

Public Policies for Reducing Inequality and Poverty

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Latin America has always had, and continues to have the highest levels of inequality in the world, a problem that has frustrated policymakers and academics alike for many years. In this memo I am going to start by looking at the most recent distribution evidence and then I am going to propose that we should worry more about poverty reduction and growth and less about the distribution of income, not because the distribution is not important, but because it is driven by long term factors that are going to be very difficult to change while growth and poverty reduction strategies are something that policymakers can and are doing a great deal to improve.

I: Recent distribution evidence from Latin America

Two of the dominant characteristics of economic performance in Latin America since 1980 are the sharp slowdown in growth, and the apparent rigidity in the distribution of income. In the last several years the growth performance has improved but it remains to be seen whether this will have much of an effect of the distribution. Table one shows the latest distribution data from CEPAL. Where there have been reversals as in Brazil, we have split the overall time series into sub parts where the distribution is rising and where it is falling. There are a number of cases with relatively large changes in the distribution but by and large those are the result of recessions such as Honduras between 1990 and 1999 or Paraguay 1999-2005. For most countries, particularly those like Chile on a long run growth track, the distribution has not changed very much over the last 15 year.

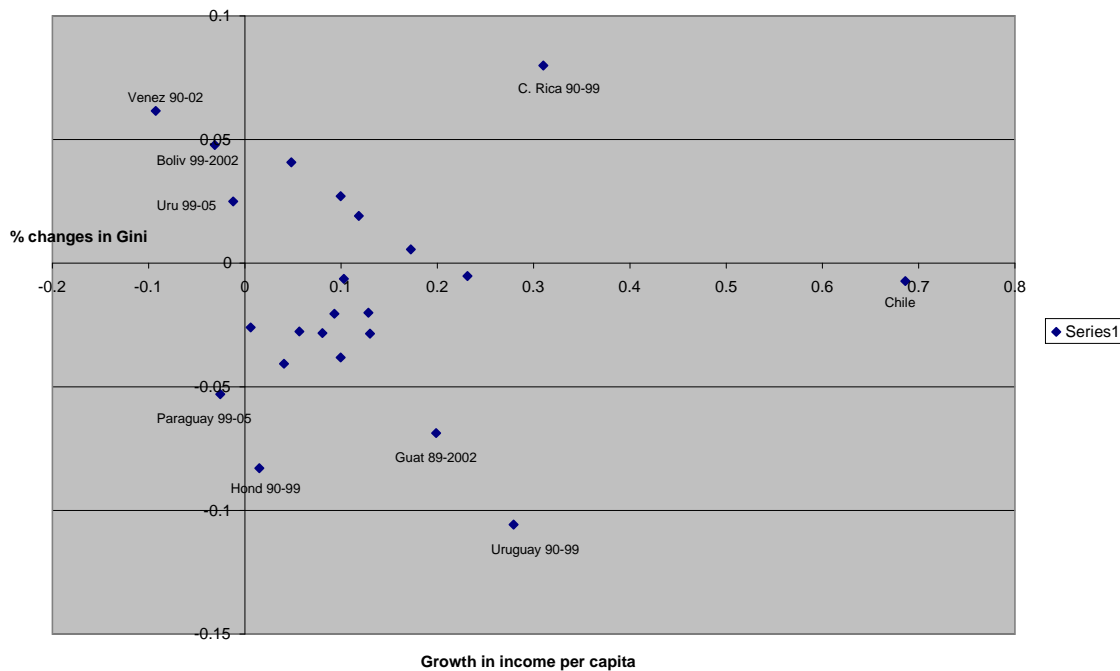
Table One: Changes in the Distribution since 1990		
	Gini	
	earliest	latest
Argentina 99-2005	0.539	0.525
Bolivia1999-2002	0.586	0.614
Brazil 1990-2001	0.627	0.639
Brazil 2001-2005	0.639	0.613
Chile 1990-2003	0.554	0.55
Colombia 1994-2005	0.601	0.584
C. Rica 1990-1999	0.438	0.473
C Rica 1999-2005	0.473	0.47
El Salvador 1995-2004	0.507	0.493
Guatemala 1989-2002	0.582	0.542
Honduras1990-1999	0.615	0.564
Honduras 1999-2003	0.564	0.587
Mexico1989-1998	0.536	0.539
Mexico 1998-2005	0.539	0.528
Nicargua 1993-2001	0.582	0.579
Panama 2002-2005	0.561	0.545
Paraguay 1999-2005	0.566	0.536
Peru2001-2004	0.525	0.505
DRepublic 2000-2005	0.554	0.569
Uruguay1990-1999	0.492	0.44
Uruguay1999-2005	0.44	0.451
Venezuela1990-2002	0.471	0.5
Venezuela 2002-2005	0.5	0.49

Source: CEPAL Panorama Social, 2006

Note: Distribution by households.

What is the relationship between the distribution and growth in the region? To see that we did a scatter diagram of the changes in the distribution from table one and the changes in GDP per capita in local currency units. (See Figure one) The figure suggests three things, first almost all (18/23) of the observations are bunched between changes of plus or minus five percent in the Gini. Second, there is no obvious relationship between growth and changes in the Gini. There are relatively low income countries like Paraguay and Honduras where there may be a floor under minimum incomes at the bottom so that recession improves the distribution. In other cases like Uruguay before 2000, growth was highly progressive and the subsequent recession highly regressive. By contrast, fast growth in Costa Rica in the 1990s significantly increased inequality whereas even faster growth in Chile had almost no effect at all on the Gini.

Figure one: Growth and changes in the Gini



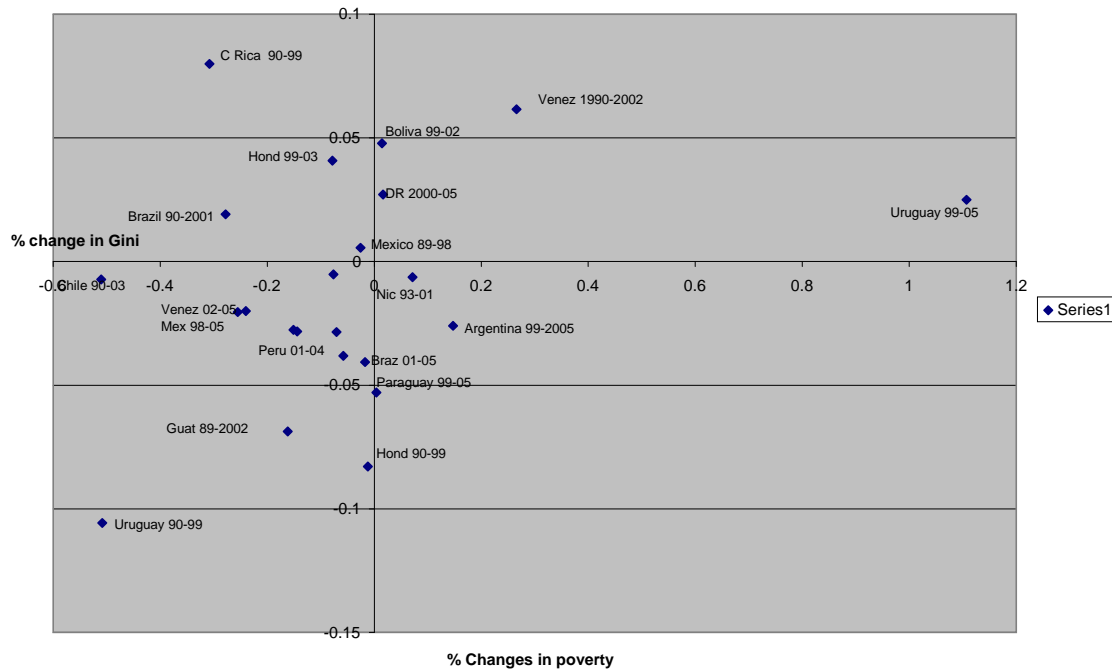
The other factor to which I want to draw your attention is the poor growth performance of the region. This is suggested in chart one by where the cluster of the observations to the left of plus ten percent growth. If one looks at the entire period between 1990 and 2005, there is one country (Chile) with an annual growth rate of per capita income of over four percent, one (the Dominican Republic) with a growth rate between 3-4%, three more with growth between 2-3% (Peru, Costa Rica and Panama. All the rest had growth rates of less than 2% per year over this fifteen year period, including Honduras and Colombia with about 1% growth and Venezuela and Paraguay with no growth at all.

The entire region is now growing more rapidly than it was before 2005. But I think that is unlikely by itself to have a favorable impact on the distribution at least in the short or medium run. It would appear that Latin America has found a place in the new world trading system as an exporter of natural resources or of manufactures closely linked to natural resources. The reason this is important is that these leading sectors do not absorb much labor or create many jobs for the unskilled. In a study that I did as a part of Barbara Stallings' reform project at CEPAL in the late 1990s, (Morley, 2000), the empirical evidence even at that time quite strongly supported the hypothesis that growth is becoming increasing skill-intensive and that as a result there is a tendency toward rising inequality. It turns out that even in the best of cases the progressive improvements in the educational structure in countries like Chile only just offsets this rise in the relative demand for skilled labor with the result that the observed distribution remains almost constant. Now, as the new patterns of growth become clearer it seems likely that the Dutch disease effects of mining led growth are going to be persistent. That is, the growth rate will rise, but that will not dramatically increase the demand for unskilled labor and so is unlikely by itself to reduce inequality. If that is the case, then the region is going to require a policy response that will increase the trickle down or the linkage of the poor to these new leading sectors. We now turn to some responses that show promise or could help.

II. Policy Responses that can reduce poverty and inequality.

Intuitively one might think that poverty reduction and reducing inequality are complementary. If one successfully gets money to those at the bottom of the distribution that ought to reduce the gap between the rich and the poor and lower measured inequality. But experience, at least in Latin America does not support that hypothesis. Consider figure two. There we combine the CEPAL data on the distribution with the comparable data on national poverty for various periods in seventeen countries in Latin America since 1990.

Figure 2: Changes in poverty and distribution in Latin America



For every case like Uruguay (1990-99) where poverty reduction and a lower Gini go together, you find cases like Costa Rica (1990-99) Brazil (1990-2001) or Honduras 1999-2003 where reductions in poverty are accompanied by rising inequality or Argentina where rising poverty is accompanied by reduced inequality. The clearest case where there is no apparent relation is Chile where poverty has been cut in half since 1990, with no observable effect on the distribution of income. Thus the data tell us that there are separate factors and processes driving these two sets of data. My policy conclusion from this is that we should mainly worry about ways to reduce poverty and increase the growth rate of the economy.

Macro policy: Before one considers anything else, the top priority for any government is to produce an adequate and sustainable rate of growth of at least 3% per year in per capita income. As we have just seen, there is only one country (Chile) in Latin America that has managed to do this in the past twenty years. Macro policy is critical. One of the biggest costs to the poor of Latin macro policy in the past has been its tendency to stop and go cycles and inflation. Both are disastrous for the poor. At the moment, external conditions are favorable for achieving a higher rate of growth. Use this moment to increase the rate of investment both in capital formation and education. Both Brazil and Chile show what can be done by determined upgrading of the nations education stock. But this may require some hard choices between increasing public transfers and in creasing the rate of capital formation both public and private.

Trade: The leading sector in the growth strategy for most Latin American countries is going to be the export sector, and for most countries that means minerals, oil or land-intensive crops like oilseeds or grain. Those sectors do not create much employment. But that does not necessarily mean that the growth strategy overall cannot be labor intensive. There are three sectors that use a lot of labor, agriculture, construction and assembly (maquila). The government should be tapping some of the resources coming in from the booming mineral sector to launch infrastructure construction projects. Those projects should be designed with an eye to increasing linkages between backward regions and modern markets through improvements in roads and communications. Other construction projects could be in irrigation or electrification. This sort of project increases the income of the workers who build them which reduces poverty in the short run, while at the same time increasing the productivity of poor farmers which reduces poverty in the long run.

When Latin America adopted the reform agenda of the Washington Consensus, it was thought or hoped that trade liberalization would permit faster growth of labor-intensive exports, particularly in manufacturing. That has not happened, and the region instead is finding a new specialization in the world trading system that is working quite well. But it is not creating a lot of good manufacturing jobs. It is unlikely that Latin America can catch up with the Asian dynamos in manufacturing. They have too much of a head start. Therefore rather than continuing down the road of general tariff reductions, a promising alternative would be to enter into regional or bilateral trading agreements with either the US or Europe that give special benefits or special access to exports of particular commodities. The best recent example of this is CAFTA. It made permanent the temporary liberalized rules of origin for imports from Central America and the Dominican Republic of clothing assembled in those countries. In a recent study of CAFTA (Morley et al (2007)) we showed that whereas the general tariff reductions in the agreement had little effect, the special provisions for maquila raise the growth rate in Honduras by 1.3% per year and .43% per year in El Salvador. There is a comparably favorable impact on employment and poverty in those two countries.

There does not appear to be a whole lot to cheer about in the recent performance of Latin America. The countries have not grown very rapidly, nor have they reduced inequality and poverty. But there have been some successes. I want to look at two in particular here. The first is not really a program. Rather it is the experience of targeted social spending in Brazil in the 1990s. Over the 1990s poverty in non-Brazil Latin America according to CEPAL increased by 22 million people. But Brazil, despite a growth rate in per capita income of only 1.1% per year, managed to reduce its poverty rate by ten percentage points which translates into an absolute reduction of over six million people. How did they do this?

Inflation and the minimum wage: The first and perhaps most important thing Brazil did was to control inflation. To get an estimate of the effect of inflation reduction on poverty is difficult because in time series analysis so many other things change at the same time, in particular the real value of the minimum wage and unemployment. To avoid these problems Amadeo and Neri (2000) used a monthly survey in the main

metropolitan areas for the period 1980 to December 1996. The survey links earnings with family income per capita and permits a far more exact connection between wage adjustments, monthly inflation rates and the poverty rate. Regressing per capita income by decile on the monthly inflation rate, the unemployment rate and the minimum wage, Amadeo and Neri found that the negative effect of inflation on incomes was significantly bigger for low than high income households. That is, inflation widened income differentials and income inequality. The minimum wage had exactly the opposite effect. Rising minimum wages tended to increase average incomes in all deciles, but the effect was almost twice as big in the bottom deciles as it was in the top. (Amadeo and Neri, 1998, p. 225).

To directly estimate the effect of these variables on poverty, Amadeo and Neri established three different poverty lines, and calculated the monthly poverty levels corresponding to each over the period between 1980 and 1996. Results of their regression to estimate the impact of inflation, unemployment and the minimum wage on the monthly level of poverty defined in each of these three ways are displayed in Table 3.

Table 3: Poverty Incidence and Inflation

Poverty Line	Low	Medium	High
Rate of Inflation	0.018	0.017	0.013
	(3.32)	(4.15)	(4.34)
Unemployment	0.377	0.262	0.176
	(8.55)	(7.95)	(7.59)
Minimum Wage	-0.434	-0.305	-0.219
	(-11.45)	(-10.74)	(-11.02)

Source: Amadeo and Neri (1998), p. 226. Note that figures in parentheses are t statistics. Constants and dummy variables were omitted.

All levels of poverty are positively (and highly significantly) related to inflation and negatively related to the minimum wage, with the effects bigger the lower the poverty line. That means that the poorer a family is the more it is affected by changes in either the inflation rate, the unemployment rate or the minimum wage. These results persuasively demonstrate that inflation was a very severe tax on the poor and that its successful control in the mid 1990s must have been an important factor in the reduction in poverty that occurred during that same period.

In Brazil another important reason why poverty could be related to the real value of the minimum wage is that the Constitution of 1988 mandated that government pension and disability payments be equal to the minimum wage. In 1992 when Brazil finally implemented these new legal obligations there was a very significant expansion of its pension system, including for the first time non-contributory workers in the rural sector. Each worker over 60 years of age received a basic pension of one minimum wage per month. That reform alone had a large impact on poverty in the early 1990s particularly in the rural area as we shall see below.. But the fact that the pension was linked to the

minimum wage also meant that the real value of the minimum pension jumped between September 1994 and May 1995 when the minimum wage was raised by over 50 percent in real terms. That could well be the main reason why Amadeo and Neri found such a clear negative relationship between the minimum wage and the poverty rate in their study.

We conclude first that inflation hurts the poor, and that raising the minimum wage can help the poor. But that is only the case when the increase in the wage is sustainable without causing a subsequent increase in the inflation rate.

Targeted Transfers-non contributory rural pensions in Brazil: Brazil has also implemented a great many targeted social programs. Far and away the biggest is the non-contributory rural social security system put into effect in 1992. Up to 1988 the main social security system covered only the formal sector, leaving out agriculture and informal sector workers. A rural social security system (Funrural), established by the military after 1964, paid a benefit of one-half of the minimum wage to family heads over 65. The 1988 constitution was designed to broaden the coverage of this instrument and make it more egalitarian. The intention was for the state to provide a basic safety net and protect the family farm. The expanded system lowered the retirement age to 60 for men and 55 for women. For the first time it covered both men and women in the same household and it raised the benefit from one half to one minimum wage. Unlike the main social security system, eligibility did not require a minimum number of years of contributions into the system. Rural beneficiaries had only to prove that they had worked in agriculture, fishing or forestry for a period that was originally set at five years, later raised to 102 months in 1998. (World Bank (2001a), p. 233.

The new system was finally implemented after 1992.. Several recent studies document its large impact both on the number of rural beneficiaries and on rural poverty levels. (David, (1999), Delgado, (1999) and Schwarzer and Querino (2002)). Between 1992 and 1994 the rural retirement system grew by 50 percent or almost two million new beneficiaries, the majority of them women. (Schwarzer and Querino, (2002) p. 16 and Delgado, (1999) p. 8). By 2001 the rural system was paying R\$1.2 billion per month or about \$5 billion per year to 6.6 million individuals 98 percent of whom were in the non-contributory system and received one minimum wage per month.(Schwarzer and Querino, (2002), p. 12) Most of this sum, about 1 percent of GDP, was a direct transfer from the urban contributory system.

Several different studies confirm a large impact of the system on poverty. A special 1998 survey of rural household in the South and the Northeast found that in 80 percent-90 percent of the beneficiary families in both regions, the rural pension comprised at least 50 percent of the monetary income of the beneficiary families. (Schwarzer and Querino, (2002), p. 17). Schwarzer and Querino estimated what percentage of people would be below the indigence line (which they approximated as 1/4th of the minimum wage) with and without the rural social security payments. They calculate that the indigence rate would have jumped from 10.4 percent with the system to 19.8 percent without it. With a higher poverty line of one-half the minimum wage the impact is equally impressive,

cutting the rate from 37.2 percent to 26.7 percent. (Schwarzer and Querino, (2002), p. 38). In short, Brazil is spending roughly 1 percent of its GDP and reducing national indigence rates by ten percentage points or almost 50 percent and national poverty rates by almost 30 percent.

Brazil has a quite a large number of other targeted social programs, including the recently expanded Bolsa Escola program which is a conditioned cash transfer program modeled on ProgresA and Oportunidades in Mexico. While these programs, especially rural social security are well targeted and effective, one has to ask about their opportunity cost in terms of investment and growth. Brazil has a big government sector, and at least up to year 2000 it had a rising government deficit and a falling rate of total fixed investment as can be seen in the following table. It is not at all clear that an investment rate of only 17% is enough to ensure adequate and sustainable growth.

Investment and saving in Brazil 1951-2000

Years	Rate of Investment (% GDP)		Saving (% of GDP)			
	Current prices	Constant prices	External	National		
				total	public	private
1951-63	15.4	19.1	1.4	14.1	2.5	11.5
1964-80	19.8	21.7	2.4	17.5	3.6	13.9
1981-93	21.2	17	1.1	20	-1.5	21.5
1994-2000	19.7	16.5	3.3	16.4	-5.4	21.8

Source: Morley (2002)

Conditioned Cash Transfer Programs: Conditioned cash transfer programs are an important recent addition to the development economist toolbox. The concept is simple. Design a targeting method to identify poor families with school age children or infants in need of nutrition supplements, and then give these families cash grants conditioned on their children attending school and/or going to health clinics for regular checks, injections, and nutritional supplements. The advantage of this sort of program is that it reduces poverty today by giving money to poor families and at the same time it promises to reduce the intergenerational transmission or cause of poverty by increasing the human capital and earning potential of the children of the poor. These conditioned cash transfer programs have spread very rapidly around the world in the last five years, most of them modeled more or less explicitly on the PROGRESA program in Mexico. Dave Coady and I did a survey of most of the then-existing programs in 2003. (Morley and Coady (2003).

The most carefully studied of the CFE programs is PROGRESA-Oportunidades in Mexico. Studies comparing poverty before and after the program in PROGRESA and control group communities estimated that the program directly reduced poverty in PROGRESA communities by around 17% and the poverty gap by 36% relative to what it would have been in the absence of the program. PROGRESA is one of the biggest of the CFE programs. We estimate that it must have raised the income of the rural poor overall by 10-15%. That is a big effect for a single program. Our information base is less

complete in the other countries with CFE programs. But judging by the information we have, the impact on poverty seems equally positive. In Bangladesh there was an 11% increase in food consumption in the FFE communities while in Nicaragua total consumption was estimated to have increased by 17% in the RPS communities relative to what it would have been without the program.

A good deal of the success of these programs in reducing poverty is due to their systems of targeting. Compared to a number of other safety net programs recently reviewed by the World Bank, these programs are very well targeted. On average 81% of CFE program benefits go to the bottom 40% of families and all four of the CFE programs in the World Bank study fall in the top third of all the safety net programs that were reviewed.

The CFE programs rely on a pragmatic but apparently effective system for identifying the poor. Four of the six programs that we reviewed used a two stage procedure which relies on geographic targeting to identify the poorest communities which will be eligible for the program. They then use either surveys or local committees to identify the poor within those poor communities. It appears that the initial geographic targeting explains the bulk of the progressivity in countries where the CFE is not a national program. Where there is a high rate of poverty in the eligible communities, it probably is neither necessary nor cost effective to use obligatory surveys of all residents to identify the poor families which will receive the transfer. Local committee seem to do just as well.

We have less evidence on the long-run impact on education of these CFE programs, and even less on the effect of the education on the long-run earnings of the children of the poor. Nevertheless, what evidence we do have is strongly positive. Conditional transfers clearly did increase enrollments in each of the countries for which we have data. In Mexico, average education levels in the PROGRESA communities was estimated to increase by two-thirds of a year. In the RPS communities in Nicaragua enrollment rates increased by 22 percentage points. We estimate that this will increase the average education level by nearly one-fourth, from 3.2 to 4.0 years by the end of the ninth grade. In Bangladesh there was a big jump in enrollments when the FFE was first introduced. While that later fell a bit, researchers estimate that the presence of an FFE school increased by 9% the probability that a child would be in school.

Guessing the increase in the future earnings of the children of the poor is obviously the most hazardous part of any attempt to quantify the benefits of the investment component of a CFE program. We made the attempt however for Mexico and Nicaragua where we had quite good evidence on the changes in enrollments attributable to the program. Under the reasonable assumption that the wage structure of the future labor force will be the same as it was in the year of the most recent survey, we estimate that the extra education would add about 8% to the average earnings of the poor in Mexico and about 9% in Nicaragua. Since that increase in earnings applies over the entire working life of the cohort, it is worth significantly more to the poor than the money they receive from the program itself even when the earnings are corrected for the fact that they are received in the future. According to our calculations for every dollar received by the poor, future

earnings go up by 1.52 in Mexico and 1.13 in Nicaragua. In other words for these two countries the investment component of the program is worth more to the poor than the transfer. Better yet, the improvement in future earnings is permanent and not dependent on continued safety net spending.

The CFE programs are dual purpose-reducing poverty in the short run and increasing the earning potential of the poor in the long run. We showed that these programs have relatively low administrative costs and good targeting which means that a large fraction of the resources actually reach the poor. That is obviously positive and is one of the reasons why the programs compare favorably with more traditional safety net programs or even temporary employment programs. But it is the indirect education benefits and their impact on future earnings that make these programs so effective in raising the income of the poor and their families as well as helping to break the intergenerational transmission of poverty.

There is a trade off between the education and the poverty reduction goal in these CFE programs. Policymakers have to define their eligibility rules keeping this trade-off in mind. The more inclusive the program, the greater will be its impact on poverty and the smaller the impact on enrollments. Low income countries with high levels of poverty and high drop out rates from school can achieve significant reductions in poverty and increase their human capital at the same time. They are ideal candidates for the CFE program, possibly with some sort of graduated payment schedule patterned after PROGRESA. Poor countries cannot afford a comprehensive transfer safety net approach to poverty reduction. They have to grow their way out of poverty by increasing the productivity of their people through investments in human and physical capital. The CFE programs are particularly attractive for poor countries because they are a way to get both effects at the same time. Rich countries with high enrollment rates and low levels of poverty probably do not need a cash transfer program conditioned on education of their children..

It is the middle income countries such as Mexico in which there is significant poverty and quite high enrollment rates where the trade-off between poverty reduction and human capital formation is most obvious. If one limits eligibility so as to maximize the investment impact of the program, many poor people will be left out. There will be pressure to ease the eligibility requirements or expand coverage. In Mexico that has led to the expansion of the program to the urban area where half of the poor live. But the problem with the urban areas is that the enrollment rates for primary school students are far higher than they are for the rural sector which means that the transfer element of the program will predominate.

In the Morley-Coady study we attempted to show that the CFE programs are a successful innovation- poverty reduction policies that actually deliver what they promise. They promised to put a good deal of money into the hands of poor families and to significantly increase enrollments at the same time, and they did. They have developed effective systems for targeting which compare favorably with those of other safety net programs and they have done this at a fairly low administrative cost.

But this success does not imply that similar programs should be established in countries that don't have them or that they should be expanded in those countries where they are now limited geographically. These programs, successful as they appear to be, are not a cure all for poverty or for deficiencies in education. Take education first. The CFE approach to increasing enrollments is based on the assumption that low enrollment rates are a demand-side problem. Children don't go to school because their families cannot afford to send them. But there are many cases where the problem is supply. There aren't enough schools, classrooms or teachers to give an adequate education to those who want it or who need it. In such cases putting a lot of money into a CFE program would be a mistake, at least considered in light of the education objective. When countries are spending 5% of the entire education budget of the government on the CFE program as several of the countries in our study are, one has to ask whether or not this is the best way to raise the education level of the population.

A similar argument can be made with the poverty objective. Could some alternative program such as adult training or temporary employment have more of an impact on poverty than the CCT program? It is not enough to show that the CCT program reduces poverty. One has to show that it has more of an impact than alternative poverty programs. I have made such a comparison with temporary employment programs in Argentina. (Morley and Coady (2003). Progresá did very well in that comparison but that was because of the significant increase in schooling in the rural program. The comparison is likely to be a lot less favorable for urban CCT programs. If, as now seems to be the case, the Mexico program is going to be copied around the world, it is important to think about the conditions in which such a program is appropriate. At the very least there should be underutilized schools and health posts and there should be a significant number of poor children who are not using those facilities. In Progresá that was accomplished by using the money from non-targeted food subsidies which were eliminated as a part of the process of establishing the new program. (See Levy, 2006).

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