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Is Globalization Reducing Poverty and Inequality?

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Summary. — Over the past 20 years or so India, China, and the rest of East Asia, experienced fast economic growth and falls in the poverty rate, Latin America stagnated, the former Soviet Union, Central and Eastern Europe, and sub-Saharan Africa regressed. But what are the net trends? The neoliberal argument says that world poverty and income inequality fell over the past two decades for the first time in more than a century and a half, thanks to the rising density of economic integration across national borders. The evidence therefore confirms that globalization in the context of the world economic regime in place since the end of Bretton Woods generates more "mutual benefit" than "conflicting interests." This paper questions the empirical basis of the neoliberal argument.

Key words — globalization, poverty, inequality, neoliberalism, political economy of statistics, World bank

'Over the past 20 years the number of people living on less than $1 a day has fallen by 200 million, after rising steadily for 200 years' (James Wolfensohn, president of the World Bank, World Bank, 2002b).

'The *best evidence available* shows . . . the current wave of globalization, which started around 1980, has actually promoted economic equality and reduced poverty' (Dollar & Kraay, 2002; emphasis added).

'Evidence suggests the 1980s and 1990s were decades of declining global inequality and reductions in the proportion of the world's population in extreme poverty' (Martin Wolf, *The Financial Times*, 2002).

'[G]lobalization has dramatically increased inequality between and within nations' (Jay Mazur, US union leader, 2000).

1. INTRODUCTION

The neoliberal argument says that the distribution of income between all the world's people has become more equal over the past two decades and the number of people living in extreme poverty has fallen, for the first time in more than a century and a half. It says that these progressive trends are due in large part to the rising density of economic integration between countries, which has made for rising efficiency of resource use worldwide as countries and regions specialize in line with their comparative advantage. Hence the combination of the "dollar-Wall Street" economic regime [1] in place since the breakdown of the Bretton Woods regime in the early 1970s, and the globalizing direction of change in the world economy since then, serves the great majority of the world's people well. The core solution for lagging regions, Africa above all, is freer domestic and international trade and more open financial markets, leading to deeper integration into the world economy.

Evidence from the current long wave of globalization thus confirms neoliberal economic theory—more open economies are more prosperous, economies that liberalize more experience a faster rate of progress, and people who resist further economic liberalization must be acting out of vested or "rent-seeking" interests. The world economy is an open system in the sense that country mobility up the income/wealth hierarchy is unconstrained by the structure. The hierarchy is in the process of being flattened, the North–South, core-periphery, rich country-poor country divide is being eroded away as globalization proceeds. The

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same evidence also validates the rationale of the World Trade Organization (WTO), the World Bank, the International Monetary Fund (IMF) and other multilateral economic organizations as agents for creating a global "level playing" field undistorted by state-imposed restrictions on markets. This line of argument is championed by the more powerful of the centers of "thinking for the world" that influence international policy making, including the intergovernmental organizations such as the World Bank, the IMF and the WTO, also the US and UK Treasuries, and opinion-shaping media such as *The Financial Times* and *The Economist*.

The standard Left assumption, in contrast, is that the rich and powerful countries and classes have little interest in greater equity. Consistent with this view, the "anti-globalization" (more accurately, "anti-neoliberal") argument asserts that world poverty and inequality have been rising, not falling, due to forces unleashed by the same globalization (for example, union leader Jay Mazur's quote above). [2] The line of solution is some degree of tightening of public policy limits on the operation of market forces; though the "anti-neoliberal" camp embraces a much wider range of solutions than the liberal camp.

The debate tends to be conducted by each side as if its case was overwhelming, and only an intellectually deficient or dishonest person could see merit in other's case. For example, Martin Wolf of *The Financial Times* claims that the "anti-globalization" argument is "the big lie." [3] If translated into public policy it would cause more poverty and inequality while pretending to do the opposite.

This paper questions the empirical basis of the neoliberal argument. In addition, it goes beyond the questions to suggest different conclusions about levels and trends, stated in terms not of certainties but stronger or weaker probabilities. Finally it explains why we should be concerned about probably-rising world inequality, and how we might think about the neglected subject of the political economy of statistics.

2. THE REGIONAL COLLAGE

The growth rate of world GDP, measured in US dollars and at current exchange rates, fell sharply from around 5.5% in 1970–80 to 2.3% in 1980–90 to 1.1% in 1990–2000. [4] This is bad news, environmental considerations aside. But it still grew a little faster than world population over the past two decades; and the (population-weighted) GDP of developing countries as a group grew a little faster than that of the high-income countries. On the other hand, regional variation within the global South is large. Table 1 shows the trends of regional per capita GNP to the per capita GNP of the "core" regions (with incomes converted to US$ at current exchange rates as a measure of *international* purchasing power). During 1960–99 the per capita incomes of sub-Saharan Africa, Latin America, and West Asia and North Africa fell as a fraction of the core's; South Asia's remained more or less constant; East Asia's (minus China) rose sharply; China's also rose sharply but from a very low base. The most striking feature is not the trends but the size of the gaps, testimony to the failure of "catch-up." Even success-story East Asia has an average income only about 13% of the core's. [5] It is a safe bet that most development experts in 1960 would have predicted much higher percentages by 2000.

The variation can also be shown in terms of the distribution of world income by regions and income percentiles. Figure 1 shows the regional distribution of people at each income percentile for two years, 1990 and 1999. Here incomes are expressed in "purchasing power parity" dollars

Table 1. *GNP per capita for region as % of core's GNP per capita*[a]

Region	1960	1980	1999
Sub-Saharan Africa	5	4	2
Latin America	20	18	12
West Asia and North Africa	9	9	7
South Asia	2	1	2
East Asia (w/o China and Japan)	6	8	13
China	1	1	3
South	5	4	5
North America	124	100	101
Western Europe	111	104	98
Southern Europe	52	60	60
Australia and NZ	95	75	73
Japan	79	134	145
North (= core)	100	100	100

Source: Arrighi, Silver, and Brewer (2003).
[a] Based on World Bank data. GNP at current exchange rates.

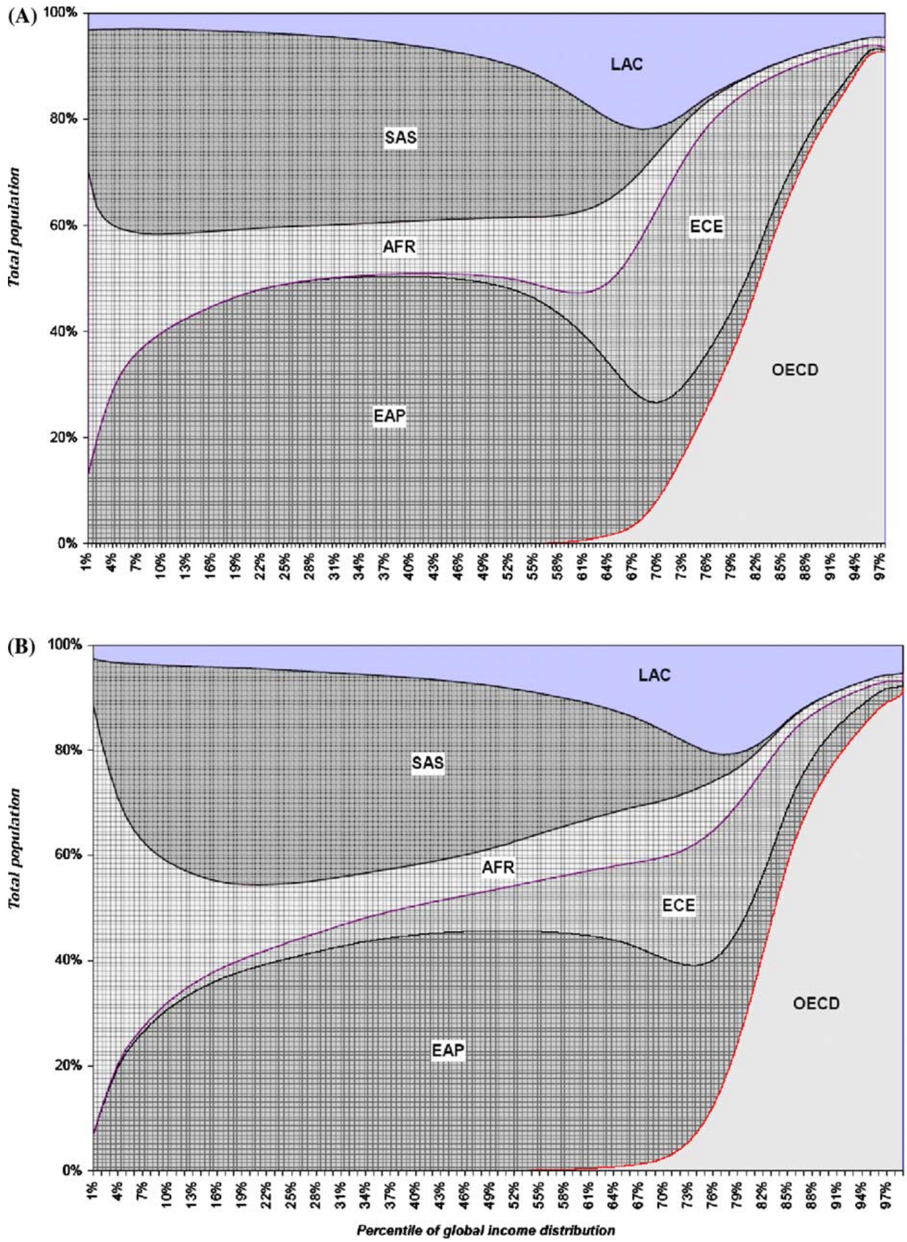

Figure 1. *World income distribution, by region, at each percentile of global income distribution: (A) 1990 and (B) 1999 (population at any particular income = 100) (Source: Dikhanov & Ward, 2003).*

(PPP\$), [6] in order to measure, notionally at least, *domestic* purchasing power. One sees the African collapse in the increased share of the African population in the bottom quintile; also the falling back of the Eastern and Central European populations from the second to the third quintile; and the rising share of the East Asian population in the second quintile.

Figure 2 shows, in the top half, the world's population plotted against the log of PPP\$ income, taking account of both between-country and within-country income distribution;

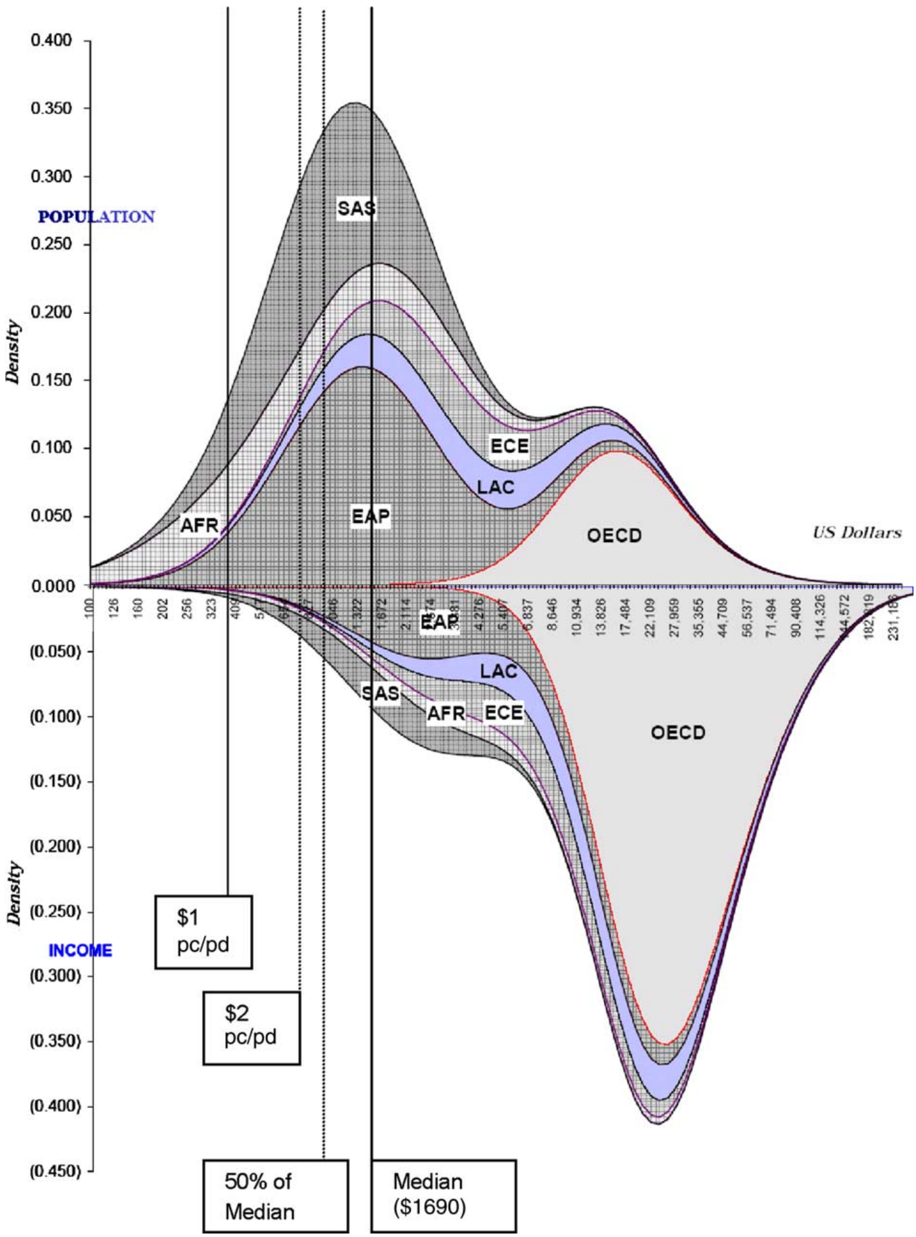

Figure 2. *World income distribution, by region: top half, distribution of world population against income; bottom half, distribution of world income against income, 1999 (Source: Dikhanov & Ward, 2003).*

and the breakdown by region. The bottom half shows the world's income plotted against income level, hence the share of income accruing to people at different income levels and in different regions. Residents of South Asia and East Asia predominate at income levels below the median, and residents of the OECD countries predominate at the top.

Finally, Figure 3 shows the movement in the bimodal shape of the overall PPP$ income-to-population distribution during 1970–99. The 1999 distribution has shifted forward compared

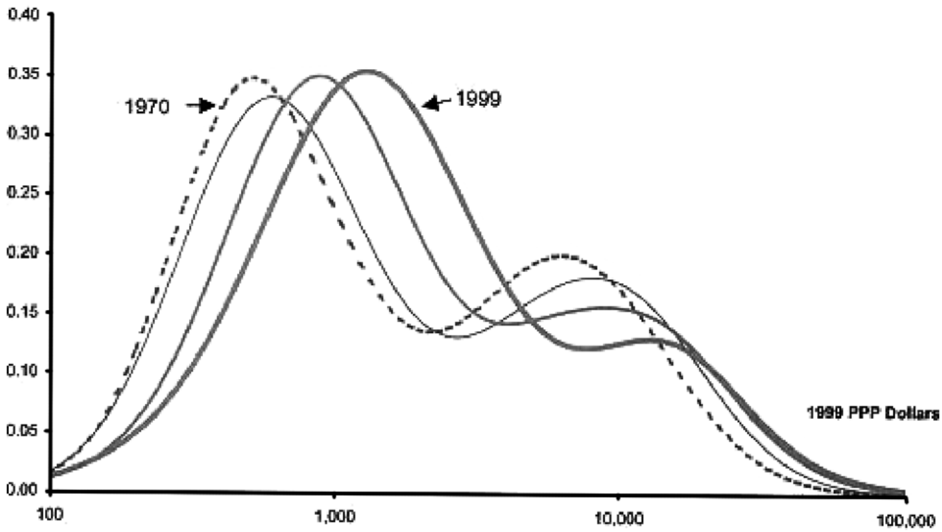

Figure 3. *World income distribution, 1970, 1980, 1990, 1999 (Source: Dikhanov & Ward, 2003).*

to the 1970 one, especially the lower of the two income humps, reflecting the arrival of large numbers of South and East Asians into the middle deciles of the world income distribution.

How does the collage—positive world per capita growth and wide divergence of economic performance between developing regions—net out in terms of global trends in poverty and inequality?

3. POVERTY

Figure 2 shows the two standard international poverty lines, $1 per day and $2 per day; and also the line corresponding to an income of 50% of the world's median income. Notice that even the higher $2 per day absolute poverty line is below the conventional "minimum" *relative* poverty line of half of the median. Notice too how small a share of world income goes to those on less than $1 per day, and how small a share of the income of the richest earners would be needed to double the income of the poorest.

Figures 1–3 are based on a data set on income inequality compiled by the United Nation's World Institute for Development Economics Research (WIDER). [7] But the standard poverty numbers—the ones normally used in discussions about the state of the world—come from the World Bank's data set. This is the source of the claims that, in the words of President James Wolfensohn, "Over the past 20 years the number of people living on less than $1 a day has fallen by 200 million, after rising steadily for 200 years" [8] and "the proportion of people worldwide living in absolute poverty has dropped steadily in recent decades, from 29% in 1990 to a record low of 23% in 1998." [9] The opening sentence of the Bank's *World Development Indicators 2001* says, "Of the world's 6 billion people 1.2 billion live on less than $1 a day," the same number in 1987 and 1998. [10]

No ifs or buts. I now show that the Bank's figures contain a large margin of error, and the errors *probably* flatter the result in one direction. [11]

To get the world extreme poverty headcount the Bank first defines an international poverty line for a given base year by using purchasing power parity conversion factors (PPPs) to convert the purchasing power of an average of the official national poverty lines of a set of low-income countries into the US dollar amount needed to have the same notional purchasing power in the United States in the same year. In its first global poverty estimation this procedure yielded a conveniently understandable US$1 per day for the base year of 1985. [12] Then the Bank uses PPP conversion factors to estimate the amount of local currency, country by country, needed to have the same purchasing power in the same year as in the US base case. This gives an international extreme poverty line equivalent to US$1 per day, expressed in domestic currency. By way of illustration, Rs. 10 may have the same purchasing power in India in 1985 as US$1 in the United States in the same year, in which case India's international extreme poverty line is Rs. 10 per day. From household surveys the Bank then estimates the number of people in the country living on less than this figure. It sums the country totals to get the world total. It uses national consumer price indices to keep real purchasing power constant across time, and adjusts the international poverty line for each country upwards with inflation.

(a) *Large margin of error*

There are several reasons to expect a large margin of error, regardless of direction. First, the poverty headcount is very sensitive to the precise level of the international poverty lines. This is because the shape of income distribution near the poverty line is such that, in most developing countries, a given percentage change in the line brings a similar or larger percentage change in the number of people below it. Recent research on China suggests that a 10% increase in the line brings a roughly 20% increase in the poverty headcount.

Second, the poverty headcount is very sensitive to the reliability of household surveys of income and expenditure. The available surveys are of widely varying quality, and many do not follow a standard template. Some sources of error are well known, such as the exclusion of most of the benefits that people receive from publicly provided goods and services. Others are less well known, such as the sensitivity of the poverty headcount to the survey design. For example, the length of the recall period makes a big difference to the rate of reported expenditure—the shorter the recall period the higher the expenditure. A recent study in India suggests that a switch from the standard 30-day reporting period to a seven-day reporting period lifts 175 million people from poverty, a nearly 50% drop. This is using the Indian official poverty line. Using the higher $1/day international line the would be even greater. [13] The point here is not that household surveys are less reliable than other possible sources (for example, national income accounts); simply that they do contain large amounts of error.

Third, China and India, the two most important countries for the overall trend, have PPP-adjusted income figures that contain an even bigger component of guess work than for most other significant countries. The main sources of PPP income figures (the Penn World Tables and the International Comparison Project) are based on two large-scale international price benchmarking exercises for calculating purchasing power parity exchange rates, one in 1985 in 60 countries, the other in 1993 in 110 countries. The government of China declined to participate in both. The purchasing power parity exchange rate for China is based on guestimates from small, *ad hoc* price surveys in a few cities, adjusted by rules of thumb to take account of the huge price differences between urban and rural areas and between eastern and western regions. The government of India declined to participate in the 1993 exercise. The price comparisons for India are extrapolations from 1985 qualified by later *ad hoc* price surveys. The lack of reliable price comparisons for China and India—hence the lack of reliable evidence on the purchasing power of incomes across their distributions—compromises any statement about levels and trends in world poverty. [14]

Fourth, the often-cited comparison between 1980 and 1998—1.4 billion in extreme poverty in 1980, 1.2 billion in 1998—is not valid. The Bank introduced a new methodology in the late 1990s which makes the figures noncomparable. The Bank has recalculated the poverty numbers with the new method only back to 1987. [15]

The change of method amounts to: (i) a change in the way the international poverty line was calculated from the official poverty lines of a sample of low- and middle-income countries (and a change in the sample countries), which resulted in, (ii) a change in the international poverty line from $PPP 1 per day to $PPP 1.08 per day, and (iii) a change in the procedure for aggregating, country by country, the relative price changes over 1985–93 for a standard bundle of goods and services.

We do not know what the 1980 figure would be with the new method. We do know however that the new method caused a huge change in the poverty count even for the same country in the same year using the same survey data. [16] Table 2 shows the method-induced changes by regions for 1993. Angus Deaton, an expert on these statistics, comments that "Changes of this size risk swamping real changes... it seems impossible to make statements about changes in world poverty when the ground underneath one's feet is changing in this way." [17]

Table 2. *1993 poverty rate, using old and new World Bank methodology*[a]

	Old poverty rate (%)	New poverty rate (%)
Subsaharan Africa	39.1	49.7
Latin America	23.5	15.3
Middle East/N Africa	4.1	1.9

Source: Deaton (2001).
[a] The poverty rate is the proportion of the population living on less than $1 a day.

(b) *Downward bias*

Further sources of error bias the results downward, making the number of people in poverty seem lower than it really is; and the bias probably increases over time, making the trend look rosier than it is. There are at least three reasons.

First, the Bank's international poverty line underestimates the income or expenditure needed for an individual (or household) to avoid periods of food-clothing-shelter consumption too low to maintain health and well-being. (Moreover, it avoids altogether the problem that basic needs include unpriced public goods such as clean water and access to basic healthcare.) The Bank's line refers to an "average consumption" bundle, not to a basket of goods and services that makes sense for measuring poverty (though "$1 per day" does have intuitive appeal to a Western audience being asked to support aid). Suppose it costs Rs. 30 to buy an equivalent bundle of food in India (defined in terms of calories and micronutrients) as can be bought in the United States with $1; and that it costs Rs. 3 to buy an equivalent bundle of services (haircuts, massages) as $1 in the United States, such services being relatively very cheap in developing countries.[18] Current methods of calculating purchasing power parity, based on an *average* consumption bundle of food, services and other things, may yield a PPP exchange rate of $PPP 1 = Rs. 10, meaning that Rs. 10 in India buys the equivalent average consumption bundle as $1 in the United States. But this is misleading because the poor person, spending most income on food, can buy with Rs. 10 only one-third of the food purchasable with $1 in the United States. To take the international poverty line for India as Rs. 10 therefore biases the number of poor downward.

We have no way of knowing what proportion of food-clothing-shelter needs the Bank's international poverty line captures. But we can be fairly sure that if the Bank used a basic needs poverty line rather than its present artificial one the number of absolute poor would rise, because the national poverty lines equivalent to a global basic needs poverty line would probably rise (perhaps by 30–40%).[19] A 30–40% increase in a basic-needs-based international poverty line would increase the world total of people in extreme poverty by at least 30–40%. Indeed a recent study for Latin America shows that national extreme poverty rates, using poverty lines based on calorific and demographic characteristics, may be more than *twice* as high as those based on the World Bank's $1/day line. For example, the World Bank estimates Brazil's extreme poverty rate (using its international poverty line) at 5%, while the Economic Commission for Latin America, using a calories-and-demography poverty line, estimates the rate at 14%.[20]

In short, we can be reasonably confident that switching from the Bank's rather arbitrarily derived international extreme poverty line to one reflecting the purchasing power necessary to achieve elementary human capabilities would substantially raise the number of people in extreme poverty.

The second reason is that the Bank's new international poverty line of $1.08/day probably increases the downward bias, leading the Bank to exaggerate the decline in the poverty headcount between the years covered by the old methodology and those covered by the new one. The new international poverty line of $PPP 1.08 *lowers* the equivalent national poverty lines in most countries compared to the earlier $PPP 1 line. It lowers them in 77% of the 94 countries for which data are available, containing 82% of their population. It lowers the old international poverty line for China by 14%, for India, by 9%, for the whole sample by an average of 13%.[21] As noted, even a small downward shift in the poverty line removes a large number of people out of poverty.

Third, future "updating" of the international poverty line will continue artificially to lower the true numbers, because average consumption patterns (on which the international poverty line is based) are shifting toward services whose prices relative to food and shelter are lower in poor than in rich countries, giving the false impression that the cost of the basic con-

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sumption goods required by the poor is falling.[22]

All these problems have to be resolved in one way or another in any estimate of world poverty, whoever makes it. But the fact that the World Bank is the near-monopoly provider introduces a further complication. The number of poor people is politically sensitive. The Bank's many critics like to use the poverty numbers as one of many pointers to the conclusion that it has accomplished "precious little," in the words of US Treasury Secretary O'Neill; which then provides a rationale for tighter US control of the Bank, as in the statement by the head of the US Agency for International Development, "Whether the US way of doing things drives some multilateral institutions, I think it should, because, frankly, a lot of the multilateral institutions don't have a good track record."[23]

A comparison of two recent Bank publications suggests how the Bank's statements about poverty are affected by its tactics and the ideological predispositions of those in the ideas-controlling positions. *The World Development Report 2000/2001: Attacking Poverty* says that the number of people living on less than $1 a day *increased* by 20 million from 1.18 billion in 1987 to 1.20 billion in 1998. When it was being written in the late 1990s the key ideas-controlling positions in the Bank were held by Joe Stiglitz and Ravi Kanbur (respectively, chief economist and director of the *World Development Report 2000/2001*), not noted champions of neoliberal economics.[24] At that time the Bank was trying to mobilize support for making the Comprehensive Development Framework the new template for all its work, for which purpose *lack* of progress in development helped. Then came the majority report of the Meltzer Commission, for the US Congress, which said the Bank was failing at its central task of poverty reduction and therefore should be sharply cut back—as shown by the fact that the number of people in absolute poverty remained constant at 1.2 billion during 1987–98.[25] Now the Bank needed to emphasize progress. The next major Bank publication, *Globalization*, *Growth*, *and Poverty*: *Building an Inclusive World Economy*, claimed that the number of people living in poverty *decreased* by 200 million in the 18 years over 1980–98.[26] By this time Stiglitz and Kanbur were gone and David Dollar, a prominent Bank economist, was ascendant. He was chief author of *Globalization, Growth and Poverty*.[27]

(c) *Conclusions about poverty*

We can be fairly sure that the Bank's poverty headcount has a large margin of error in *all* years, in the sense that it may be significantly different from the headcount that would result from the use of PPP conversion factors based more closely on the real costs of living of the poor (defined in terms of income needed to buy enough calories, micronutrients and other necessities in order not to be poor). By the same token we should question the Bank's confidence that the trend is downward.

We do not know for sure how the late 1990s revision of the method and the PPP numbers alter the poverty headcount in any one year and the trend. But it is likely that the Bank's numbers substantially underestimate the true numbers of the world's population living in extreme poverty, and make the trend look brighter.

On the other hand, it is quite plausible that the *proportion* of the world's population living in extreme poverty has fallen over the past 20 years or so. For all the problems with Chinese and Indian income figures we know enough about trends in other variables—including life expectancy, heights, and other nonincome measures—to be confident that their poverty headcounts have indeed dropped dramatically over the past 20 years. If it is the case (as some experts claim) that household surveys are more likely to miss the rich than the poor, their results may *overstate* the proportion of the population in poverty. The magnitude of world population increase over the past 20 years is so large that the Bank's poverty numbers would have to be *huge* underestimates for the world poverty rate not to have fallen. Any more precise statement about the absolute number of the world's people living in extreme poverty and the change over time currently rests on quicksand.

4. INEQUALITY

World poverty headcount could move in one direction while the world in equality moved in the other. The neoliberal argument says that they have both dropped.[28] But in the past several years world income distribution has

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become a hot topic of debate in international economics and in sociology (much hotter than trends in world poverty). Disagreements about the overall inequality trend should not be surprising given the variation in regional economic performance—different ways of measuring emphasize different parts of the collage.

The only valid short answer to the question, "What is the trend of world income distribution?" is, "It depends on which combination out of many plausible combinations of measures and countries we choose." [29] Whereas we *could* get better data on the poor to the extent that the poverty headcount would command general agreement, there is no single best measure of world income inequality.

The choices include: alternative measures of income (GDP per capita converted to US dollars using market exchange rates or GDP per capita adjusted for differences in purchasing power across countries); alternative weightings of countries (each country weighted as one unit or by population); alternative measures of distribution (including the Gini or some other average coefficient, or ratios of the income of the richer deciles of world population to that of poorer deciles, or average income of a set of developing countries to that of a set of developed countries); alternatives sources of data on incomes (national income accounts or household surveys); alternative samples of countries and time periods.

We can be reasonably confident of the following six propositions.

Proposition 1. *World income distribution has become rapidly more unequal, when incomes are measured at market exchange rates and expressed in US dollars.*

No one disputes this. The dispute is about what the figures mean. Most economists say that exchange-rate-based income measures are irrelevant, and hence would dismiss the data in Table 1. GDP incomes should always be adjusted by PPP exchange rates to take account of differences in purchasing power, they say. [30] This makes a big difference to the size of the gap between rich and poor. As noted, the PPP adjustment is made by computing the relative prices for an average bundle of goods and services in different countries. The PPP adjustment substantially raises the relative income of poor countries. India's PPP GDP, for example, is about four times its market exchange rate GDP. The PPP adjustment thus makes world income distribution look much more equal than the distribution of market-exchange-rate incomes.

Market-exchange-rate-based income comparisons do suffer from all the ways in which official exchange rates do not reflect the "real" economy: from distortions in the official rates, exclusion of goods and services that are not traded, and sudden changes in the official exchange rate driven more by capital than by trade movements. Nevertheless, we should reject the argument that incomes converted via PPP exchange rates should always be used in preference to incomes converted at market exchange rates.

The practical reasons concern the weaknesses of the PPP numbers. Plausibly constructed PPP numbers for China differ by a factor of two. Estimates for countries of the former Soviet Union before the 1990s also differ by a wide margin; and India's differ too. So if incomes converted via market exchange rates do not give an accurate measure of relative purchasing power, neither do the PPP numbers for countries that carry heavy weight in world trends. Confidence in world PPP income distribution should be correspondingly limited.

Practical problems aside, PPP-adjustment is in principle preferable when one is interested in domestic purchasing power or, more generally, material well-being. We may however, be interested in income not only as a measure of material well-being. We may *also* be interested in income as a proxy for the purchasing power of residents of different countries over goods and services produced in other countries—for example, the purchasing power of residents of developing countries over advanced country products compared to the purchasing power of residents of advanced countries over developing country products. If we are interested in any of the questions about the economic and geopolitical impact of one country (or region) on the rest of the world—including the cost to developing countries of repaying their debts, importing capital goods, and participating in international organizations—we should use market exchange rates.

The reason why many poor small countries are hardly represented in negotiations that concern them directly is that they cannot afford the cost of hotels, offices, and salaries in places like Washington DC and Geneva, which must be paid not in PPP dollars but in hard currency bought with their own currency at market

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exchange rates. In addition, the reason they cannot afford to pay the foreign exchange costs of living up to many of their international commitments—hiring foreign experts to help them exercise control over their banking sectors so that they can implement their part of the anti-money-laundering regime, for example—likewise reflects their low market-exchange-rate incomes. On the other hand, international lenders have not been lining up to accept repayment of developing country debts in PPP dollars, which would reduce their debt repayments by 75% or more in many cases.

These same "foreign" impacts feed back to domestic state capacity. For example, we should use market exchange rates to pick up the key point that the long-run deterioration in the exchange rates of most developing countries is putting those countries under increasing *internal* stress. When a rising amount of real domestic resources has to go into acquiring a given quantity of imports—say, of capital goods—other domestic uses of those resources are squeezed, including measures to reduce poverty, to finance civil services and schools and the like. This backwash effect is occluded in PPP calculations.

Hence we do need to pay attention to what is happening to market-exchange-rate world income distribution. It is widening fast.

The next four propositions refer to inequality of PPP-adjusted incomes, as an approximation to domestic purchasing power.

Proposition 2. *World PPP-income polarization has increased, with polarization measured as richest to poorest decile.*

The broad result is hardly surprising: the top 10% is comprised almost entirely of people living in the core countries of North America, western Europe, and Japan, where incomes have grown over the past 20–30 years, while a large chunk of the bottom 10% is comprised of African countries where incomes have stagnated or fallen. According to one study, the trend of richest to poorest decile goes like this: 1970—92, 1980—109, 1990—104, 1999—104. [31] Another study finds a jump in the ratio of 25% over 1988—93. [32] The change is made up of the top decile pulling sharply up from the median and the bottom decile falling away from the median. The polarizing trend would be much sharper with the top 1% rather than the top decile.

Proposition 3. *Between-country world PPP-income inequality has increased since at least* 1980, *using per capita GDPs, equal country weights* (*China = Uganda*), *and a coefficient like the Gini for the whole distribution.*

Of course, we would not weight countries equally if we were interested simply in relative well-being. But we would weight them equally—treat each country as a unit of observation, analogous to a laboratory test observation—if we were interested in growth theory and the growth impacts of public policies, resource endowments, and the like. We might, for example, arrange (unweighted) countries by the openness of their trade regime and see whether more open countries have better economic performance.

The same inequality-widening trend is obtained using a somewhat different measure of inequality—the dispersion of per capita GDPs across the world's (equally weighted) countries. Dispersion increased over the long period, 1950—98, and especially fast over the 1990s. Moreover, the dispersion of per capita GDP growth rates has also risen over time, suggesting wider variation in performance among countries at each income level. A study by the Economic Commission for Latin America using these dispersion measures concludes that there is "no doubt as to the existence of a definite trend toward distributive inequality worldwide, both across and within countries." [33]

Proposition 4. *Between-country world PPP-income inequality has been constant or falling since around* 1980, *with countries weighted by population.*

This is the result that the neoliberal argument celebrates. There are just two problems. First, exclude China and even this measure shows a widening since 1980; also exclude India and the widening is pronounced. Therefore, *falling income inequality is not a general feature of the world economy, even using the most favorable combination of measures.* [34]

Second, this measure—the average income of each country weighted by population—is interesting only as an approximation to what we are really interested in, which is income distribution among all the world's people or households regardless of which country they reside in. We would not be interested in mea-

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suring income inequality within the United States by calculating the average income for each state weighted by population if we had data for all US households.

Proposition 5. *Several serious studies find that world PPP-income inequality has increased over a period within the past two to three decades, taking account of both between- and within-country distributions.*

Studies which attempt to measure income distribution among all the world's people show widely varying results, depending on things like the precise measure of inequality, the sample of countries, the time period, and the sources of income data. But several studies, which use a variety of data sources and methods, point to widening inequality.

Steve Dowrick and Muhammad Akmal make an approximation to the distribution of income among all the world's people by combining (population-weighted) between-country inequality in PPP-adjusted average incomes with within-country inequality. They find that world inequality widened over 1980–93 using *all of four* common measures of inequality over the whole distribution. [35]

Branko Milanovic uses the most comprehensive set of data drawn only from household income and expenditure surveys (it does not mix data from these surveys with data from national income accounts). He finds a sharp rise in world inequality over as short a time as 1988–93, using both the Gini coefficient and ratio (or polarization) measures. [36] Some of his findings are shown in Table 3. Preliminary analysis of 1998 data suggests a slight drop in inequality in 1993–98, leaving a large rise over 1988–98.

We have to be cautious about Milanovic's results partly because household surveys have the kind of weaknesses described above (though these weaknesses do not make them worse than the alternative, national income accounts, which have their own problems), and partly because even a 10-year interval, let alone a five-year interval, is very short, suggesting that some of the increase may be noise.

Yuri Dikhanov and Michael Ward combine micro-level household survey data with national income accounts, using the WIDER data set, a different statistical technique to the earlier authors, and a longer time period, 1970–99. They find that the Gini coefficient increased over this period from 0.668 to 0.683. [37]

Table 3. *World income distribution by households (1988 and 1993)*

	1988	1993	% Change
Gini	0.63	0.67	+6
Richest decile/median	7.28	8.98	+23
Poorest decile/median	0.31	0.28	−10

Source: Milanovic (2002a).

Proposition 6. *Pay inequality within countries was stable or declining from the early* 1960*s to* 1980–1982, *then sharply and continuously increased to the present*. 1980–82 *is a turning point toward greater inequality in manufacturing pay worldwide*. [38]

Pay data have the great advantage over income data that pay data are a much less ambiguous variable, have been collected systematically by the United Nations Industrial Development Organization (UNIDO) since the early 1960s, and give many more observation points for each country than any data set on incomes. (The standard data set for world poverty and inequality, the World Bank's Deininger-Squire set, has few observation points for most of Africa, West Asia and Latin America during the 1980s and 1990s, requiring the analyst to guess the intervening years.) The disadvantage of pay data, of course, is that they treat only a small part of the economy of many developing countries, and provide only a proxy for incomes and expenditure. They are of limited use if our interest is only in relative well-being (though of more use if our interest is in the effects of trade, manufacturing innovation, etc.). But not as limited as may seem at first sight, because what is happening to pay rates in formal-sector manufacturing reflects larger trends, including income differences between countries and income differences within countries (since the pay of unskilled, entry-port jobs in manufacturing is closely related to the opportunity cost of time in the "informal" or agricultural sectors). [39]

(a) *China and India*

With 38% of the world's population, China and India shape world trends in poverty and inequality. They have grown very fast over the past decade (India) or two (China), if the fig-

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ures are taken at face value. China's average purchasing power parity income rose from 0.3 of the world average in 1990 to 0.45 in 1998, or 15 percentage points in only eight years.

We can be sure that world poverty and inequality are less than they would be had China's and India grown more slowly. About any stronger conclusion we have to be cautious. First, recall that China's and India's purchasing power parity numbers are even more questionable than those for the average developing country, because of their nonparticipation in the international price comparisons on which the PPP calculations rest. Second, China's growth in the 1990s is probably overstated. Many analysts have recently been revising China's growth statistics downward. Whereas government figures show annual real GDP growth of 7–8% in 1998 and 1999 one authority on Chinese statistics estimates that the economy may not have grown at all. [40]

Even the Chinese government says that the World Bank has been overstating China's average income, and the Bank has recently revised its numbers down. Table 4 shows the Bank's estimates for China's average GNP in US$ for 1997–99 and the corresponding growth rates. The level of average (exchange rate-converted) income *fell* sharply during 1997–98, while the corresponding growth rate over 1997–98 was +6.4%. The Bank reduced China's per capita income partly because it believed that China's fast growth campaign begun in 1998 had unleashed a torrent of statistical falsification. In addition, the Chinese government arm-twisted the World Bank (especially after the allegedly accidental US bombing of the Chinese embassy in Belgrade in May 1999) to lower average income below the threshold of eligibility for concessional IDA lending from the Bank—not for cheap IDA loans but for the privilege extended to companies of IDA-eligible countries to add a 7.5% uplift on bids for World Bank projects. [41]

Table 4. *China's GNPPC and growth rate (1997–99)*[a]

	1997	1998	1999
GNPPC/PPP (US$)	3,070	3,050	3,550
GNPPC (US$)	860	750	780
Annual growth rate of GNPPC (%)	7.4	6.4	6.1

Source: World Bank, *World Development Indicators* (1999–2001).

[a] Note that each volume gives figures for only one year, so that the discrepancy can be seen only by compiling one's own table.

Over the 1990s China's annual growth rate is more likely to have been around 6–8% than the 8–10% of the official statistics. This one change lowers the probability that world interpersonal distribution has become more equal. [42]

We have to be cautious about going from China's fast growth to falls in world income inequality not only because China's growth rates and income level may be overstated but also because the rise in inequality within both China and India partly offsets the reduction in world income inequality that comes from their relatively fast growth of average income—though careful calculations of the relative strength of the two contrary effects have yet to be made. [43] China's surging inequality is now greater than before the Communists won the civil war in 1949, and inequality between regions is probably higher than in any other sizable country. The ratio of the average income of the richest to poorest province (Guangdong to Guizhou) rose from around 3.2 in 1991 (current yuan) to 4.8 in 1993, and remained at 4.8 in 1998–2001. [44] The corresponding figure for India in the late 1990s was 4.2, the United States, 1.9.

(b) *The United States and other Anglo political economies*

Canada excepted, all the countries of English settlement, led by the United States, have experienced big increases in income inequality over the past 20–30 years. In the United States, the top 1% of families enjoyed a growth of after-tax income of almost 160% over 1979–97, while families in the middle of the distribution had a 10% increase. [45] Within the top 1% most of the gains have been concentrated in the top 0.1%. This is not a matter of reward to education. Inequality has expanded hugely among the college-educated. Whatever the causes, the fact is that the United States is now back to the same level of inequality of income as in the decades before 1929, the era of the "robber barons" and the Great Gatsby. Income distribution in the United Kingdom grew more unequal more quickly than even in the United States during the 1980s, and is now the most unequal of the big European countries.

(c) *Country mobility*

How much do countries move in the income hierarchy? One study uses real GNP per capita data (GNP deflated in local currency to a common base year, then converted to dollars at the exchange rate for that base year), and finds a robustly trimodal distribution of world population against the log of GNP per capita during 1960–99.[46] The three income zones might be taken as empirical correlates of the conceptual zones of core, semi-periphery, and periphery. For the 100 countries in the sample, 72 remained in the same income zone over the whole period sampled at five yearly intervals (e.g., Australia remained in zone 1, Brazil in zone 2, Bolivia in zone 3). The remaining 28 countries moved at least once from one zone to another (e.g., Argentina from 1 to 2). No country moved more than one zone. (South Korea, Hong Kong and Singapore in 1960 were already in the middle, not low zone.) There are about as many cases of upward movement as downwards. Compared to the rate of potential mobility (each country moving one zone at each measurement date) the rate of actual mobility was 3%.

Of the 28 out of 100 countries that moved at least once between zones, about half had "stable" moves in the sense that their position in 1990 and 1999 was one zone above or below their position in 1960 and 1965. Greece moved stably up from 2 to 1, Argentina moved stably down from 1 to 2, El Salvador moved stably down from 2 to 3. As many countries moved stably up as down.

(d) *The absolute income gap*

Our measures of inequality refer to relative incomes, not absolute incomes. Inequality between developing countries as a group and developed countries as a group remains constant if the ratio of developing country income to developed country income remains at 5%. But this, of course, implies a big rise in the absolute size of the gap. The absolute gap between a country with average income of $1,000 growing at 6% and a country with average income $30,000 growing at 1% continues to widen until after the 40th year!

China and India are reducing the absolute gap with the faltering middle-income states such as Mexico, Brazil, Russia and Argentina, but not with the countries of North America, Western Europe and Japan. Dikhanov and Ward's figures show that, overall, the absolute gap between the average income of the top decile of world population and the bottom decile increased from $PPP 18,690 in 1970 to $PPP 28,902 in 1999.[47] We can be sure that—a seventh proposition—absolute gaps between people and countries are widening fast and will continue to widen for at least two generations.

(e) *Conclusions about inequality*

The evidence does support the liberal argument when inequality is measured with population-weighted countries' per capita PPP-adjusted incomes, plus a measure of average inequality, taking China's income statistics at face value. On the other hand, polarization has clearly increased. Moreover, several studies that measure inequality over the whole distribution and use either cross-sectional household survey data or measures of combined inequality between countries and within countries show widening inequality since around 1980. The conclusion is that world inequality measured in plausible ways is probably rising, despite China's and India's fast growth. The conclusion is reinforced by evidence of a quite different kind. Dispersion in pay rates within manufacturing has become steadily wider since the early 1980s, having remained roughly constant from 1960 to the early 1980s. Meanwhile, absolute income gaps are widening fast.

5. GLOBALIZATION

I have raised doubts about the liberal argument's claim that (a) the number of people living in extreme poverty worldwide is currently about 1.2 billion, (b) it has fallen substantially since 1980, by about 200 million, and (c) that world income inequality has fallen over the same period, having risen for many decades before then. Let us consider the other end of the argument—that the allegedly positive trends in poverty and inequality have been driven by rising integration of poorer countries into the world economy, as seen in rising trade/GDP, foreign direct investment/GDP, and the like.

Clearly the proposition is not well supported at the world level if we agree that globalization has been rising while poverty and income inequality have not been falling. Indeed, it is striking that the pronounced convergence of economic policy toward "openness" worldwide over the past 20 years has gone with divergence of economic performance. But it might still be possible to argue that globalization explains differences between countries: that more open economies or ones that open faster have a better record than less open ones or ones than open more slowly.

This is what World Bank studies claim. The best known, *Globalization, Growth and Poverty*,[48] distinguishes "newly globalizing" countries, also called "more globalized" countries, from "nonglobalizing" countries or "less globalized" countries. It measures globalizing by *changes* in the ratio of trade to GDP over 1977–97. Ranking developing countries by the amount of change, it calls the top third the more globalized countries, the bottom two-thirds, the less globalized countries. It finds that the former have had faster economic growth, no increase in inequality, and faster reduction of poverty than the latter. "Thus globalization clearly can be a force for poverty reduction," it concludes.

The conclusion does not follow. First, using "change in the trade/GDP ratio" as the measure of globalization skews the results.[49] The globalizers then include China and India, as well as countries such as Nepal, Côte d' Ivoire, Rwanda, Haiti, and Argentina. It is quite possible that "more globalized" countries are *less* open than many "less globalized" countries, both in terms of trade/GDP and in terms of the magnitude of tariffs and nontariff barriers. A country with high trade/GDP and very free trade policy would still be categorized as "less globalized" if its *increase* in trade/GDP over 1977–97 put it in the bottom two-thirds of the sample. Many of the globalizing countries initially had very *low* trade/GDP in 1977 and still had relatively low trade/GDP at the *end* of the period in 1997 (reflecting more than just the fact that larger economies tend to have lower ratios of trade/GDP). To call relatively closed economies "more globalized" or "globalizers" and to call countries with much higher ratios of trade/GDP and much freer trade regimes "less globalized" or even "nonglobalizers" is an audacious use of language.

Excluding countries with high but not rising levels of trade to GDP from the category of more globalized eliminates many poor countries dependent on a few natural resource commodity exports, which have had poor economic performance. The structure of their economy and the low skill endowment of the population make them dependent on trade. If they were included as globalized their poor economic performance would question the proposition that the more globalized countries do better. On the other hand, including China and India as globalizers—despite relatively low trade/GDP and relatively protective trade regimes—guarantees that the globalizers, weighted by population, show better performance than the nonglobalizers. Table 5 provides an illustration.

The second problem is that the argument fudges almost to vanishing point the distinction between trade quantities and trade policy, and implies, wrongly, that rising trade quantities—and the developmental benefits thereof—are the consequence of trade liberalization.

Third, the argument assumes that fast trade growth is the major cause of good economic performance. It does not examine the reverse causation, from fast economic growth to fast trade growth. Nor does it consider that other variables correlated with trade growth may be important causes of economic performance: quality of government, for example. One reexamination of the Bank's study finds that the globalizer countries do indeed have higher

Table 5. *Trade-dependent nonglobalizers and less-trade-dependent globalizers*

	Exports/GDP			GNPRG 1988–99 (%)
	1990	1999	% Change	
Nonglobalizers				
Honduras	36	42	17	−1.2
Kenya	26	25	−0.04	0.5
Globalizers				
India	7	11	57	6.9
B'desh	6	14	133	3.3

Source: World Bank, *World Development Report 2000/01*, Tables 1 and 13.

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quality of government indicators than the nonglobalizer countries, on average. [50] Finally, trade does not capture important kinds of "openness," including people flows and ideas flows. Imagine an economy with no foreign trade but high levels of inward and outward migration and a well-developed diaspora network. In a real sense this would be an open or globalized economy, though not classified as such.

Certainly many countries—including China and India—have benefited from their more intensive engagement in international trade and investment over the past one or two decades. But this is not to say that their improved performance is largely due to their more intensive external integration. They began to open their own markets *after* building up industrial capacity and fast growth behind high barriers. [51] In addition, throughout their period of so-called openness they have maintained protection and other market restrictions that would earn them a bad report card from the World Bank and IMF were they not growing fast. China began its fast growth with a high degree of equality of assets and income, brought about in distinctly nonglobalized conditions and unlikely to have been achieved in an open economy and democratic polity. [52]

Their experience—and that of Japan, South Korea and Taiwan earlier—shows that countries do not have to adopt liberal trade policies in order to reap large benefits from trade. [53] They all experienced relatively fast growth behind protective barriers; a significant part of their growth came from replacing imports of consumption goods with domestic production; and more and more of their rapidly growing imports consisted of capital goods and intermediate goods. As they became richer they tended to liberalize their trade—providing the basis for the misunderstanding that trade liberalization drove their growth. For all the Bank study's qualifications (such as "We label the top third 'more globalized' without in any sense implying that they adopted pro-trade policies. The rise in trade may have been due to other policies or even to pure chance"), it concludes that trade liberalization has been the driving force of the increase in developing countries' trade. "The result of this trade liberalization in the developing world has been a large increase in both imports and exports," it says. On this shaky basis the Bank rests its case that developing countries must push hard toward near-free trade as a core ingredient of their development strategy, the better to enhance competition in efficient, rent-free markets. Even when the Bank or other development agencies articulate the softer principle—trade liberalization is the necessary direction of change but countries may do it at different speeds—all the attention remains focused on the liberalization part, none on how to make protective regimes more effective.

In short, the Bank's argument about the benign effects of globalization on growth, poverty and income distribution does not survive scrutiny at either end. And a recent cross-country study of the relationship between openness and income distribution strikes another blow. It finds that among the subset of countries with low and middle levels of average income (below $5,000 per capita in PPP terms, that of Chile and the Czech Republic), higher levels of trade openness are associated with *more* inequality, while among higher-income countries more openness goes with less inequality. [54]

6. CONCLUSION

It is plausible, and important, that the proportion of the world's population living in extreme poverty has probably fallen over the past two decades or so, having been rising for decades before then. Beyond this we cannot be confident, because the World Bank's poverty numbers are subject to a large margin of error, are probably biased downward, and probably make the trend look rosier than it really is. On income distribution, several studies suggest that world income inequality has been rising during the past two to three decades, and a study of manufacturing pay dispersions buttresses the same conclusion from another angle. The trend is sharpest when incomes are measured at market-exchange-rate incomes. This is less relevant to relative well-being than PPP-adjusted incomes, in principle; but it is highly relevant to state capacity, interstate power, and the dynamics of capitalism. One combination of inequality measures does yield the conclusion that income inequality has been falling—PPP-income per capita weighted by population, measured by an averaging coefficient such as the Gini. But take out China and even this measure shows widening inequality. Falling inequality is thus not a *generalized* feature of the world economy even by the most favorable measure. Finally, whatever we conclude about income inequality, absolute income gaps are widening and will continue to do so for decades.

If the number of people in extreme poverty is not falling and if global inequality is widening, we cannot conclude that globalization in the context of the dollar-Wall Street regime is moving the world in the right direction, with Africa's poverty as a special case in need of international attention. The balance of probability is that—like global warming—the world is moving in the wrong direction.

The failure of the predicted effects aside, the studies that claim globalization as the driver are weakened by (a) the use of *changes* in the trade/GDP ratio or FDI/GDP ratio as the index of globalization or openness, irrespective of level (though using the level on its own is also problematic, the level of trade/GDP being determined mainly by country size); (b) the assumption that trade liberalization drives increases in trade/GDP; and (c) the assumption that increases in trade/GDP drive improved economic performance. The problems come together in the case of China and India, whose treatment dominates the overall results. They are classed as "globalizers," their relatively good economic performance is attributed mainly to their "openness," and the deviation between their economic policies—substantial trade protection and capital controls, for example—and the core economic policy package of the World Bank and the other multilateral economic organizations is glossed.

At the least, analysts have to separate out the effect of country size on trade/GDP levels from other factors determining trade/GDP, including trade policies, because the single best predictor of trade/GDP is country size (population and area). They must make a clear distinction between statements about (i) levels of trade, (ii) changes in levels, (iii) restrictiveness or openness of trade policy, (iv) changes in restrictiveness of policy, and (v) the content of trade—whether a narrow range of commodity exports in return for a broad range of consumption imports, or a diverse range of exports (some of them replaced imports) in return for a diverse range of imports (some of them producer goods to assist further import replacement).

(a) *Should we worry about rising inequality?*

The neoliberal argument says that inequality provides incentives for effort and risk-taking, and thereby raises efficiency. As Margaret Thatcher put it, "It is our job to glory in inequality and see that talents and abilities are given vent and expression for the benefit of us all." [55] We should worry about rising inequality only if it somehow makes the poor worse off than otherwise.

The counterargument is that this productive incentive effect applies only at moderate, Scandinavian, levels of inequality. At higher levels, such as in the United States over the past 20 years, it is likely to be swamped by social costs. Aside from the moral case against it, inequality above a moderate level creates a kind of society that even crusty conservatives hate to live in, unsafe and unpleasant.

Higher income inequality within countries goes with: (i) higher poverty (using World Bank data and the number of people below the Bank's international poverty line); [56] (ii) slower economic growth, especially in large countries such as China, because it constrains the growth of mass demand; (iii) higher unemployment; and (iv) higher crime. [57] The link to higher crime comes through the inability of unskilled men in high inequality societies to play traditional male economic and social roles, including a plausible contribution to family income. But higher crime and violence is only the tip of a distribution of social relationships skewed toward the aggressive end of the spectrum, with low average levels of trust and social capital. In short, inequality at the national level should certainly be a target of public policy, even if just for the sake of the prosperous.

The liberal argument is even less concerned about widening inequality between countries than it is about inequality within countries, because we cannot do much to lessen international inequality directly. But on the face of it, the more globalized the world becomes, the more that the reasons why we should be concerned about within-country inequalities also apply between countries. If globalization within the current framework actually increases inequality within and between countries, as some evidence suggests, increases in world inequality above moderate levels may cut world aggregate demand and thereby world economic growth, making a vicious circle of rising world inequality and slower world growth.

Rising inequality between countries impacts directly the national political economy in the poorer states, as rich people who earlier compared themselves to others in their neighborhood now compare themselves to others in the United States or Western Europe, and feel deprived and perhaps angry. Inequality above moderate levels may, for example, predispose the elites to become more corrupt as they compare themselves to elites in rich countries. They may squeeze their own populations in order to sustain a comparable living standard, enfeebling whatever norms of citizenship have emerged and preventing the transition from an "oligarchic" elite, concerned to maximize redistribution upward and contain protests by repression, to an "establishment" elite, concerned to protect its position by being seen to operate fairly. Likewise, rapidly widening between-country inequality in current exchange rate terms feeds back into stress in public services, as the increasing foreign exchange cost of imports, debt repayment and the like has to be offset by cuts in budgets for health, education, and industrial policy.

Migration is a function of inequality, since the fastest way for a poor person to get richer is to move from a poor country to a rich country. Widening inequality may raise the incentive on the educated people of poor countries to migrate to the rich countries, and raise the incentive of unskilled people to seek illegal entry. Yet migration/refugees/asylum is the single most emotional, most atavistic issue in Western politics. Polls show that more than two-thirds of respondents agree that there should be fewer "foreigners" living in their countries. [58]

Rising inequality may generate conflict between states, and—because the *market-exchange-rate* income gap is so big—make it cheap for rich states to intervene to support one side or the other in civil strife. Rising inequality in market-exchange-rate terms—helped by a high US dollar, a low (long-run) oil price, and the WTO agreements on intellectual property rights, investment, and trade in services—allows the United States to finance the military sinews of its postimperial empire more cheaply. [59]

The effects of inequality within and between countries depend on prevailing norms. Where power hierarchy and income inequality are thought to be the natural condition of man the negative effects can be expected to be lighter than where prevailing norms affirm equality. Norms of equality and democracy are being energetically internationalized by the Atlantic states, at the same time as the lived experience in much of the rest of the world is from another planet.

In the end, the interests of the rich and powerful should, objectively, line up in favor of greater equity in the world at large, because some of the effects of widening inequality may contaminate their lives and those of their children. This fits the neoliberal argument. But the route to greater equity goes not only through the dismantling of market rules rigged in favor of the rich—also consistent with the neoliberal argument—but through more political (non-market) influence on resource allocation in order to counter the tendency of free markets to concentrate incomes and power. This requires international public policy well beyond the boundaries of neoliberalism.

The need for deliberate international redistribution is underlined by the evidence that world poverty may be higher in absolute numbers than is generally thought, and quite possibly rising rather than falling; and that world income inequality is probably rising too. This evidence suggests that the income and prosperity gap between a small proportion of the world's population living mainly in the North and a large proportion living entirely in the South is a structural divide, not just a matter of a lag in the South's catch-up. Sustained preferences for the South may be necessary if the world is to move to a single-humped and more narrowly dispersed distribution over the next century.

(b) *The political economy of statistics*

Concerns about global warming gave rise to a coordinated worldwide project to get better climatological data; the same is needed to get better data on poverty and inequality. The World Bank is one of the key actors. It has moved from major to minor source of foreign finance for most developing countries outside of Africa. But it remains an important global organization because it wields a disproportionate influence in setting the development agenda, in offering an imprimatur of "sound finance" that crowds in other resources, and in providing finance at times when other finance is not available. Its statistics and development research are crucial to its legitimacy. [60] Other regional development banks and aid agencies have largely given up on statistics and research, ceding the ground to the World Bank. Alternative views come only from a few "urban guerrillas" in pockets of academia and the UN system. [61] Keynes' dictum on practical men and long-dead economists suggests that such intel-

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lectual monopolization can have a hugely negative impact.

Think of two models of a statistical organization that is part of a larger organization working on politically sensitive themes. The "exogenous" model says that the statistics are produced by professionals exercising their best judgment in the face of difficulties that have no optimal solutions, who are managerially insulated from the overall tactical goals of the organization. The "endogenous" model says that the statistics are produced by staff who act as agents of the senior managers (the principals), the senior managers expect them to help advance the tactical goals of the organization just like other staff, and the statistics staff therefore have to massage the data beyond the limits of professional integrity, or quit.

Certainly the simple endogenous model does not fit the Bank; but nor does the other. The Bank is committed to an Official View of how countries should seek poverty reduction, rooted in the neoliberal agenda of trade opening, financial opening, privatization, deregulation, with some good governance, civil society and environmental protection thrown in; it is exposed to arm-twisting by the G7 member states and international nongovernmental organizations (NGOs); it must secure their support and defend itself against criticism. [62] It seeks to advance its broad market opening agenda not through coercion but mainly by establishing a sense that the agenda is right and fitting. Without this it would lose the support of the G7 states, Wall Street, and fractions of developing country elites. The units of the Bank that produce the statistics are partly insulated from the resulting pressures, especially by their membership in "epistemic communities" of professionals inside and outside the Bank; but not wholly insulated. To say otherwise is to deny that the Bank is subject to the Chinese proverb, "Officials make the figures, and the figures make the officials;" or to Goodhart's law, which states that an indicator's measurement will be distorted if it is used as a target. (Charles Goodhart was thinking of monetary policy, but the point also applies to variables used to make overall evaluations of the performance of multilateral economic organizations.) To say otherwise is equally to deny that the Bank is affected by the same pressures as the Fund, about which a former Fund official said, "The managing director makes the big decisions, and the staff then puts together the numbers to justify them." [63] But little is known about the balance between autonomy and compliance in the two organizations, or the latitude of their statisticians to adjust the country numbers provided by colleagues elsewhere in the organization which they believe to be fiddled (as in the China case, above). [64]

Some of the Bank's statistics are also provided by independent sources, which provide a check. Others, including the poverty numbers, are produced only by the Bank, and these are more subject to Goodhart's law. The Bank should appoint an independent auditor to verify its main development statistics or cede the work to an independent agency, perhaps under UN auspices (but if done by, say, UNCTAD, the opposite bias might be introduced). And it would help if the Bank's figures on poverty and inequality made clearer than they do the possible biases and the likely margins of error.

All this, of course, only takes us to the starting point of an enquiry into the causes of the probable poverty and inequality trends, [65] their likely consequences, and public policy responses; but at least we are now ready to ask the right questions. Above all, we have to go back to a distinction that has all but dropped out of development studies, between increasing returns and decreasing returns or, more generally, between positive and negative feedback mechanisms. The central question is why, at the level of the whole, the increasing returns of the Matthew effect—"To him who hath shall be given"—continues to dominate decreasing returns in the third wave of globalization.

NOTES

1. Gowan (1999).

2. Mazur (2000).

3. Wolf (2000).

4. International Monetary Fund (2003). The trend is, however, highly sensitive to the dollar's strong depreciation in the 1970s and appreciation in the 1990s. When this is allowed for, the world growth rate may be closer to trendless.

5. In more concrete terms the number of hours of work it took for an entry-level adult male employee of McDonalds to earn the equivalent of one BigMac around 2000 ranged from: Holland/Australia/NZ/UK/US, 0.26–0.53 h; Hong Kong, 0.68 h; Malaysia/South Korea, 1.43–1.46 h; Philippines/Thailand, 2.32–2.2.66 h; China, 3.96 h; India, 8 h.

6. Purchasing power parity is a method of adjusting relative incomes in different countries to take account of the fact that market exchange rates do not accurately reflect purchasing power—as in the common observation that poor Americans feel rich in India and rich Indians feel poor in the United States.

7. The WIDER data set marries consumption from household surveys with consumption from national income accounts, and makes an allowance for (nonpublic sector) nonpriced goods and services.

8. World Bank (2002a) and World Bank (2002b, p. 30).

9. Wolfensohn (2001).

10. World Bank (2001b, p. 3). The $1 a day is measured in purchasing power parity. See also World Bank (2002c).

11. I am indebted to Sanjay Reddy for discussions about the Bank's poverty numbers (Reddy & Pogge, 2003a). See also Ravallion (2003), and Reddy and Pogge (2003b). In this paper I do not consider the additional problems that arise when estimating the impact of economic growth on poverty. See Deaton (2003).

12. The Bank also calculates a poverty headcount with $2/day, which suffers from the same limitations as the $1/day line.

13. Reported in Deaton (2001).

14. See Reddy and Pogge (2003a).

15. Also "[Since 1980] the most rapid growth has occurred in poor locations. Consequently the number of poor has declined by 200 million since 1980" (Dollar & Kraay, 2002, p. 125).

16. The new results were published in World Development Report 2000/2001 (World Bank, 2001a).

17. Deaton (2001, p. 128).

18. I take this example from Pogge and Reddy (2003).

19. The 25–40% figure is Reddy and Pogge's estimate, the range reflecting calculations based on PPP conversion factors for 1985 and 1993, and for "all-food" and "bread-and-cereals" indices.

20. Also, Bolivia's extreme poverty rate according to the World Bank line was 11%, according to the ECLA line, 23%; Chile, 4%, 8%; Colombia, 11%, 24%; Mexico, 18%, 21% (ECLA, 2001, p. 51).

21. Reddy and Pogge (2003a).

22. This effect is amplified by the widespread removal of price controls on "necessities" and the lowering of tariffs on luxuries.

23. Gopinath (2002).

24. See Wade (2002a). It uses Stiglitz's firing and Kanbur's resignation to illuminate the US role in the Bank's generation of knowledge.

25. Meltzer Commission (2000). Meltzer later described the drop in the proportion of the world's population in poverty from 28% in 1987 to 24% in 1998 as a "modest" decline, the better to hammer the Bank (Meltzer, 2001).

26. World Bank (2002c). See Deaton (2002).

27. Dollar was ascendant not in terms of bureaucratic position but in terms of epistemic influence, as seen in the Human Resource department's use of him as a "metric" for judging the stature of other economists. When reporters started contacting the Bank to ask why it was saying different things about the poverty numbers—specifically why two papers on the Development Research Complex's web site gave different pictures of the trends—the response was not, "We are a research complex, we let 100 flowers bloom," but rather an assertion of central control. Chief economist Nick Stern gave one manager "special responsibility" for making sure the Bank's poverty numbers were all "coherent" (Stern to research managers, email, April 4, 2002).

28. Non-World Bank champions of the idea that globalization improves global income distribution include Martin Wolf of The Financial Times (Wolf, 2002b; source of the epigraph; Wolf, 2000, 2001a, 2001b); also Giddens, described by some as a leading social theorist of his generation (2002, p. 72), and Ian Castles, former Australian Statistician, who claims that

"most studies suggest that the past 25 years have seen a reversal in the trend towards widening global inequalities which had been proceeding for two centuries" (Castles, 2001).

29. In addition to the studies referenced elsewhere I draw on: Firebaugh (1999), Jones (1997), Pritchett (1997), Quah (1997), UNDP (1999), Kanbur (2002), Korzeniewicz and Moran (1997, 2000).

30. A reviewer comments, "The idea of using market exchange rates to calculate international inequality is unbelievably stupid, and it is amazing that it still makes an appearance here. The UN had a commission of enquiry on this, which concluded unambiguously that using market exchange rates was wrong." But, the World Bank continues to use market exchange rates, adjusted by the "Atlas" methodology, to calculate the per capita incomes that it then uses to rank countries by their degree of development; and hence as a criterion for its lending decisions. Member countries' voting shares in the Bank are based largely on their Fund quotas, which in turn are based largely on relative GDP at market exchange rates. So the Bank's practice does imply that it thinks that relative per capita incomes calculated through market exchange rates are meaningful proxies for well-being (and the practice has the benefit of holding down the voting share of developing countries). Moreover, as the text explains, incomes converted at market exchange rates do give meaningful measures of *international* purchasing power. Businesses making exporting and FDI decisions (auto makers, for example) pay more attention to relative incomes at market exchange rates than to PPP incomes.

31. Dikhanov and Ward (2003).

32. Milanovic (2002b).

33. ECLA (2002, p. 85). The dispersion of per capita GDP/PPP is measured as the average logarithmic deviation, the dispersion of growth rates as the standard deviation.

34. In an earlier debate with Martin Wolf I wrongly said that the result depends on both China and India. Wolf commented, "Here you argue that if we exclude China and India, there is no obvious trend in inequality. But why would one want to exclude two countries that contained about 60% of the world's poorest people two decades ago and still contain almost 40% of the world's population today? To fail to give these giants their due weight in a discussion of global poverty alleviation or income distribution would be Hamlet without the princ." (Wolf, 2002a). This misconstrues my argument.

35. Dowrick and Akmal (2001). They find that world inequality increased over 1980–93 using Gini, Theil, coefficient of variation, and the variance of log income.

36. Milanovic's (2002a) preliminary analysis of 1998 data and an associated reworking of 1988 and 1993 data has produced the following Gini coefficients (and standard deviations): 1988: 61.9 (1.8), 1993: 65.2 (1.8), 1998: 64.2 (1.9). The trend for the Theil coefficient is similar (personal communication, June 9, 2003). Sala-i-Martin (2002) finds a drop in both extreme poverty and inequality. His findings have been rejected in Milanovic (2002c) and Nye and Reddy (2003).

37. Dikhanov and Ward (2003).

38. See the work of James Galbraith and collaborators in the University of Texas Inequality Project, http://utip.gov.utexas.edu. Also, Galbraith (2002).

39. This is the answer to a reviewer's remark, "The work of Galbraith and his collaborators at Texas is essentially worthless for the purposes currently being discussed. We are interested in people's command over resources, not the earnings of people in work in the formal sector. The latter is transparently irrelevant in most of the poor countries of the world, including India and China."

40. See Kynge (2002) and Rawski (2002). As another example from Rawski's analysis, Chinese government figures show total real GDP growth of 25% during 1997–2000, whereas energy consumption figures show a drop of 13% (not all of which is likely to be due to replacement of inefficient coal-fired furnaces.) Rawski estimates the growth rate since 2000 has been about half the official rate. See further Waldron (2002).

41. World Bank sources who request anonymity. During negotiations for China's joining the WTO Chinese economists argued against the insistence of the United States and other rich countries that its average income be expressed in terms of purchasing power party—and hence that China should be under the same obligations as "middle-income" countries, tougher than those on "low-income" countries. This is another example of the politics of statistics.

42. In addition, taking account of even just the obviously big and roughly measurable environmental

costs lowers China's official GDP by roughly 8%, India's, by 5%. See Hommann and Brandon (1995).

43. Evidence for rising inequality in India over the past two decades is set out in Jha (2000). Deaton agrees that inequality in India has been increasing "in recent years," and that consumption by the poor did not rise as fast as average consumption (Deaton, 2002).

44. Some sources give ratios of 7:1 in the early 1990s to 11:1 in the late 1990s. But these figures take Shanghai as the richest province. With Shanghai province = city as the numerator the ratio reflects not only regional disparity but also rural-urban disparity, and more specifically, the growth of a new Hong Kong within China (one whose average income is exaggerated because nonpermanent residents are not included in its population). For these points I thank Andrew Fischer, PhD candidate, Development Studies Institute, LSE.

45. Krugman (2002).

46. Babones (2002).

47. Dikhanov and Ward (2003).

48. World Bank (2002c).

49. In this Section 1 draw on the arguments of Rodrik (1999, 2001).

50. Besley (2002). Besley uses indicators such as press freedom, democratic accountability, corruption, civil rights.

51. Cf. "As they reformed and integrated with the world market, the 'more globalized' developing countries started to growth rapidly, accelerating steadily from 2.9% in the 1970s to 5% through the 1990s" (World Bank, 2002c, p. 36, emphasis added).

52. Rodrik (1999).

53. Wade (2003a [1990]).

54. Milanovic (2002b). Milanovic finds that in countries below the average income of about $PPP 5,000, higher levels of openness (imports plus exports/GDP) are associated with lower income shares of the bottom 80% of the population.

55. Quoted in George (1997).

56. Besley and Burgess (2003).

57. Lee and Bankston (1999), Hsieh and Pugh (1993), Fajnzylber, Lederman, and Loayza (1998) and Freeman (1996).

58. Demeny (2003).

59. Wade (2003b, 2003c).

60. Kapur (2002).

61. For a good example of a heterodox book from a corner of the UN system, see UNDP (2003). The WTO lobbied to prevent its publication.

62. Wade (2003d).

63. Gopinath (1999).

64. Key experts in the relevant statistical unit thought that colleagues had fiddled the China income numbers reported in Table 4, but their boss ignored their objections.

65. For discussion of causes see Wade (2002b, in press).

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