Growth and Inequality: Understanding Recent Trends and Political Choices

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Understanding Recent Trends and Political Choices

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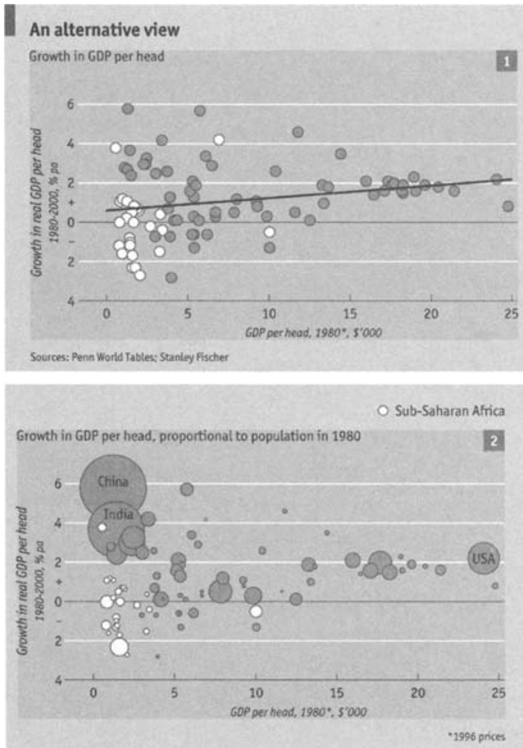
IN CURRENT DEBATES about the world economy, "growth is good" often appears as a truism. Growth leads to wealth, it is said, and greater wealth is surely desirable, especially for the poorer developing countries. Closer inspection, however, leads to a far more nuanced assessment.

Legend has it that there was a time when economists celebrated economic growth, regardless of its distribution. Such economists would have judged alternative economic practices and policies exclusively by their relative impact on the inflation-adjusted (per capita) social product. I am not sure such economists were ever dominant. Economists have long seen the point of income and wealth in the satisfaction of human preferences and understood that, insofar as such satisfaction increases with rising income or wealth, it does so at a declining rate. At any rate, the legend of the growth-only economists is useful because it allows real economists to stress that they are different, that they favor pro-poor growth, growth-with-equity, or some such thing. This is crucial to their theological role of appeasing the conscience of their wealthy constituents and of reconciling rich and poor alike to the great globalization push of the last twenty-five years. If economic experts committed to equity and eradication of poverty celebrate this push and the growth it produces, how can we withhold our approval?

Consider this example (opposite) from the *Economist* (March 11, 2004).

The message the *Economist* conveys with these two charts is that critics of recent globalization are mendacious or confused when they complain of inequitable growth: Only when the population size of countries is ignored (as in the top chart) can it appear as though global economic growth is benefiting the rich disproportionately. As soon as population size is taken into account (as in the bottom chart) it becomes clear that the poor are benefiting mightily—the rise of China and India is living proof of this. A further message here conveyed is that globalization's supporters, such as the *Economist*, care about poverty and inequity and would not be such ardent supporters if the



Attentive readers of the *Economist* will remember seeing before [this] panel of charts. . . . We make no apologies for showing them to readers again: at a stroke, they cut through much of the statistical fog surrounding this subject. In both charts, the horizontal axis shows the average level of GDP per head in 1980, and the vertical axis shows the rate of growth in inflation-adjusted GDP per head between 1980 and 2000. *Economist*, 11 March 2004, by permission.

poor were not benefiting along with the rich.

Who Benefits from Recent Growth?

Growth can benefit rich and poor alike, and thereby reduce poverty. But to what extent has World Trade Organization (WTO) globalization actually done so? The *Economist* is right to suggest that the top chart cannot answer the question. And it rightly prefers the bottom chart: The added information about population size matters in that, other things being equal, it is better for faster growth to occur in more populous poor countries than in less populous ones.

Nonetheless, the bottom chart cannot settle the matter either. One reason is that it reports growth in gross domestic product (GDP) rather than growth in gross national product or income (GNP/GNI). Both concepts allocate each unit of income uniquely to one country. But they do so differently: When residents of country A derive income from country B—for instance, returns on investments or revenues from the sale of natural resources they own in B—then such income is counted toward the GDP of B yet toward the GNI of A. When our concern is with poverty of and equity among countries, we should assess national growth trajectories in terms of GNI, which excludes the earnings accruing to foreigners and includes earnings that residents derive from abroad. If the oil price rises and a U.S. company, owned by and paying dividends to U.S. investors, therefore earns more from the oil it extracts in Nigeria, then this extra gain should count as enriching the U.S. rather than Nigeria.

For GNI per capita, Atlas method (current U.S.$), the World Bank reports the trend shown in Table 1.[1]

Table 1

YEAR	GNI/cap of the high-income countries	GNI/cap of the rest of the world[2]	ratio of high-income countries to rest of world
1980	$10,591	$669	**15.8**
1990	$19,647	$848	23.2
2000	$26,585	$1158	**23.0**
2005	$35,264	$1749	20.2

The increase in inequality is even more pronounced at the extremes. Define the poorest and the richest countries in any year as groups of countries that each contains 10 percent of the world's population. Per capita GNI (in nominal $s) in these two groups,[3] and the corresponding inequality ratio, have evolved as shown in Table 2.

Table 2

YEAR	richest countries	poorest countries	ratio
1980	$11,840	$196	**60**
2000	$31,522	$274	**115**
2005	$40,730	$334	122

Clearly, then, in terms of the more appropriate GNI per capita measure, the developing countries, and the poorest of them especially, have not participated proportionately in global economic growth during the globalization period. In fact, the distance between the richest and the poorest countries has more than doubled, to a staggering 122:1 ratio.

An even more important problem with the *Economist*'s bottom chart is that the focus on international inequality, however measured, loses all information about how actual people in these countries are faring. Being told that China enjoyed 6 percent average annual growth in real per capita GDP, we learn nothing about how this growth was distributed within China. And this is what ultimately matters to those concerned with equity and poverty: How did the Chinese poor do in the globalization period? And how did the global poor do, relative to the rest of the human population? By looking only at country averages, one is focusing on the morally least significant of the three inequality concepts Branko Milanovic has so usefully distinguished[4]—*international* inequality or inequality among country averages—while ignoring the far more important dimensions of *intranational* and *global* inequality among persons.

In criticizing the top diagram, the *Economist* is attacking a straw man that does not represent, let alone exhaust, the arguments real critics of WTO globalization, appealing to the importance of equity and poverty avoidance, have actually set forth.[5] By endorsing the bottom diagram, it sets aside what is morally most important: poverty and equity among human persons.

Intranational Inequality

Consider two large poor countries that, thanks to their resources, have achieved enormous growth in the 2000-2005 period. Nigeria's reported GNI per capita jumped from $260 in 2000 to $560 in 2005 and Angola's from $240 to $1,350. Is this progress? Yes, if the additional money eased the plight of the poor. No, if it was spent to prop up oppressive and corrupt rulers: on military equipment and on perks and payments to officers to ensure their loyalty. Where the second scenario is closer to the truth, impressive growth in GNI per capita may be detrimental by strengthening the power of a ruling elite over a population whose severe poverty was barely reduced.

There is considerable international diversity in the evolution of intranational inequality over the last twenty-five years. The WIDER database on the subject lists 4,981 surveys for 156 countries and areas. Available data for 108 of these jurisdictions are spotty or show no clear trend. In Brazil, France, Mauritania, and Sierra Leone, income inequality appears to be clearly lower this decade than in the 1980s—in the remaining forty-four jurisdictions, clearly higher.[6] The United States is fairly typical here: households in the top 1 percent of the income hierarchy expanded their share of national pretax income from 9 percent to 21.2 percent since 1979.[7] The bottom eight deciles sustained corresponding losses. The bottom five deciles collectively declined from 26.4 percent to 12.8 percent of national consumption expenditure.[8]

When growth is accompanied by rising inequality, this matters for the poor in two ways: It reduces or even negates gains in their absolute share that would otherwise result from economic growth. And it also diminishes their relative share. Many things money can buy are positional or competitive: political influence, for instance, and access to education and even health care depend not merely on how much money one has to spend but also on how much others are willing and able to spend on those same goods. To model this crudely, we can take as a proxy for the overall economic position of a country's poor the geometric mean of their absolute and relative shares—defining their absolute share as their per capita income and their relative share as the ratio of their per capita income to society's. Table 3 presents a static cross-country comparison that takes the poor to be each country's bottom income decile.

Table 3

Country	2005 GNI (PPP)/cap[9]	Bottom Decile Relative Share[10]	Bottom Decile Absolute Share	Economic Position of Bottom Decile
Japan	$31,410	47.8%	$15,014	84.7
Norway	$40,420	38.6%	$15,602	77.6
Finland	$31,170	40.2%	$12,530	71.0
Germany	$29,210	32.2%	$9,406	55.0
Hungary	$16,940	40.4%	$6,844	52.6
USA	$41,950	18.8%	$7,887	38.5

The table shows that, even though the U.S. has the highest per capita GNI (PPP) in the table, its poor have only about half as much income as the poor of Norway and Japan and little more than the Hungarian poor. Taking relative share into account as well, the U.S. poor do much worse than the poor in the other countries. From their standpoint, less economic growth more evenly distributed would have been much better.

My crude index for the economic position of the poor—giving equal weight to their absolute and relative shares—is implausible when we extend the assessment to poorer countries. Even if we here give three times more weight to the absolute share of the poor than to their relative share, we still find astonishing discrepancies to the usual economic ranking of countries in terms of per capita GNI (PPP), as Table 4 shows. Argentina and South Africa, the least poor countries, drop precipitously in the rankings, while very poor Azerbaijan and Ethiopia rise substantially. Discrepancies are so dramatic because variations in intranational inequality are even larger among developing countries, where the share of the bottom decile ranges from 3 percent to 42 percent of the national average (as against a range from 19 percent to 48 percent among the affluent countries).

Consider what difference such a pro-poor

Table 4

Country	2005 GNI (PPP)/cap[11]	Bottom Decile Relative Share[12]	Bottom Decile Absolute Share[13]	Economic Position of Bottom Decile[14]
Azerbaijan	$4,890	30.6%	$1,496	17.9
Turkey	$8,420	20.3%	$1,709	17.8
Vietnam	$3,010	41.7%	$1,255	16.9
India	$3,460	36.4%	$1,259	16.4
South Africa	$12,120	13.5%	$1,636	15.6
Argentina	$13,920	9.3%	$1,295	11.9
China	$6,600	16.2%	$1,069	11.9
Brazil	$8,230	8.7%	$716	7.5
Ethiopia	$1,000	38.5%	$385	6.8
Colombia	$7,420	7.4%	$549	5.9
Nigeria	$1,040	18.6%	$193	3.4
Bolivia	$2,740	2.8%	$77	1.1

assessment of economic growth would make to an economic planner—in a high-inequality country, say, such as Bolivia. If such a planner focuses on (per capita) GNI, she will ignore the poorest decile who, though they make up 10 percent of the national population, constitute just 0.3 percent of the national economy. One percent more income growth for the poorest decile adds 0.003 percent to national growth—one percent more income growth for the richest decile adds 0.472 percent. But if such a planner assesses her performance in terms of the economic position of the poor, she will realize that substantial improvements in the position of the poor are possible at tiny opportunity cost to the rich. Those in Bolivia's richest decile live on nearly $13,000 PPP per capita as compared to $77 in its poorest decile. A shift of $200, barely noticeable to the former, would raise the latter from 2.8 percent to 10 percent of the average income and their economic position from 1.1 to 3.8.

Growth and Poverty in China

Let me illustrate this point by examining dynamically the recent economic evolution of China, poster child of globalization. China has achieved dramatic economic growth over the recent globalization period. This growth was accompanied by an enormous increase in intranational inequality. But surely, many believe, lamenting this trend would be silly, even callous, in light of the unprecedented gains China's growth has brought to its poor. Despite continued population growth, the number of Chinese living in extreme poverty ($1/day) reportedly declined from 310 million in 1987 to 128 million in 2004, and the number living below $2/day from 744 to 452 million in the same period.[15] Given such huge poverty reductions, must we not approve China's economic policies and the global institutional changes that made them possible?

To answer this question, we need to bear in mind four cautions. That severe poverty in China has declined substantially is beyond reasonable doubt. But the magnitude of this decline since the early 1990s is uncertain as assumptions about the PPP of the Chinese currency and about Chinese consumer price inflation are highly contested.[16]

Second, it is unknown whether the sharp rise in intranational economic inequality was necessary for China's amazing economic growth and poverty reduction. In fact, it is likely that more equitable growth would have been much better for the Chinese poor. Thus consider (Table 5) China's recent economic evolution from the standpoint of its poorest decile, using my crude mode of assessment for developing countries.[17]

Table 5

YEAR	GNI/cap (PPP) in constant 2005 $	Bottom Decile Relative Share	Bottom Decile Absolute Share	Economic Position of Bottom Decile
1990	$1,832	30.8%	$564	8.6
1992	$2,221	25.7%	$571	8.3
1995	$3,019	22.2%	$670	9.0
1998	$3,796	23.9%	$907	11.6
2001	$4,691	18.0%	$844	10.2
2004	$6,160	16.2%	$998	11.3

We see that, while per capita GNI increased a spectacular 236 percent over the period, the income of the poorest decile—set back by a severe erosion of their relative share—increased by only 77 percent and their economic position by a mere 31 percent. The same is true, to a lesser extent, when we define the poor more broadly: The second and third deciles gained 108 percent and 131 percent in absolute terms and 54 percent and 71 percent in economic position. These are very respectable gains for a fourteen-year period. Yet, due to erosion of their relative share, the poorest quintile realized not even half the country's economic gain.

Suppose relative shares could have been preserved, but that this would have cost China fully 2.3 percentage points each year in per capita GNI (PPP) growth. The poorest decile would have done *much* better under this scenario, ending the period at an average income of $1,408 rather than $998, thus with a gain of 150 percent rather than 77 percent. In fact, the bottom four deciles would each have done better with such a uniform 150 percent gain—better in *absolute* terms, that is, without even considering that more equitable growth would have spared the poorer half much of the marginalization, social exclusion, and vulnerability to domination they now experience.

Another great beneficiary of the alternate scenario would have been the global environment, which China is now burdening with huge increases in pollution and resource depletion. One may object that we should not expect China to moderate its ecological footprint so long as the affluent countries continue to pollute and deplete at even higher per capita rates. I do not contest this objection. The example of China is meant to illustrate quite general points about intranational inequality. *All* countries should conceive growth much more from the standpoint of their poorer population segments. Doing so, they would do much better in terms of avoiding *both* poverty and environmental degradation.

The increasing vulnerability to domination and marginalization of China's poor are aggravated by the dramatic rise in the share of the richest decile from 24.98 percent to 34.94 percent of the average income. (This mirrors the development in the combined share of the bottom six deciles, which went from 35.80 percent to 26.41 percent.) This expansion gives the rich much greater opportunities to influence political decisions, to give unfair advantages to their children, and to dominate the poor directly. In 1990, people in the top decile had about eight times as much income as people in the bottom decile. In half a generation, this ratio rose to 22, as China, overtaking the United States (15.9), has moved from an income distribution comparable to that of Central Europe to one close to Mexico (24.6) and Zimbabwe (22.0). If its decile inequality ratio trebles again, China may find itself near the top of the chart in 2020, roughly where El Salvador (57.5) and Haiti (71.7) are today.[18]

This brings me to my third caution. Intranational inequality is not a simple economic parameter that clever economic planners can, in light of prevailing conditions, move up or down like the overnight interest rate. The most affluent know well that their future wealth is affected by the social rules. So they generally use their influence on the design of the social rules toward defending and expanding their advantages. The richer those in the top decile are relative to the rest of the population, the more their interests will differ from the interests of the rest and the greater their influence will be on the design of the social rules. For these reasons, large economic inequalities are far easier to create than to eliminate through ordinary political processes.

Some optimists may contend that China's rich or its political leaders will be so imperturbably committed to the common good, including poverty avoidance, that the economic interests of the rich will not affect the design of China's economic order. Such optimism is risky, even naive. Wealth affects one's perceptions and sentiments, makes one less sensitive to the indignities of poverty and more likely to misperceive one's affluence as richly deserved and in the national interest. Also, wealth and the prestige that comes with it influence public officials, who are thereby diverted from serving the interests of ordinary people toward serving those of the wealthy (while perhaps sincerely identifying the latter with the interest of the nation).

These points are supported by our international historical experience. High-inequality countries like those of Latin America have been highly resistant to inequality-lowering reforms, because any government must cooperate with those whose economic power enables them severely to damage the country's economy. By contrast, low-inequality countries like those of Scandinavia find it easy to keep inequality low. Some citizens are richer than others even there, but they lack sufficient power and incentives to manipulate the political process to expand their advantage. The historical evidence suggests that China's rising economic inequality will eventually level off, but that any reduction in economic inequality below the level then reached will be slow and politically difficult to sustain.

Global Inequality

My fourth and final caution against celebrations of China's spectacular growth provides a good transition to the morally most important concept of economic inequality: *global inequality* among human beings worldwide. Much of China's export-driven success has come at the expense of other poor countries. It is therefore a grave mistake to conclude from China's example that *all* poor countries could have done, or could still do, similarly well. To be sure, the world economy is not a constant-sum game, where growth is fixed so that some can gain more only if others gain less. But export opportunities into the affluent countries' markets are tightly limited by protectionist barriers—quotas, tariffs, anti-dumping duties, export credits and subsidies—that the richer countries have successfully insisted on being allowed to retain. These barriers contribute to making export results for the poor countries strongly interdependent. China's exporters could succeed only by out-competing exporters from other poor countries, thereby lowering export prices, along with wages and labor standards, for all poor exporting countries. More recently, China's huge imports have raised prices of raw materials (petroleum most notably), thus slowing the development of other poor countries dependent on imports of the same natural resources. These interdependencies surely go some way toward explaining why, outside China, the reported number of people in poverty has actually been stagnant, even rising.[19] We must consider the full picture, not just China alone, if we want to assess, with equity and poverty concerns in mind, the growth WTO globalization has engendered.

Looking at humanity at large, we find once more a relentless rise in inequality. Real incomes of the poorest 5 percent of world population *declined* 20 percent during 1988–1993 and another 23 percent during 1993–1998, even while real global per capita income rose 5.2 percent and 4.8 percent respectively.[20]

In the high-income countries, household final consumption expenditure per capita (constant 2000 $s) rose 56.3 percent over the 1984-2004 globalization period.[21] We can compare this with how the poorer half of humankind have fared, in terms of their real (inflation/PPP adjusted) consumption expenditure, during this same period. Table 6 shows the gains at various percentiles of world population labeled from the bottom up:

Table 6

48.62% gain at the 50th percentile (median)
42.20% gain at the 30th percentile
33.72% gain at the 15th percentile
31.92% gain at the 7th percentile
22.87% gain at the 2nd percentile
9.64% gain at the 1st percentile[22]

Consumption expenditure is growing faster at the top, more slowly lower down, and most slowly at the very bottom.

While inequality among persons is rising more slowly worldwide than in China, it is also much further along. In China, the poorest quintile still accounts for 4.25 percent of consumption and the bottom two quintiles for 12.73 percent (2004).[23] Globally, in the same year, the bottom quintile of humanity accounts for about 0.5 percent of all household consumption expenditure, or just over 1.6 percent at PPP conversion. The bottom two quintiles account for 1.6 percent of consumption expenditure, or 4.7 percent at PPP.[24]

Even these huge inequalities are dwarfed by global inequalities in wealth. In 2000, the bottom quintile held just 0.12 percent of all personal wealth (0.4 percent in PPP terms), and the bottom two quintiles 0.62 percent (2.1 percent in PPP terms). The top 1 percent, by contrast, held 39.9 percent of all personal wealth (31.6 percent in PPP terms), and the top ventile (twentieth) held 70.6 percent (57.0 percent in PPP terms).[25] Doubling the wealth of all in the bottom two quintiles would take only 1.55 percent of the wealth of the top 1 percent of the human population. Doubling the wealth of all in the bottom four quintiles would still take just 15.3 percent of the wealth of the top 1 percent or 8.7 percent of the wealth of the top ventile.

To put these staggering inequalities in perspective, we must recall that the poor around the world lack not merely pocket money, denying them the toys of the rich, but access to the most basic necessities of human life. Official estimates show 830 million humans chronically undernourished, 1,100 million lacking access to safe water, and 2,600 million lacking access to basic sanitation.[26] About 2,000 million lack access to essential drugs.[27] Some 1,000 million have no adequate shelter and 2,000 million lack electricity.[28] Some 774 million adults are illiterate[29] and 218 million children between five and seventeen do wage work outside their household—often under harsh or cruel conditions: as soldiers, prostitutes, or domestic servants, or in agriculture, construction, and textile or carpet production.[30] Roughly one-third of all human deaths, 18 million annually, are due to poverty-related causes, easily avoidable through better nutrition, safe drinking water, cheap rehydration packs, vaccines, antibiotics, and other medicines.[31] People of color, females, and the very young are heavily overrepresented among the global poor, and hence also among those suffering the staggering effects of severe poverty.

We must recall also that global economic inequalities influence and are influenced by the rules of the world economy. As an important component of globalization, the world has come to be dominated by an increasingly dense and consequential system of rules governing trade, investments, loans, patents, copyrights, trademarks, double taxation, labor standards, environmental protection, use of seabed resources, and much else. Because these rules have a profound impact on the distribution of global economic growth and the global product, their design is heavily contested. In this struggle, those already more affluent enjoy important advantages in expertise and bargaining power. They have much greater means to influence the design of the rules and also much better opportunities to research how to use their influence to maximum advantage. The global poor, by contrast, have no influence on the design of global rules, and those who do have such influence have no incentives to take account of the impact their decisions will have on the global poor. The ruling elites of developing countries have more reason to accommodate the interests of powerful foreign governments and corporations, who can offer substantial rewards for such accommodation, than to protect the interests of their poorer compatriots. In this way, the thorough marginalization of a majority of humankind is self-reinforcing and self-perpetuating. With 2.4 percent of global consumption and 1.1 percent of global wealth, the poorer half of humankind predictably find their interests ignored in international negotiations.

Official Responses to Poverty and Inequality

My diagnosis seems to overlook that concern for the poor is motivated not only by their bargaining power, but morally. Many governments and intergovernmental organizations share the moral values animating my analysis. They agree that, in thinking about both national and global growth, we must focus attention primarily on the bottom of the economic hierarchy. They agree that a crucial factor in the moral assessment of any national or global institutional design is the actual economic position of the poor it engenders, compared to what this position could be under a feasible alternative institutional design.

In response, let me conclude with a brief discussion of the grandest global initiative to promote equity and the eradication of poverty: the Millennium Development Goals (MDGs) as epitomized by the commitment to halve extreme poverty worldwide by 2015. This commitment was not new when it was grandly proclaimed at the United Nations by 192 governments in November 2000. Already at the 1996 World Food Summit in Rome, organized by the UN Food and Agriculture Organization (FAO), 186 governments had agreed to "pledge our political will and our common and national commitment to achieving food security for all and to an on-going effort to eradicate hunger in all countries, with an immediate view to reducing the number of undernourished people to half their present level no later than 2015."[32] The word "immediate" notwithstanding, this pledge envisions a 19-year poverty reduction that, if linear, can be expected to witness 250 million deaths from poverty-related causes. At the envisioned endpoint, in 2015, there would still be 548.6 million extremely poor people and 9 million annual poverty deaths.

However grotesquely underambitious, the pledge of the 1996 World Food Summit promised much more than our leaders were willing to keep. The United States instantly disowned responsibility in an "Interpretive Statement" that "the attainment of any 'right to adequate food' or 'fundamental right to be free from hunger' is a goal or aspiration to be realized progressively that does not give rise to any international obligations."[33]

Then came the efforts to dilute the target. When formulating the first Millennium Development Goal (MDG-1) in 2000, the world's governments subtly changed the language of the pledge, now promising to halve not the *number*, but the *proportion* of those in extreme poverty.[34] This modification dilutes the target by relating the number of poor to a population whose growth, all by itself, lowers the proportion. In interpreting this diluted target, the UN shrewdly related the number of extremely poor not to the growing world population, but to the faster-growing population of the less developed countries. The UN also backdated the baseline to 1990, thereby capturing additional population growth as well as a 170-million reduction in extreme poverty that China had reportedly achieved in the decade before the adoption of MDG-1. The result of these clever revisions is dramatic. The World Food Summit promise was to reduce by half the number of extremely poor: from 1,087.8 million in 1996 to 543.9 million in 2015. MDG-1 promises a 17-percent reduction: from 1,089.6 million in 2000 to 905.2 million in 2015.[35] Its subtle reinterpretations—ignored by the media—have slashed by 361.3 million the 543.9 million reduction promised earlier and have thereby added these 361.3 million to the number of those whose extreme poverty in 2015 is officially deemed morally acceptable.

Current data provide reasons to doubt that even this dramatically diluted goal will be attained. The number of chronically undernourished, for instance, rose from "nearly 800 million" in 1996, to 830 million in 2006.[36] Further creative accounting will likely lead to official celebrations of a mission accomplished or nearly so, sustaining in affluent countries the belief that global poverty is disappearing and therefore does not require our attention. However popular, this belief is easily shown to be grossly mistaken. Thus far, official concerns about poverty and inequity are mostly rhetorical.

What Next?

Having persisted to this point, the reader deserves a nod of recognition. The discussion has been tedious and unpleasant. But without engaging with the issues of globalization and growth at this level of detail, it is difficult to reach an independent judgment that can withstand the daily onslaught of our Panglossian media and experts.

The analysis shows that the problem of world poverty is both amazingly small and amazingly large. It is amazingly small in economic terms: The aggregate shortfall from the World Bank's $2/day poverty line of all those 40 percent of human beings who now live below this line is barely $300 billion annually, much less than what the United States spends on its military. This amounts to only 0.7 percent of the global product or less than 1 percent of the combined GNIs of the high-income countries. On the other hand, the problem of world poverty is amazingly large in human terms, accounting for a third of all human deaths and the majority of human deprivation, morbidity, and suffering worldwide.

Most of the massive severe poverty persisting in the world today is avoidable through more equitable institutions that would entail minuscule opportunity costs for the affluent. It is for the sake of trivial economic gains that national and global elites are keeping billions of human beings in life-threatening poverty with all its attendant evils such as hunger and communicable diseases, child labor and prostitution, trafficking, and premature death. Considering this situation from a moral standpoint, we must now assess growth—both globally and within most countries—in terms of its effect on the economic position of the poor.

Designing economic institutions and policies by this standard may well entail a sacrifice in aggregate economic growth. But this sacrifice is morally imperative. It is also highly desirable for ecological reasons. To be sure, the consumption expenditure of the poor may be slightly more resource- and pollution-intensive on a per-$ basis. This would detract from the short-term ecological benefits of slowing aggregate growth for the sake of poverty avoidance. The long-term ecological benefit, however, would be massive, as poverty eradication would retard population growth and thus lead to an earlier leveling-off of the human population at a much lower level. ●

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1. From devdata.worldbank.org/dataonline (accessed June 15, 2007). This database does not provide inflation-adjusted GNI data. Nonetheless, the ratios of these nominal $-figures (in the right-hand column) are comparable across years.

2. Calculated by dividing the two residuals: (world GNI minus high-income country GNI) divided by (world population minus high-income country population). Data from devdata.worldbank.org/dataonline (accessed June 15, 2007).

3. Derived from Table 1 in the World Bank's *World Development Reports* for the years 1982, 2002, and 2007, respectively, and market exchange rates in the relevant years. Again, the ratios among these nominal $ figures are comparable across years.

4. Branko Milanovic, *Worlds Apart: Measuring International and Global Inequality* (Princeton University Press, 2005).

5. See, for example, Kevin Danaher, ed., *50 Years Is Enough: The Case Against the World Bank and the International Monetary Fund* (South End Press, 1994); Thomas Pogge, *World Poverty and Human Rights* (Polity Press, 2002); Peter Singer, *One World* (Yale University Press, 2002); Joseph Stiglitz, *Globalization and Its Discontents* (Norton, 2002); and George Monbiot, *Manifesto for a New World Order* (New Press, 2004).

6. See www.wider.unu.edu/wiid/wiid.htm (accessed June 10, 2007).

7. David Leonhardt, "Larry Summers's Evolution," *New York Times Magazine*, June 10, 2007, www.wider.unu.edu/wiid/wiid.htm (10 June 2007), and Maya Roney, "The Global Millionaire Boom," *Business Week*, October 18, 2007.

8. *Ibid.* and note 6.

9. World Bank, *World Development Report 2007* (Washington: World Bank, 2006), Table 1 (pp. 288-9), using purchasing power parities (PPPs) to convert into $s.

10. United Nations Development Programme (UNDP): *Human Development Report 2006* (Houndsmills: Palgrave Macmillan, 2006), Table 15 (pp. 335-8) as updated from devdata.worldbank.org/dataonline (accessed August 2, 2007).

11. See note 9.

12. See note 10.

13. Distributing each country's entire GNI over its ten deciles, my calculations of the bottom decile absolute share ignore that a large fraction of GNI goes for government expenditures. My figures therefore substantially exceed both the average income and the average consumption expenditure of the poor.

14. Unlike the previous table for affluent countries, where economic position was calculated giving equal weight of one half to the relative and absolute shares of the poor, this table for poorer countries gives three quarters weight to the absolute and one quarter weight to the relative share of the poor. As a consequence, the figures under "economic position" are not comparable across tables. Moreover, problems with the use of general consumption PPPs in assessing consumption expenditures of very poor households (see notes 16 and 25) suggest that even within this table comparisons in the second, fourth, and fifth columns should be made with caution.

15. Calculated from China's population and poverty head count index as provided at devdata.worldbank.org/dataonline and iresearch.worldbank.org/PovcalNet/jsp/index.jsp (accessed June 11, 2007).

16. See Sanjay Reddy and Camelia Minoiu, "Chinese Poverty: Assessing the Impact of Alternative Assumptions" (2007), at www.columbia.edu/~cm2036/china.pdf (accessed June 11, 2007). See also Albert Keidel, "The Limits of a Smaller, Poorer China," *Financial Times*, November 13, 2007 (www.ft.com), reporting on a recent PPP assessment exercise conducted by the Asian Development Bank (ABD). Judging that the purchasing power of the Chinese currency has been overestimated by 67 percent, this study concludes that China's economy is 40 percent smaller than assumed heretofore. The impact of this PPP revision on the poverty statistics is staggering: "The number of people in China living below the World Bank's dollar-a-day poverty line is 300m—three times larger than currently estimated. ... The ADB's announcement also indicates that the number of dollar-a-day poor in India is closer to 800m than the current estimate of 400m" (ibid.). The revision of China's and India's PPPs thus entails that there are 600 million more human beings living below $1 a day than the 950 million reported by the World Bank (iresearch.worldbank.org/PovcalNet/jsp/index.jsp, accessed June 11, 2007) — a 63 percent error deriving from the PPPs of just two countries. The same revision entails a similar percentage increase in the number of

people living below $2 a day, which was recently reported at 2,533 million (ibid.).

17. Second-column figures are calculated by dividing each year's GNI (in current yuan) by China's population that year, then using China's GDP deflator to convert into constant 2005 yuan, then multiplying by China's 2005 PPP (2.077 Yuan to the U.S.$). All inputs are from devdata.worldbank.org/dataonline, except pre-2004 third-column data are from Reddy and Minoiu 2007. Because assessments of China's PPP vary widely and general consumption PPPs are, at any rate, a poor indicator to what basic necessities the poor can buy (note 25), figures in the fourth and fifth columns are only roughly comparable to those in the corresponding columns of the preceding table.

18. See note 10.

19. The number of people outside China living below $2/day is reported to have increased from 1,583 million in 1981 to 1,828 million in 1990 and to 2,081 million in 2004—as calculated from data at iresearch.worldbank.org/PovcalNet/jsp/index.jsp and devdata.worldbank.org/dataonline (accessed June 15, 2007).

20. Milanovic 2005, 108.

21. See devdata.worldbank.org/dataonline (accessed June 10, 2007).

22. Data from iresearch.worldbank.org/PovcalNet/jsp/index.jsp (accessed June 10, 2007). Full calculations are on file with the author.

23. See devdata.worldbank.org/dataonline (accessed August 4, 2007).

24. Calculations based on data from iresearch.worldbank.org/PovcalNet/jsp/index.jsp (accessed June 15, 2007), showing that in 2004 the bottom quintile topped out at $458 PPP 1993 with an average income of $319 PPP 1993, while the bottom two quintiles topped out at $792 PPP 1993 with an average income of $465 PPP 1993. Annual consumption expenditure is here measured in terms of the purchasing power that U.S.$s had in the United States in 1993.

25. See James Davies, Susanna Sandstrom, Anthony Shorrocks, and Edward Wolff, *The World Distribution of Household Wealth* (WIDER, 2006), Appendix 1, Tables 10a and 11a. PPP conversions probably overstate the true purchasing power of the poor, because PPPs are calculated as a kind of weighted average price ratio, weighting all commodities according to their prominence in international consumption expenditure. Services and other nontradables raise the assessed purchasing power of poor countries' currencies far above their market exchange rate. But the cheapness of services is no boon to the local poor, who must concentrate their meager funds on a narrow band of basic necessities, which are not as much cheaper in poor countries as PPPs would suggest. For full elaboration of this and related points, see Sanjay Reddy and Thomas Pogge, "How *Not* to Count the Poor," forthcoming in Sudhir Anand and Joseph Stiglitz, eds., *Measuring Global Poverty* (Oxford: Oxford University Press, 2008; also at www.socialanalysis.org).

26. UNDP 2006 (note 10), pp. 174 and 33.

27. See www.fic.nih.gov/about/plan/exec_summary.htm (accessed June 16, 2007).

28. UNDP: *Human Development Report 1998* (New York: Oxford University Press, 1998), p. 49.

29. See www.uis.unesco.org.

30. International Labour Office (ILO): *The End of Child Labour: Within Reach* (Geneva: ILO Publications, 2006), p. xi and Table 1.1.

31. In 2002, there were about 57 million deaths. The main causes highly correlated with poverty were (death tolls in thousands): diarrhea (1,798) and malnutrition (485), perinatal (2,462) and maternal conditions (510), childhood diseases (1,124—mainly measles), tuberculosis (1,566), malaria (1,272), meningitis (173), hepatitis (157), tropical diseases (129), respiratory infections (3,963—mainly pneumonia), HIV/AIDS (2,777) and sexually transmitted diseases (180). See World Health Organization: *The World Health Report 2004* (Geneva: WHO Publications, 2004), pp. 120–25.

32. *Rome Declaration on World Food Security, www.fao.org/wfs.*

33. *Ibid., Final Report of the World Food Summit*, Part I, Annex II.

34. See www.un.org/millennium.

35. In 1990, the number of extremely poor was 1,247.7 million or 23.66 percent of the population of the developing countries; 905.2 million is 11.83 percent of the projected population of these countries in 2015. For a more detailed discussion, see my *World Poverty and Human Rights*, second edition (Polity Press, 2008), pp. 11-13.

36. UNDP, *Human Development Report 1996* (New York: Oxford University Press, 1996), p. 20, and UNDP 2006 (note 10), p. 174.