ASSET INEQUALITY DOES MATTER: LESSONS FROM LATIN AMERICA

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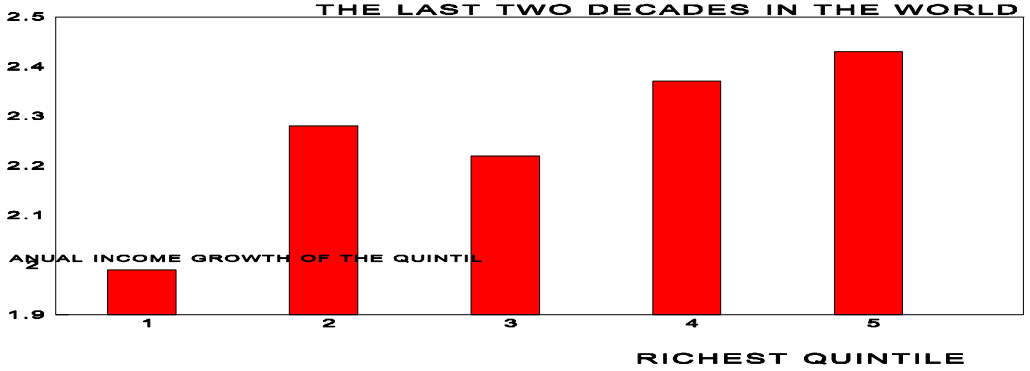
Summary

In light of recent results, the fight against poverty in Latin America has been far from satisfactory. The standard approach of multilateral credit agencies will continue to be limited if it does not stress the central role of the distribution as well as the accumulation of productive assets, especially of human capital. After removing fiscal and trade distortions with structural reforms, a critical constraint for growth for Latin American countries is not only the insufficient levels of human and physical capital accumulation but the highly skewed distribution of existing assets. Policies aimed at reducing inequalities in the accumulation of assets should be at the center of a new approach for poverty eradication and the acceleration of growth in Latin America at the start of the new century.

Introduction

The fight against poverty has been adopted by the multilateral development banks as their principal objective. Decades after McNamara announced that the World Bank's fundamental work was to improve the lives of the poorest (McNamara, 1968), the new President of the World Bank, Wolfensohn, has reiterated that poverty

Figure 1
THE DISTRIBUTION OF INCOME GROWTH
THE LAST TWO DECADES IN THE WORLD

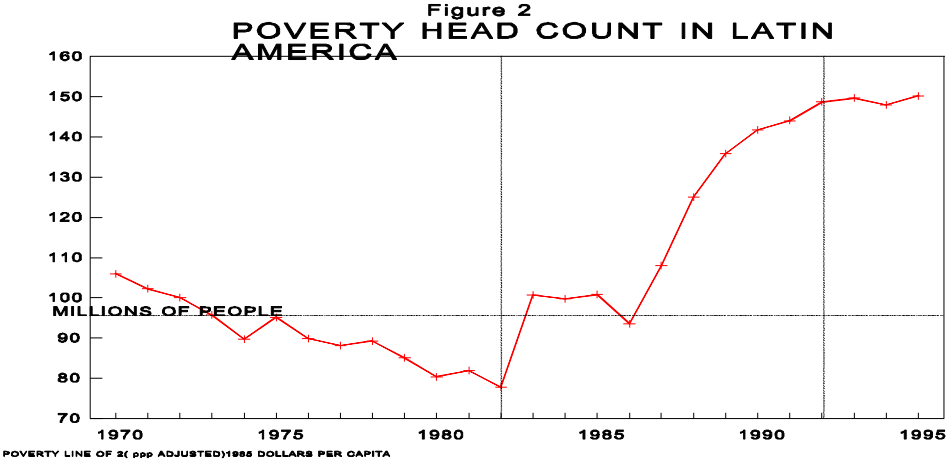


reduction is that bank's principal purpose (Wolfensohn, 1996). The Inter-American Development Bank has gone even further: in 1994, it set social progress and social equity as its central objective for the Latin America and Caribbean region (Inter-American Development Bank, 1994).

The emphasis in the international institutions contrasts, however, with disappointing results in the real world. For a sample of 57 countries with comparable data on poverty during the last three decades, including the

OECD and formerly socialist economies as well as developing countries,[2] income of the poorest quintiles has increased at slower rates than the income of the richest (Figure 1).[3] The case of Latin America is dramatic. While in the 1970s the number of poor fell in absolute terms, the number nearly doubled between 1982 and 1993, increasing from 78 to 150 million (Figure 2); in the last few years, despite economic growth, the number of poor

Figure 2



has failed to fall and has remained 50 million above the average number in the 1980s (Londoño, Székely and Duryea, 1996).

The contrast between the multilateral banks' apparent goals and these disappointing results suggests the need for a critical reassessment of the approach recommended by the development banks. The contrast is especially

[2]Using the data base of Deininger and Squire (1996).

[3]This occurs despite the fact that the elasticity of quintile income growth with respect to total income growth declines monotonically as the quintile's rank increases, suggesting that total income growth matters a lot for poverty reduction and that factors other than total income growth explain much of income growth for richer groups. See Section 2 below.

worrisome for the Latin America region where, despite a recent return to positive rates of growth and substantial increases in social spending by governments, the number of poor and the often miserable social conditions they endure persist, putting at political risk the economic policy reforms that have produced positive growth and that should, if the banks are correct, also be reducing poverty.

Such a critical reassessment is the purpose of this paper. In the first section we examine the evolution of thinking on poverty among professional World Bank economists, and relate this thinking to the evolution of growth, poverty, and income distribution in Latin America in the last three decades. In the second section, we present empirical work which identifies the distribution of assets, a relatively neglected issue in the banks' analysis and until very recently in their lending, as a critical determinant of aggregate income growth and of growth of income of the poor.[4] We then use our results to assess the problems of slow growth and limited poverty reduction in Latin America. A concluding section suggests lessons for the work of the multilateral banks and for development policy in Latin America.

We have two major conclusions. First, on the positive side, the work of professional economists in the World Bank has been consistent in demonstrating that economic growth is the key factor in reducing poverty; this has almost certainly influenced lending programs of the World Bank and the other development banks, though attribution is impossible.[5] Second, and less positive, World Bank and other development economists have neglected what we demonstrate to be a second key determinant of poverty reduction and in fact of aggregate growth as well: the distribution of assets, both physical assets and human capital.[6] Earlier and more consistent attention by professional economists to income distribution and particularly to the income growth of the poor

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[4]We build on the recent important work of Lyn Squire and others (see bibliography) who have built a high-quality data set and have emphasized the relevance of aggregate investment and land distribution, among other variables, to overall growth and to reduction of poverty.

[5]Two comments are in order. First, we concentrate on the evolution of analytic work inside the Bank; it is difficult if not impossible to make any scientific connection between this analytic work and actual lending. In some periods, analytic work outside as well as inside the Bank no doubt influenced the design of lending operations and the type and composition of lending. However, in other periods and for some countries and regions in all periods, the demands of lending -- whether pressures to meet country needs, to increase overall lending, or to increase lending in certain areas (e.g. the environment in the last few years) -- have probably Aled@ and influenced analytic work. And of course at times, analytic work and lending may have simply moved along on parallel tracks, with little consistency at least in the short run.

Second, it is even more difficult to make any particular connection between the amount and type of lending and the results in a particular country -- in terms of growth, poverty reduction or other development goals. The hard reality of this attribution problem does not in itself suggest that World Bank lending is ineffective -- only that any effectiveness is most likely due to its catalytic role, often linked to policy change, and cannot be measured by the number or dollar volume of particular operations.

[6]While the World Bank=s recent poverty progress report (World Bank, 1996b) acknowledges that initial asset distribution is an important determinant of the impact of subsequent growth on poverty, this conclusion is not reflected in the dominant three-pillar approach, and the report mentions that there is no clear effect of inequality on growth.

(inside as well as outside the World Bank) might have triggered more attention to asset distribution per se, and to the political and social mechanisms that in some settings have inhibited greater access of the poor to the assets that are key to their increased productivity and income. The emphasis in World Bank lending on the aggregate determinants of growth might then have been complemented earlier by more pragmatic and effective attention in country lending programs to politics, interest groups, corruption, and the historic roots of these phenomena -- factors which appear to have affected income growth of the poor. These concerns are only now finally making their way onto the agenda of the multilateral development banks and of economic policymakers in Latin America and other regions.

Section 1. The World Bank's Approach to Poverty Reduction

The World Bank in its first decade was managed as an investment bank.[7] Its leadership and much of its staff brought Wall Street tenets to Washington, and its purpose with war reconstruction projects in Europe and in Japan was to realize an adequate financial rate of return to justify and sustain the existence of what was then a small bank facing many doubters in the international financial community.

But by 1960, with the increasing Cold War competition for the hearts and minds of leaders and citizens in Asia, Africa and Latin America, the World Bank was becoming what it is today, a "development" bank concerned essentially with economic growth.[8] During the 1960s and then at an increasing pace during the period of Robert McNamara's presidency (1967-81), the Bank extended its lending beyond transportation and power to agriculture, industry, and, in order to increase credit availability, to state-managed development finance companies. With the debt crisis in the 1980s, the bank made "adjustment" loans -- transfers to support imports that were tied to fiscal, trade and other reforms critical to restoring external and internal equilibrium and thus returning countries to a sustainable growth path. Toward the end of the 1980s, with the entry of East European economies and countries of the former Soviet Union into the Western community, the Bank added "transition" economies to its by-then traditional "developing economies" clientele. The objective of the Bank's efforts in the transition economies has been the same -- to support critical investments and adjustment processes to put these

[7]We are grateful to Richard Webb and Devesh Kapur for conversations on which much of the following paragraphs rely, though of course the usual responsibility disclaimers apply. A full discussion of the evolution of thinking and lending on poverty in the World Bank is contained in the forthcoming book on the history of the World Bank (Brookings Institution).

[8]The World Bank in this reflected the concerns and interests of its principal shareholder, the United States. The U.S. had managed aid programs in Japan and East Asia after the war, and in the 1960s under Kennedy created the Alliance for Progress in Latin America.

economies on a healthy growth path. In short, an emphasis on development as fundamentally an issue of economic growth has persisted (as it turns out with important results for poverty reduction where countries did actually grow) for more than three decades.

At the same time, with growing visibility in the 1970s under McNamara, the World Bank became an explicit advocate of poverty reduction as an end in itself.[9] In his first World Bank Annual Meeting speech in 1968, McNamara put the lives of ordinary people on the agenda of the World Bank, insisting that growth alone, if it failed to improve the lives of millions of poor people in the less developed world, was simply not sufficient.[10] The poverty reduction objective, however, was more visible in the Bank's rhetoric than in its lending. Lending throughout the 1970s continued to be motivated primarily by efforts to fill the infrastructure and external financial "gaps" that were viewed as the primary constraints to growth.[11]

Meanwhile, Bank economists continued work on poverty and related issues. In the 1970s, a major debate emerged on alternative approaches to poverty reduction. The Bank's chief economist and close advisor to McNamara, Hollis Chenery, coauthored the 1974 book Redistribution with Growth, which saw poverty reduction as the result of the structural transformation of economies, in which growth itself, with the modernization of agriculture and industrial development, and the shift of labor force toward more productive activities, would improve distribution, reduce poverty and raise welfare. In contrast, Streeten et. al. (1981) emphasized the critical role of specific interventions by the state to cover the basic needs of the poor.

Most Bank economists were skeptical about the basic needs approach, seeing in it the risk of a tradeoff -- with growth being limited by costly fiscal outlays to assist the poor. Mainstream, growth-oriented research by Bank economists concerned with poverty focused on labor market and rural development issues and, by the

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[9]Like the increasing emphasis on growth in developing countries, increasing attention to poverty was nurtured by the reality of Cold War competition between the East and the West for influence and control in the countries of the developing world. In Vietnam the lesson that insurgency and civil war could be reinforced by poverty and poor social indicators was learned by the United States, the largest and most influential of the World Bank's shareholders (and of course was represented inside the Bank throughout the 1970s by McNamara himself).

[10]In a better known speech in Nairobi several years later, McNamara set out a program to make operational the Bank's mission to improve people's lives.

[11]The notable exception which may prove the rule was the massive effort launched in McNamara=s Nairobi speech, and reportedly monitored closely by the President himself, to approve and implement integrated rural development projects. These were projects designed to raise production and incomes among the rural poor, primarily in Africa, through financing of extension services, fertilizer and other inputs, and government crop purchasing, marketing and distribution programs. By the 1980s it had become clear that the effort had failed; by that time the negative effects of the policy biases against agriculture and the heavy involvement of state institutions had become more evident as critical constraints to income growth for small farmers. The result was an abiding skepticism inside the Bank that lending explicitly directed to raising the incomes of the poor could be effective.

late 1970s, on population, education and health in developing countries. The Bank's 1980 World Development Report on poverty and human resources emphasized the critical role of human resources in growth, marking a consolidation of the mainstream (non-basic- needs) view that the growth process, particularly if based on human as well as physical capital accumulation, would reduce poverty.

Throughout the 1960s and 1970s, income distribution and social inequities, as cause rather than consequence of economic growth, were simply not on the menu of research topics among professional economists at the World Bank. The work of Chenery was in the tradition of Kuznets, who saw inequality as an outcome of growth; the work of Streeten was concerned with poverty and basic needs as outcomes. In this sense the Bank's analytic approach was firmly neoclassical, and well differentiated from any Marxist tradition. Similarly, in the Bank's lending program, such sensitive issues as land reform (and until well into the 1980s, even education for citizen participation) were not on the agenda despite, ironically, the success of the Americans with land reform in post-war Japan.[12]

In the 1980s attention in the operational work of the Bank shifted to adjustment issues. However, mainstream research on growth and poverty continued apace; in particular, the Bank showed leadership in developing an extensive program of policy-oriented survey work at the household level.[13] Two areas of poverty-related work received increasing attention given the demands for fiscal stringency in the adjustment decade. First, the Bank published controversial studies of the financing of education (Jimenez, Psacharopoulos and Tan, 1986) and health (Akin, Birdsall and de Ferranti, 1987). In these studies, Bank economists recommended reallocating public spending on education to primary education, and public spending on health to primary health care as a cost-effective means of reaching the poor without increasing the fiscal burden. Second, in response to growing concern about the social costs of adjustment programs, Bank policies and analytic work focused increasingly on

[12]In 1980, education projects constituted 4 percent of World Bank lending (World Bank, 1980b) and were concentrated in the areas of technical training and university support.

[13]The Living Standards Measurement Survey project was built on the intellectual foundation of the new home economics established by G. Becker and others, and applied in the World Bank to assessments of the determinants of health, education, fertility, labor supply and other household decisions, and to the study of poverty as cause and consequence of household behavior and decisions.

the issue of adequate social safety nets (and Bank lending began to support social emergency and social investment funds in developing countries, and, in the transitional economies, development of pension and employment insurance programs).

Then, as the 1990s began, the Bank once again put poverty reduction at the center of attention. In its 1990 World Development Report on poverty, the Bank integrated the Chenery tradition, concerned with the effects on poverty of long-run structural change, with the issue of the short-run effects on poverty of stabilization and adjustment programs. The 1990 report recommended a "new" strategy combining poverty reduction with short-term poverty alleviation. The strategy had three pillars: acceleration of economic growth; provision of basic social services to increase human capital accumulation, particularly among the poor; and the creation of social safety nets.[14]

The recipe seemed particularly appropriate for Latin America, a region where the halt of growth in the lost decade of the 1980s had interrupted disastrously the earlier impressive reductions in poverty, and where, in the absence of any preexisting safety net programs, the growth slowdown combined with the debt crisis and fiscal stringency had resulted in dramatic reductions in public spending on social services.[15] Beginning in the late 1980s and for a growing number of countries in the 1990s, Latin America and Caribbean countries embraced the multilateral recipe for growth and poverty reduction. In the 1990s, the region has succeeded in stabilizing internal and external balances with dramatic cuts in fiscal deficits, has greatly liberalized trade regimes and the financial sector, and, through privatization and other reforms, has changed the role of the state.[16]

Nor did the region ignore the two other pillars: increased spending on social programs and construction of a social safety net. Public spending on social and safety net programs, which had collapsed in the 1980s, began to recover in the 1990s (Figure 3). Social spending per capita excluding pensions has increased 22 percent in the 1990s (Londoño, 1996). Despite continuing fiscal stringency, the region is now spending an additional percentage point of GDP on education, health, and social protection. The increases in spending for social and poverty reduction programs in Latin America have been strongly supported by a marked increase in the proportions and amounts of World Bank and IDB social lending for these programs, beginning in the late 1980s. The proportion of the banks' loans for social programs increased from about 5 percent at the beginning of the

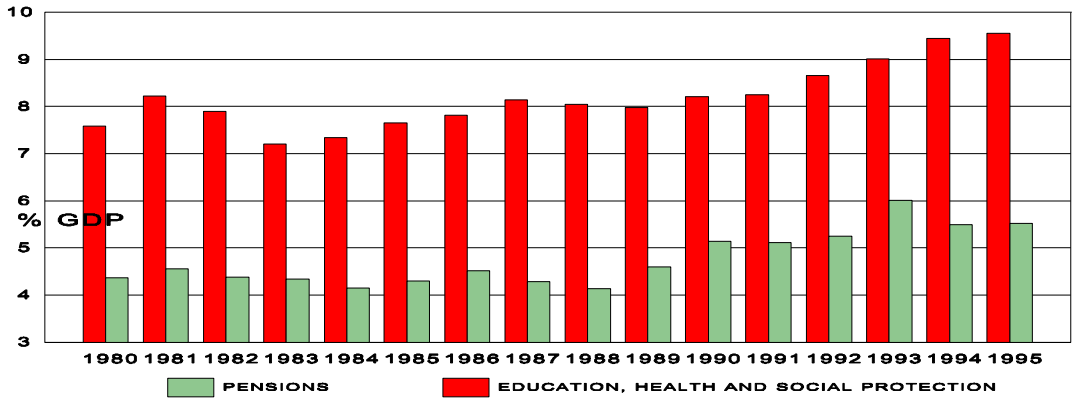
[14]See also Squire (1993).

[15] Morley (1995) shows the great vulnerability of poverty in Latin America to the recession and slowdown in aggregate growth in the 1980s.

[16]These reforms are all reflected in the so-called Washington consensus (Williamson, 1989). For the view of the World Bank at the beginning of the 1990s, see Edwards (1993). On the nature and extent of the reforms, see Inter-American Development Bank (1996).

1980s to more than 40 percent in the mid-1990s and increased substantially as a proportion of borrowers= GDP (Figure 4).

Figure 3
Social Expenditure in Latin America



With economic reforms, the region achieved some positive growth in the early 1990s (at rates of 3 to 4 percent over the period 1990-94, less than 1 percent in 1995, and about 3 percent in 1996), so that per capita income has returned to 1980 levels. But average growth rates have been anemic, and some portion of the growth achieved reflects the catch-up effects of stabilization after a long period of no growth. Moreover, the overall results of the economy wide reforms and increased social spending have been less than satisfactory for poverty reduction. Dramatic reductions in inflation in Peru, Argentina, Brazil and Bolivia provided the poor positivie but one-time benefits. Only Chile and Colombia managed to decrease poverty significantly in the last decade, with at least 1 million people having escaped poverty in each country. But beyond the beneficial effect of stabilization, other countries in the region have managed only barely measurable reductions in poverty.[17] For the region as a whole the poverty gap, which rose in the 1980s, has declined slightly in the last few years (Figure 5a). But the poverty head count ratio, which peaked at almost 34 percent in 1990, was still almost 33 percent in 1995 (Figure 5b).

[17]In the short run at least social spending per se could not be expected to reduce poverty measured in terms of household income. But poor results in social programs also reflect fundamental structural weaknesses no doubt related to great social inequities. For example, social spending in many countries does not much benefit the poor, and is not cost-effective; major differences across countries in such indicators as primary school completion rates and infant mortality are only weakly related to public spending. See Inter-American Development Bank (1996), Chapter 3.

Figure 5 b

Poverty Head-Count Ratio

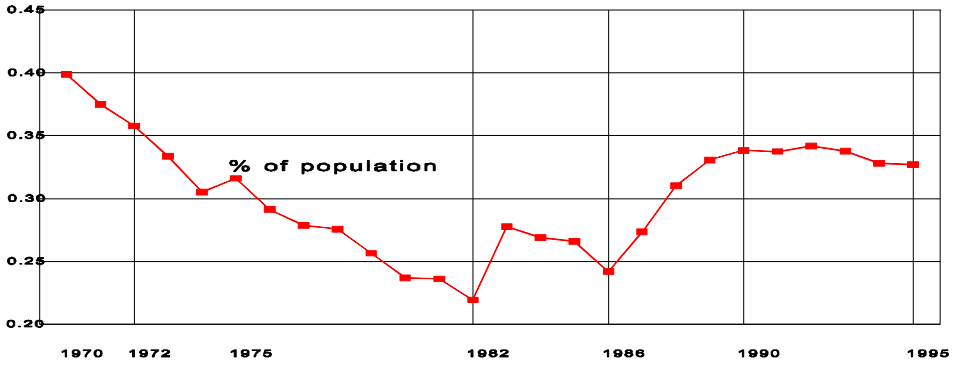
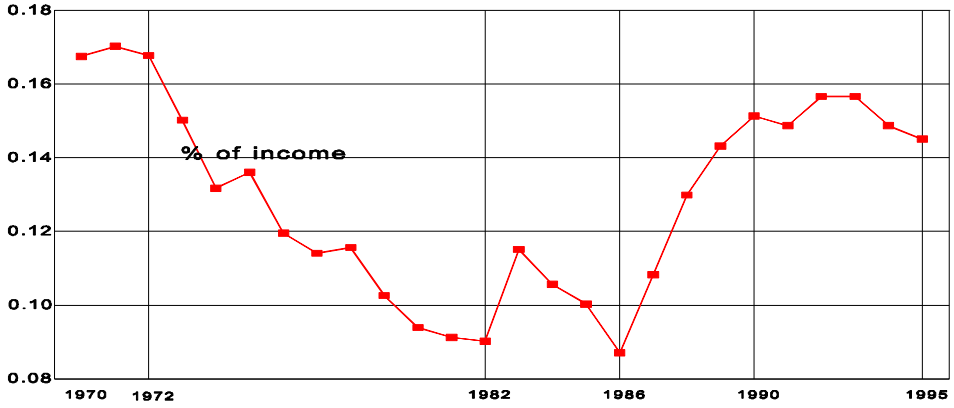


Figure 5a

Poverty Gap



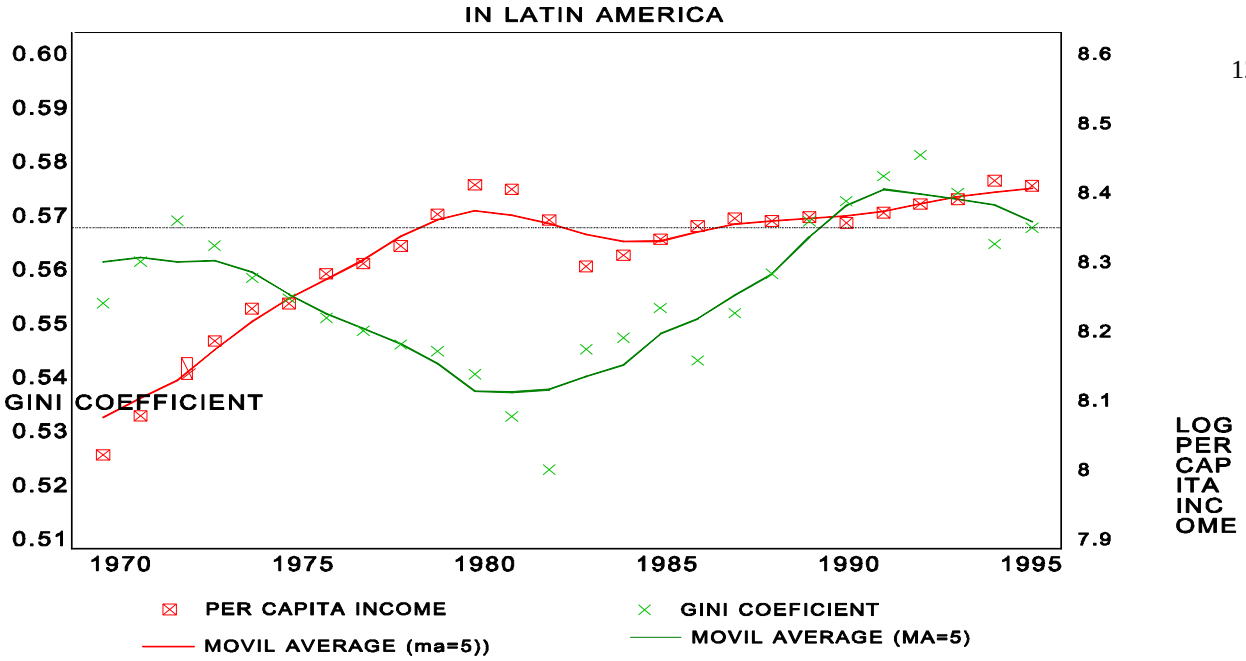
We are concerned in this paper with income distribution and poverty; has the minimal progress against poverty in Latin America been affected by changes in income distribution?

Contrary to what many analysts believe, income distribution can change significantly even over small time periods, and such changes are not only determined by the income level of a country. The information available for the Latin America region indicates that in fact, during the past 25 years, significant changes in income distribution have occurred. Figure 6 shows that the value of the Gini coefficient fell consistently between 1973 and 1982, a period during which the ratio of the income share of the richest 20% to the poorest 40% of the population also declined from more than 12 to less than 10. Then during the 1980s, income distribution deteriorated: the Gini coefficient increased by almost 4 points, and the 20% to 40% ratio had returned to around

Figure 6

PER CAPITA INCOME AND ITS DISTRIBUTION

IN LATIN AMERICA



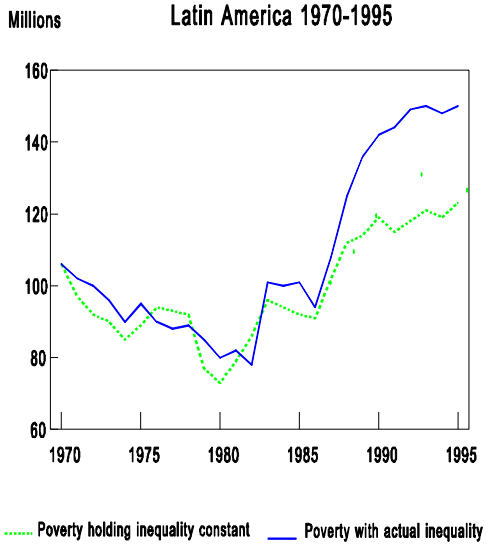
12 by 1992. Figure 6 also illustrates that, at least during the past 25 years, income inequality has been counter-cyclical; it declined during periods of growth and increased during recessions. Developments during the 1993-1995 period confirm this interpretation.

Poverty itself is also counter-cyclical in Latin America; poverty fell substantially in the 1970s, when

Figure 7

The Impact of Inequality on Poverty

Latin America 1970-1995



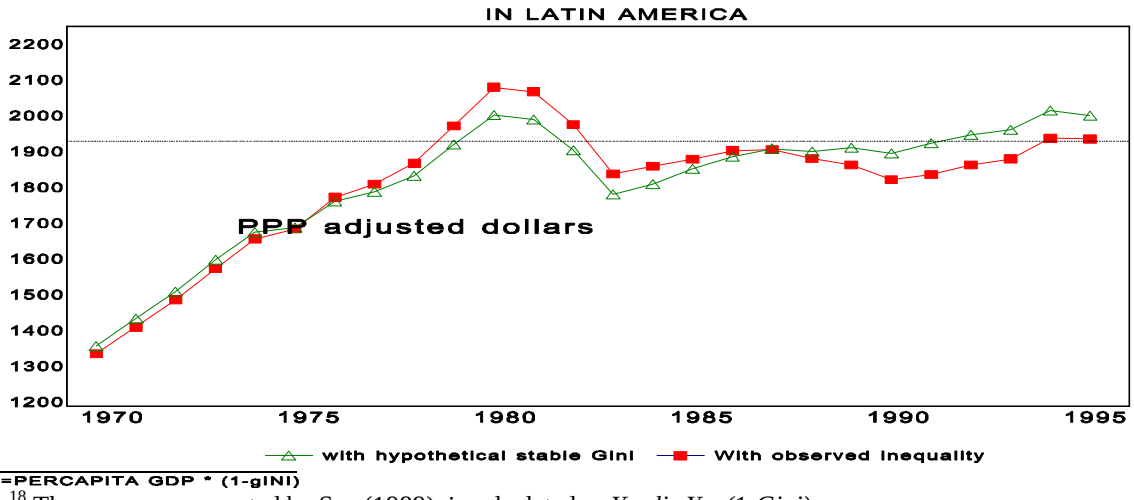
growth was high, and rose in the 1980s (Figures 2, 5a and 5b). Countercyclicality in income distribution in Latin America has exacerbated the negative effects on poverty reduction of low growth. As shown in Figure 7,

if the economies of Latin America had maintained the same income distribution throughout the 1980s as in 1970, poverty would have been greater in the 1970s, but smaller by almost half in the years 1980 to 1995.

In other words, at least half of the rise in poverty in the 1980s (50 million additional poor) was due to the deterioration in income distribution. The estimation of the Gini coefficient at different points in time allows us to derive a measure of Sen's "egalitarian per capita income" in the region, a measure which adjusts downward per capita income taking into account (inversely) the Gini coefficient, and is thus more linked to the standard of living of the population than is GDP per capita.[18] Figure 8 contains the estimates of this indicator calculated by assuming a stable Gini index and comparing it with the observed changes in inequality. As can be seen, the deterioration in living standards during the 1980s was larger than can be accounted for by changes in GDP. Furthermore, the impact of the deterioration in income distribution during the 1982-1992 period was so large that it eclipsed the effects of the subsequent recovery in the growth rates of the region.

Figure 8

Inequality-Adjusted Per-capita Income



[18] The measure, suggested by Sen (1989), is calculated as *Y-adj=Ypc(1-Gini)*.

In summary, for Latin America, two points emerge. First, growth in the 1990s which was low, even when combined with renewed efforts by the public sector to strengthen social programs, has simply not been enough to make any real dent in the problem of poverty. Second, over the last decade income distribution has worsened, and has exacerbated the negative effects of limited growth on poverty reduction.

At least for Latin America, therefore, critical questions about the World Bank approach to poverty reduction arise. Is the three-pillar approach, with its reliance on aggregate economic growth and on the development of human capital through social programs, sufficient to bring poverty reduction? Or does inequality in itself matter for poverty reduction, directly and through its effect on growth? Does poverty reduction, and growth itself, depend in part on the participation of the poor in the growth process, and therefore on access of the poor to opportunities and assets? We turn now to empirical work to explore these questions.

Section 2. Empirical Tests of the Relevance of Inequality

After the emphasis on policy-induced distortions in the 1980s, recent literature has emphasized two types of structural restrictions on economic growth in developing countries. The first, associated with the work of Douglas North (1990), is institutional development. Increasing attention has gone to property rights, strengthening of justice systems and greater accountability of public programs and services. Both the World Bank and the IDB have begun supporting lending operations in these areas, which indirectly affect poverty reduction.

The second is a renewed interest in income inequality itself as a constraint on growth. Benabou, 1996, refers to at least 13 cross-country empirical analyses by economists in the 1990s reporting a negative effect of inequality on growth. Squire and colleagues at the World Bank have contributed importantly through careful construction of a good-quality comparable country data set on changes in inequality measures over time, and through a set of studies suggesting that income inequality per se is less important than the distribution of land. Various authors have speculated that inequality slows growth because it encourages populism and generates political and macroeconomic instability, higher fiscal deficits reflecting the median voter's interests, and weak capital markets and resulting liquidity constraints especially for the poor which reduce savings and investments, especially in human capital.[19]

Thus income distribution, including land distribution, has appeared on the analytic agenda, outside and now within the World Bank, as a determinant and not merely an outcome of growth,[20] and analysts have proposed political and institutional mechanisms through which inequality may hinder growth.[21] In lending, there has been an even more explicit connection made between the institutional analyses of North and colleagues and the objective of poverty reduction.

Our concern in the empirical analysis below is with inequality as a constraint to growth, and particularly as a constraint to reduction of poverty, directly and because failure to reduce poverty may itself inhibit growth by failing to tap the productivity of a large portion of the population. We use what Squire and Deininger call their "high-quality" data (data which is based on fully representative household surveys, with all sources of income, monetary and nonmonetary, covered).[22] We select 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,

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[19]Benabou (1996), Alesina and Rodrik (1994), Persson and Tabellini (1994), Deininger and Squire (1996a, 1996b), and Li, et. al. (1996) are some of the recent contributions to the subject. For Latin America, Sachs in several papers has outlined the macroeconomic efforts of populist movements that encourage inefficient redistribution. Birdsall with colleagues has compared the experience of East Asia to that of Latin America, especially Brazil, and has suggested the existence of various channels of circular causation in the two types of economies. The high accumulation of human capital and export orientation has produced virtuous circles of growth, employment and equity in East Asia. In contrast, the limited education and import substitution strategy in Latin America has generated vicious circles in which the lack of economic opportunities has exacerbated poverty, reducing incentives for savings and education, and limiting aggregate economic growth. See Birdsall, Ross and Sabot (1995); Birdsall and Sabot (1996); Birdsall, Pinckney and Sabot (1996).

[20]As revealed in the latest World Bank progress report on poverty (World Bank, 1996b), there is still doubt within the Bank as to whether inequality acts as a constraint on growth.

[21]Naim (1995) outlines the need in Latin America for a second generation of essentially institutional reforms, but does not link implementation of these reforms to the problem of inequality.

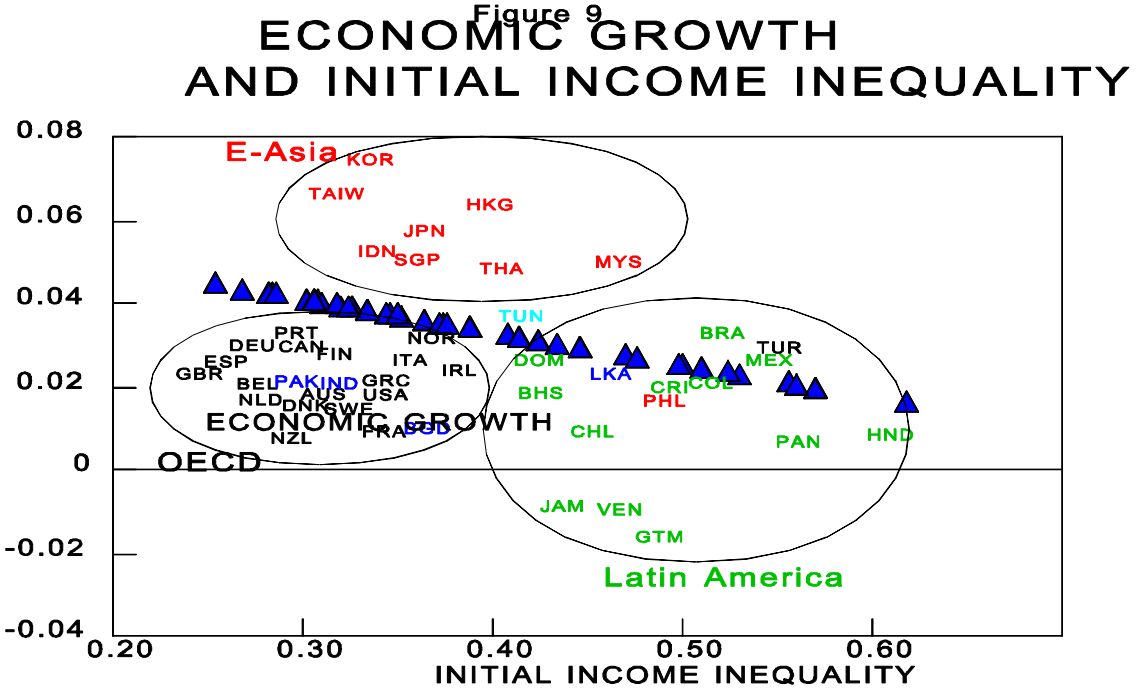
[22]See Deininger and Squire (1996).

and with information on physical capital investment, the education of the labor force, land distribution, and trade indicators. Our sample includes 52 countries.[23] With this data set, we explore how not only the accumulation but the distribution of assets affects economic growth, poverty and inequality. We look at differences across countries in overall growth rates, and then at differences in the growth rates of the poorest 20% of the population of each country.

Inequality and Overall Economic Growth

Initial income inequality is clearly related to economic growth in the different countries of the world in

Figure 9



[23]The most recent publications using the same data set include Deininger and Squire (1996, 1996a, 1996b) and Li, et.al. (1996). Following the pioneering work by Fields (1989) and continued by Deininger and Squire in their series of recent works, we use the data set to analyze changes in growth, poverty and inequality during "spells". For most of the regressions, we excluded socialist countries like China, and the Eastern Europe transition economies. So, our sample was actually reduced to 43 country observations. However, this sample is still larger than the 37 observations used by Deininger and Squire for their analysis. Regarding data sources, the purchasing power parity estimates were obtained from the Penn World Tables, version 5.6; information on education structure of the population age 25 and up at the beginning and end of each period was obtained from the Barro-Lee (1996) data set; the information for physical capital investment was found in The World Bank Project on TFP; finally, we used the indicators on external trade structure contained in Sachs and Warner (1995). The land distribution indicators were obtained directly from K. Deininger. A detailed data appendix is available from the authors on request.

the last three decades. Figure 9 suggests that countries with lower income inequality had higher economic growth during this period. The contrast among regions is very impressive: most Latin American countries had lower than average growth and higher than average initial inequality, while most East Asian countries had higher growth and lower inequality.

Our findings regarding overall growth rates across countries indicate that the negative relationship between economic growth and income inequality reflects primarily the dynamics of accumulation and ownership of assets in the different countries. The main results are summarized in Table 1. As noted elsewhere, differences in the rate of capital accumulation account for an important part of differences in growth rates across countries (equation 1).[24] The evidence of convergence across countries is consistent with most of the literature: convergence is not unconditional. Not all initially poorer countries grow faster (equation 1 in Table); only those poor countries with certain levels of initial education do. Our results are consistent with the conditional convergence hypothesis (equations 2 to 7), though they are not statistically significant in our small sample.[25]

[24]Those differences may in fact be endogenous to other factors, but here we follow the tradition of Barro and others and include capital accumulation on the right hand side of our regressions. We note that in a reduced form, or a fully specified structural model, the relevance of other variables with which we are more concerned would probably increase.

[25]Sachs and Warner (1995) find that convergence is also conditional on economic policies. Our lack of control for good economic policies might explain our weak evidence of conditional convergence.

Table 1
Explaining GDP Per Capita Growth

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Constant	-0.01	-0.02	0.01	0.03 **	0.04 ***	0.03 ***	0.03 ***	0.03 **	0.03
Capital Accumulation	0.57 ***	0.54 ***	0.53 ***	0.57 ***	0.57 ***	0.60 ***	0.50 ***	0.53 ***	0.54 ***
Initial Income	1.1	-0.58	-0.88	-0.16	-0.41	-0.57	-0.33	-0.48	-0.42
Initial Education		0.25 *	0.17	0.32 **	0.28 **	0.31 **	0.25 *	0.27 **	0.30 **
Initial Income Gini			-0.05 **		-0.03	-0.04	-0.004	-0.003	-0.002
Initial Land Gini				-0.03 **	-0.02 **	-0.01	-0.02	-0.01	-0.01
Standard Deviation of Education				-0.09 ***	-0.09 **	-0.09 ***	-0.08 **	-0.08 **	-0.09 **
Change in trade openness							0.02	0.02 *	0.02
Natural Resources Intensity						-0.02 **		-0.02 **	-0.01
LAC Dummy									0.004
Observations	43	43	43	43	43	43	43	43	43
Adjusted R^2	0.52	0.56	0.61	0.68	0.70	0.73	0.72	0.73	.76

*** Significant at 1%
** Significant at 5%
* Significant at 10%

We find (equation 3) that the initial level of income inequality affects subsequent growth negatively; income inequality measured at the beginning of a growth spell does seem to matter. Why and how does initial income inequality affect subsequent growth? To assess whether the distribution of productive assets is important, we add to our regressions a measure of land distribution and a measure of the distribution of human capital, i.e. the standard deviation of the initial years of education. Our results suggest that the effect of income inequality on growth reflects differences in a fundamental element of economic structure, namely the access of different groups to productive assets. In equation 4, both distribution variables have a negative effect on subsequent growth. The effect of asset inequality on growth dominates the effect of income inequality, that loses statistical significance in a joint regression.[26] The effect of the education distribution variable persists when other more traditional determinants of growth are included (equations 6 and 7). More natural-resource intensive countries have grown at a slower pace; the effect of natural resource intensity is apparently positively correlated with land inequality, comparing equations 5 and 6. Countries with higher trade intensity have grown faster (equation 8).

In the last column of Table 1, we add a dummy variable for countries of the Latin America and Caribbean region; the results indicate that differences in growth rates are accounted for by the other variables, i.e. there is no region-specific effect.

In sum, our empirical evidence suggests that the initial distribution of assets, especially of human capital, affects the future performance of an economy. The initial level of income inequality itself also matters, apparently because it reflects the impact of the asset distribution variables.

These findings imply but do not actually show that access of the poor to productive assets (which is presumably better when overall distribution is more equal) itself enhances growth.[27] We turn now to a second issue: whether the initial distribution of income and assets affects income growth of the poor.

Inequality and Income Growth of the Poor

Table 2 summarizes our findings on the determinants of income growth of the poorest 20% of the population. Several observations emerge from the regressions.First, it is clear that the incomes of the poorest 20% are highly elastic to overall economic growth (equation 1). This is a critical finding in itself, which we explore further below. Second, income growth of the poor depends heavily on overall capital accumulation (equation 2). Deininger and Squire (1996) emphasize the importance of these aggregate growth and accumulation effects for raising the incomes of the poor.

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[26]Deininger and Squire (1996), with the same data set but with growth 1960-92 as the dependent variable, also report that average income inequality, i.e. the average of any available measures of inequality over that entire period, loses statistical significance once initial land distribution is included in the regression.

[27]Birdsall, Pinckney and Sabot (1996) develop a microeconomic model of household behavior consistent with this view, in which increases in investment opportunities and returns to labor for the poor lead to higher labor supply, income, savings and investment rates of poor households.

Third, for the poor, initial inequalities in the distribution of land and of human capital have a clear negative effect that is almost twice as great for this group as for the population as a whole (equation 5 compared to equation 4 in Table 1). In Table 2 we introduce an additional distribution variable, the residual of changes in the distribution of income as measured by the Gini coefficient, net of the Aconvergence@ effect (i.e., the tendency of countries with initially high inequality to see a faster reduction in this inequality over time).[28] A larger residual measures a greater worsening of income inequality than expected, given initial inequality. Growth in the absolute income level of the poor is clearly and negatively affected by a deterioration in the overall distribution of income. On the one hand, this is not surprising -- indeed it may seem almost definitional that a worsening of inequality would make the poor worse off. On the other hand, it is possible, particularly in growing economies, that worsening inequality would reflect primarily greater gains for the rich than for the poor, even while the poor=s absolute income were also growing. Our finding suggests this is not the case; in those countries in which income inequality increase, the absolute incomes of the poor showed a less satisfactory performance (equations 8 and 9).

As in the case of overall growth, there is no region-specific difference in factors affecting growth of the poor's income in Latin America (column 12).

Table 3 provides a basis for comparing across quintiles the effects of overall growth. The elasticity of income growth of the poor with respect to overall growth is well above one, and, comparing across columns 1, the overall elasticity declines with the quintile rank. This result confirms the logic of the strong reliance of the World Bank and other development banks on growth as a key factor in poverty reduction.

In each of the five columns 2 of Table 3, we add our variable measuring change in inequality. The results show an unambiguous inverse relationship between a change in income distribution and each quintile's income growth. Deteriorations in income distribution harm the poorest the most, they reduce the rate of growth of quintiles 2 to 4 to a declining extent, and they raise

[28]We found strong evidence of a convergence effect in income inequality in the countries included in our sample: after controlling for other factors, the countries with higher initial inequality tend to improve their distribution faster. For this reason we used the residual from the convergence regression (i.e., the change in inequality after controlling for the convergence effect).

the rate of growth of the richest quintile.[29]

[29]This result implies that the negative relationship between growth and inequality is driven by the effect that a deterioration in income distribution has on the poorest 80% of the population. This is so because apparently a marginal deterioration in income distribution reduces the rate of growth of the incomes in the first four quintiles, and this outweighs the increase in the rate of growth of the incomes of the rich.

Table 2
Explaining the Growth of the Poor's Income

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
stant	-0.0	0.02	-0.02	-0.02	0.07 **	0.05 *	0.08 ***	0.05 **	0.05 **	0.08 ***	0.04 *	0.04 *
regate nomic growth	1.31 ***	1.20 ***										
ital umul.		0.26	0.69 ***	0.69 ***	0.72 ***	0.72 ***	0.89 ***	0.75 ***	0.78 ***	0.52 **	0.53 ***	0.77 ***
al Education			0.14	0.13	0.38	0.41 *	0.41 *	0.50	0.51 *	0.41 *	0.51 **	0.51 **
al Income i		0.09 *		-.004		0.05		-0.03	-0.01		-0.02	0.02
al Land Gini					-0.06 **	-0.07 **	-0.06 *	-0.03	-0.03	-0.05 *	-0.02	-0.02
ndard iation cation					-0.19 **	-0.20 **	-0.21 **	-0.18 **	-0.18 **	-0.22 **	-0.18 **	-0.18 **
nge in me Gini								-0.29 ***	-0.28 ***		-0.28 ***	-0.27 ***
nge in trade nsity							-0.03		0.00			
ural resource nsity							-0.01		-0.01			
nge in nary Trade										-0.05	0.01	-0.01
nge in nufact. Trade										0.04	0.04	0.05 *
C Dummy												-0.01
ervatio	43	43	43	43	43	43	43	43	43	43	43	43
usted R^2	0.51	0.62	0.26	0.26	0.43	0.42	0.44	0.60	0.60	0.47	0.62	0.63

nificant at 1% ** Significant at 5% * Significant at 10%

Table 3

Elasticity of Quintile Income to Changes in Inequality and Average Income

Variable	Poorest Quintile		Second Quintile		Third Quintile		Fourth Quintile		Richest Quintile	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Constant	-.010	.001	-.004	.003	-.003	.001	-.0	.001	.004	-.001
Aggregate Economic Growth	1.29 **	1.00 **	1.12 **	.92 **	1.08 **	.98 **	1.02 **	.98 **	.86 **	1.01**
Change in Inequality		-1.58 **		-1.05 **		-.52 **		-.19 **		.74 **
Observ.	43	43	43	43	43	43	43	43	43	43
R^2	.55	.80	.61	.77	.81	.87	.89	.90	.77	.93

** Significant at 1% level.

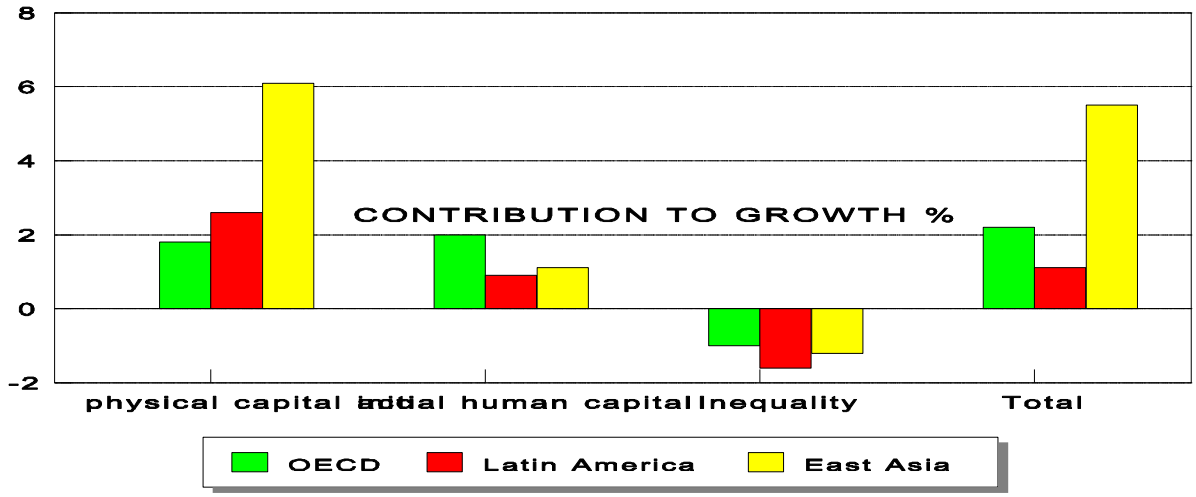
What is the link between these results across the five quintiles and the results of tables 1 and 2? What emerges is straightforward. A better distribution of assets to include the poor would not only increase their incomes, reducing poverty directly, but it would also increase aggregate growth by reducing the negative effect on growth of income inequality.

Section 3. A New Interpretation for Latin America

The analysis in the previous section suggests that not only average levels of human and physical capital, but the distribution of these assets, affects overall growth. Moreover, the results suggest that distribution of these assets (presumably worse for the poor when overall distribution is unequal) affects income growth of the poor disproportionately. In this section we explore the relevance of these findings for understanding why Latin America has grown slowly than other regions over the last 2 decades, and why it continues to register high poverty levels.

Average growth rates in Latin America were high between the two world wars, and as high as in East Asia for the first three decades after World War II. Our data include 43 country observations of growth spells, spanning the period 1960 to 1993. The median initial year of our growth spells is 1971, and the average initial year is 1970. The data span a period that includes the high growth years of the 1960s and 1970s in Latin

Figure 10
FACTORS OF AGGREGATE GROWTH



America, the so-called lost decade of no growth in the 1980s, and the modest recovery of the 1990s. Forty-three percent of our observations have the initial year of their growth spell in the 1960s, when both Latin America and East Asia were experiencing healthy growth.

Our empirical estimates can be used to analyze the impact of our inequality and other variables on Latin America's growth performance over more than three decades, compared to the growth performance of the OECD countries and the countries of East Asia. Figure 10 presents the results of decomposing the estimates of equation 5 in Table 1 for these two sets of countries and for Latin America.

The factors affecting performance across the three sets of countries vary significantly. First, compared to the developed world, Latin America's slower growth is due not to a lower rate of physical capital accumulation, but to the enormous differences in initial education levels and to the inhibiting effect of the inequality variables. Second, compared to East Asia, the main difference is the rate of capital accumulation, though the higher inequality in Latin America is also relevant (and in a structural sense may help explain the lower levels of accumulation). Using the analogous regression from Table 2, we obtain similar results regarding the weak income growth of the poorest quintile in Latin America.

Slow growth in the 1980s can be accounted for by poor policy response to the debt crisis, declining terms of trade and other macroeconomic phenomena. In the last few years, the 1994 financial crisis in Mexico and the continuing struggle for stability in Brazil and Argentina added macro constraints to growth in the region. Our results suggest, however, that even as macroeconomic management improves, and as former distortions in trade and financial markets in state-run economies are eliminated, a structural constraint -- insufficient levels and poor distribution of human capital and other productive assets -- may limit long-term growth in Latin America. In the last three decades, this factor has played a role in the region's overall poor economic performance and its poor performance in reducing poverty.

Section 4. Lessons for the Multilateral Development Banks

The analysis presented here brings several key lessons for the multilateral development banks. First, the emphasis of the World Bank on growth as key to poverty reduction makes sense; econometric analysis, using high quality data on changes over time in income growth for different income quintiles, confirms that the poorer quintiles benefit greatly from growth, and that the poorest quintile benefits from high average levels of education and of physical capital accumulation. Emphasis on human capital accumulation, especially in the form of basic education to enhance the productivity of the poor, came relatively late in economic work in the World Bank (marked by the 1980 World Development Report), and even later in its lending (Figure 4). The same is true for the Inter-American Development Bank. However, the World Bank and all the regional banks have now, for a decade, been strongly emphasizing human capital as key to poverty reduction as well as growth. But just primary education for the poor is insufficient for middle-level developing countries requiring higher human capital accumulation.[30]

Second, while current attention to growth and human capital accumulation is clearly appropriate, the longstanding inattention of the World Bank to inequality in the distribution of assets, especially education and also land, has been costly. More concern earlier with the causes and the consequences of income inequality would have called greater attention to a fundamental constraint to poverty reduction: the poor's lack of access to the assets that generate adequate income.

Latin America is a case in point, where politics and institutions reflect a long history of inequality that may be not only undermining direct efforts to reduce poverty, but also undermining growth itself, with its benefits for poverty reduction. In Latin America, the World Bank=s three-pillar strategy of growth, social investments and attention to the safety net has not been sufficient to make a real dent in high levels of poverty.

[30]The lesson for the Latin American region is the pressing need to provide full coverage of secondary education to cover the poor -- which in turn requires improving the quality of primary education to raise primary completion rates.

Only recently have the banks begun to address more explicitly such factors as property rights, land reform, access of the poor to legal systems and credit markets, and fair competition which are critical to opening up opportunities in previously unequal societies, and to eliminating the hidden privileges in asset markets historically enjoyed by the rich. Similarly, the recent efforts of the World Bank to provide credit support for microenterprise development implicitly acknowledge the relevance of access to assets and opportunities for income growth of the poor.[31]

Third, emphasis on economic inequality naturally leads to concern with unequal access to political decision making, especially in democratic societies.[32] The very recent emphasis in the World Bank and the other multilateral banks on participation of the poor, through voice and choice, is appropriately seen not only as a political right, but as an effective means to poverty reduction, since in democratic societies political rights can help ensure equal access to the economic assets that will raise incomes.

[31]The Inter-American Development Bank has had a major program of support for microenterprise development for more than a decade.

[32]Benabou (1997) disputes median voter theory (under which the relatively poor have political voice) and shows how unequal access to political rights can increase the likelihood of Asteady states@ of inequality in many societies.

APPENDIX

Sources for Variables

The source of data on income inequality, including Gini coefficients and income shares by quintiles, is the Squire and Deininger 1996 data set. We have restricted our data set to "high quality" observations as suggested by Squire and Deininger. The data must fulfill three criteria. First, the measure must be drawn from a representative population. For example, observations for Argentina are excluded because the country does not conduct a nationwide survey. Second, the unit of observation is required to be a household or an individual as measured from a household survey. Last, the measurement of income or expenditure must include income from all sources.

Mean income for the first quintile is derived from the income share of the first quintile and real GDP per capita. The measure of trade openness is from the Penn World Tables and is defined as the sum of exports plus imports divided by real GDP per capita at current international prices. We thank Jeffrey Sachs and Andrew Warner for providing us a data set that included the variable measuring primary export intensity in 1971. They define primary export intensity as the ratio of exports of SITC (revision 1) categories 0,1,2,3,4, and 68 to total exports in 1971 in nominal dollars. These SITC categories measuring primary exports include food and live animals, beverages and tobacco, inedible crude materials, oils and fats, mineral fuels and lubricants and related materials, and non-ferrous metals. Sachs and Warner cite their source for this measure as the World Tables, World Bank 1993.

We restrict our sample to countries for which the Gini and income quintiles are available at least 5 years apart with the initial observation occurring no earlier than 1960. For the measure of the initial schooling variables and the initial Gini for land we chose the closest measure possible to the first year the Gini is observed. The list of 43 countries included in regressions is Australia, Bangladesh, Belgium, Brazil, Canada, Colombia, Costa Rica, Denmark, Dom. Rep., Finland, France, Germany, Greece, Guatemala, Honduras, India, Indonesia, Ireland, Italy, Jamaica, Japan, Jordan, Korea, R., Malaysia, Mexico, Netherlands, New Zealand, Norway, Pakistan, Panama, Philippines, Portugal, Spain, Sri Lanka, Sweden, Taiwan, Thailand, Trinidad, Tunisia, Turkey, UK, USA, Venezuela.

The 14 countries excluded from the original sample, are Bahamas (missing schooling variables), Bulgaria (missing Gini for land), Chile (missing Gini for land), China (missing Gini for land), Czechoslovakia (missing capital accumulation), Hong Kong (missing Gini for land), Hungary (missing capital accumulation), Mauritius (missing Gini for land), Morocco (missing schooling variables and Gini for land), Nigeria (missing schooling variables and Gini for land), Poland (missing capital accumulation), Singapore (missing Gini for land), Soviet Union (missing schooling variables and Gini for land), Yugoslavia (missing capital accumulation).