Income Distribution: Effects on Growth and Development
By Nancy Birdsall

Abstract

I review the literature on the effects of inequality on growth and development in the developing world. Two stylized facts emerge from empirical studies: inequality is more likely to harm growth in countries at low levels of income (below about $3200 per capita in 2000 dollars); and it is at high levels of inequality (at or above a Gini coefficient of .45) that a negative association emerges. Between 15 and 40 percent of the developing world's population lives in countries with these characteristics, depending on the inclusion of China, whose level of inequality has recently been measured at almost .45. Theory and evidence suggest that high inequality affects growth: (1) through interaction with incomplete and underdeveloped markets for capital and information; (2) by discouraging the evolution of the economic and political institutions associated with accountable government (which in turn enable a market environment conducive to investment and growth); and (3) by undermining the civic and social life that sustains effective collective decision-making.

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Until the end of the Cold War, most development economists were not particularly concerned with the distribution of income, but instead with understanding growth and reducing absolute poverty in the developing world. For one thing, Kuznets (1955) had suggested that a deterioration in the distribution of income might be the natural outcome of the early stages of development, as people begin the shift from low-productivity subsistence agriculture to high-productivity sectors. And mainstream economists' starting assumption, rooted in the Smithian tradeoff between efficiency and equity was that, in the other direction of causation, inequality resulting for example from increased security of property rights, would enhance growth by encouraging investment and savings and creating a necessary incentive for individuals to work hard.[1]

But beginning in the 1990s, as panel data on changes in the distribution of income in developing countries became available, as mainstream development economists became more concerned with political economy analysis, and—perhaps—once the fall of the Berlin Wall liberated the mainstream from the taboo of Marxian analysis, economists became more interested in assessing the effects of income distribution on growth. In the last 15 years a major focus of new theoretical and empirical work has been the effects of income inequality on growth and development in the developing world. Much of that work has been ably reviewed in major reports of the UNDP, the Inter-American Development Bank, and the World Bank.[2]

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[1] For example, Finis Welch entitled his 1999 address to the American Economics Association "In Defense of Inequality". The reference to the Smithian tradeoff is to Smith's Theory of Moral Sentiments published in 1759 (Smith,1982). Kaldor (1961) noted that a higher profit share would encourage savings on the assumption that capitalists have a higher propensity to save, from which it follows that when income is more concentrated savings and investment and thus the equilibrium rate of growth will be higher.

[2] Smith in Wealth of Nations published in 1776 (cited as Smith, 1982). The 1998 Human Development Report, *Consumption for Human Development* of the UNDP, led by Richard Jolly, included analysis of consumption inequality. The 1998/1999 IPES of the IDB, led by Ricardo Hausmann, the Chief Economist, was entitled *Facing Up to Inequality in Latin America*. The 2006 World Development Report of the World

Still there is no consensus among economists that income inequality matters, and little attention among development practitioners to policies to address inequality as opposed to growth and poverty reduction.[3]

Obviously if people care about their relative income status then *ipso facto* inequality matters. That they do, to some extent, has long been remarked; consider Adam Smith who noted that a man to retain his dignity may in one society need enough income to buy a linen shirt, and Veblen (1970) who noted that the absolutely well-off worry about their status relative to the more absolutely well-off.[4] Hirschman (1973) observed that people stuck in a tunnel in the stopped lane eventually become deeply frustrated if the other lane but not theirs has been inexplicably (and presumably unfairly) moving—quite independent, to extend the metaphor, of the kind of car they drive. Easterlin (1995) noted that happiness (or subjective well-being, or utility to use the economists' term) varies directly with one's own income and inversely with the income of others, i.e. that relative as well as absolute income matters. He comes to that conclusion in part based on surveys of happiness within countries over time; the average level of happiness has not increased

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Bank, led by Francisco Perreira and Michael Walton, is entitled *Equity and Development.* For a review from the perspective of new endogenous growth theories in economics, see Aghion et al., 1999.

[3] Lyn Squire (personal correspondence; and see Lundberg and Squire, 2003) makes the point that policy recommendations for addressing inequality may not be much different from those meant to address poverty in a country with an egalitarian distribution of income. (An exception might be tax policy, which ideally might be more progressive in the former setting, if only to sustain politically open markets. In addition greater priority in the face of political and administrative constraints might go to anti-trust and anti-monopoly programs in high inequality settings) I do not try to address this point in this paper since it is not focused on policy per se but on a review of the implications of inequality for the dynamics of growth in the developing world.

[4] Graham and Felton, 2005, provide a survey of recent studies linking measures of "well-being" (or reported "happiness" in surveys of individuals) to prevailing levels of inequality. Results depend on setting, definition of reference group, and the particular measure of well-being. In Europe and the U.S. inequality has generally negative effects on reported measures of well-being.

even where average incomes have increased substantially.[5] It is possible in fact that

inequality of income reduces the utility or happiness not only of the relatively poor but of

the better-off, who may enjoy their own affluence less if others are visibly worse off.

In this review I focus, however, on the instrumental reasons why a highly unequal

distribution of income matters in developing countries.[6] I review a large body of work,

primarily of economists, indicating that beyond some level inequality in developing

countries matters because: (1) where markets are underdeveloped, high income inequality

is likely to inhibit growth; (2) high income inequality can discourage the evolution of the

economic and political institutions associated with accountable government (which in

turn enable a market environment conducive to investment and growth); and (3) high

income inequality can undermine the civic and social life that sustains effective collective

decision-making, especially in multi-ethnic settings.

Theory and some empirical work suggest that inequality does not undermine growth

directly. Instead it is the *interaction* of inequality with imperfect markets or with

unaccountable or incompetent governments (increasingly labeled weak "institutions" in

the latest literature on growth—see for example Acemoglu, Johnson, and Robinson,

2000) that harms growth. In addition, and conceptually different, inequality (that is high

enough) may directly create conditions that lead to or exacerbate poor governance and

thus poor economic policy, and/or weak social and economic institutions and thus

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[5] Graham and Pettinato (2002) make the point that what is important is peoples' perceptions about their
current and future income relative to others. Graham and Felton (2005) report based on happiness surveys
that people in Nigeria are as happy as people in France despite the huge discrepancy in per capita incomes.
[6] Much of what I say about income inequality applies to consumption inequality, and much theory reviewed
below applies better to wealth than to income and consumption inequality. In principle income inequality
as I use it refers to "permanent income", though in fact empirical work on income inequality almost always
is based on current income, and sometimes on wages and other pretax income. Elsewhere I have used the
term "money inequality" to distinguish income and consumption inequality from inequality of
"opportunity" (which is difficult if not impossible to measure) and of land, education and other
nonmonetary assets. See Birdsall, 2001.

ineffective implementation of stable and sound policies—reducing growth through the effect on economic, political and social institutions. Weak institutions broadly defined are increasingly viewed as the key cause of low growth in developing countries. Since weak markets, poor governance and underdeveloped institutions might be said to be the very characteristics that define a country as "developing", it follows that inequality is a key factor in understanding the dynamics of growth and institutional development in the developing world.

The reader will note that I do not discuss the effect of growth on inequality, the subject of the Kuznets hypothesis, nor the evidence that inequality and growth may each be simultaneously affected (Lundberg and Squire, 2003), either similarly or differently, by still other economic and non-economic variables such as inflation and increased access to education. Once panels of household data enabled analysis of changes in the distribution of income over time within countries, the existence of a stylized Kuznets effect was not supported by the evidence (for example, Deininger and Squire, 1996), almost certainly because so many other country-specific factors compound any fundamental relationship there might be.

Effect of Inequality on Economic Growth and Poverty: Theory and Evidence

Two stylized facts emerge from the growing literature on the effects of inequality on growth. First, the evidence suggests that inequality above some level is more likely to reduce growth. Second, theory and empirical work suggest that high levels of inequality are more likely to harm growth in developing than in developed countries.

Barro (2000), in a study of the determinants of growth, was among the first to report a structurally different relationship of inequality to growth in developing compared to developed countries. Across developed and developing countries combined he found no clear effect of inequality on growth. However dividing the sample into the two groups he found the relationship is structurally different. In higher-income developed countries inequality may indeed be associated with higher growth (as often referred to in contrasting the U.S. and countries of Western Europe). Below a certain income level (about $2000 U.S.1985 dollars – equivalent to about U.S.$3200 in 2000 dollars), higher income inequality is associated with lower growth. (The simple relationship is illustrated for developed and developing countries in Figure 1). Cornia, Addison and Kiistki (2004) using data from a more comprehensive set of household surveys, tested the relationship between changes in inequality and growth over almost four decades for 25 countries. They report a positive effect on growth as the Gini coefficient increases from very low levels (from the .15 typical say of subsistence economies and of the former socialist economies to .30) and a negative effect as the Gini coefficient rises from .45 (typical in Latin America and sub-Saharan Africa) to higher levels.[7]

The specific thresholds should not be taken too seriously, given poor measurement particularly of the distribution of income. However, they allow for a rough assessment of how widespread across people and countries in the developing world might be the resulting vulnerability. The critical thresholds of a Gini at or above .45 and income per capita at or below $3200 affect a significant number of countries and people in the developing world. Virtually no developing or transitional economies have income Gini

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[7] See Chapter VI. 44 in this volume for a discussion of the Gini coefficient and other measures of distribution. The studies referred to all use panels of country observations and employ country fixed effects estimations, so that they are assessing changes over time within countries, not differences across countries.

coefficients below .30, though India and China did at about that level for much of the

postwar period until the 1990s. About 15 percent of the population of the developing

world currently lives in countries (33 countries) with reported Gini coefficients of .45 or

higher and per capita income below $3200 (in 2000 dollars), mostly in Latin America and

sub-Saharan Africa. But that percentage mounts to 40 percent if China, whose reported

2003 Gini coefficient was 44.9, is included, and rises further to 44 percent if Brazil,

whose per capita income now just exceeds $3200, is included. Other countries with per

capita income below the Barro threshold where the income Gini has risen in the last 15

years and is now above .40 are Bangladesh and Pakistan. In India and Vietnam,

inequality has also risen rapidly since the 1990s but reported Gini coefficients are still

below .40.[8]

These findings are broadly consistent with theory. Why might some level of

inequality enhance growth? First, inequality can be too low, as when it was imposed in

state-managed economies where planning and controls replaced price and other market

signals, encouraging "shirking" and free riding. A certain degree of inequality may be

necessary to permit the incentives that induce individuals to work hard, innovate and

undertake risky but productive investment projects, resulting in higher output and

productivity, and therefore higher average incomes and growth rates. (For economists,

these incentive effects are the backbone of the moral hazard argument against tax-

financed distribution (Okun, 1975)). Second, some concentration of income could

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[8] Reported Gini coefficients are from the WIDER (WIID2a) database; see
http://www.wider.unu.edu/wiid/wiid.htm and WIDER, 2005. Income per capita is from the World Bank
World Development Indicators (http://www.worldbank.org/data). For the statements in this paragraph, I
used Gini coefficients from as many countries as possible. For some countries only Gini coefficients of the
distribution of consumption are available. The distribution of consumption will be more equal than the
distribution of income so that the number of countries and people in the categories I defined may be higher
than stated here.

encourage growth if high rates of saving enable more investment, and if savings rates are greater where income is concentrated in the hands of the rich whose marginal propensity to save is higher than that of the poor (Galenson and Leibenstein, 1955; Kaldor, 1961, 1978). A related idea is that investments in infrastructure and industry critical to development are large and indivisible; in the absence of well-functioning capital markets, wealth and income need to be highly concentrated to generate the minimum required resources to undertake new investment projects.[9] (Recent "endogenous" models of growth, however, rely much more heavily on the incentive effects of institutions and policy than on high savings and investment as the keys to sustained growth.)

The incentive effects of inequality can be thought of as the outcome of "constructive" inequality, that is, income inequality that reflects solely differences in individuals' responses to equal incentives or opportunities, and is thus consistent with efficient resource allocation.[10] In contrast would be "destructive" inequality, reflecting inefficient privileges for the rich, social and economic discrimination which reduces incentives for effort, investment and innovation by some groups, and in general reduced potential for productive contributions of the already poor. In a kind of tautology, destructive inequality can be defined as that inequality which results in lower, rather than higher economic growth (Birdsall, 2001).

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[9] With this in mind, many developing countries embraced the need for the state to assume the commanding heights of the economy and used tax and donor resources to finance state-led industrial investments throughout much of the post-war twentieth century. This approach almost certainly, and ironically, led to increased concentration of income. Worse, in some countries the later privatization of those investments further increased income concentration, though there is also good evidence that privatization of water, electricity, and other utilities has improved access to these services of the poor (Nellis and Birdsall 2005).
[10] Rawls (1971) argued that unequal systems of incentives and rewards may be justified if they improve the position of the least advantaged. His fundamental point was that an increase in inequality can *only* be justified if the outcome is an improvement in the welfare of the worst off.

The idea of destructive effects of inequality is consistent with the empirical evidence noted above of lower growth at very high measured levels of inequality. Theory suggests that inequality is also more likely to be destructive in developing countries (as Figure 1 suggests). The remainder of this section sets out why that is likely to be the case. In summary it is because inequality tends to undermine growth when it combines with or *interacts* with weak markets and poor government policy. In general in developing compared to developed countries, financial and other markets are less complete and public policy is less effective in addressing market failures and imperfections.

Imperfect credit and other markets. Benabou (1997) and Aghion et al (1999) develop models in which inequality exacerbates the effect of capital and other market failures on growth. When creditworthy borrowers cannot borrow because they lack collateral to comfort lenders (given imperfect information, a market failure in itself), then their lack of income or wealth limits their ability to invest. In addition, given limited liability (the borrower cannot repay more than her net worth), borrowers with less wealth have less incentive to exert effort to ensure success of an investment since they must pay lenders a higher portion of their returns (a moral hazard effect). In this case redistributing wealth has no adverse incentive effects – on the contrary it creates a positive incentive -- and will be growth-enhancing. Weak or nonexistent insurance markets will also force those without assets to bypass high-return projects. Galor and Zeira (1993) and earlier Loury (1981) suggest that the distribution of wealth affects output due to the indivisibility of investments in human capital. When it is difficult to borrow, lack of liquidity limits investments in human capital despite prospective high returns; this obviously affects the poor but may also affect the large majority of middle-income people in developing

countries with high concentration of income at the top of the income distribution.

Birdsall, Pinckney and Sabot (1998) note that even where the poor are credit-constrained,

they can exploit an increase in the return to potential new investment (in education or

their own farm or business) by increasing their work effort. They will do so as long as

the returns to their labor are adequate – as was the case in Korea and Taiwan in much of

the postwar 20th century. If labor markets are functioning well, and returns to education

or other investments are rising, the credit market may not matter as much. Or in those

countries, lower overall inequality of wealth, income and land (well below the Gini of

0.45 on the distribution of income), may have minimized the negative effect on growth of

an interaction between inequality and weak markets.[11]

Obviously weaknesses in capital markets are greater in developing countries, as

are compensatory policies such as enforcement of creditor rights. They are also more

likely the lower is average income and the higher the proportion of poor people, making

it difficult to distinguish empirically between the negative effect of inequality *per se*

(whether of income, wealth, education, land) interacting with weak markets from the

negative effects of high rates of poverty. In any event, whether because capital markets

are weaker and more people are poorer, it is not surprising that inequality undermines

growth in developing countries though not necessarily in developed countries.

In these models, it is not actually income inequality but inequality of financial

wealth or other assets that interacts with weak capital markets to reduce growth. (Only

recently has household level data on financial wealth of reasonable comparability across

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[11] A closely related more Keynesian point is that greater inequality may depress
aggregate demand, and thus investment incentives and growth.– even where markets are
otherwise functioning well. See Chapter II. 14 in this volume.

countries become available.[12]) But increasing evidence suggests that other assets—land and education—tell the same story. Latin America still appears to bear the costs of its historic land inequality. Carter and Coles (1998) show that concentration of land ownership is associated over long subsequent periods with concentration of income, even in countries where the economic relevance of agriculture has declined. Birdsall and Londono (1997) show that across countries inequality in the distribution of education reduces growth, and that once inequality of land and education are accounted for, inequality of income washes out as a factor affecting growth. In that respect, market economies in Latin America compared to East Asia, discussed below, do not operate differently—it is just that they operate in a context of high concentration of land and education.

Ineffective or corrupt institutions of the state and resultant poor public policy. As with weak markets, weak governments and poor public policy are likely to exacerbate the effects of inequality (of income, assets, education and so on) on growth. Behrman, Birdsall, and Szekely (2000) show that differences across countries in social mobility, measured by differences in the effect of parents' income and education on children's education, are robustly and systematically affected by differences in two factors: public spending on primary education and the depth of financial markets. Repressed interest rates and directed credit programs that end up limiting access to credit except for privileged insiders worsen the effect of inherently imperfect capital markets on growth. Lack of adequate public spending on basic health and education means that public policy is not correcting for the inherent inability of markets alone to compensate for differences

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[12] Davies et al., 2006.

across households in endowments of all kinds. Growth is then lower than it could be since aggregate accumulation of human capital is reduced.

If income inequality interacting with poor policy reduces growth, then it is implicated in reduced poverty reduction—given that empirically growth has seemed necessary if not sufficient for reducing poverty, and since whatever growth occurs will help the poor less in an accounting sense the less equal the distribution of income (Ravallion, 1997; 2001).[13] There may also be a more substantive link of inequality to the persistence of poverty where state institutions and government policy fail to ensure equal opportunities for the poor, even when there is income growth on average. Birdsall and Londono (1997) report that across countries in the period 1960 to 1990 greater land and education inequality reduced the income growth of the poorest quintile about twice as much as they reduced average income growth for all quintiles.[14] In the extreme, unequal distribution of land may cut off altogether the usual effect of growth in agriculture on reduction of rural poverty. Some evidence suggests that agricultural growth in Latin America in the 1970s and 1980s failed to reduce poverty at all (De Janvry and Sadoulet, 2000), as large landowners captured most of the benefits. In contrast, in Indonesia, where small farmers provide the bulk of agricultural production, growth was good for the rural poor even in the days of Sukarno and still better in the days of Suharto (Timmer, 2006a, 2006b).

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[13] Ravallion (2001) reported an average elasticity of poverty reduction with respect to growth of -2.5, implying that for every one percent increase in the growth rate in average income, the proportion of the population living below $1/day falls by an average of 2.5%.
[14] See also Deininger and Squire, 1996. These findings contrast with the conclusion that "Growth is Good for the Poor" in which Dollar and Kraay (2002) find that average incomes of the poorest quintile rise proportionately with average incomes in a sample of 92 countries spanning the last four decades.

Political instability and social conflict. Initial theorizing put any negative effect of inequality on growth not on its interaction with weak markets or poor public policy, but through a direct effect in the political sphere as Benabou put it "where asset markets are complete and distributional effects arise solely from the balance of power in the political system."[15] Economists suggested that higher inequality causes lower growth because the median voter, who is relatively poorer where inequality is high, votes for inefficient redistribution financed by growth-reducing higher taxes (Persson and Tabellini, 1994; Alesina and Rodrik, 1994). Their cross-country tests were not, however, convincing. Moreover, the median voter theory did not square with anecdotal evidence that policies in unequal countries are often shaped not by the relatively poor median voter (even where there is democracy) but by a more politically influential elite,[16] and with lack of any evidence that redistributive policies, measured in terms of the marginal tax rate, are associated with lower growth (Easterly and Rebelo, 1993).

An alternative political explanation blames political instability on "social discontent" (associated with inequality among other things) (Alesina and Perotti, 1996). Sociopolitical differences that reduce the security of property rights and the expected return on investment, thus reduce investment and subsequently growth. In a test of the determinants of growth collapses after 1975, Rodrik (1999) found that high inequality and the quality of institutions that manage conflict were key underlying factors—not the size nor the intensity of external shocks. He argued that with high inequality, distributional conflicts would be more difficult to resolve, delaying fiscal and monetary adjustment and diverting productive resources to bargaining over distributional changes.

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[15] Benabou, 1996, p.3.
[16] De Mello and Tiongson, 2006 find no evidence that governments of highly unequal countries are more likely to attempt to redistribute income.

Benabou (1996) notes that if the rich understand the implication for growth of rent-seeking in unequal societies and of populist revolts, it may be in their collective interests to collectively transfer wealth to the poor through land reform, education subsidies, or trade protection.[17] The problem may be (as experience in Latin America and Africa suggest) that such transfers to be efficient and growth-enhancing require effective institutions of the state.

Effect of Inequality on Political and Economic Institutions

A large literature is concerned with the importance of effective institutions for growth (for example North, 1990; Acemoglu, Johnson and Robinson, 2004). Does inequality (in some "initial" state) contribute to the failure of effective institutions to emerge in some societies? Engerman and Sokoloff (1997, 2002) suggest that differences in the factor endowments of colonial North and South America contributed to differences in the concentration of income which in turn affected the evolution of different economic and political institutions. Abundant slave or indigenous labor and soil and climate conducive to large plantation agriculture in the south, and the opportunities for extraction of mineral wealth, were conducive to high concentration of income, human capital, and political power. The elite in the south then tended to create and sustain institutional arrangements that protected their interests but did not encourage broad-based investment, for example in education or productive economic activity. In contrast were the smallholder farms of the north, where the soils and climate were conducive to wheat, for

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[17] Similarly it is often in the collective interest of an ethnic or racial majority to support anti- discrimination and other policies and programs to reduce horizontal inequalities, i.e. inequalities among groups in political, economic and social dimensions, as these otherwise can provide the basis for inter-group animosity and fuel civil conflict (Stewart, 2001; Ostby, 2003). See Chapter VII – 60: War and Development.

example, and cheap labor was not available. In these settings, more democratic institutions evolved, property rights were broad-based, and a thriving smallholder class supported public financing of education and in general created local governments that were accountable to most citizens.

Public-choice models similarly attribute poor public policy to government regimes in which bureaucrats and insiders face no real checks on the pursuit of their own interests (Buchanan and Tollison, 1984). If the rich favor public policy that preserves privileges independent of their economic efficiency, inequality may not only inhibit growth by interacting with government failure and poor public policy, as set out above, but may contribute to poor institutions and government failures in the first place. The problem seems especially great when concentration of income at the top is combined with substantial poverty at the bottom, and there is not a large middle class to demand accountability from government. Easterly (2001) and Easterly, Ritzen, and Woolcock (2006), use country level data on size of the middle class (instrumented by differences in commodities produced, recalling Engerman and Sokoloff), to study the determinants of good "institutions" (measured in terms of survey results on accountability, corruption, property rights and so on). They conclude that a small middle class is implicated in weak institutions, and through weak institutions in low growth.

An example is the apparent relationship between a high concentration of income in a society and differences across countries in the policy and institutional capacity that ensure access to education – as in the difference between East Asia and Latin America in educational opportunities for the poor (Birdsall, Ross, and Sabot, 1997). Supply of publicly subsidized education is likely to be limited where the rich resist a large tax

burden to finance services they can purchase privately. Targeting social services to the poor can help reduce the fiscal burden of greater public spending, but easily leads to loss of political support from the working and middle class. Without middle class interest and pressure, the quality of public services deteriorates (and the middle class resorts to private services).[18] Thus it is possible for income inequality to contribute to poor public policy and institutions even where there is little or no absolute poverty—for example in U.S. cities.

It is also likely that high income inequality encourages rent-seeking by the rich through bribes and extortion in the political sphere, and populist and protectionist policies when those who feel disadvantaged acquire political voice. Keefer and Knack (2002), like Easterly, Ritzen, and Woolcock (2006) find that income inequality is associated with weakening of the protection of property rights.[19]

In short, not only does theory and some evidence suggest inequality harms growth in interaction with poor public policy, it is plausible that high inequality more directly undermines good public policy by delaying or stalling the emergence of the political and economic institutions (property rights, an independent judiciary, accountability to voters and checks on abuse of privileges and power) —institutions that are increasingly viewed as fundamental to sustaining growth.

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[18] On the demand side, low public spending combined with pressure to maintain or expand enrollments has led to low-quality schools, reducing the economic returns to poor families of sending children to school who can otherwise help at home or work.. In effect schooling could be analyzed in terms of a two-sector model, with poor families confined to one sector with low returns, and the rich going to the other sector where returns are high.The difference in returns between poor and rich would explain the high dropout rates throughout much of Latin America, even in the face of high returns on average to those who manage to complete secondary school (Behrman and Birdsall, 1983).

[19] The importance of institutions in development is discussed further in Chapter VII-58: Institutions and Development.

Effect of Inequality on Social Institutions (Social Capital and Collective Decision-Making

Amartya Sen places considerable emphasis on individuals' "capability" to participate in the life of the community as an aspect of development independent of any implications for economic growth (Sen, 1992; Sen, 1999). Participation in the life of the community suggests there are assets that are held not individually but only in relation to others; Putnam (1993) defines the asset of social capital in terms of trusts, norms and networks that can improve the efficiency of society, "facilitating coordinating actions." Social capital may also have economic value to the extent it reduces the cost of transactions and of contract enforcement, and as Rodrik (1993; 1999) argues, reduces resistance of losing groups to political compromises.

There is good evidence from microeconomic analyses that income inequality adversely affects some of the inputs or correlates of social capital. In Tanzania, informal insurance is higher in communities where income inequality is lower (La Ferrara, 2000). Among sugar cooperatives in India, where land ownership is more unequal, cooperatives are less productive (Banerjee et al., 2001).[20] The literature on local public finance addresses the same issue indirectly, in assessments of the link between income levels and the formation of communities with different amounts of heterogeneity. A typical finding is that the quality of publicly provided education is inversely related to income inequality, controlling for average income (Fernandez and Rogerson, 2003).

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[20] In the U.S. the percentage of households that participate in various membership organizations is higher in metropolitan areas with lower income inequality – controlling for racial and ethnic heterogeneity, income, education, and other household characteristics. The effect is substantial. An increase in the Gini coefficient of inequality by one standard deviation leads to a reduction in the probability of participation of 24 percentage points – more than two times the effect on participation of an individual going from the status of high school dropout to high school graduate or more (Alesina and La Ferrara, 2000)

Finally there is the evidence from studies of crime and violence. Fajnzylber, Lederman, and Loayza (2002) assessed the impact of inequality on homicide rates in a cross section of 39 countries over the period 1965-95. Income inequality measured by the Gini coefficient had a significant and positive effect on homicide rates, robust to a variety of specifications. Ratios of income of contiguous quintiles starting with the second quintile (that is, third to second, fourth to third, and fifth to fourth) exacerbate crime, and at an increasing rate. In other words, it was not poverty or inequality at the bottom that explained crime, but the disparity between the middle strata and their richer counterparts. It was not absolute but relative income that mattered.

It is difficult to distinguish conceptually between the effects of inequality on political and economic institutions and on such "social" institutions as social capital and shared civic customs and habits. To some extent that may be because across societies such "institutions" as broad-based property rights, democracy with checks on abuse of power, and "trust" among citizens, tend to be correlated with each other. In any event, evidence suggests that in each category, such institutions have evolved less successfully where income inequality has been high.

Inequality and Growth in East Asia vs. Latin America

In 1960, average real per capita income in Latin America was higher than in East Asia. Since then, average per capita income has risen almost ten-fold in East Asia whereas in Latin America it has less than doubled (table 1). In 1960, income and land inequality were significantly higher and income concentration much more extreme in Latin America compared to East Asia. (table 2); Taiwan and Korea both benefited from

externally imposed land reform after World War II. [21] The contrast over four decades

between fast-growing East Asia, with its relatively low inequality in 1960 (compared to

Latin America, and in particular in fast-growing Korea and Taiwan compared to Thailand

and Indonesia) and slow-growing Latin America, with its very high inequality (Figure 2),

is consistent with the theory and evidence reported above: that high inequality in

developing countries, where it is likely to combined with imperfect and weak markets

and poor government policy, reduces an economy's growth prospects; and that high

"initial" inequality puts at risk the development of the economic, political and social

institutions that support deeper markets, better government, and sustained growth.[22]

Rapid growth in East Asia is associated with the region's early export push,

supported by high savings and investment and healthy rates of total factor productivity

growth in manufacturing (World Bank, 1993). Behind export success were other factors

rooted in rapid changes in household decisions and behavior. Those other factors

included unprecedented gains in small farmers' agricultural productivity, high demand

for schooling including of girls, and declines in fertility far more rapid than and at lower

income levels than had occurred in the industrialized economies (Birdsall and Sabot,

2002). Governments generally ensured that exchange rates were competitive and that

fiscal discipline kept inflation low. Governments also favored public investment in basic

(primary and secondary) education.

In Latin America, inflation and overvalued exchange rates penalized agriculture,

and were combined with tariff and other protection of industry and subsidies to capital

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[21] Land inequality is still extremely high in Latin America.
[22] Rapid growth in East Asia without accompanying increases in inequality also contravenes the pattern suggested by Kuznets. More recently in China, rapid growth has been accompanied by rising inequality.

that may have reduced the demand for labor. Spending on education was comparable to that in East Asia but was much more concentrated on highly subsidized university education for a select few, responding to the demands of richer households. In 1960s, educational attainment of the adult population was at roughly the same levels in East Asia and Latin America, and inequality of education (measured in terms of number of years of schooling achieved) actually higher in East Asia. Since then, educational attainment has risen more quickly in East Asia and education inequality has fallen faster (Birdsall and Londono, 1998). Broad-based investment in basic education in East Asian countries led to substantial growth of labor productivity and enabled firms to acquire and adapt new technologies and move up the value-chain as increasingly skilled cohorts of workers became available (Schultz, 1961; Romer, 1994). The export-push, labor demanding strategy chosen by East Asian countries generated the conditions for a savings and investment boom in middle-income and poor households and farms (Birdsall, Pinckney, and Sabot, 1998).

It seems plausible that one region's lower inequality compared to the other, among other things, affected the difference in the two regions' subsequent trajectories of growth, inequality, and investment in human capital. The story is not straightforward. Latin America has a longer history of democracy, for example. But the differences do suggest that the potential negative effect of inequality—of income, land, and other assets—on growth and on the evolution of institutions that support the development process, deserves continuing attention.

REFERENCES

Acemoglu, Daron, Simon Johnson, and James A. Robinson. (2000). 'The Colonial Origins of Comparative Development: An Empirical Investigation'. NBER Working Paper 7771. Cambridge, MA: National Bureau of Economic Research.

Acemoglu, Daron, Simon Johnson, and James A. Robinson. (2004). "Institutions as the Fundamental Cause of Long-Run Growth." NBER Working Paper 10481. Cambridge, MA: National Bureau of Economic Research.

Aghion, Philippe, Eve Caroli, and Cecilia García-Peñalosa. (1999). "Inequality and Economic Growth: The Perspective of the New Growth Theories." *Journal of Economic Literature* 37(4): 1615-1660.

Alesina, Alberto and Dani Rodrik. (1994). "Distributive Politics and Economic Growth." *The Quarterly Journal of Economics* 109(2): 465-490.

Alesina, Alberto and Roberto Perotti. (1996). "Income Distribution, Political Instability, and Investment." *European Economic Review* 40(6): 1203-1228.

Banerjee, Abhijit, Dilip Mookherjee, Kaivan Munshi, and Debraj Ray. (2001). "Inequality, Control Rights, and Rent Seeking: Sugar Cooperatives in Maharashtra." *Journal of Political Economy*, 109 (1): 138-90.

Barro, Robert, J. (2000). "Inequality and Growth in a Panel of Countries." *Journal of Economic Growth* 5(1): 5-32.

Behrman, Jere, Nancy Birdsall and Miguel Székely. (2000). "Intergenerational Mobility in Latin America: Deeper Markets and Better Schools Make a Difference." In Nancy Birdsall and Carol Graham (Eds.), *New Markets, New Opportunities? Economic and Social Mobility in a Changing World.* Washington, DC: The Brookings Institution and the Carnegie Endowment for International Peace.

Benabou, Ronald. (1996). "Inequality and Growth." NBER Working Paper 5658. Cambridge, MA: National Bureau of Economic Research.

Birdsall, Nancy. (2001). "Why Inequality Matters: Some Economics Issues." *Ethics & International Affairs*, 15(2): 3-28.

Birdsall, Nancy, David Ross, and Richard H. Sabot. (1997). "Education, Growth, and Inequality." In Nancy Birdsall and Frederick Jaspersen (Eds.), *Pathways to Growth: Comparing East Asia and Latin America.* Washington, DC: Inter-American Development Bank.

Birdsall, Nancy and Juan Luis Londono. (1997). "Asset Inequality Matters: An Assessment of the World Bank's Approach to Poverty Reduction." *American Economic Review* 87(2): 32-37.

Birdsall, Nancy and Juan Luis Londono. (1998). "No Tradeoff: Efficient Growth Via More Equal Human Capital Accumulation." In Nancy Birdsall, Carol Graham, and Richard H. Sabot (Eds.), *Beyond Tradeoffs: Market Reform and Equitable Growth in Latin America*. Washington, DC: Inter-American Development Bank.

Birdsall, Nancy and Richard H. Sabot. (2002). *Virtuous Circles: Human Capital and Labor Markets in East Asia*. Center for Global Development. Unpublished book manuscript.

Birdsall, Nancy, Thomas C. Pinckney, and Richard H. Sabot. (1998). "Why Low Inequality Spurs Growth: Savings and Investment by the Poor." In A. Solimano (Ed.), *Social Inequality. Values, Growth, and the State*. Ann Arbor, MI: The University of Michigan Press.

Buchanan, James MacGill, and Robert D. Tollison (eds). (1984). *The Theory of Public Choice.* Ann Arbor, MI: University of Michigan Press.

Carter, Michael R. and Jonathan Coles. (1998). "Inequality-Reducing Growth in Agriculture: A Market-Friendly Policy Agenda." In *Beyond Tradeoffs: Market Reform and Equitable Growth in Latin America*, 147-182. Eds. Nancy Birdsall, Carol Graham, and Richard H. Sabot. Washington, DC: Inter-American Development Bank.

Cornia, Giovanni Andrea, Tony Addison, and Sampsa Kiiski. (2004). "Income Distribution Changes and Their Impact in the Post-Second World War Period." In *Inequality, Growth, and Poverty in an Era of Liberalization and Globalization*. Ed. Giovanni Andrea Cornia. Oxford: Oxford University Press.

Davies, James B., Susanna Sandstrom, Anthony Shorrocks, and Edward N. Wolff. (2006). "The World Distribution of Household Wealth." World Institute for Development Economics Research of the United Nations University (UNU-WIDER).

De Janvry Alain, and Elisabeth Sadoulet. (2000). "Growth, Poverty, and Inequality in Latin America: A Causal Analysis, 1970-94." *Review of Income and Wealth*, 46: 3.

De Mello, Luiz and Erwin R. Tiongson. (2006). "Income Inequality and Redistributive Government Spending." *Public Finance Review* 34(3): 282-305.

Deininger, Klaus and Lyn Squire. (1996). "A New Dataset Measuring Income Inequality." *World Bank Economic Review* 10(3): 565-591.

Dollar, David and Art Kraay. (2002). "Growth is Good for the Poor." Journal of Economic Growth 7(3): 195-225.

Easterlin, Richard A. (1995). "Will Raising the Incomes of All Increase the Happiness of All?" *Journal of Economic Behavior and Organization*, 27 (1): 35-47.

Easterly, William. (2001). "The Middle Class Consensus and Economic Development*." Journal of Economic Growth* 6(4): 317-335.

Easterly, William, and Sergio Rebelo. 1993. "Fiscal Policy and Economic Growth: An Empirical Investigation." *Journal of Monetary Economics*, 32 (3): 417-58.

Easterly, William, Jozef Ritzen, and Michael Woolcock. (2006). "Social Cohesion, Institutions, and Growth." *Economics & Politics* 18(2): 103-120.

Engerman, Stanley, L. and Kenneth, L. Sokoloff. (2002). "Factor Endowments, Inequality, and Paths of Development Among New World Economics." NBER Working Paper 9259. Cambridge, MA: National Bureau of Economic Research.

Engerman, Stanley, L. and Kenneth L. Sokoloff. (1997). "Factor Endowments, Institutions, and Differential Paths of Growth Among New World Economies: A View from Economic Historians of the United States." In *How Latin America Fell Behind. Essays on the Economic Histories of Brazil and Mexico, 1800-1914.* Ed. Stephen Haber. Stanford: Stanford University Press.

Fajnzylber, Pablo, Daniel Lederman, and Norman Loayza. (2002). "Inequality and Violent Crime." *Journal of Law and Economics* 45:1-39.

Fernandez, Raquel, and Richard Rogerson. (2003). "Equity and Resources: An Analysis of Education Finance Systems." *The Quarterly Journal of Economics*, 111 (4): 858-97.

Galenson, Walter and Harvey Leibenstein. (1955). "Investment Criteria, Productivity, and Economic Development." *Quarterly Journal of Economics* 69(3) : 343-370.

Galor, Oded and Joseph Zeira. (1993). "Income Distribution and Macroeconomics." *Review of Economic Studies* 60(1): 35-52.

Hirschman, Albert. O. (1973). "The Changing Tolerance for Income Inequality in the Course of Economic Development, with a Mathematical Appendix by Michael Rothschild." *Quarterly Journal of Economics* 87: 544–66.

Kaldor, Nicholas. (1961). "Capital Accumulation and Economic Growth." In *The Theory of Capital*, Eds. Friedrich A. Lutz and Douglas C. Hague. New York, NY: St. Martin's Press.

Kaldor, Nicholas. (1978). "Capital Accumulation and Economic Growth." In *Further Essays on Economic Theory,* Ed. Nicholas Kaldor. New York: Holmes and Meier Publishers, Inc.

Keefer, Philip and Stephen Knack. (2002). "Polarization, Politics and Property Rights: Links Between Inequality and Growth." *Public Choice* 111(1-2): 127-154.

Kuznets, Simon. (1955). "Economic Growth and Income Inequality." *American Economic Review*, 45(1): 1-28.

La Ferrara, Eliana. (2000). 'Inequality and Group Participation: Theory and Evidence from Rural Tanzania'. CEPR Discussion Paper 2433. London: Centre for Economic Policy Research.

Lundberg, Mattias and Lyn Squire. (2003). "The Simultaneous Evolution of Growth and Inequality." *The Economic Journal* 113(487): 326-344.

Loury, Glenn, C. (1981). "Intergenerational Transfers and the Distribution of Earnings." *Econometrica* 49(4): 843-867.

North, Douglass C. (1990). Institutions, Institutional Change and Economic Performance. New York, NY: Cambridge University Press.

Okun, Arthur, M. (1975). *Equality and Efficiency: The Big Trade-Off.* Washington, DC: The Brookings Institutions Press.

Ostby, Gudrun. (2003). "Horizontal Inequality and Civil War." PRIO – International Peace Research Institute. Oslo, Norway.

Persson, Torsten and Guido Tabellini. (1994). "Is Inequality Harmful for Growth." *American Economic Review* 84(3): 600-621.

Putnam, Robert D. (1993). *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, RI: Princeton University Press.

Ravallion, Martin. (1997). "Can High-Inequality Developing Countries Escape Absolute Poverty?" *Economics Letters* 56(1): 51-57.

Ravallion, Martin. (2001). "Growth, Inequality and Poverty: Looking Beyond Averages." Washington, DC: World Bank.

Rodrik, Dani. (1993). "The Positive Economics of Policy Reform." *American Economic Review* 83 (2): 356-61.

Rodrik, Dani. (1999). "Where Did All the Growth Go? External Shocks, Social Conflict, and Growth Collapses." *Journal of Economic Growth* 4(4): 385-412.

Romer, Paul M. (1994). "The Origins of Endogenous Growth," *Journal of Economic Perspectives* 8(1): 3-22.

Schultz, Theodore W. (1961). "Investment in Human Capital." *American Economic Review* 1(2): 1-17.

Sen, Amartya. (1992). *Inequality Reexamined*. Cambridge, MA: Harvard University Press.

Sen, Amartya. (1999). *Development as Freedom*. New York: Knopf.

Smith, Adam. (1981). *An Inquiry into the Nature and Causes of the Wealth of Nations*. Indianapolis, IN: Liberty Classics (first published in 1776). Also available at: http://www.econlib.org/LIBRARY/Smith/smWN.html

Smith, Adam. (1982). *The Theory of Moral Sentiments*. Indianapolis, IN: Liberty Classics (first published in 1759). Also available at: http://www.econlib.org/Library/Smith/smMS1.html.

Stewart, Frances. (2001). *Horizontal Inequalities: A Neglected Dimension of Development*. UNU World Institute for Development Economics Research (UNU/WIDER).

Timmer, C. Peter. (2006a). "How Indonesia Connected the Poor to Rapid Economic Growth," in T. Besley and L. Cord (eds), *Operationalizing Pro-Poor Growth: Synthesis and Country Experiences.* Basingstoke: Palgrave Macmillan.

Timmer, C. Peter. (2006b). "A Historical Perspective on Pro-Poor Growth in Indonesia," in M. Grimm, S. Klasen, and A. McKay (eds), *Determinants of Pro Poor Growth: Analytical Issues and Findings from Case Studies*. Basingstoke: Palgrave Macmillan.

Veblen, Thorstein. (1970). *The Theory of the Leisure Class: An Economic Study of Institutions.* London: Allen & Unwin.

WIDER. (2005). *World Income Inequality Database: User Guide and Data Sources*. URL: http://www.wider.unu.edu/wiid/wiid.htm

World Bank. (1993). *The East Asian Miracle: Economic Growth and Public Policy.* Washington, DC: World Bank.

Figure 1. Inequality and per capita Income Growth in Developing and Rich Countries, 1970-2000

Per capita income growth and inequality in developing countries 1970-2000

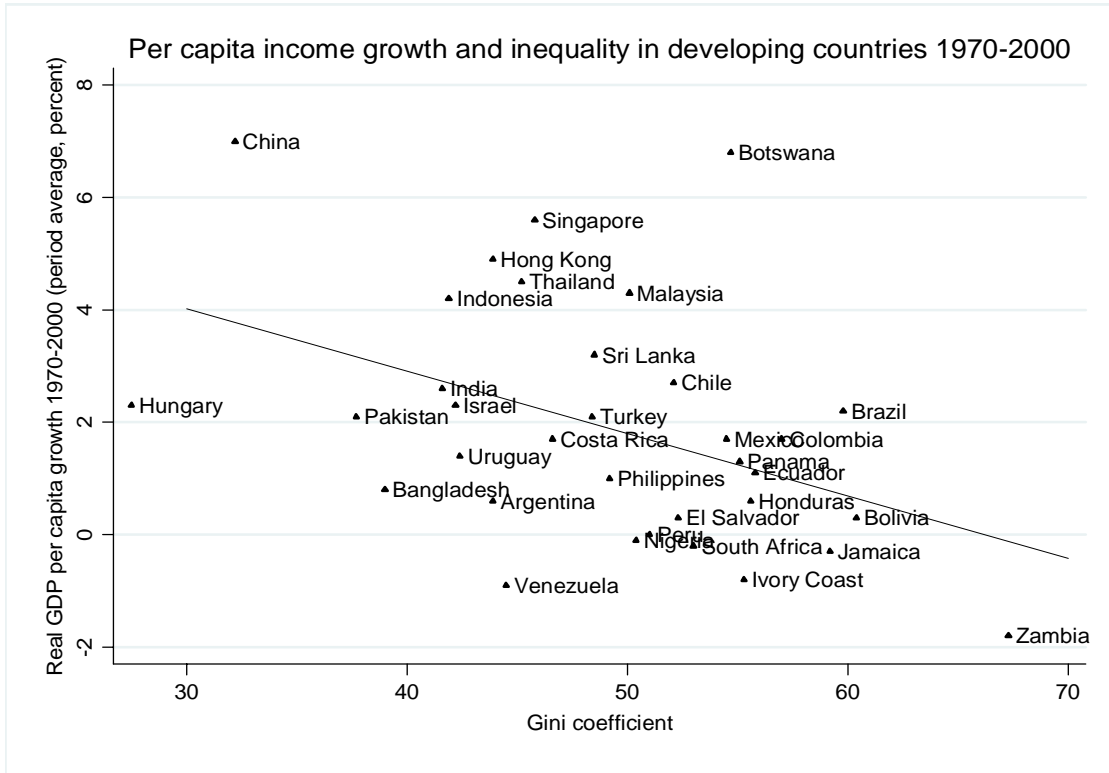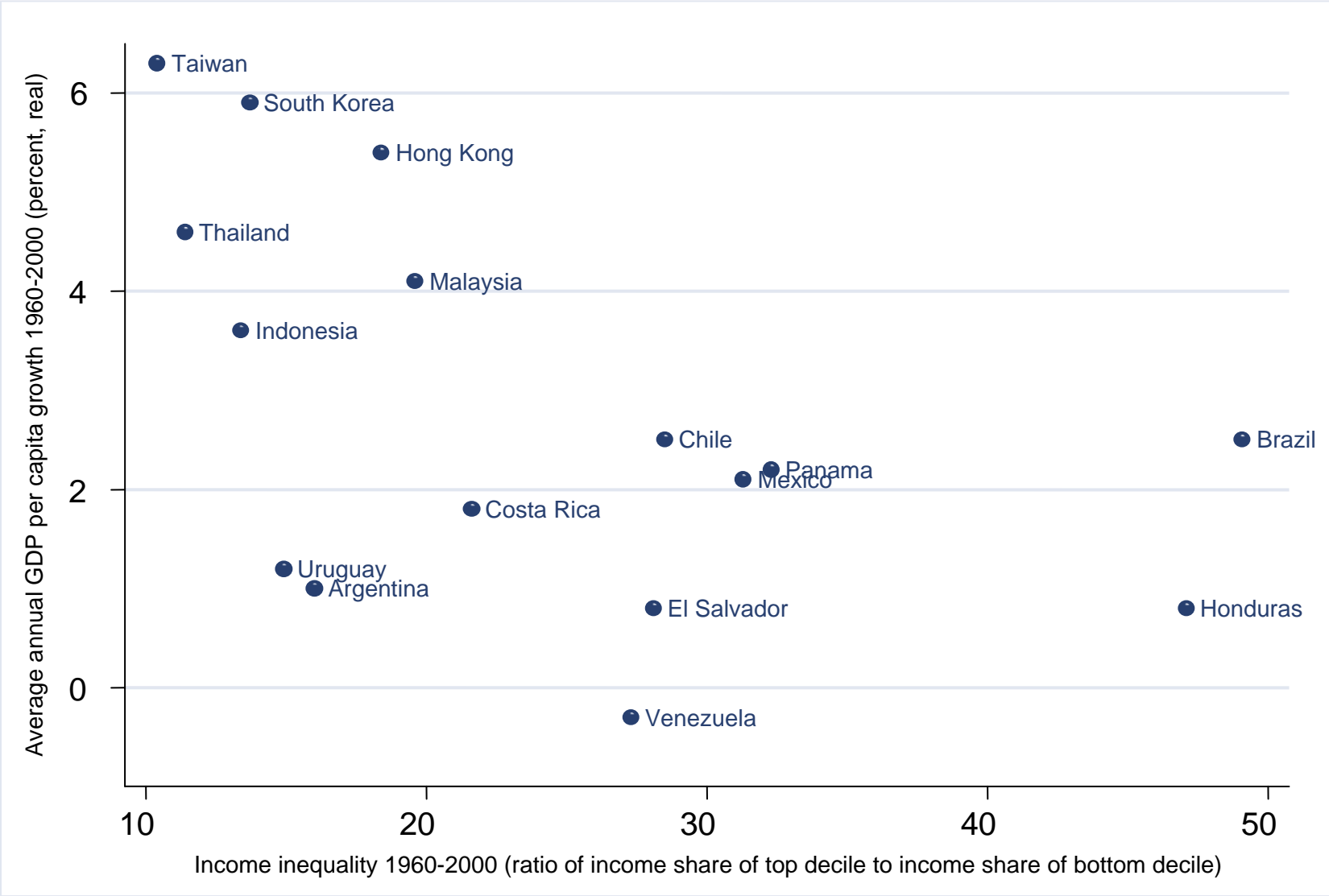Per capita income growth and inequality in rich countries 1970-2000

Figure 2. Income Inequality and GDP per capita Growth in East Asia and Latin America, 1960 to 2000

Sources: WDI (2005), WIDER (2005), and authors' calculations.

Table 1. Inequality, Income and Growth in Latin America and East Asia, 1960 and 2000

	Income Gini[3]		Income share of poorest 10% of population[3, 4] (percent)		Income share of richest 10% of population[3, 4] (percent)		GDP per capita (constant 2000 US$)		Average real GDP per capita growth rate (percent)
	1960	**2000**	**1960**	**2000**	**1960**	**2000**	**1960**	**2000**	**1960-2000**
Latin America[1]	**0.51**	**0.53**	**1.7**	**1.1**	**42.5**	**40.5**	**1,950**	**3,050**	**1.1**
East Asia[2]	**0.42**	**0.43**	**2.6**	**2.1**	**32.4**	**34.4**	**1,300**	**11,740**	**5.7**
China	0.32	0.39	n/a	n/a	n/a	n/a	100	860	5.6
Mexico	0.53	0.54	1.3	1.1	41.9	41.8	2,560	5,930	2.1

Note:

All group averages are unweighted. n/a indicates data not available.

1. Latin America includes Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela. 1960 and 2000 income gini data not available for Ecuador, Guatemala, Nicaragua and Paraguay.

2. East Asia includes Hong Kong, Indonesia, Malaysia, Singapore, South Korea, Taiwan, and Thailand, but excludes China.

3. 1960 data are for earliest year available for the period 1958-1968. 2000 data are for latest year available for the period 1996-2001.

4. East Asia excludes Singapore. Latin America excludes Bolivia, Chile, Honduras, and Peru.

Sources: WDI (2005) and WIDER (2005).

Table 2. Income, Education and Land Inequality in Latin America and East Asia, 1960 and 2000

	Income Gini[3]		Education Gini[4]		Land Gini[5]	
	1960	**2000**	**1960**	**2000**	**1960s**	**1990s**
Latin America[1]						
mean	0.51	0.53	0.53	0.42	0.83	0.81
standard deviation	0.06	0.06	0.13	0.08	0.06	0.07
East Asia[2]						
mean	0.42	0.43	0.58	0.35	0.47	0.42
standard deviation	0.04	0.08	0.10	0.10	0.10	0.07
China	0.32	0.39	n/a	0.38	n/a	n/a
Mexico	0.53	0.54	0.56	0.36	0.62	n/a

Note:

All group averages are unweighted. n/a indicates data not available.

1. Latin America includes Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela. 1960 and 2000 income gini data not available for Ecuador, Guatemala, Nicaragua and Paraguay.

2. East Asia includes Hong Kong, Indonesia, Malaysia, Singapore, South Korea, Taiwan, and Thailand.

3. 1960 data are for earliest year available for the period 1958-1968 and 2000 data are for latest year available for the period 1996-2001.

4. Education ginis for population aged 15 years and over.

5. East Asia average excludes Hong Kong, Singapore, Taiwan, and Malaysia for which data are not available. Latin America average excludes Bolivia, Chile, Ecuador, El Salvador, and Guatemala.

Sources: WDI (2005), WIDER (2005), Thomas, Wang, and Fan (2001), Deininger and Squire (1996), and FAO (2006).