Comments

François Bourguignon: This is an interesting paper that shows that meeting the Millennium Development Goals may not be as easy as it would appear in a middle-income country like Brazil, where dollar-a-day poverty is currently as low as 5.3 percent and the target Millennium Development Goal poverty headcount is 3.7 percent. Indeed, the main conclusion of the paper is that some voluntary, strongly targeted redistribution policy is necessary to reach this goal.

The first part of the paper analyzes the combination of growth and untargeted redistribution policies necessary to achieve the poverty MDG in Brazil. Growth is assumed to be distribution neutral, whereas redistribution takes the form of a linear tax whereby everybody is taxed at the same marginal tax rate, t, and receives the same transfer, T, either as a lump sum or, more realistically, in the form of additional public expenditures. The result of the calculations undertaken in the paper on the basis of a representative sample of Brazilian households is as follows. If the MDG had to be met without any kind of redistribution, then per capita growth would have to be around 2 percent per year. This seems ambitious when compared with historical performances: mean real household income per capita grew at 1 percent per year between 1990 and 1999, and it was even lower, 0.7 per cent, in the 1980s. Likewise, if the MDG had to be met through untargeted redistribution only, then it would be necessary to increase tax collection by 3.4 percent of household income, or 2 percent of GDP. This is not small business! Thus, the first conclusion of the paper, which might deserve more emphasis than it is given, is that unless growth performances in the coming fifteen years are much better than what has been observed in the last two decades, some redistribution policy will be necessary to reach the poverty component of the MDG. The extent of redistribution might have to be substantial, though. With a 1 percent growth rate, redistribution should still amount to 1.5 percent of total household income, or approximately 1 percent of GDP. Of course, less redistribution would be necessary if it could be better targeted.

This first conclusion of the paper calls for two remarks. First, the difficulty that Brazil would have in meeting the MDG through growth stems from its very high level of inequality. Based on the preceding orders of magnitude, the growth elasticity of poverty is around 1. It would be around 2 if the Gini coefficient could magically be brought down from .59 to .50.¹ This is another argument in favor of redistribution policies. Second, the growth-poverty elasticity would be even lower if a more ambitious poverty line were used. In a previous paper, Ferreira, Lanjouw, and Neri set the poverty line in Brazil to 75 reais per capita and per month.² This is more than three times the equivalent in reais of the dollara-day line! Thus, if the poverty MDG were expressed in Brazilian rather than international terms, halving the poverty by 2015 would require much more ambitious redistribution goals.

The second part of the paper further explores the implications of growth for income distribution and poverty by focusing on the role of education, essentially examining the level of poverty reduction that may come from the expansion of education in the working-age population expected between now and 2015. The question being asked, in other words, is whether any substantial change in poverty will be achieved by the increase that is bound to take place in the education of the whole population by 2015, assuming a constant monetary rate of return to education for those people who are active and taking into account the effect on income of a better education on occupational choices. The answer is that not much is to be expected from this evolution: the mean income per capita increases at an annual rate of 0.6 percent, but the poverty headcount is reduced by 0.3 percentage point. The results are even more disappointing if possible negative effects of the expansion of education on its rate of return are taken into account.

The relevance of this simulation and its results is not totally clear. Presumably, what the authors are after is whether the anticipated progress in the education of the population would lead to changes in the distribution of income in the next fifteen years. This is a way of tackling the issue of whether growth actually is distribution neutral, as assumed in the first part of the paper. That is fine, but then the simulation should be presented as such and not as a "policy scenario." The main conclusion of that part of

- 1. Calculation taken from Bourguignon (2003).
- 2. Ferreira, Lanjouw, and Neri (2003).

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the paper would then be that little change is to be expected in the distribution as a result of increases in that part of growth that is driven by education. Thus, the assumption of distribution-neutral growth in the preceding part was not unjustified. But then, this simulation should take into account that individual earnings are expected to grow over time not only because of a better education of active people, but also because of a general increase in productivity. The general effect on poverty would thus be bigger.

Having said that, I wonder whether the result on the distribution neutrality of the expansion of education is as strong as it appears. There seems to be a missing link in the simulation framework described in the paper. If one follows the authors in assuming that education continues expanding among the youngest cohorts as it did in the past decade, then one can hardly hold that occupational choice behavior will remain the same among ten- to eighteen-year-old kids. In 2015 a higher proportion will be going to school, and therefore fewer will be working and contributing income to the household. If the expansion of education takes place more rapidly among the poor, this evolution may have adverse effects on poverty, other things being equal. Alternatively, this means that no expansion of education may really take place among the poor. It is not clear whether this effect may be taken into account in the microeconomic simulation framework used in that part of the paper, however.

The last part of the paper looks at the effect of a targeted transfer policy like the *Bolsa Escola* recently introduced at the federal level in Brazil. The paper draws here on a companion paper that examines the impact of that transfer policy in detail. The originality in the present paper is its focus on the scale of the policy that would be necessary for achieving the poverty MDG. In this respect, the authors find that the present scale of *Bolsa Escola* should be sufficient if it comes on top of the effects found for the expansion of education. This is a valuable result for policymakers, but it must be examined in the light of the limitations of the educational expansion simulation. First, less transfers than in the present *Bolsa Escola* program might be necessary if general productivity increases were taken into account. Second, more transfers might be necessary to eliminate the problem mentioned above of assuming some exogenous educational expansion even among the poor.

Overall, it is not clear whether the present size of *Bolsa Escola* will be enough—or more than enough—to achieve the poverty MDG. A more

precise analysis of this point might be necessary. In any case, this paper certainly provides useful tools for investigating in more depth such practical issues, and it is to be hoped that they will be actively put to work in policymaking circles.

Andrés Rodríguez-Clare: This paper introduces innovative microeconometric techniques to shed light on an extremely important issue, while at the same time telling the reader the different caveats that apply to the exercise. The first result of the paper is that reducing inequality can be a very effective way to reduce extreme poverty for middle-income countries with high income inequality. The finding challenges the common perception among economists that growth is the only way to reduce poverty. This common perception stems from two ideas: first, that reducing inequality has a high negative impact on growth, and second, that inequality would have to be reduced significantly to have an impact on poverty. By showing that small reductions in inequality translate into significant poverty reduction in countries with high income inequality, this paper should have an impact on the conventional wisdom regarding policies for reducing poverty. Given the high income inequality prevailing in most countries in Latin America, this is an extremely important, policy-relevant result.

The second result is equally important: it is necessary to understand how inequality is reduced to gauge its possible effect on the poverty level. As shown for the case of Brazil in the 1990s, the reduction in inequality was enough to generate the required halving of the poverty count, but poverty fell much less because the increase in income occurred mostly for the middle-income households, whereas the poorest households suffered a deterioration of their income levels.

The paper's first simulation studies how the poverty rate and other indicators would change thanks to an increase in schooling among the entire population at the same annual rate that occurred in the 1990s. The surprising result is that the poverty rate would barely decrease. I have several comments with respect to this first simulation. First, as the authors acknowledge, this exercise has to be interpreted with caution because, among other things, the returns to skills are kept constant in the simulation. That is, the increased relative supply of skilled labor is not allowed to have an impact on its relative price. This is a limitation of this kind of simulation, and the reader is not given any information about how reasonable changes in the skill premium arising from the increased supply of skills would affect the poverty rate.

Second, the authors also acknowledge that the simulation does not incorporate the indirect impact of education on poverty through its effect on fertility. They say that in another paper it is shown that this indirect effect can be substantial. But then they say that in "the simulation most closely comparable to this one, [the fertility effect] accounted for just under a quarter of the overall educational impact." This is not clear: if the educational impact is small, and the fertility effect is just a quarter of the educational impact, how can they say that the indirect fertility effect is substantial?

Third, I wonder about the policy relevance of this exercise. What kind of policy is it simulating? One would expect that an education policy designed to reduce poverty would focus on primary schooling, perhaps even targeting rural and marginal urban areas. The simulation experiment performed in the paper, however, is inspired by the increase in education that occurred in the 1990s, so it assumes that the education policy followed in the next few years will be similar to the one in the 1990s. This imposes a constraint on the impact on poverty that a simulated education policy can have. I wonder if a better-designed education policy would have a more sizable reduction in poverty.

Coming now to the second exercise, I want to emphasize something that the authors only explain in a footnote. The simulation of the *Bolsa Escola* program takes into account the transfers, but not the indirect effect of the program on poverty through its effect on the schooling decisions of poor families, which is in fact the main objective of the program. In other words, the simulation that is performed is for a *Bolsa Escola* program in 2015, not for what the reader would naturally expect, which is a simulation of the impact in 2015 of a generalized *Bolsa Escola* program in the years immediately after 1999.

The result of the second simulation is nevertheless important, because it shows that the pure redistribution effect of the program has a sizable impact on the poverty rate, given its well-designed targeting. The third exercise, in fact, shows that enlarging the *Bolsa Escola* program to include secondary students and eliminating the family transfer ceilings would bring the country very close to achieving the Millennium Development Goal of halving the poverty rate. The fiscal cost of this enlarged program is 0.3% of GDP. This is the most policy-relevant result of the paper, because it demonstrates that well-targeted redistribution programs that are reasonable in fiscal terms can have very significant effects on the poverty rate. The logical next step is to think much more carefully about the problems that could arise in enlarging the program in the way the authors propose, as well as about the institutional requirements for doing this without increasing corruption and relative administrative costs.

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