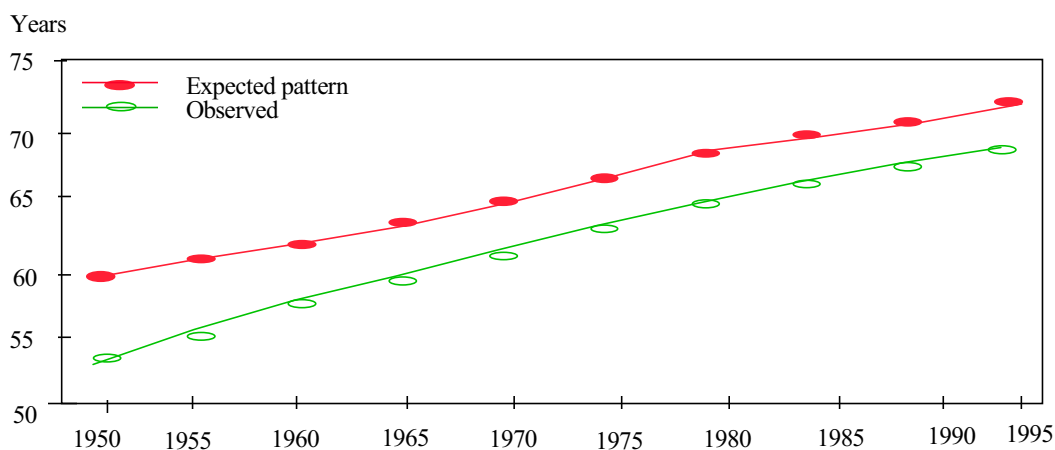
<sup>3</sup>Consistent with performance, spending is relatively greater on health than on education compared to other regions. In the rest of this paper, we concentrate on education as the measure of human capital accumulation. Health and other measures also reflect investment in human capital, but with less linear and thus less easily measured and differentiated effects on productivity and income growth.



**Figure 1a The Education Gap**



**Figure 1b The Life Expectancy Gap**



Note: Expected pattern derived from the equation  $e(\ln(y), \text{time})$ .  
 Source: Inter-American development Bank (1996).

**Table 1. Social Expenditure in the 1990s, (% of GDP)**

	Public Expenditure			Private Expenditure
	Total	Education	Health	Health
Latin America	6.6	3.6	3.0	3.1
Other Developing Countries	6.4	4.2	2.2	1.9
All Developing Countries	6.5	4.1	2.4	2.2
Worldwide	9.9	5.1	4.8	3.2

Source: Inter-American Development Bank (1996).

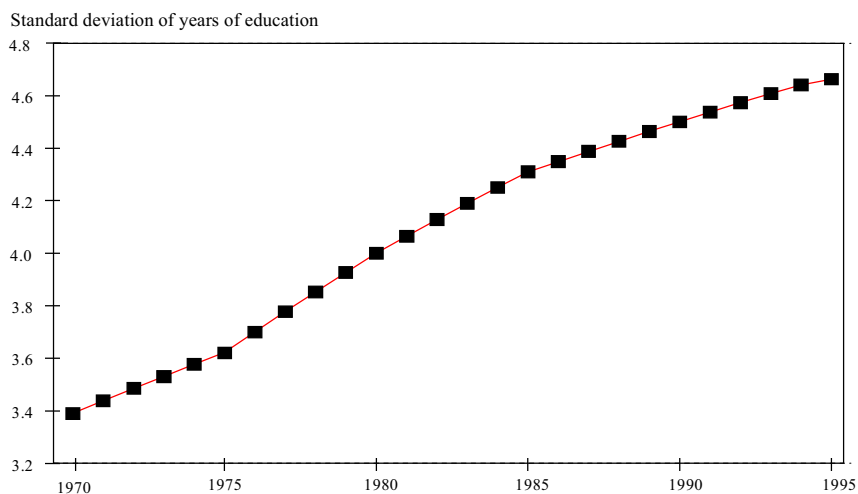
as a mechanism to reduce poverty and inequality, given the strong evidence at the individual level that the educated earn more. At the aggregate level, however, the effect of education on poverty and inequality obviously depends on the distribution of education itself, the speed with which education spreads, and the extent to which different groups benefit. In Latin America, a relatively small proportion of the total population has completed secondary or higher education. These relatively few skilled workers earn a substantial wage premium due to their limited supply, thus contributing to overall high income inequality (Birdsall, Ross and Sabot, 1997). The Latin American experience stands in marked contrast to that of East Asia, where education policy has produced a large supply of skilled workers, eroding any substantial premium they might have earned above the wages of the unskilled. The theory Kuznets proposed, that income distribution will initially worsen as some population groups in underdeveloped economies shift to high productivity sectors, seems to have been borne out in Latin America, in part because the limited and slow spread of educational opportunities has created a large productivity gap between a small skilled group and the rest of the population (Birdsall, Stallings and Clugage, forthcoming).

In fact, the inequality of education in Latin America, measured as the standard deviation of the years of education of the adult population, has been increasing over time (Figure 2). Thus the low rate of overall accumulation, an average of healthy increases in the number of years of school completed for a small number and very limited increases for the great majority, is due in part to the unequal nature of the accumulation. Compared to other regions, Latin America has the highest inequality of human capital (Figure 3), as well as the highest inequality of another critical productive asset -- land. There is some evidence that inequality of education is beginning to decline in Latin America: our measure of inequality, the standard deviation of years of schooling, is lower for young adults (aged 20-30) than for older groups in 1990 (Elizabeth King, personal correspondence, June 1997)

### ***Effects of Low and Unequal Accumulation***

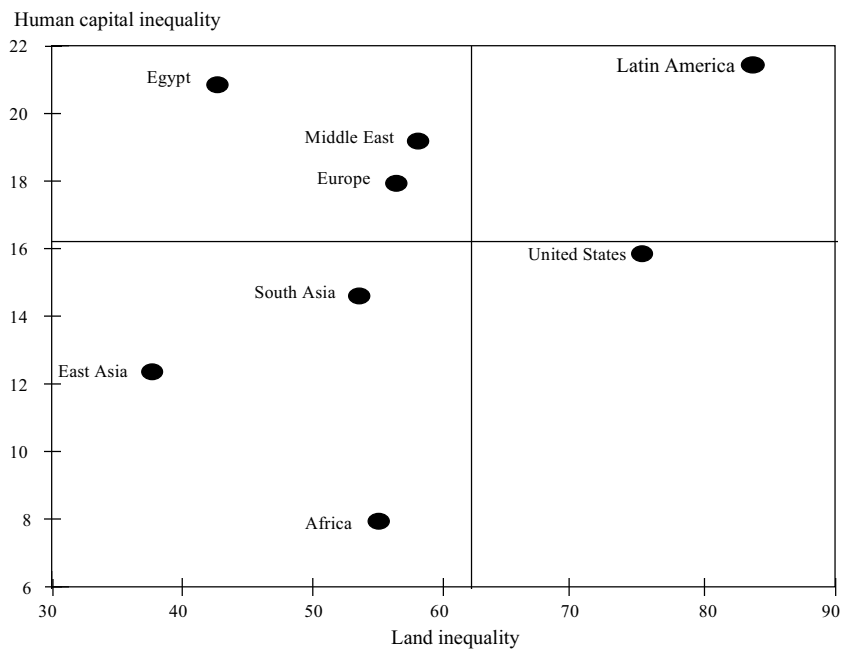
*Effects on growth.* What have been the effects of low and unequal human capital accumulation on the growth rate in Latin America over the last three decades? Table 2 shows the results of estimating a traditional growth equation across countries, using recently available high quality data on the distribution of income (Deininger and Squire, 1996). For these estimates, we selected those countries with Lorenz curves available for two periods of time separated by at least five years, with income estimates per capita in international purchasing power prices, and with information on physical capital investment, the

**Figure 2. Inequality of Human Capital in Latin America**



Source: Inter-American Development Bank data.

**Figure 3. Asset Inequality**



Source: Inter-American Development Bank data.

**Table 2. Explaining Growth**

<b>A. Explaining Aggregate Growth</b>			
Independent Variable	(1)	(2)	(3)
Constant	0.01	0.04**	0.03
Capital accumulation	0.53**	0.57**	0.54**
Initial conditions:			
Income level	-0.88	-0.41	-0.42
Education level	0.17	0.28*	0.30*
Income inequality	-0.05*	-0.03	-0.002
Land inequality		-0.02*	-0.01
Educational inequality		-0.09*	-0.09*
Natural resources			-0.01
Changes in:			
Income inequality			
Trade openness			0.02
Manufacturing trade			
Primary trade			
LAC dummy			0.004
R <sup>2</sup>	0.61	0.70	0.76
<b>B. Explaining Income Growth of the Poorest</b>			
Independent Variable	(4)	(5)	(6)
Constant	0.00	0.05 <sup>†</sup>	0.04 <sup>†</sup>
Aggregate growth	1.31**		
Capital accumulation		0.72**	0.77**
Initial conditions:			
Income level			
Education level		0.41 <sup>†</sup>	0.51 <sup>†</sup>
Income inequality		0.05	0.02
Land inequality		-0.07*	-0.02
Educational inequality		-0.20*	-0.18*
Natural resources			
Changes in:			
Income inequality			-0.27**
Trade openness			
Manufacturing trade			0.05 <sup>†</sup>
Primary trade			-0.01
LAC dummy			-0.01
R <sup>2</sup>	0.51	0.42	0.63

<sup>†</sup> Statistically significant at the 10-percent level.

\* Statistically significant at the 5-percent level.

\*\* Statistically significant at the 1-percent level.

Source: Birdsall and Londoño (1997).

education of the labor force (which we used to construct our measure of human capital distribution), land distribution and trade indicators.

Our findings (reported originally in Birdsall and Londoño, 1997) are straightforward with respect to the effect on growth of education and of the distribution of education. Education accumulation, along with capital accumulation, is good for growth - a now conventional result (columns 2 and 3). The strong positive effect of human capital accumulation, as reflected in the average years of education of the labor force, on growth is consistent with the theory referred to in the introduction, as well as with microeconomic evidence that better-educated workers earn higher incomes and, for women in particular, are more effective in household production of children's good health and schooling. The positive effect of a country's level of education at the beginning of a period on growth during the subsequent period is now a commonplace and highly robust result in virtually all cross-country studies of growth (Barro, 1991; Levine and Renelt, 1992). Lora and Barrera (1997) estimate that Latin America as a region could increase its growth rate by 2 percentage points a year over the next decade if, in addition to deepening structural reforms, it were able to increase the pace of human capital accumulation for the labor force as a whole by one year over that which was expected. Viewed from the other side, Birdsall, Ross and Sabot (1995) estimate that Korea, with Brazil's level of primary and secondary education in 1960, would have grown by 0.56 percentage points *less* per year over the next 25 years, resulting in a per capita GDP for 1985 that was 12 percent lower than that which Korea actually attained.

In addition, and controlling for the level of education, the degree of inequality in the distribution of education has a strong and robust negative effect on growth (columns 2 and 3). The variable measuring the distribution of education is highly robust; its negative effect operates independently not only of the education level variable, but of the positive effect of trade openness and the negative effect of natural resource endowment.

Note that when we enter the asset distribution variables, the negative effect of income inequality on growth loses statistical significance (columns 2 and 3 versus column 1); the widely reported negative effect (Birdsall, Ross and Sabot, 1995; Alesina and Rodrik, 1994; Persson and Tabellini, 1994) apparently reflects differences in a fundamental element of economic structure, namely the access of different groups to productive assets.

In columns 4 to 6 of Table 2, we assess whether the initial distributions of income and of assets affect the income growth of the poor. The elasticity of income growth of the poor with respect to overall

growth is well above one (column 1), confirming the logic of the argument that economic growth is key to poverty reduction. Income growth of the poor also depends heavily upon capital accumulation (columns 2 and 3). Most interesting, initial inequalities in the distribution of land and of human capital have a clear negative effect on the income growth of the poor, at magnitudes twice those of their effects on average income growth (column 2). An unequal distribution of assets, especially of human capital, affects income growth of the poor disproportionately; a better distribution of assets would reduce poverty both directly and indirectly, by enhancing average growth.

Making this point with aggregate economic indicators, Birdsall and Londoño (1997) show that, if the economies of Latin America had maintained the same income distribution throughout the 1980s as in 1970, the increase in poverty over the years 1983 to 1995 would have been smaller by almost half (Figure 4). But the low growth and macroeconomic instability of the 1980s harmed the poor more than others and exacerbated an already poor distribution of assets and income. These results are consistent with a view of the world in which opportunities matter. The poor, without assets, cannot take advantage of opportunities to be productive. In economies where a substantial portion of the population is without human capital, and thus without a critical productive asset, only a part of the population can exploit the growth process. The engine of growth is small, and may be periodically stalled by populist roundabouts. Driven by the increasing productivity of the initially poor, East Asian countries, which began the postwar period with relatively low inequality, were able to grow at high and sustained rates over more than three decades. In contrast, most countries of Latin America, with greater inequality of assets and presumably fewer opportunities for the poor, grew less (Figure 5). The results of Table 2 and the aggregate indicators summarized above indicate a straightforward if disturbing conclusion: Low and unequal accumulation of human capital in Latin America has slowed aggregate economic growth and has inhibited poverty reduction.

### *Effects on income inequality.*

We now turn briefly to a second effect of low and unequal accumulation: Latin America's persistently high income inequality. Londoño and Székely (1997) show that intra-country world income inequality can be reasonably explained by the relative abundance of factors of production such as land and physical and human capital, as well as by their distribution. Latin America has a Gini coefficient which is approximately 15 points above the average for the rest of the world. As Figure 6 shows, the relative abundance of natural resources and the highest concentration of land tenure in the world account for a

substantial portion of the disparity between Latin American and worldwide inequality. But the low level of education of Latin American workers and the enormous variance in educational assets play an even larger role in explaining the region's excessive inequality.

### **3. Explaining Latin America's Low and Unequal Accumulation**

The above analysis demonstrates that low and unequal accumulation of human capital in Latin America has limited growth, particularly in the income of the poor, and has exacerbated the region's high income inequality. We argue now that, in fact, there is a vicious circle: the region's low and unequal accumulation

of human capital is not only a cause of current poverty and income inequality, but also an *outcome* of past income inequality. Low and unequal accumulation can be explained by facts on both the demand side and on the supply side of the market for education.<sup>4</sup>

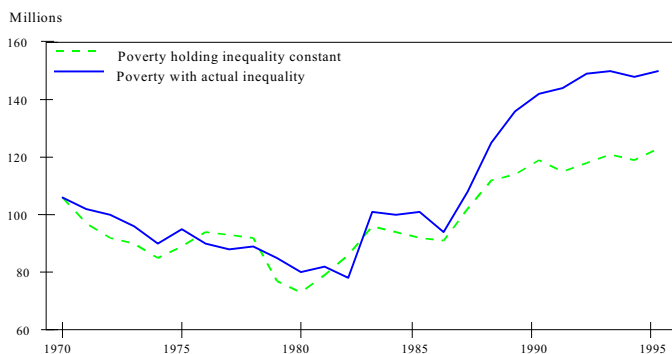
First, on the demand side, Latin America's large endowment of natural resources historically has limited society's demand for education. The socioeconomic arrangements which accompany large scale agricultural production and natural resource extraction tend to be characterized by relatively few owners of capital and many unskilled workers (Engerman and Sokoloff 1994). There is little demand for skilled workers, in part because natural resources tend to be complementary to capital, not skilled labor, in production. Perhaps as a result, governments and families in Latin America have invested little in education, seeing relatively higher returns to physical capital. A rich natural resource base in the region also minimized the need for the development of competitive nontraditional exports in the early post-war period, thus perpetuating traditional production arrangements.

Second, high income inequality in Latin America has implied that more households are liquidity-constrained, unable to borrow and without the resources necessary to keep their children in school. As shown in Table 3, in the mid-1980s Brazil and Malaysia had similar levels of per capita income. But the

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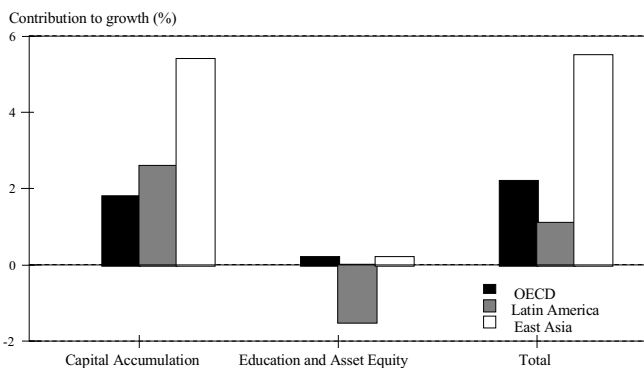
<sup>4</sup>The discussion in this section and the data referred to are largely from Birdsall, Bruns and Sabot, 1996.

**Figure 4. The Impact of Inequality on Poverty: Latin America 1970-1995**



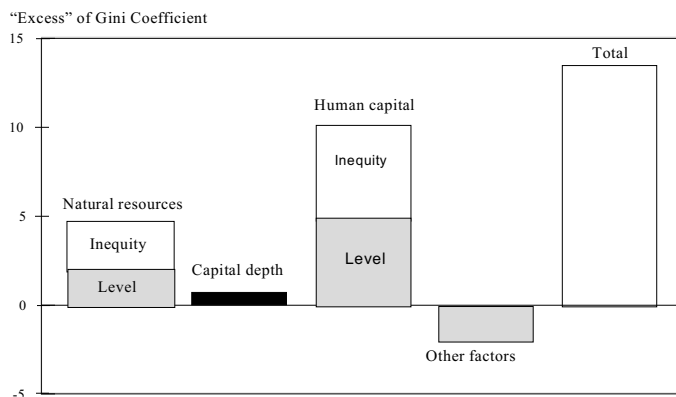
Source: Birdsall and Londoño (1997).

**Figure 5: Factors of Aggregate Growth**



Source: Inter-American Development Bank data.

**Figure 6. Explaining Latin America's Excess Inequality vs. World Average**



Source: Londoño and Székely (1997).



**Table 3. Absolute Income Share of Lowest Quintile**

Country	GNP per capita (US\$)	Income share of bottom 20% of households (%)	Per capita income of bottom 20% of households (US \$)
Malaysia, 1987	1,810	4.6	416
Brazil, 1983	1,880	2.4	226

*Source:* World Bank, *World Development Report* (various years) as presented in Birdsall, Ross and Sabot (1997).

poorest quintile in Brazil had only about one-half the absolute income level of the poorest quintile in Malaysia. Given an income elasticity of demand for secondary education of 0.50 (a conservative figure), if the distribution of income had been as equal in Brazil as in Malaysia, secondary enrollments among poor Brazilian children would have been more than 40 percent higher. There is some evidence that, among the poor, the income elasticity of demand for basic schooling exceeds 1.0, in which case secondary enrollments among poor Brazilian children would have been more than 80 percent higher. One quantitative study of the effect of income inequality on schooling suggests that, of the 27 percentage point secondary school enrollment rate gap between Brazil and Korea in the 1970s, more than 20 percentage points can be attributed to Brazil's greater income inequality and resultant lower enrollment of poor children (Williamson, 1993).

Third, household demand for education is not only a function of household income and household access to borrowing. It is also a function of expected returns to the family from schooling, in the form of higher future income for educated children. Two different public policies have systematically reduced the demand for basic education among the poor by reducing its expected returns. First, Latin American governments in the early decades of the post-war period pursued import substitution industrialization (ISI) policies in an attempt to shift away from the export of primary commodities and to promote local manufacturing. These ISI policies resulted in large subsidies and protection for the owners of capital and did not promote the demand for labor (Schiff and Valdes, 1992). The result was that increased profits accrued to the owners of capital, while real wages for the unskilled workforce grew less. Relatively low wage growth among workers, combined with high returns to capital, did nothing to encourage demand for basic education among the poor. Additionally, in parts of Latin America there has existed labor market discrimination against certain ethnic, linguistic or racial groups who also tend to be poor. This discrimination has reduced the expected returns to education among these groups and thus reduced the

demand for education among the poor even further. The second problem has been educational policy itself. Low and declining quality of basic education in Latin America, an outcome of inefficient public spending we discuss below, has reduced returns to basic schooling in the region, especially for poor households whose children are most likely to attend the lowest -quality schools. The high repetition and drop-out rates in Latin America, especially among the poor, are sad testimony to parents' initial efforts to enroll children and to their growing discouragement as low quality and low achievement produce limited learning and thus limited expected economic returns.<sup>5</sup>

In short, expected returns to education are a function of parents' assessment of the future labor market for their children. Where demand for labor is low (and capital subsidized directly or indirectly), where schooling is of poor quality, and where there may be discrimination in the labor market against some groups who also tend to be poor, low expected returns to schooling will reduce the household demand for education.

At the same time, the supply of education in Latin America has itself been affected by the region's high income inequality.<sup>6</sup> When the distribution of income is highly unequal, provision of subsidized basic education to a large segment of the school age population implies a relatively large tax burden on the rich. High income families are likely to resist. One result can be the underfunding of education -- and the decline in quality described above. A second result can be the channeling of public subsidies to higher education, where the children of the rich are more likely to be the beneficiaries. In fact, as shown in Table 4, the share of public spending on education in Latin America that is allocated to higher education has tended to be high -- at 15 percent and above in many countries, compared to 10 to 15 percent on average in East Asia. Venezuela and Korea are extreme examples. While in the mid-1980s Venezuela allocated 43 percent of its public education budget to higher education, Korea allocated just 10 percent of its budget to post-secondary

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<sup>5</sup>The roots of low quality basic education and its effects on the poor are discussed fully for Brazil in Birdsall, Bruns and Sabot (1996) and for Latin America in Birdsall and Sabot (1996).

<sup>6</sup>Latin America spends as much on education as a percentage of GNP as other developing regions with similar levels of per capita income. But the fact that growth has lagged in Latin America means that education budgets have been smaller in absolute terms. In addition, higher birth rates in Latin America mean that the same percentage of GNP spending translates into lower spending per child (Birdsall and Sabot, 1996).

**Table 4. Budget Allocated to Higher Education, 1985**

Percentage of Overall Education Budget	
<b>EAST ASIA</b>	
Malasia	14.6
Thailand	12.0
Indonesia	9.0
Korea, Rep.	10.3
<b>LATIN AMERICA</b>	
Argentina (1986)	30.8
	19.6
Chile	20.3
Colombia	22.2
Costa Rica	41.4
Cuban Republic	20.8
Ecuador	17.8
Honduras	21.3
Mexico	17.6
Nicaragua	23.2
Peru	2.7
Uruguay	22.4
Venezuela (1984)	43.4

Source: UNESCO, *Statistical Yearbook* (various years) as presented in Birdsall and Sabot (1994).

schooling. Public expenditure on education as a percentage of GNP was actually higher in Venezuela (4.3) than in Korea (3.0). However, after subtracting the share going to higher education, public expenditure available for basic education as a percentage of GNP was considerably higher in Korea (2.5) than in Venezuela (1.3).

By giving priority to expanding the quantity of education and improving the quality at the base of the educational pyramid, East Asian governments have stimulated the demand for higher education, while relying to a large extent on the private sector to satisfy that demand. In Latin America, government subsidies have disproportionately benefited high-income families whose children are much more likely to attend university. At the same time, low public funding of secondary education has resulted in poorly qualified children from low-income backgrounds being forced into private universities or entirely out of the education system at higher levels. Underfunding of education has meant that the guarantees of universal primary education in Latin America have become false entitlements for the poor: the education available to them has been of such poor quality as to make it of little real benefit.

In summary, the relatively poor growth performance of Latin America, the persistence of income inequality, and the difficulties of reducing poverty cannot be thought of as separate from the region's troubling record of limited and unequal access to education. In a series of vicious cycles, historically high levels of asset and income inequality appear to have generated an economic and political environment in which the poor, with limited opportunities for education despite reasonable government spending, and without other productive assets, are condemned to low-productivity work, low household income, and a new round of limited access to education. Societies in the aggregate also suffer, as increases in education and in accumulation of other assets are limited to the non-poor, reducing average growth levels and perpetuating inequality.

#### **4. The Business of Social Services**

What we refer to above as low and unequal accumulation of human capital in Latin America can be stated more simply: Public education has not reached the poor in Latin America. We now argue that a major culprit in this failure has been a model of social service delivery that has reflected and reinforced rather than compensated for underlying social, economic and political inequities. To remedy this situation, we propose an alternative model of social service delivery.

In some cases with the best of intentions, but often driven by the populist tendencies and patronage that have recurrently permeated most of Latin America, countries in the region sought to construct their own versions of the welfare state during the postwar period. Centrally-planned public systems were constructed to provide constitutionally-guaranteed health and education services for all. These centralized systems have now gathered a momentum all their own.

The public systems in effect became state-run pseudo-monopolies,<sup>7</sup> concentrating the functions of financing, purchasing, and production of services in the hands of a central government that allowed providers little autonomy and gave consumers no role in the organization of services. Command and control mechanisms allocated public resources to fund the various inputs (labor, equipment, materials) required for the delivery of social services. In the absence of competition, consumer interests became increasingly irrelevant.

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<sup>7</sup>Strictly speaking, the creation of a public monopoly requires explicitly barring the operation of, and public access to, other providers. In Latin America, this is only the case in Cuba.

The early centralization of public systems had three consequences. First, it created bureaucratic incentives for expansion of employment, and in the case of education strengthened the role of centralized (often nationwide) teacher unions. In many countries, extensive hiring depleted budgets, leaving little in the way of additional resources for salary increases. Conflicts between unions and government frequently led to bilateral monopoly compromises in the use of resources. For example, given the constraints on current revenues, union demands were often redirected toward better and earlier retirement conditions as well as toward shorter working hours. Much of the discussion with teachers and other workers in the social sectors focused on consolidating their entitlements or “acquired rights.” In health and other public services including education, the system drove up costs while heightening the dissatisfaction of workers and consumers, undermining the quality of public services and weakening community support.

Second, centralized systems precluded feedback from users and made consumer satisfaction irrelevant, thus limiting the public systems’ responsiveness and inviting erosion in the quality of services. The lack of autonomy of school directors and teachers contributed to low quality, as they had neither the incentives nor the power to fully exercise their skills and abilities.

Finally, as indicated by the results reported in Section 2, the centralized systems of education failed to reach the poor, even as they gradually forfeited the support of the upper and middle classes. In many countries, growing awareness of the deterioration in school quality prompted the middle classes to begin to use private schools, draining additional resources from the public system and leading to an endless cycle of worsening quality, erosion of political support, and declining resources.

### ***State-run vs. Market Systems***

During the 1980s, the obvious failure of the centralized, state-run systems, the increasing use of private providers by the middle classes, and the larger debate about the role of the state vs. the market all prompted new discussion about the merits of a market model of social service delivery. The market model leaves the financing, purchase or production, and provision of services to separate and independent entities. The providers (schools, physicians, or hospitals) interact directly with users who seek services and pay for them (including through the use of insurance mechanisms, in the case of health services). The entire process is coordinated in the deregulated market through the pricing system, in which resources flow in accordance with ability to pay.

But the market model has its own shortcomings. Users have limited mechanisms to compare quality across providers -- and, in the case of schools, face high costs in switching providers, especially in midyear. There is neither public information nor regulation to compensate for the failures in the market for information. And most obvious, the market model fails to reach the poor, since it relies on ability to pay.

The two systems -- state-run centralized and market or private sector -- have historically been viewed as polar opposites; indeed the debate between private versus public provision of services still dominates discussion in a number of Latin American countries. In fact, the two systems actually have much in common. Both are characterized by organization mechanisms that tend to favor the monopolistic position of providers and to minimize the “voice and choice” options of users, especially poor users who are likely to lack information on the characteristics and quality of providers, and are constrained by lack of choice in the public system and by inability to pay in the private system. For these reasons, we categorize both the state-run and market systems of social service delivery as “vertical models” (Figure 7).

In short, as models for the systemic organization of social services, the centralized bureaucracy and market systems are both flawed. Lack of competition severely limits the incentives for efficiency and effectiveness in the state-run model, and, despite their “public” nature, state systems fail to serve the poor. In the market system, problems of information, opportunistic behavior, and inequitable access raise issues of fairness as well as efficiency. The contrast between the two systems, while useful for academic purposes, has been less helpful in the policy arena, as the ideological polarization surrounding the debate has seriously handicapped progress in the public policy decisions needed to modernize the social sectors.

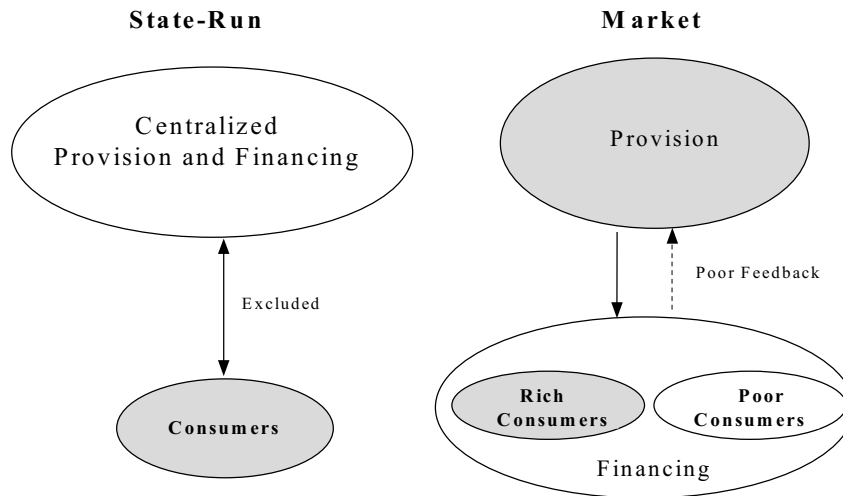
### *A New Horizontal Model*<sup>8</sup>

In response to the failures of the past, a more pragmatic approach is emerging in Latin America. This approach combines the spirit of social responsibility that inspired the old public sector model with efforts to create consumer choice and to give voice to ordinary citizens. It also relies upon the power of interaction among free agents that is a hallmark of the new market models. We describe this more pragmatic approach as a “horizontal model” (Figure 8), in which both public and private ownership of the assets involved in

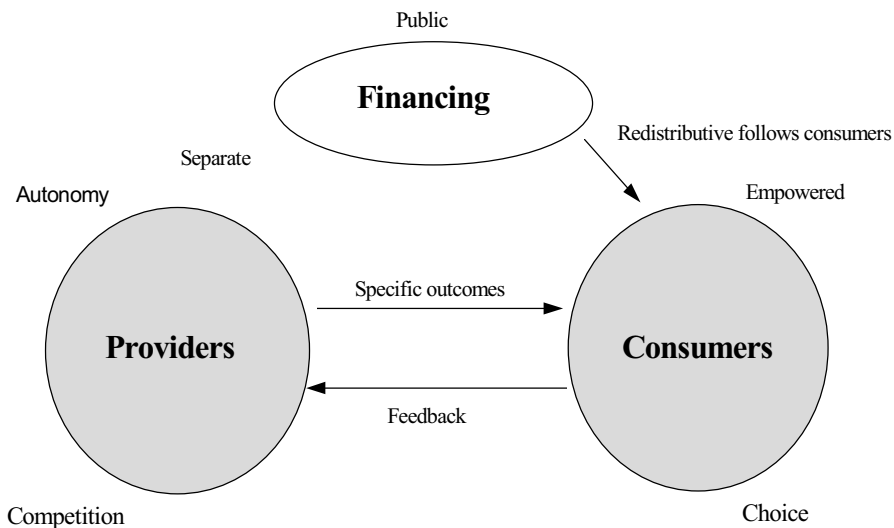
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<sup>8</sup>This section borrows freely from the ideas of Londoño (1996) and Londoño and Frenk (1997).

**Figure 7. The Vertical Models: State-run and Market Systems**



**Figure 8. The Horizontal Model**



social service delivery can coexist -- indeed they can complement each other.

The horizontal model relies not on ownership of assets (private or public) as its defining characteristic but instead on rule-based incentives which strengthen users in their interactions with providers. For education, the horizontal model implies more decentralized public systems with greater parent and

community power in local school governance; greater choice for poor parents among public schools and/or subsidies to permit the use of private schools; and much greater government emphasis on assessment, accreditation and provision of information to the public on school quality. Critical characteristics of the model are equitable public financing (i.e. financing that ensures equal access for the poor), greater competition in the delivery of services within and between the public and private sectors, and beneficiaries who are better informed, better represented and more empowered.

These fundamentals can be summarized as “three Cs”: consumers, a competitive market, and coordination of the market by government.

- The horizontal model empowers consumers, including poor consumers, through greater voice and choice. Consumers have greater voice in locally managed schools where parents control the hiring of teachers, and poor consumers can be organized into community groups so that they can more effectively assert their views. The poor also have greater choice if they can use publicly financed vouchers to pay for education at the school they choose.
- In order to exercise their powers of voice and choice, consumers need access to a competitive market of service providers. It is not important whether these providers are public or private; operational efficiency will decide which suppliers do well in a competitive market.

Finally, to choose effectively in markets for social services, where the poor may not have sufficient ability to pay and where all consumers may lack information about the quality of services, consumers need a “sponsor” or a coordinator. This brings us to the role of government in the horizontal model.

### ***A New Role for Government***

In the new model of social service delivery, the role of government changes considerably -- from one focused primarily on service provision, to one of financing and coordination (Table 5). In the bureaucratic model, government provides services directly and finances only the services it provides. In the horizontal model the government does not monopolize the provision of inputs such as books nor even of schooling itself. It may finance these inputs -- indeed it often should finance inputs -- but it shares provision with the private (including non-profit) sector. Mechanisms for financing include vouchers for eligible consumers, and direct payment to private institutions based on their number of users.

Government finance in the horizontal model is directed toward ensuring that those services with positive externalities for society are



**Table 5. Models of Social Service Organization**

	<b>Vertical Public Pseudo-Monopoly</b>	<b>Vertical Market</b>	<b>Horizontal Market</b>
<b>Roles</b>			
Government	Integrated: financing/provision	No government role  Diffuse: financing/provision	Government coordinates via information/regulation.  Financing/provision are separated.  Role for autonomous purchaser of services.
Providers	Centralized	Autonomous Competition	Autonomous Pluralistic
Consumers	Limited (some voice)	Segregated (some choice)	Empowered (voice and choice)
<b>Rules</b>			
Finance	Public resources follow inputs.	Private resources, follow consumers' ability to pay.	Public resources subsidize demand.
Coordination	Central Planning Monopoly	Atomized	Structured Competition
<b>Dynamics</b>	Controlled by providers/clientelism.	Captured by providers/the rich.	Enhanced by purchasers/consumers.
Focus	Input market	None	Output market
The Poorest	Ignored	Excluded	Empowered

adequately financed, independent of who provides them, and that the poor receive subsidies in some form to ensure their adequate access as consumers to services. Tax -financed public spending prevents inability to pay from restricting access to services and ensures that funding constraints do not hamper the functioning of services that have high social benefits. At the same time, public spending is not arbitrary. Resources are allocated on the basis of performance, ideally through demand -oriented subsidies such as vouchers. This implies the use of capitation (adjusted for risk in the case of health services, and for

socioeconomic status in the case of education) as a mechanism for allocating public resources.

In the horizontal model, government also takes on the new role of coordination: planning, provision of information, systematic efforts to work with the private sector, and regulation of private services. Government as coordinator not only subsidizes the demand of the poor, but may finance the creation of community groups which empower their members with both voice and choice. As coordinator, government also ensures competition (within and between the public and private sectors) in the supply of services, using the private sector and adapting to its methods of operation.

This method of coordinating participants contrasts with the other purely private or public models. Regulatory gaps in the market system allow widely dispersed private suppliers to engage in opportunistic practices, by taking advantage of the power of information and the difficulties of outside monitoring. Command and control rules in the bureaucratic model fail to check natural tendencies toward minimum effort, waste of resources, and corruption.

Coordination requires structured rules and performance incentives, and is greatly eased if there is agreement on specific, standardized outputs.<sup>9</sup> For example, in the health sector, the horizontal model seeks to ensure that health care plans are highly specific at the substantive level in determining the responsibilities of producers and the rights of beneficiaries.<sup>10</sup> This regulatory model stands in contrast to the purely public model, which is characterized by official and discretionary intervention focusing more on input markets (especially for labor, but also for infrastructure management and supply, medicines and textbooks) or on controlling the prices of possible competitors, rather than on setting targets and monitoring performance. The horizontal model also contrasts with the market model where, by definition, there is no need to establish ground rules to govern interactions among agents.

The emphasis in the horizontal model on specific products makes it possible to draw up precise goals for social programs, setting a standard the public can more easily assess. In education, performance standards and periodic and systematic testing make it possible to measure quality. Under the other two models, the absence of such standards leaves the door open for the opportunistic practices of public or

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<sup>9</sup>The concept of specificity is borrowed from Molina (1997).

<sup>10</sup>In addition, the chosen rules aim to be consistent with the economic behavior of agents, in order to minimize the extent to which the authorities are required to intervene and to minimize the extent to which the supervisory entities are required to exercise discretion.

private suppliers — escaping detection and avoiding accountability to their consumers as a result of insufficient consumer information.

### ***A Horizontal System Encourages Reform***

In the horizontal model, producers of clearly defined services compete to interact with and respond to consumers. Public funds that are allocated "by following the people" -- rather than following suppliers -- create room for consumers to exercise their decision-making ability. The separation of finance and service provision, in combination with service provider autonomy, paves the way for competition in the provision of services. The empowerment of consumers, coupled with measures to support the poorer segments of society through direct subsidies, gives poor consumers the capacity to demand adequate services in a competitive market.

In contrast with the two vertical organization models, the horizontal model encourages change, offering a political advantage from the standpoint of the reform process. The bureaucratic model protects the interests of the internal bureaucracy (the "insiders"). The decentralized market model protects affluent consumers and perpetuates the disadvantages of the lowest-income groups, so that inefficiency of the system goes hand-in-hand with inequity. In the horizontal model, the emergence of a new category of purchasers, coupled with the growing assertiveness of consumers, undermines the power of vested interest groups that thwart change in other systems.

### ***Latin American Examples of the Horizontal Model***

Some aspects of the horizontal model can be seen in the education reforms which began in Latin America in the 1980s. The reforms are based on the idea that while education policy will remain a function of the center, services should be demand-driven and competitively supplied.

*Four examples are particularly noteworthy.*<sup>11</sup> First, in rural El Salvador, parents' organizations have considerable authority to hire teachers and to assess their attendance and performance. The system, which also gives school directors unusual autonomy in day-to-day management, is now being introduced in urban schools.

Second, in the state of Minas Gerais in Brazil, three essential reforms were introduced in the 1990s:

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<sup>11</sup>In the health sector, the reader's attention is drawn to the household programs for child health in Colombia and elsewhere, the local health action committees [Comités Locales de Acción en Salud (CLAES)] in Peru, and the community-based programs for primary health care in the north of Brazil.

school autonomy with community involvement, allocation of resources on the basis of performance, and the development of a system of standardized assessment of students. On the first count, a new form of public school was created, with considerable freedom to prepare and debate five-year development plans, and with school councils participating in school administration and election of the school principal. Second, the nonwage component of costs is now assigned to the schools through a transparent formula based on capitation per student enrolled. Finally, a system for the annual assessment of school performance has been introduced.

A third example is the implementation in 1992 of a program of vouchers for secondary education in Colombia. With public funding, an educational scholarship system was designed so that lower-income children from the major cities could gain access to pre-certified private schools on a basis of free individual choice. This reform embodies two profound changes: capitation in allocating resources, and the freedom to choose private schools in the context of the decentralization process.

A fourth example -- probably the longest established in Latin America -- is the reform of the Chilean public education system. Pursuant to a 1981 law, changes were introduced in the mechanism for allocating public resources so as to favor students' freedom of choice in selecting public and private schools. The resources transferred from the center to municipal governments are allocated to schools on the basis of school attendance. Unfortunately, the reform has not included measures to boost school autonomy nor decentralization in the hiring of teachers and wage bargaining. This has prevented public institutions from integrating themselves more rapidly and responsively into the system, and has created political resistance which has held back the reform process.

## **5. Conclusions and Implications**

The poor growth performance of Latin America, the persistence of high income inequality and the difficulties of reducing poverty cannot be separated from the region's troubled record of limited and unequal access to education. Of particular concern are our data indicating that the distribution of education has been worsening in the last three decades in the region. In Section 2 we provide evidence that low and unequal accumulation of human capital has not only slowed aggregate growth in Latin America. It has also slowed poverty reduction and has contributed to the persistence of the world's highest levels of income inequality. The implication is straightforward. The growth process in Latin America can benefit from major productivity increases among the poor -- if they are provided with access

to education. More education, and in particular education that is more equal (i.e. that reaches the poor), can accelerate the growth process and simultaneously reduce inequality.

Second, for Latin America, we show that accumulation of human capital and its unequal distribution are partly rooted in longstanding inequality, of assets (including human capital itself) and of income. The historic legacy is difficult to alter in the short run. But low and unequal accumulation can also be explained by the economic policies that dominated the region for decades. Closed economies that protected capital and relied heavily on natural resource exports discouraged demand for education in the poor households of Latin America, by discouraging demand for labor, the poor's major asset, and for skilled labor, where lies the poor's greatest potential for income growth. Economic reforms of the last decade in most countries of the region are eliminating the biases against labor typical of protected economies, and they are bringing the macroeconomic stability that is key to private sector investment. This is setting the stage for increased household demand for schooling, and increased interest of the business sector in a skilled labor force to maintain competitiveness in an open economy.

Third, we note that the public system of delivery of social programs has been part of the problem in the region. Traditional vertical, bureaucratic systems for organizing schooling and other services have not only been inefficient; they have also exacerbated inequity by failing to serve the poor. The alternative market model does no better; the competition it provides leaves out all those unable to pay. We discuss examples from Latin America of an alternative horizontal model, in which government's role is transformed from provider of services to financier and coordinator, allowing competition in service provision among both private and public suppliers, and ensuring that the poor, via vouchers and other demand subsidies, have choices as consumers.

We began this paper by pointing out the shortcomings, at least in terms of policy guidance, of current endogenous growth models -- which emphasize education but fail to consider the effects of the *distribution* of education, the relevance of household *demand*, and the institutional problem of *delivering* education, especially to the poor. In the context of Latin America, our discussion has highlighted the relevance of three factors: (1) the distribution of human capital, with unequal access of the poor to schooling slowing the accumulation process; (2) the demand of the poor for schooling, inhibited for many decades by economic policies biased against labor; and (3) the delivery system, that has reinforced rather than compensated for prevailing social and economic inequities. Focusing on these normally neglected issues, we have suggested an approach to social policy and its implementation in Latin

America that is win-win, i.e. an approach that resolves two apparent tradeoffs:

- Emphasis on more and more equal education will result in both greater growth and greater equity.
- An approach to service delivery that mimics the market -- that is demand-driven with competitive supply -- can bring both more equity and more efficiency to education programs.

## 6. A Comment on Egypt

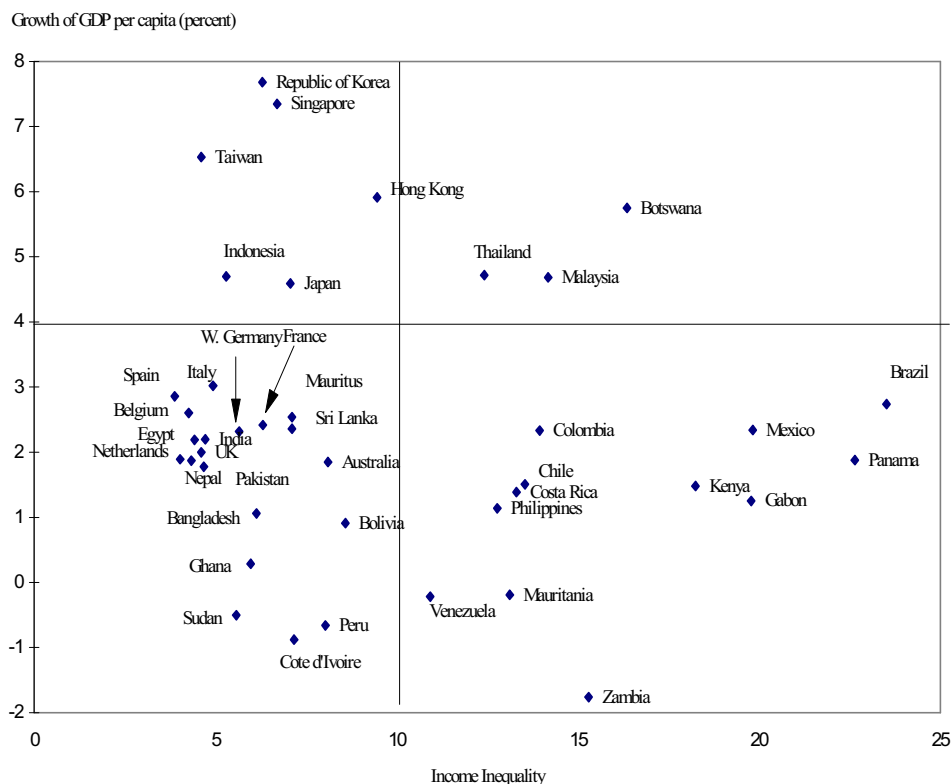
On the one hand, Egypt is a more equal society than is typical of much of Latin America, and its poverty and economic inequality is not associated, as in Latin America, with ethnic and racial differences that sustain economic divides. On the other hand, Egypt is paying a high price in lost economic benefits for its low investment in girls' education, the human capital investment by households and communities with the largest spillover benefits for society as a whole. And the tradition of state-run education and health systems is more deeply ingrained in Egypt than in the Americas.

Figure 9 relates average annual GDP growth and average income inequality over the period 1965-92 for a number of countries worldwide. The East Asian countries, characterized by high growth and low inequality, stand alone in the northwest quadrant, while the Latin American countries are concentrated in the southeast corner with low growth and high inequality. Egypt's position in Figure 9 is typical of many low-income countries with low levels of human capital that have experienced low growth with low inequality over the last three decades. Others in Egypt's position include several countries of South Asia (India, Pakistan, Bangladesh, Sri Lanka) and of Africa. In many of these countries, as in Egypt, average education rates among adults are even lower than the average in Latin America, though a small elite has university education and more.<sup>12</sup> In Egypt today, this combination has resulted in the high current inequality of education shown in figure 3 -- a level of inequality comparable to that of Latin America.

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<sup>12</sup>The average years of education among adults in Latin America was 4.4 in 1985, compared to 3.22 in Egypt; 3.36 in India; 0.62 in Nepal; 1.92 in Pakistan; 5.46 in Sri Lanka and 2.04 in Bangladesh (Barro and Lee, 1993).

**Figure 9. Income Inequality and Growth of GDP, 1965-1992**

Note: Income inequality is measured as the ratio of the income share of the richest 20 percent to the share of the poorest 20 percent of the population. Observation is average of high quality data available for 1965-1992. Growth data unavailable for 1965-1992 period for the following countries (years used in parantheses): Botswana (65-89), Korea (65-91), Nepal (65-86), Sudan (70-91), Taiwan (65-90), and Zambia (65-91).

Sources: Deininger and Squire (1996) for income inequality data; and Summers and Heston (1991) for growth.

question for Egypt is whether it can accelerate human capital accumulation among a broader swath of the population, and thus assume the path of East Asia -- of more rapid and more sustained growth based on broad opportunities, or whether current patterns will persist, putting Egypt on the path taken by Latin America.

Moving onto the East Asian path could require sweeping reforms in Egypt's education system, which is characterized by low quality at the basic levels, by centralized top-down systems and by extensive resort of families to private and costly tutoring. Is major change in the delivery of education and other social programs likely now in Egypt? Like Latin America, Egypt has in the last decade been undertaking

major economic reforms in response to the pressures and possibilities of globalization. Recent success in reducing the fiscal deficit is being complemented by trade liberalization and the beginnings of the process of reducing state involvement in the economy through privatization. The reform process is built on a history of a more stable, less-inflation prone economy than those of Latin America; but compared to Latin America, Egypt has reduced tariffs and non-tariff barriers much less and has barely begun the process of privatization and the creation of the public regulatory institutions necessary to ensure a rule-based market environment for the private sector, especially in education. Can Egypt take up simultaneously the challenge of structural changes in its social programs, along with the structural economywide reforms only just begun? Or, as has been the case in Latin America, can the agenda of change only absorb one political and technical challenge at a time? The economic returns to social reforms, especially to education reform, have a relatively long gestation period, putting a premium on an early start; on the other hand, the political consensus for social program reform may be difficult to sustain until and unless the competitive pressures of an open economy are fully felt by the political and economic elite.

For Latin America, we end on a note of optimism. The region is experiencing an increased emphasis on human capital accumulation as key to growth and an increasing concern that the poor are not benefiting from such accumulation. Economywide reforms have set the stage for increasing demand for human capital, and the progressive business sector is increasingly active in pushing for a more skilled labor force. On the supply side, there are signs that a more pragmatic approach will make public spending on human capital programs more equitable and thus more efficient.

For Egypt, we leave to the reader who knows the country better whether the demand for change exists, and whether there is the political impetus to develop new, more pragmatic models of social program delivery that would better serve the poor majority, and thus ensure Egypt's future competitiveness.



## PART II

### SOME LESSONS FOR EGYPT: DISCUSSION

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Participants in the discussion following Birdsall's presentation included Arvind Subramanian from the International Monetary Fund, Mahmoud Abdel Fadil and Hossam Badrawy from Cairo University, Hala Fares from ECES, and Ahmed Ezz, Alaa Hafez, Ahmed Maghrabi, and Mohamed Mansour from the private sector. The following is a summary of the discussion.

**Participant:** I would like you to elaborate on two questions: how can countries push for education reform? Also, what is the nature of the relationship between natural resources and growth?

**Speaker:** In Latin America 10 years ago, you could not get a senior policy maker or academic to focus on the education problem. They knew the problem was there, but they were distracted, justifiably perhaps, by their problems of hyperinflation, fiscal deficits, how to proceed on privatization and monetary policy. And it is tough in general to deal with everything at the same time. So there is something to be said for achieving a minimum level of stabilization, and moving forward on some critical macroeconomic and economy-wide reforms. That generates the incentive and the environment that makes it easier for society to look at these other medium-term issues. The problem of course is that education in particular has a long gestation period between the investment and the economic return. The sooner you start, the better off you are, and the question is whether one can learn from the experience of other economies and begin the process sooner.

One interesting case is Brazil, where there is a real wave of change in the education sector. The Minister of Education in Brazil was a senior manager in the Inter-American Development Bank between 1989 and 1994, and he went back to Brazil with many of the messages I've been discussing. He has carried out some interesting reform that involved transferring more resources and decisions to the states and municipalities. He has a toll-free number in the Ministry of Education which parents can call, and a system for recording from where they call and what their complaints are. He has completely changed the system of textbook production and distribution, made it more pluralist, and transferred resources from higher levels to primary and pre-primary schools.

As for natural resources, I have always said that oil has been the curse of the Venezuelan economy. This is the Dutch disease problem. When a country relies heavily on a natural resource for exports, it

creates a lot of pressure on its exchange rate, making it very difficult to compete in manufacturing. Ironically, the economies of Taiwan, Korea, and Hong Kong had tremendous benefits by not having substantial natural resources, because they had to rely on labor and human resources to generate exports. They were able to maintain competitive exchange rates, because they didn't have the inflows associated with exports of capital-intensive natural resources. In fact, the real problem with natural resource abundance is that the state receives temporary windfalls from the resources and thinks of them as permanent windfalls. So the state becomes enlarged and highly bureaucratic, and assumes a high rate of public employment, which is difficult to reverse. When there is a change in the price of the commodity, or in the rate of production, it creates fiscal problems because the state does not have the resources to maintain the spending that it initiated. State dominance of employment and the economy also crowds out the private sector, and it reduces competition in general. That seems to be the story of a natural resource-based economy. Although it looks good to have natural resources, in the long run it creates political problems which are difficult to overcome.

**Participant:** I have two questions: You point to the need to increase public investment in education on the supply side. But how can you increase demand for education? The experience in India has been very interesting because, for example, the two most literate states were the states where the communist party was in power, with a lot of grassroot mobilization. Also there are other observations that contradict the usual belief that higher income levels will increase demand for education and lead to higher education levels. Some of the richest states in India don't score very well on education indicators. What is necessary to increase demand for public education? In terms of political economy, that is an important question. The second question relates to the issue of gender. Your presentation was very gender neutral. I believe that the potential returns to investment in female education are very high, especially for Egypt, where female literacy is very low.

**Speaker:** Your question about the demand side is very interesting. The real story of accumulation of human capital through education in East Asia is as much a story of demand as of supply. In East Asian returns to education were high for individual families, so it was well worth it to send children to school. One reason why the returns were high is that there was high, constantly increasing demand for labor, particularly skilled labor. So the demand side matters. We know from the experience of former Soviet Union countries that a good supply and accumulation of human capital will not generate growth if there

is no demand on the macro side. People send children to school when it makes economic sense to do so. It is important to have returns in the labor market.

You must also have reasonable quality to ensure high returns. Children who go to school without learning anything get discouraged, and they drop out. This is what happens in Latin America, particularly in Brazil. They have 100% enrollment and attendance in September, but by December, half the class is missing because the quality is very poor, and it may make more sense to keep the children home to watch younger children or work on the farms. Providing reasonable quality requires giving consumers some control over their schools. El Salvador has introduced amazing changes in the last five years, by giving communities the right to hire and fire teachers. The teachers are no longer hired or fired by the Ministry of Education. Each year parents make new contracts with teachers in their areas, so they have some control over quality. Higher returns, quality, and opportunities will generate interest in education.

How do you generate adequate demand for girls' education in traditional societies? If women don't work outside the home, it generally means they are working at home and nurturing the next generation, and so the social returns to educating women are very high in terms of better educated, healthier children. This reduces the costs to the taxpayer of producing healthy families. So educating girls has a big payoff for society. For this reason, it makes sense to subsidize schooling for girls even more than for boys. If primary schooling is free for all children, why not add a subsidy for sending daughters to school, especially in rural areas in Egypt? Why shouldn't the government pay parents a little extra to keep their daughters in school longer? This would make economic and social sense. Certainly in an environment with a lot of tutoring, as in Egypt, the government could subsidize the tutoring of girls.

**Participant:** The dynamics of the situation in Egypt show that we are actually moving towards the Latin American model more than the Asian model, in the absence of corrective policies. There is a low level of accumulation of human capital and increasing inequality in the distribution of all kinds of assets, material and human. What are your views on Egypt's current package of reform policies, the kinds of donor and foreign loan policies? To what extent are they conducive to better accumulation of human capital and distribution of assets?

**Speaker:** The international financial institutions are part of a larger environment, and the staff and management of these institutions are as much affected by changing ideas and as prone to policy errors as are country policy makers. The initial structural adjustment package of the 1980s, which was pushed by the IMF, the World Bank and the Inter-American Development Bank, didn't emphasize enough, in my

view, the need to address not only the amount of fiscal spending, but the composition of fiscal spending. So the initial rounds of adjustment were based on reducing fiscal deficits, without enough attention to how countries did it. By the end of the 1980s, that had been corrected, at least on paper, in the sense that international institutions were much more concerned with social programs and maintaining adequate expenditure, such as through the introduction of 'social funds'. However, the international institutions still have some distance to go. It is not sufficient to worry about the amount of expenditure alone. It is a micro problem, a technical and political challenge to alter the incentive structure in social programs.

It is also not true that it is easier to fix education than to fix the exchange rate. In fact it is more difficult. You have to deal with the bureaucracy, teachers, new institutions, and society at large. You have to make decisions that involve millions of people. With the exchange rate, or with privatization, a small coterie of good technical staff and the support of political leadership can accomplish a lot of change. With education, with health and pensions, reform is institutionally and politically more complicated. So I think the international institutions are moving in the right direction and with the right message, but we have quite a long way to go in working with countries on how to bring about these changes. Changing the quality of education is so much more complicated than deciding, for example, to privatize telecommunications.

One of the important messages that the international institutions are now beginning to disseminate is not to be afraid of the market model in social programs, not to be afraid to use incentives and market mechanisms. You have to think about the demand side as well as the supply side. You have to think about different models and give people options, with an approach which doesn't rely on the market in its atomistic sense, but which uses the market by adapting mechanisms in delivering social services to consumers.

**Participant:** I have two questions. First, you mentioned the importance of proper information in policy formulation, and I wonder from where you got your information about Egypt. Second, I would like to know your opinion about the need for democracy for productive social interaction. You say that the state is affected by social needs, and everything is dynamic and interactive, but without democracy this would be very difficult. Nevertheless economic growth has been created in states with no democracy.

**Speaker:** The data on Egypt came from the same sources as the data on the other countries. The cross-country data set, which covers a broad range of factors, came from various sources. Some of the newest

data on income distribution came from the World Bank, and they produced a high -quality data set which is reasonably complete.

Democracy is the age-old question. There are countries in East Asia that grew without democracy, but there are also countries like the Soviet Union and most of Eastern Europe that failed to grow without democracy. You can think of democratic countries that have grown and democratic countries that haven't. So there is no obvious necessary link between the political system and the rate of economic growth. However, in an unequal society, the key to economic growth is to distribute opportunity better. You can have shared growth. You cook a big pie and then share the pie, that is, the benefits of growth. But it is not so much cooking the pie and then distributing the pieces which matters; it is who cooks the pie, how many chefs get involved in cooking the pie. If only half the chefs are cooking, you can't have a big pie to share; you have to involve the poor. In societies that are very unequal, the only way to distribute economic opportunities to the poor is to make sure that they have a political voice. In Latin America, as real democracy deepens, not just elections, but more democratic institutions and more participation, politicians are responding more to the needs of the less rich, and so politics is becoming a vehicle for distributing opportunities.

In the United States, I think, the key to economic success is the political system which is constantly recycling, in a natural process. In certain political systems the economic elite can capture political power and use it to further its economic interests, which is why in unequal societies you need a political system that discourages such economic practices by the elite. In East Asia it was in the interest of political elites to distribute economic opportunity. This may have been because they felt the pressure of internal and external communist movements in the post-war period. In order to acquire political legitimacy, the new governments—in Taiwan, Malaysia, Indonesia—needed to co-opt the peasants and workers, and it made sense to ensure that economic opportunities were distributed.

I don't think this is the case in Egypt. Because of the long period of political stability, there is no need to create legitimacy in the same way. What is needed is to ensure that the political system delivers economic opportunities as broadly as possible.

**Participant:** You mentioned that once you have an open economy and more competition, then industries and leading businesses start to have a role, and I assume this is in part through training. Training, as you know, is different from education, it is more short-term, much more focused. Actually in Egypt, more and more industries are starting to invest in training; most of the quality assurance systems make it imperative

to invest in training. Also, many industrialists see that they can't wait for the education system to be upgraded, so they start investing in training. Can this have an impact? Can you give us some stories from Latin America that are relevant to Egypt?

**Speaker:** It sounds very good that industry is financing the training in Egypt. In Latin America, the governments over the last three decades saw that the formal education system was not working well. So government began to invest heavily in short-term training. They would sometimes tax industries and earmark these taxes for short-term training for people who didn't finish primary school. This doesn't work. We know from research that industry will enter into training only when there is at least fundamental formal education, or basic education, as the cost of training is relatively high for illiterate workers. So you can't substitute training for formal education. You can add training. Industry will finance it if people are already somewhat educated. So the question for Egypt is whether there are enough skilled workers that can be trained at relatively lower cost. Over time, as Egypt competes in more sophisticated industries, even primary education will be insufficient for the kind of training that industry will want to provide. This is happening in Latin America, and there is a real bottleneck there. Governments subsidize the basic education part of training, while industry finances more specific skills. But in some economies they ran out of people to train at low cost relatively quickly. Soon after opening and after the arrival of new investment and industries, came the bottleneck. This could become an issue for Egypt in the next five years.

**Participant:** I think that the picture in Egypt is more bleak than you have shown. Statistics show that 24% of Egypt's population has obtained college or high school degrees, but the other 76% of the population has between zero and three years of education. The amount of money spent by Egyptian households on tutoring their children is, in many cases, a great portion of the household income. The problem we have here today goes back to the 1960s when it was deemed politically correct to say there has to be better distribution of opportunities. Along with that came the philosophy of allowing everybody access to any level of education. As a result we had this massive shift in investment into university education and an established alliance between government and universities, which politically is very difficult to break. But there is, at the upper level of power in Egypt, significant interest in establishing better distribution to the other 76% of the population. What is the vision that would help create that political sense of urgency that we have to do something? Rather than a massive civil engineering investment, perhaps we need a massive soft investment.

**Speaker:** What you say makes Egypt sound so much like Latin America. The first issue is false entitlement. This is an expression coined by Brazilians to capture the idea of free and universal education for everyone. It was a false entitlement, because if everything was free and universal, but there isn't enough money, the poor would be at the end of the line. The false entitlement came in two forms: first, primary and secondary education had very low quality as they were expanded without the proper resources, and second the false entitlement to university education, which is useless for those who cannot get through the public system. The tutoring phenomenon here sounds very inefficient; I am sure the relationship between the input and the output is very poor, and presumably with minimum regulation, parents and consumers have no information. But the issue of the rectors of university communities having privileged access to public resources is very common. In many Latin American countries, a percent of taxes is earmarked for the universities, independent of their budget, needs or activities. I think one of the things the Inter-American Development Bank has been very successful in doing is developing that sense of political urgency through seminars, conferences, roundtables, bringing together the private sector with interested parties and creating information and messages which can make a difference. It is important to have a forum for new ideas and approaches. It is important to create a much greater sense of public urgency and to develop some consensus about how to proceed.

**Participant:** I believe there is a role for the private sector in education, but there must be proper incentive. Industrialists have started investing in vocational training, which has a profit incentive. How would encouraging the private sector to invest in formal education affect education inequality? Would it decrease inequality by giving more opportunities and freeing more state resources for the poor, while bringing better quality? Or would it increase inequality through higher prices for education?

**Speaker:** I don't think that we can expect the private sector to make massive investment in education without some form of subsidy from the public sector, but it is useful to have competition and to have the state subsidizing students attending private school, particularly the poor. This creates competition with the public sector, and could push the public sector to improve quality in public schools. This is a very controversial subject even in the United States. What would it do to the quality of public education? Would it create a vicious cycle in which the rich could use the private schools, and the poor would do without? I think in countries like Egypt, it is better to do anything that would increase healthy competition. Chile has been very successful with permitting the creation of private schools; students meeting certain low-income requirements can take their voucher-like subsidies to the private schools. It is

a problem of course, that in the end all the rich go to private schools and only the poor are left in public schools, with no voice. But this is not necessarily so; you can create a system in which the poor do have a voice. They also have to have choices, and there must be a mechanism that gives them options. It is good to keep the middle class in the public schools, but if the rich send their children to private schools, they are reducing the burden on the public schools.

The best area to start with private education is the university. Anything that can be done to encourage the private sector to open and finance universities is good, because that will take the burden of educating the rich off the public sector, and will open up opportunities for the middle class and working classes. But it is very difficult and complicated, because society has to be fully involved, fully watching and constantly shifting and thinking about policy. It is not straightforward, that's why it is different from the exchange rate and from privatizing a steel company.

Korea now has high university enrollment, but mostly in private universities. Korea put virtually all its public money into primary and secondary schooling. This created a huge pool of well-educated secondary school graduates by 1970. Only a small amount of money was spent on public universities. There was high demand for education, high demand for university education, because so many students were finishing secondary school, and hence many private universities opened. There was competition, and there was information. So ironically, Korea, with the same per capita income as Brazil, but with 8% of public funds going to university, was producing three times as many university graduates, six times as many secondary school graduates and 25 times as many primary school graduates as Brazil. So it is just a matter of having enough people finishing secondary school. The priority should be on producing a pool of those who will join the universities. If you have three years of education on average here in Egypt, most people are not even close to joining university.

**Participant:** You said we shouldn't wait for the help of the government, and the government should provide only information and regulation. However, basic education is still the responsibility of the government, isn't it?

**Speaker:** *Financing* basic education is the responsibility of the government.

**Participant:** We know that politicians always look at the short term, and so education is not on the top of their agendas. How can we make politicians put education on the top of their agenda, although it is a long-term process?



**Speaker:** You have a good opportunity in Egypt because of all the private money that is spent on tutoring. The politicians should be campaigning with promises to get children through primary and secondary school without a need for tutoring.

**APPENDIX**  
**LIST OF ATTENDEES**

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Ahmed Ezz  
*Chairman, Ezz Group*

Alaa El Din Hafez  
*Chairman & Managing Director, Europcar*

Arvind Subramanian  
*Resident Representative, International Monetary Fund (IMF)*

Bahy El Din El Ibrashi  
*Partner, Ibrashi Co.*

Farkhonda Hassan  
*Head of Human Resources Development & Local Government Committee, Shoura Council*

Fiona Moffitt  
*Country Author, The Economist Intelligence Unit*

Fouad Sultan  
*Chairman & Managing Director, Al Ahly for Development & Investment (ADI)*

Gamal El Nazer  
*Chairman of the Board, Karoun Investment & Development Co.*

Gannat El Samalouty  
*Professor, Economics Department, Faculty of Economics & Political Science*

Hatem Helmy  
*Journalist, October Magazine*

Hossam Badrawy  
*Board member, Nile Badrawy Hospital*

Mahmoud Abdel Fadil  
*Professor, Economics Department, Faculty of Economics & Political Science*

Mohamed Farouk  
*Executive Assistant, General Manager - Human Resources, The Kuwait Food Company*

Mohamed Lotfy Mansour

*Secretary General, the Egyptian Center for Economic Studies (ECES)*

Mohamed Mansour Hassan  
*Managing Director, 4M Investment*

Mohammed H. Magued  
*Chairman & Managing Director, Egyptian Banks Co., for Technological Advancement S.A.E.*

Nagui El Fayoumi  
*Special Assistant to the Associate Director, Trade & Investment, USAID Cairo Mission*

Sameh F. Makram-Ebeid  
*Financial Consultant, Berliner Bank*

Samia Guirguis  
*Assistant Resident Representative, United Nations Development Program (UNDP)*

Samir Korayem

Samy Yassa  
*Head of the International Cooperation Department, Ministry of Foreign Affairs*

Sherif El Diwany  
*Managing Partner, Integrated Development Consultants*

Toni-Christiansen-Wagner  
*Deputy Mission Director, USAID Cairo Mission*

Yasser Sobhi  
*Journalist, Economic Section, Al Ahram Newspaper*

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