Initiative for Policy Dialogue Working Paper Series

April 2007

Inequality and Redistribution
Paul Krugman

Governance of Globalization

Inequality and Redistribution

Paul Krugman
Professor of Economics and International Affairs, Princeton University

Introduction

At the time John Williamson introduced the famous concept of the 'Washington Consensus', discussions of economic inequality did not play a large role in economic debate, either in developed or in developing countries. Instead, the focus was on macroeconomic stability and growth, with the assumption that progress on these fronts would benefit everyone.

Today, given the evidence of widening inequality in many countries, coupled with disappointments on the growth front, inequality has become a more obviously crucial subject. In this chapter, I will try to summarize briefly the reasons for a renewed focus on inequality, our (limited) understanding of why it has increased in some developing countries, and what the implications for a 'post-Washington Consensus' policy consensus might be.

Inequality: The US Case

Even though the focus of this book is on policy in developing countries, the renewed interest in inequality is partly driven by experience in the United States, which offers an object lesson – based on much better data than we have for most developing countries -- on how important changes in inequality can be in affecting income growth. So let me begin this paper with a brief review of the US experience.

Figure 1 shows the most commonly cited data on income growth in the United States; it shows Census estimates of the rate of growth of average family income by income quintiles and for the top 5 percent. The data are divided into two periods: 1967-79, an era of generally stable income distribution, and 1979-2003, an era of widening inequality. Average income growth was somewhat slower in the latter period -- 1.2 percent versus 1.6 percent. But growth for families in the middle quintile and below was *much* slower, while income gains for the top 5 percent were much higher; the bulk of gains in the last quarter-century have gone to high-income families.

And by high-income, we mean really high income. Census data do not break down the top 5 percent, largely because it's well known that the data fail to track really high incomes. The Congressional Budget Office has helped fill that gap with estimates that combine census and IRS data; these estimates also adjust for family size. Unfortunately, the CBO estimates only go as far back as 1979 -- that is, they cover only the recent era of rising inequality. Still, what they show, as illustrated in Figure 2, which shows percentage increases from 1979 to 2001, is the huge disparity between slow income growth for the middle and lower quintiles, and very rapid growth further up the scale. For reference, in 2001, average income in the top 1 percent of families was $1.05 million.

Finally, the work of Piketty and Saez (2000), using income tax data, gives us a look within the top 1 percent: Piketty and Saez show that since 1970, income growth has been faster the higher one goes up the distribution, with the share of the top 0.01 percent in income rising at least sixfold since 1970. On their estimates, almost all income growth in the United States over the past 30 years has gone to the top 1 percent.

There are two important points that we can learn from the US case. The first is that income distribution is not a second-order issue. Rising inequality can create a gap between average income growth and the income growth of middle- and lower-income families of, say, 1 percentage point per year over a period of several decades. Since even optimistic estimates of the effects of improved economic policies on overall growth are rarely that large (but see my discussion of outward-looking policies, below), distribution deserves to be treated as an issue as important as growth.

The second important point is that analyzing the causes of increasing inequality is difficult under the best of circumstances. Economists became aware of a major upward trend in US inequality by around 1987 or 1988, and that trend quickly became a focus of intense discussion and analysis. The data on income distribution in the United States are as good as we can find anywhere: we have consistent surveys over time, very long-term time series from income tax data, and detailed breakdowns from the Congressional Budget Office. Yet the history of inequality in the United States remains somewhat mysterious. We do not know why the ‘great compression’ of income that took place during World War II (Goldin and Margo 1992) persisted for three decades. We do not know why inequality began surging circa 1980, or why there has been a sharp increase in wage inequality among people with similar levels of education. So we should not expect too much from attempts to understand inequality trends in developing countries, where the data are much less helpful.

International Comparisons of Inequality

The difference between US inequality today and inequality a quarter-century ago, though large, is still small compared with cross-country differences in inequality. Table 1 shows World Bank data on income distribution for a selection of advanced and developing countries, ranked from most equal to most unequal. The table shows the year to which the World Bank data apply, the Gini for each country, the income share of the bottom quintile, and the income of the top quintile.

Table 3.1 International comparisons of inequality

	Date	Gini	Bottom quintile	Top quintile
Sweden	2000	25	9	37
Korea	1998	32	8	37
France	1995	33	7	40
United States	2000	41	5	46
Argentina	2001	52	3	56
Mexico	2000	55	3	59
Brazil	2001	59	2	63

Source: World Bank WDI database

The table offers several insights. First, the United States is a radical outlier among developed countries, with much higher inequality than European nations. (The fact that the US accepts a level of inequality that would be unthinkable in other advanced countries may have some relevance to the way inequality was downplayed in the original version of the Washington Consensus, as discussed below.) Second, there is a drastic difference between the newly industrialized economies of Asia, which have European levels of inequality, and the experience of Latin America. (Taiwan isn’t included in the World Bank data, but its numbers look similar to those of Korea.) Third, Latin American inequality is very, very high. In particular, the income share of the bottom quintile is so low that even a modest degree of redistribution could produce large percentage income gains at the bottom.

So here is the question: Given the apparent importance of international differences in inequality, why was the issue of inequality almost absent from policy discussion when the Washington Consensus reigned?

What was the Washington Consensus on Inequality?

As John Williamson likes to emphasize, many policy recommendations that have been attributed to the Washington Consensus cannot be found in his original formulation. And it is often tricky and inherently unfair to give a modern version, with 20/20 hindsight, of what people thought a considerable time ago. This is particularly true when the issue is one, like inequality, that was not even considered a crucial topic if discussion.

But let me offer a caricature -- as much a description of what I believed circa 1990 as of what dreaded neo-liberals in general believed.

Circa 1990, I would suggest, the general view was that concerns about inequality were not a major reason to worry about a shift by developing countries to outward-looking economic policies, or to pro-market policies in general. There were two reasons for this. First, people expected the positive effects of liberalization on growth to be large. In the 1985 World Development Report, which in some ways represents the high-water mark of intellectual faith in trade liberalization as an engine of development, the World Bank estimated that countries with 'outward-looking' policies grew about 2 percentage points faster than those with 'inward-looking' policies. That is enough to make up for a lot of increased inequality (although the US example, described above, shows that increasing inequality can cause the income growth of large segments of the population to diverge from average growth by amounts nearly that large.)

Second, there was a general view that free-trade policies would tend to be equalizing rather than unequalizing. This view came partly from theoretical considerations: a simple Heckscher-Ohlin trade model suggests that opening labor-abundant economies to trade should raise wages while depressing rents of capital or land. It was also based on the experience of the original newly industrializing economies, which were both highly open and surprisingly egalitarian. I at least was guilty of the belief that the low levels of inequality in South Korea and Taiwan were, at least in part, the result of their outward-looking policies. And I was not alone in the belief that a shift to outward-looking policies would have an equalizing effect.

Unfortunately, in Latin America, where the Washington Consensus had the greatest impact on policy, both of these expectations proved unfounded. Growth didn't take off, and inequality rose instead of falling.

Growth and Inequality After Liberalization: What Do We Know?

Some at the Barcelona Conference described the long, confusing history of econometric estimates of the effects of reform and liberalization on growth. Suffice it to say that the case for a reliably strong positive growth effect from reform and liberalization has at least become questionable as researchers have taken increasing care to adopt measures of openness that are not in some sense measures of economic success as well. Perhaps more crucial in the policy debate has been the failure of post-Washington Consensus Latin America to experience an East Asian-type takeoff. The point is that few people at this point would be willing to promise, as the 1985 World Development Report seemed to, that liberalization will produce increased growth of a couple of points per year, enough to brush aside concerns over increasing inequality.

Meanwhile, expectations that trade liberalization would reduce inequality were contradicted by experience.

It is not possible to create figures like Figure 1 and 2 for Latin America: countries do not conduct household surveys annually, or even at predictable intervals. Moreover, as Goldberg and Pavncik (2003) point out, surveys that are not part of a regularized, periodic plan are not necessarily comparable over time: apparent changes in inequality may reflect differences in survey construction or coverage, not real changes in the economy. Such problems are why I used US data, despite their limited relevance to developing countries, which are a good place to demonstrate how important changes in inequality can be.

Still, the survey evidence seems to suggest rising inequality during the 1990s. (But see Milanovic (2005) for a different take.) Szekely (2001), weeding out surveys highly likely to have problems, estimated annual trends in the Gini index for Latin American countries during the 90s, finding a positive trend for every country except Colombia, the Dominican Republic, and Costa Rica. Moreover, he finds a clear correlation between changes in inequality and progress or the lack thereof in reducing poverty. Figure 3 shows this correlation: the 'Gini trend' is the estimated annual rate of change in the Gini index by country, the 'poverty trend' is the estimated annual trend in the poverty rate. The association between rising inequality and rising poverty remains even when differences in economic growth are taken into account.

The point is that survey data do suggest an increase in inequality during the era of liberalization and reform -- the reign of the Washington Consensus. Given the problems with these data, the specific numbers from survey data should not be taken too seriously. But the numbers do agree with casual observation.

More solid evidence comes from data on the structure of wages. A number of papers, such as Cragg and Epelbaum (1996), have documented a sharp rise in the skill premium in Mexico following trade reform. Behrman, Birdsall, and Szekely (2003) clean up survey data to focus on prime-age male wage earners classified by education level. They show that the premium for higher education over primary education rose a logarithmic 60 percent in Latin

America as a whole during the 1990s. Taken together with the broader survey data and general observation, it seems clear that inequality has increased in Latin America during the era of 'neoliberal' or Washington Consensus policies, and in some cases that rise in inequality is very sharp.

What happened to Heckscher-Ohlin?

In my caricature of early Washington Consensus views, I argued that people – certainly me – expected trade liberalization to be equalizing in the developing world, because labor-abundant countries would export labor-intensive goods and import capital-intensive goods, raising wages while depressing returns on other factors. Clearly, that has not happened in Latin America. Why?

There are two obvious possibilities: our trade-and-income-distribution model is wrong, or other factors besides trade policy are responsible. These possibilities are not, of course, mutually exclusive.

Hanson and Harrison (1999), who carefully examine the Mexican data, partly resolve the puzzle, by showing that highly protected sectors under the pre-liberalization regime tended to be labor-intensive, not capital-intensive. In other words, Heckscher-Ohlin -- or more properly Stolper-Samuelson -- may still apply; we were just wrong about what was being protected.

But how is it possible that labor-abundant countries were protecting labor-intensive products from import competition? What's the general equilibrium story? The underlying logic of the Hanson and Harrison argument is that in the case of Mexico, at least, a two-factor, two-good model is deeply misleading. On the eve of the big liberalization of the late 1980s, Mexico was for the most part an exporter of resource-intensive products. In 1985, exports of fuels and mineral products, overwhelmingly oil, were 30 percent larger than exports of manufactures. (This figure plunged the next year, along with the price of oil, but the figures from 1985 and earlier are relevant if we're trying to get a picture of the pre-liberalization situation.) One can also argue that the size of manufactures exports pre-liberalization seriously overstates their importance to the economy, because of the low domestic content of maquiladora production. Finally, one can argue that Mexico's tourism imports, which is largely driven by climate and beachfront, should be considered a resource-based export.

Given this resource base, import-substituting industrialization did not have the effect of shifting factors from labor-intensive exports to capital-intensive import-competing industries. Instead, it shifted factors from resource-intensive export industries and nontraded goods to labor-intensive import-competing industries, with at least some equalizing effect on income distribution. And, according to Hanson and Harrison, unwinding that protection has been an unequalizing policy.

It is not hard to see how a similar argument could be made in other Latin American countries, such as Argentina. There may also be other parts to the story, including reduction in rents, some of which accrued to labor, and perhaps some effects involving induced technical change.

The alternative approach is to ask whether other policy changes were responsible for the increase in inequality. The Washington Consensus was, after all, a package that included much more than trade liberalization. Behrman, Birdsall, and Szekely (2003) study five indices: trade policy, financial policy, tax policy, external capital transactions policy, privatization policy, and labor policy. All of these indices moved together: there was a general movement toward liberalization, greater reliance on markets, in Latin America.

Behrman, Birdsall, and Szekely do a yeoman job of statistical analysis, teasing out correlations between an overall index of liberalization and its components, on one side, and inequality as measured by skill differentials, on the other. Without criticizing this approach, let me point out that few would argue for adopting this approach to analyzing trends in inequality in developed countries. We know, or think we know, that a reduced-form estimate of the effects of policies on inequality in advanced countries, whether in time series, cross-section, or both, is simply too crude to work: it's a good bet that the estimated effects of Reagan's and Thatcher's policies would be far larger than we could derive from any structural economic model, and economists would be quick to invoke omitted variables -- including variables that are hard to measure, such as union power and social norms.

Why, then, should we expect such an approach to work for Latin America? To be fair, there is one possible reason: the policy changes, especially trade policy changes, were more dramatic and rapid than anything we see in developed countries, which may reduce the omitted variables problem. Still, I think we should be cautious about reading too much into the results of cross-country regressions, no matter how carefully done.

For what it's worth, however, Behrman, Birdsall, and Szekely find that an index that combines all five indicators of liberalization is clearly associated with rising inequality, accounting for about a third of the rise in the skill differential. Their efforts to tease out the effects of the different components suggest, however, that trade policy has little effect: financial policy and tax policy, not trade policy, are the factors driving the impact of liberalization on inequality. There is also evidence in the data that the effects of liberalization fade out over time, that the initial impact on inequality is larger than the final impact. Nonetheless, the authors write: 'Do our results suggest that policy liberalization has been bad for equality concerns in Latin America -- a "class act" favoring the relatively highly schooled upper classes because their net effect has been to exacerbate earnings differentials? Our answer is a qualified yes.'

One further note: regional inequality is an important story for developing countries, especially China. One way to reconcile widening income disparities with a conventional Heckscher-Ohlin picture of trade is to combine that picture with internal transport costs and agglomeration economies, leading to a sharp rise in incomes in some parts of a country while other regions lag behind.

Policy Implications?

Clearly, in Latin America liberalization and reform have not yielded the growth results everyone hoped for, while they have been associated with -- and to some degree caused -- a sharp increase in inequality. What are the policy implications?

Despite the disappointments, it's hard to make a case for a return to inward-looking, import-substituting policies. One doesn't have to be a true believer in the magic of the market to conclude that import substituting industrialization had reached a dead end by 1980 or so. And the upside possibilities of outward-looking policies still seem much greater, even if we now have a much more realistic sense of how hard it is for many countries to take advantage of these possibilities.

But what can be done about rising inequality and, probably, declining real incomes at the bottom of the distribution?

At the risk of sounding trite, the answer is that if you want to help the poor, help the poor. Because income distribution is so unequal in Latin American countries, modest programs of aid to the poor, measured as a share of GDP, can have large impacts on the quality of life for the poor. So although we may be chastened and somewhat dismayed at the failure of liberalizing policies to deliver broad-based gains, the answer is deliberate policies to help the poor, not a reversal of liberalization.

Chapter 3 References

Behrman, J., Birdsall, N., and Szekely, M. (2003). 'Economic policy and wage differentials in Latin America', Center for Global Development Working Paper No. 29.

Cragg, M.I. and Epelbaum, M. (1996). 'Why has wage dispersion grown in Mexico? Is it the incidence of reforms or the growing demand for skills?' *Journal of Development Economics,* 51: 99-116.

Goldberg, P.K. and Pavcnik, N (2004). 'Trade, inequality, and poverty: what do we know?' NBER Working Paper 10593.

Goldin, C. and Margo, R. (1992). 'The Great Compression: The U.S. Wage Structure at Mid-Century'. *Quarterly Journal of Economics*, 107: 1-34

Hanson, G. and Harrison, A. (1999). 'Trade and wage inequality in Mexico'. *Industrial and Labor Relations Review* 52(2): 271-288.

Harrison, A. and Hanson G. (1999). 'Who gains from trade reform? Some remaining puzzles'.

Journal of Development Economics, 59: 125-154.

Szekely, M. (2001). 'The 1990s in Latin America: Another decade of persistent inequality, but with somewhat lower poverty'. Inter-American Development Bank Working Paper No. 443.