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Publication Date

2004-11-12

3 Oct 04.

INEQUALITY AND GLOBALIZATION: COMMENT ON FIREBAUGH AND GOESLING

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Firebaugh, G. and B. Goesling (2004). "Accounting for the Recent Decline in Global Income Inequality." American Journal of Sociology **110**(Number 2 (September 2004)): 283-312.

Posted at UC Atlas of Global Inequality (<http://ucatlas.ucsc.edu>) entitled 'Inequality - current debates'.

You would think that all the buzz around “globalization”—as in the skyrocket rise in the number of books with this word in the title since 1990—would have prompted a surge of literature about trends in world poverty and income distribution. In fact, it has been more a trickle than a surge, and mostly from international economists and sociologists. Oddly, political scientists and IR scholars have shown little interest in the subject. Among the sociologists Glen Firebaugh and Brian Goesling (F&G) are pioneers. Their contributions have been careful and even-toned, in contrast to some of the polemical tracts coming out from international economics. In the article under discussion, F&G build on their earlier work to make four main points.

- (1) Global income distribution—which includes both distribution within countries and distribution between countries, as an approximation to the distribution between all 6+ billion individuals – has become more equal since about 1980, having been rising for nearly two centuries.
- (2) The earlier rise was due mainly to rising inequality between countries’ average incomes. The current fall is due to the shrinkage in the this inter-country inequality. This shrinkage in turn is due mainly to the rapid rise of the per capita income of demographic giants in East and South Asia towards the world average, offsetting falls in per capita

incomes in other less populous regions (Sub-saharan Africa and Eastern Europe and Russia).

- (3) The good news about inter-country income distribution is due mainly to “globalization”, specifically, industrialization in Asia, which has raised Asian per capita growth rates, more than offsetting the unequalizing effects of another commonly invoked face of globalization, the spread of ICT technology in the West.
- (4) The continued industrialization of the South, spreading to regions that are now “lagging”, plus the rising proportion of working-agers to dependents, means that the present trend of falling inter-country inequality will continue for several decades into the future. Conversely, a rising proportion of (falling) world income inequality will be due to intra-country inequality, which is easier to mitigate through state redistribution. Hence, contrary to standard claims on the Left--given academic respectability by, for example, Manuel Castells--globalization has been and will continue to be good for world income distribution. Those who “think for the world” should call for more globalization, not less, and especially for lagging regions. By implication, those whom G&F call “critics of globalization” have got it quite wrong.¹

One admires the confidence with which they advance this argument, as in the opening declaration, “Following nearly two centuries of growth, global income inequality declined in the last decades of the twentieth century”. No ifs or buts, not here and not in the rest of the long text, where they describe their conclusion as “fact” and the claim that the trend was in the opposite direction as “myth”. They write in the same spirit of resolute optimism as Martin Wolf, the *Financial Times* columnist, winner of the Financial Journalist of the Year award, and author of *Why Globalization Works: The Case for a World Market Economy* (Yale University Press, 2004). According to Wolf, “The evidence strongly suggests that, as a result [of the acceleration of development in Asia], inequality among households across the globe is also falling. There is also little doubt that not just the proportion of the world’s population in extreme poverty, but the absolute numbers are falling”.²

¹ Much the same ground is covered in Glen Firebaugh, *The New Geography of Global Income Inequality*, Harvard University Press, 2003.

² Martin Wolf, “States are cure and disease”, Special Report: World Economy, 1 October 2004.

Methodological choices influence the result

To answer the question, “What has been the trend in world income inequality since about 1980? ”, one has to navigate through a series of choices of measures and data sources. The answer arrived at is sensitive to the path one selects. There is no one clearly “best” set of choices.

The choices include: countries weighted by population or not; incomes converted to a common currency at market exchange rates or with purchasing power parity (PPP) converters; an averaging coefficient like the Gini or a measure of polarization (eg income of the top 10% over the bottom 10%; or average income of different regions, eg Latin America, as a proportion of that of the North, or the US); national income accounts or household surveys; Penn World Tables or Angus Maddison; Geary-Khamis PPPs or Afriat PPPs; sample countries; time period; and more. Some choices are more likely to yield increasing inequality; others, falling inequality.

At the least, one should present conclusions about magnitude and trend with some indication of the margins of error, and not select studies that confirm one’s priors as though they are the only ones that matter.

What are the trends? Is global income inequality lower today than it was two decades ago, and if so, does this reflect a broad tendency in the world economy?

The authors cite several studies in support of their starting point, that global income inequality is *lower* today than it was two decades ago”. It is unfortunate that they take these studies at face value, without mentioning the substantial critiques that have been made of them. For example, they rely heavily on the studies by Bhalla and Sala-I-Matin, taking them at face value. Branko Milanovic, Martin Ravallion, among others, have shown why Bhalla and Sala-I-Matin should not be taken at face value.³

³ B. Milanovic, “The Ricardian vice: why Sala-I-Matin’s calculations are wrong”, typescript, Development Economics Research Group, World Bank, 2002, available www.ssrn.com. Martin Ravallion, “The debate on globalization, poverty and inequality: why measurement matters”, Policy Research Working Paper 3038, World Bank, 2003; “Competing concepts of inequality in the globalization debate”, PRWP 3243, 2004.

I now suggest how sensitive the conclusions about trends are to the choices of measures and data by citing several studies that give substantially different results to F&G's, classifying them by (some of) the choices they have made. ⁴

Studies using purchasing power parity (PPP) incomes and a measure of inequality over the whole distribution

Serious studies that F&G do not cite yield more or less the opposite of their conclusion—rising or steady income inequality, *even studies making broadly similar choices of measures and data*. For example, 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 (including the Gini). ⁵

The difference between their result and that of F&G comes largely from one apparently small technical change. They use a different method of calculating PPPs (the Afriat method) than the one used in the source for F&G's data, the Geary-Khamis method. Geary-Khamis is used in both the Penn World Tables and Maddison, two of the standard sources for PPP income numbers. But Dowrick and Akmal consider the Afriat method more appropriate because it avoids a bias in Geary-Khamis, namely, it avoids uplifting the relative real income of low incomes by pricing services consumed in poor countries at the relatively high relative prices of those same services prevailing in rich countries. The fact that Dowrick and Akmal find that the trend towards falling inequality reverses itself just by switching from Geary-Khamis PPPs to Afriat PPPs has much wider significance. *It underlines the unrobustness of the conclusion that world income inequality is falling.*

Still other studies that the authors do not cite agree on the overall trend but come to a quite different conclusion about the China factor, and so about the generalized nature of the trend. Bob

⁴ For a good overview of the issues, see Peter Svedberg, "Income distribution across countries: how it is measured and what do the results show?", Paper 698, Institute for International Economic Studies, Stockholm University, September 2001. At www.iies.su.se.

⁵ S. Dowrick and M. Akmal, "Explaining contradictory trends in global income inequality: a tale of two biases", Faculty of Economics and Commerce, Australian National University, March 29, 2001.

Sutcliffe, for example, calculates (using Maddison’s PPP data) the Gini coefficient of inter-country income distribution from 1950 to 2000.⁶ He finds that the Gini rises from 1960 to 1980, turns in 1980, and falls thereafter—the same result as Firebaugh and Goesling. He then takes out one country, China, and finds that the trend is dramatically reversed. Without China the Gini rises fast after 1980. See Figure 1. Remove India and the Gini rises even faster.

Martin Wolf says it is illegitimate to exclude China or India. He asks, “Why would one want to exclude two countries that ... still contain almost 40 percent 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 Prince”.⁷ Wolf misses the point. If the trend towards falling inequality since 1980 reverses itself with the removal of one country, we cannot say—as Wolf, Firebaugh and Goesling, and many others say or imply—that falling inequality is a general property of the world economy, a few lagging regions aside. Such a dramatic reversal of trend with the exclusion of one (big) case should qualify F&G’s optimism that the world is indeed moving in the right direction.

[Figure 1]

Studies using PPP incomes and a ratio measure

Ratio measures are relevant for a second facet of inequality, polarization rather than the degree of inequality over the whole distribution. One such measure is the weighted average income of different regions relative to that of the North. It shows a clear trend over 1950-2000, shown in Figure 2, where incomes are measured in PPP terms. All regions show a fall in the ratio, indicating growing inequality, except “Asia” (which includes territories east of Turkey, including China but excluding Japan and Russia). Figure 2 also shows the China line (taken out from the Asia line), in order to show that the upturn in the Asia trend around 1980 is mainly a function of China. For the South as a whole, the trend falls from 1950 to 1990 and rises very slightly thereafter.

⁶ Bob Sutcliffe, “World inequality and globalization”, *Oxford Review of Economic Policy*, 20, 1, 2004, based on Maddison, *The World Economy: Historical Statistics*, OECD, Paris, 2003.

⁷ “Are global poverty and inequality getting worse? Robert Wade: Yes, Martin Wolf: No”, *Prospect*, March 2002.

[Figure 2 here]

Studies using incomes at market exchange rates and a ratio measure

Still other studies using ratio measures, but with market exchange rates rather than PPP income data, come to the same broad conclusion of rising or steady inequality since 1980 for all regions except East Asia. For example, Arrighi, Silver and Brewer (2003) and Ikeda (2004).⁸ Ikeda shows that, across a sample of 150 countries, the great majority experienced a *fall* in their per capita income as a proportion of the US's between 1980 and 1999, whatever their starting percentage: whether in the top, middle and lower parts of the distribution, most states fell. (China and India remained constant, in terms of Ikeda's 10-fold scale of percentages.)

Studies using incomes at market exchange rates and a measure of inequality over the whole distribution

F&G are emphatic: "The use of foreign exchange (FX) rate data [does not] support the claim of rapidly growing income inequality that one often finds in the popular press (eg Wade 2001). Wade (2001) claims that, by using income estimates not adjusted for purchasing power parity (PPP), we discover that global income inequality is worsening rapidly. *We find no evidence for that claim since in our analysis the trend in between-nation income inequality is ambiguous for 1980-98...when FX data are used.*"⁹

F&G find no evidence for the claim because they look only at their own evidence. Peter Svedberg reports from his survey of a large number of studies, "Many studies have used national per capital GNP statistics, converted to US dollars... according to current official market exchange rates, as the income measurement...*All these studies have found very large income*

⁸ G. Arrighi, B. Silver, B. Brewer, "Industrial convergence, globalization and the persistence of the North-South divide", *Studies in Comparative International Development*, 38, 1, 2003. Satoshi Ikeda, "Zonal structure and the trajectories of Canada, Mexico, Australia, and Norway under neo-liberal globalization", in Marjorie Griffin Cohen and Stephen Clarkson (eds.), *Governing Under Stress: Middle Powers and the Challenge of Globalization*, Zed Press, 2004. Branko Milanovic (personal communication) has come to rather similar findings about the strong downdraft in state mobility in the income hierarchy, using a four-category scale of per capita PPP incomes as a proportion of that of the bottom country in the top category.

⁹ F&G, 2004, note 8, emphasis added.

discrepancies across countries and also that the differences have increased markedly over time. This result holds true regardless of which measurement is employed for income distribution... and also regardless of other methodological differences between the studies. However, *none* of the studies reporting unchanged or improved income distribution has used exchange-rate-based income measurements.”¹⁰

Marrying inter- and intra-country distributions

As noted, F&G’s results are limited to the inter-country distribution, on the grounds that the inter-country distribution weighs—and has weighed over the past century or so—much more heavily in the overall trend than intra-country distributions. Most of the existing studies also make use of national per capita income, ignoring internal distribution.

Again, one must question whether it is appropriate to go straight from (questionable) conclusions about falling inequality of inter-country inequality to conclusions about falling inequality between the world’s individuals or households. The fact is that we have only poor quality data on trends in income distribution within most developing countries going back three decades or more. (The World Bank calculated a very low Gini for Lesotho—to the delight of the government--on the assumption that cattle owners all had roughly the same number of cattle—overlooking the point that only half of the rural population owned cattle.) Several studies that purport to marry between-country with within-country income distributions in order to arrive at conclusions about global income distribution between all 6+ billion people in fact simply *assume* a standard shape of income distribution around each country’s average.

For all the uncertainty, we can be fairly sure that intra-country income inequalities in developing countries, and especially in China and India, are widening. To my knowledge no-one has convincingly calculated the net effect of (a) falling world inequality as average incomes in China and India move towards the world average income, and (b) rising world inequality as income distribution within China and India, and other developing countries, becomes rapidly more unequal.

¹⁰ Svedberg, 2001, p.5, first emphasis added, second in text.

We can also say with some confidence that residents of South Asia and East Asia still greatly outnumber residents of Sub-Saharan Africa in the bottom decile of world income distribution.¹¹ F&G's talk of the "Africanization of world poverty" is misleading if taken to mean that most of the people in the bottom decile are Africans, though it is certainly true that the *proportion* of Africans in the bottom decile has been increasing.

Studies using household survey data

For some kinds of questions data on *inter-country* distributions—whether weighted by population or not—is interesting. But if we are interested in questions about the distribution of material welfare (or resource capabilities), we need, in the end, data on the incomes or expenditures of individuals or households, not averages. We would not want to use the per capita income of US states as a measure of US income distribution if we had plausible data on the incomes of US individuals or households.

But there is an embarrassing problem: the estimates of per capita income or consumption derived from household surveys tend to be much lower than those derived from national income accounts (the basis of the GDP per capita numbers used by all the above studies); not only much lower, but also growing more slowly—and the gap is especially big in China and India, the countries whose fast GDP per capita growth is critical for the F&G conclusion of falling inter-country inequality.

Only Branko Milanovic has tried to put together a large set of household income and expenditure surveys for many countries, and calculate measures of global income inequality directly from it. He finds that world income inequality measured in this way increased dramatically between 1988 and 1993, and fell a little between 1993 and 1998.¹²

¹¹ Wade, "Is globalization reducing poverty and inequality?", *World Development* 32, 4, 2004, reporting results of Yuri Dikhanov and Michael Ward.

¹² B. Milanovic, "True world income distribution, 1988 and 1993: first calculations based on household surveys alone", *Economic Journal* 112, 476, 2002; "Can we discern the effect of globalization on income distribution? Evidence from household budget surveys", World Bank Policy Research Working Papers 2876, available: <http://econ.worldbank.org>. Milanovic did much of his research while in the research complex of the World Bank. But his managers gave little support, so he had to do it in the evenings and weekends. He subsequently found a more congenial base at the Carnegie Endowment for International Peace. One wonders how those Bank research managers would have reacted had he concluded that world income inequality was falling.

It is odd that F&G do not engage with the Milanovic results.

Pay dispersions

Several other kinds of data—including trends in manufacturing pay dispersions reported in papers of the University of Texas Inequality Project (www.utip.org) -- point in the direction of a widening of monetary inequality worldwide after 1980.

The population bomb

The discussion so far has mostly been about the measurement of income. But the measurement of income inequality also requires measurement of population. It turns out that the margins of error in our population estimates are also large, yet unacknowledged in the studies of income distribution. For example, in 2000 the World Bank revised downwards the rate of growth of world population for 1980-90 and for 1990-99 by fully 40 percent. Peter Svedberg remarks that this is “the most radical statistical revision ever completed for an indicator as important as population growth”. Yet oddly, the World Bank drew no attention to the revision—and certainly did not explain it. Svedberg draws the conclusion: “All the distribution studies reviewed earlier employed the previous, obviously incorrect population statistics as their basis. If those statistics are completely misleading... they must have distorted the estimates of income distribution in the world to a great, although unknown extent”.¹³

In short, there are many reasons to be cautious about accepting F&G’s claim, “Mounting evidence indicates ... that global income inequality is *lower* today than it was two decades ago”. At the least we have to (a) acknowledge evidence to the contrary, (b) explain why the counter evidence is not to be counted, and (c) acknowledge that even by the measures and data sources that show falling overall inequality, the result depends mostly on China.

The role of globalization

¹³ Svedberg, 2001, p.17. In Wade, “Is globalization reducing poverty and inequality?”, I show how the Bank made a similarly drastic, unremarked and unexplained revision downwards to China’s per capita income between the years 1997 and 1998—while failing to adjust downwards the growth rate.

My remarks so far have concerned Firebaugh and Goesling's propositions (1) and (2) above, about the trends themselves. The authors are also concerned to establish the role of "globalization" in driving the falling inequality, and I summarize their conclusions in propositions (3) and (4) above.

The first problem is that they do not indicate how they measure globalization. Apparently not as recent World Bank publications have measured it, as the *change* in trade/GDP ratio between 1977 and 1997.¹⁴ The choice has the fortunate result of putting China and India in the "globalizers" category and heavily trade dependent, poorly performing economies in the "non-globalizers" category. With this choice of measure the conclusion that globalizers do better than non-globalizers is practically guaranteed. (The Bank goes on to fudge the distinction between trade volumes and trade policies, so the result gets transmuted into the quite different claim that liberal trade policies are best for developing countries.)

F&G seem to measure globalization by the weight of industry in the economy. Globalization spreads industrial technology; so the more industry, the more globalized. The authors simply assume that the spread of industrial technology will enable poor countries to grow faster than rich ones and hence further reduce the inter-country component of world income inequality. But they also recognize that inequality when measured in terms of per capita PPP incomes alone—not weighted by population—has been widening. This should have alerted them to the doubtful validity of the assumption that industrial technology will spread as they expect, and will have the expected effect on income growth.

They might have made mention of the finding of Arrighi, Silver and Brewer, that overall, the South converged on the North in terms of manufacturing industry between 1960 and 1998 (manufacturing's share of GDP and manufacturing's share of total employment). But average incomes diverged from that of the North in most regions; and the same holds for most regions, with East Asia again an exception. (They measure incomes at market exchange rates; but Figure 2 shows that the same trend holds in PPP incomes.)

¹⁴ For example, World Bank, *Globalization, Growth and Poverty: Building an Inclusive World Economy*, Oxford University Press, 2002.

This suggests, though it certainly does not demonstrate, that each additional unit of industrialization in developing countries may be yielding less income, that diminishing returns has set in at the aggregate level. In which case, the grand policy conclusion of Firebaugh and Goesling’s argument—more industrialization in developing countries will generate faster falls in income inequality between countries—is open to question. And there is the further question about how developing countries should go about accelerating industrialization, whether through the free-market strategy known as liberalism or the Washington Consensus or through more state-directed strategies of governing the market. Only liberal fundamentalists portray China’s success in growth and poverty reduction as the result of China’s enactment over the 1980s and 1990s of the Washington Consensus development policies.

I hope that F&G are right about the spread of industrialization of an *increasing* returns kind. But their conceptual schema seems to have no place for the notion of “structure” in the world economy, such that the “more economic links” between nations, which F&G celebrate as globalization, have the effect of handicapping developing countries’ escape from diminishing returns activities. In their modernization perspective, lagging regions are lagging simply because insufficiently globalized, insufficiently industrialized; as they become more globalized, more industrialized, they will cease to be lagging.

There is a plausible argument to the effect that the rise of China as the main site of low-wage manufactures will make the spread of industrial technologies more difficult in the rest of the developing world. Indeed, not just China’s but also the Former Soviet Union’s and India’s gigantic labor supplies have quite suddenly, in the longer scheme of things, been brought into competition with those elsewhere, depressing returns to labor and depressing demand for manufactured goods and services. The response of the global economic multilaterals to this global oversupply of workers is to call for more “labor market flexibility”, everywhere, as though Keynes had never written. An observer of the IMF reports that Rodrigo de Rato, the managing director, “can’t seem to step off an airplane without urging the local government to introduce more flexibility into labor markets”, using arguments that look only at the efficiency costs of employment

protection and ignore the social benefits.¹⁵ Meanwhile the response in middle-income economies to the rise of China and India is a shift in comparative advantage back to decreasing return activities. As a *Financial Times* article reports, “a ‘paradigm shift’ may be under way as Latin America moves away from efforts at economic diversification back to its area of historic comparative advantage—agriculture and industrial commodities. The danger, however, is that this could increase dependence on traditionally volatile markets, one of the region’s Achilles heels.”¹⁶ At the least, this suggests an alternative globalization hypothesis to F&G’s.

Beyond liberalism

Firebaugh and Goesling’s papers and books are valuable for directing the attention of sociologists and other social scientists to issues of world income distribution that have received little attention. For a long time the liberal hegemony in social science research has eclipsed the study of income distribution, because liberals tend to believe that inequality is not generally an issue for public policy—inequality as distinct from poverty, which they do think something should be done about. As long as inequality is not widening because of rigged markets and as long as the price of widening inequality is not worsening poverty, we should not worry about it, especially not global income inequality. Martin Wolf again:

“You [RHW] write that the magnitude of poverty and inequality are unacceptable. I agree on the former.... But your position on the unacceptability of [existing] inequality almost amounts to saying that the world would be a better place if the rich countries of today had never started rapid development in the 19th and 20th centuries. Maybe you do think this. But almost all citizens of advanced countries do not. They have no intention of doing without what they now have. So bemoaning the magnitude of global inequality, as opposed to the low standards of living of large parts of the world, is just empty rhetoric. It has no significance for action. ... The very notion that impoverishment of the north might be a good thing shows the absurdity of your obsession with equality.... [W]orld income distribution was far less unequal two centuries ago.... Did this make 1800 better than today? ... Economic growth

¹⁵ John Schmitt, “Lessons for the IMF: sometimes efficiency is not the best measure”, *International Herald Tribune*, 30 September 2004.

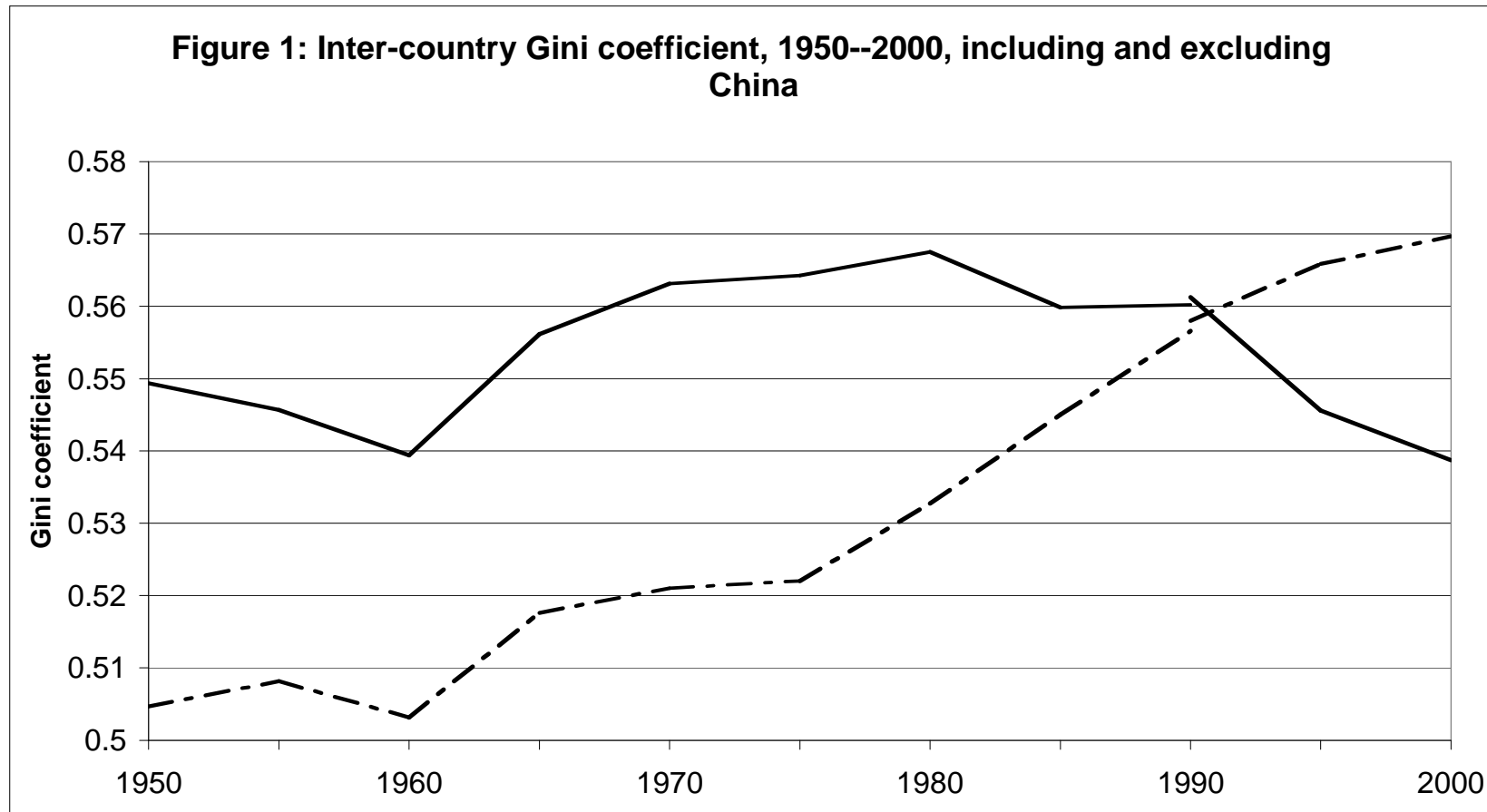
¹⁶ Richard Lapper, “China begins to exert its influence on Latin America”, *Financial Times*, 26 September 2003.

is, almost inevitably, uneven The result is growing inequality. To regret that is to regret the growth itself. It is to hold, in effect, that it is better for everyone in the world... to remain equally poor. You come close to saying just that. It seems to me a morally indefensible and practically untenable position.”¹⁷

Firebaugh and Goesling transcend this standard liberal position on equality, by treating world income distribution as something worth studying. Having studied the trends they conclude that the degree of inequality—having been growing for nearly two centuries--is now falling, the fall is likely to accelerate, and the reasons have to do with globalization and demographic characteristics (where globalization means increasing density of economic links between nations, as manifested in industrialization in the poor nations of Asia, spreading out to other lagging developing countries over the next several decades). So yes, inequality does matter and should be studied, contrary to what liberals have assumed; but inequality on a world scale is falling, so the problems associated with it are en route to being mitigated.

Hopefully Firebaugh and Goesling in future papers will apply their formidable analytical and statistical skills to a broader set of evidence and hypotheses, and revise their conclusions appropriately--including some indication of the margin of indeterminacy.

¹⁷ Wolf, in *Prospect*, above.



Source: Bob Sutcliffe, 'World Inequality and Globalization', *Oxford Review of Economic Policy*, Vol 20, No. 1, 2004, based on Angus Maddison, *The World Economy: Historical Statistics*, OECD, Paris, 2003

Notes: South includes the whole world except Western Europe, USA, Canada, Japan, Australia, New Zealand. It includes Eastern Europe. (If Eastern Europe and Former Soviet Union are excluded, the line for the South remains much the same, except that it is a couple of percentage points less in 1950, falls less during the period and rises to about the same as shown.) Asia includes everywhere east of Turkey, except Russia and Japan; specifically, it includes China. The separate line for China shows China's influence on the Asia line. The figures are weighted in the sense that they are calculated as total GDP/total population of the South (or other group) as a percentage of total GDP/total population of the North.