# Intergenerational transfers and social protection in Latin America\*

# Jorge Bravo **CELADE-Population Division, ECLAC Draft, August 19, 2005**

To be presented at the United Nations Expert Group Meeting on Social and Economic Implications of Changing Age Structures, Mexico City, 31 August – 2 September 2005

prepared within the framework of the project "Demographic changes, intergenerational transfers and social protection in Latin America", carried out at ECLAC with funding from the Government of France, and of the international project "Macroeconomic Demography of Intergenerational Transfers" supported by NIA R37-AG11761. An earlier version was presented at a workshop in Santiago, Chile, 6 and 7 July 2005. The author thanks Andras Uthoff, Guillermo Larraín and Juan Pablo Jiménez for comments to the earlier draft, and Mauricio Holz for efficient research assistance.

### 1. Introduction

This paper examines the available evidence on intergenerational transfers in Latin America, their social and economic importance in different national contexts, their effects on distributional outcomes and on the medium and long-term financial sustainability of social protection systems. In this review, I use as a guide the concept of intergenerational transfers of Lee (2003) and Mason, Lee and others (2005), defined as the reallocation of economic resources among members of different ages, without an explicit *qui pro quo*. These transfers differ from other inter-temporal or intergenerational reallocations, such as investment in assets and credit operations in that the latter involve changes in the capital stock of the economy, transactions of land and property, or borrowing and lending, which are in any case governed by explicit or contractual obligations.<sup>1</sup>

Intergenerational transfers are important for a number of reasons; at a very basic level, in all types of societies, transfers help to smooth out consumption over the life-cycle, and in particular to cover income deficits during the "dependent" ages of childhood and old-age. In Latin America, they are of special relevance because transfers, both intra and intergenerational, are also key to provide basic social protection to the significant proportion of the population that lives under poverty, or are otherwise subject to the risks and effects of economic fluctuations, in settings of structurally high levels of socioeconomic inequality (Uthoff et. al., 2005).

But despite their importance, the knowledge on intergenerational transfers in the region is relatively limited, as we will see next. One practical problem has been the lack of readily accessible information on age schedules of income/productivity, consumption, and public and private transfers, as well as a particular scarcity of primary data sources that would allow for a truly generational/inter-temporal examination of these age schedules over extended periods of time. This is a real limitation in most countries, although as I will suggest below, there are several sources already available that could be usefully exploited to advance the knowledge in this area.

Another factor may be that national governments have had to deal with of many acute and pressing short-term macroeconomic problems, such as recession, unemployment, and external adjustment, which in certain countries and periods of time, have indeed been quite serious. In this context, concerns over the intergenerational redistribution of income have received low priority in discussions of what are perceived to be the most urgent public policy issues. As I will suggest below, this is not a really good justification, because the intergenerational, inter-temporal analysis of reallocations can be very useful, for example, in detecting in advance, disequilibria implicit in the combination of population trends and the continuation of current programs or policies. They can thus help to identify policy options that can contribute to avoid future crises. Also, the capacity of familial or inter-household transfers to compensate for the changes in public

\_

<sup>&</sup>lt;sup>1</sup> other useful criteria for classifying reallocations and transfers distinguish a) the channel of transmission: the family, financial institutions/markets, or the State, and b) their direction, i.e., those "ascending" from younger to older generations, or "descending", from older to younger generations.

spending for social protection, is key in determining the final effects that the economic cycles and government policies have on the population well-being.

Finally, and at least as important, the relative scarcity of information and analysis of intergenerational transfers is probably related to the fact that, until relatively recent times, there was no comprehensive, systematic theoretical basis nor standardized accounting principles to analyze the ensemble of intergenerational transfers. In fact, the study of these questions in the region has been for the most part fragmentary and, with a few exceptions, not comparable across countries. In this regard, the theoretical and accounting frameworks of Auerbach, Gokhale and Kotlikoff (Auerbach et. al., 1991 and 1999), for the analysis of equity and sustainability of fiscal policies and that of Lee, Mason and others (Lee, 2004; Mason et al, 2005) for the analysis of all kinds of transfers, are very helpful.

Before proceeding into the discussion of the different types of transfers, let us briefly examine Figure 1, which illustrates the size, broad shape and net direction of inter-age reallocations in Chile, Mexico and El Salvador. In all cases, there are sizeable income-consumption deficits for young dependents and lesser overall deficits for older dependents, both of which are financed with reallocations coming mainly from the working-age population surplus of income over consumption. The relative greater size of transfers toward younger dependents is to be expected in countries with relatively young age distributions and not too highly developed welfare systems for the elderly. Preliminary estimates of the total amount of intergenerational transfers in these countries suggest that they are indeed substantial, as they represent between 36% and 42% of the total labor income and between 30% and 39% of aggregate consumption.

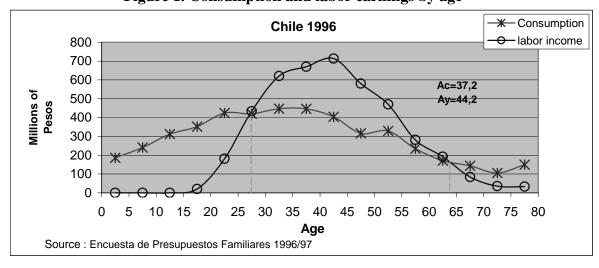
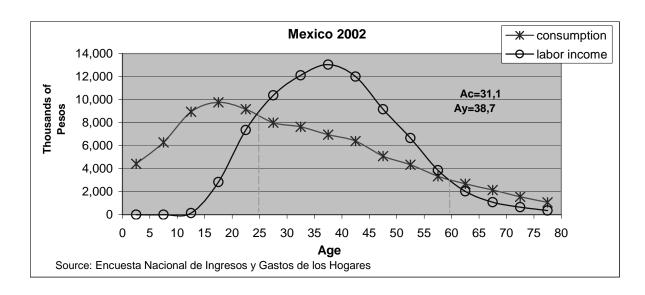
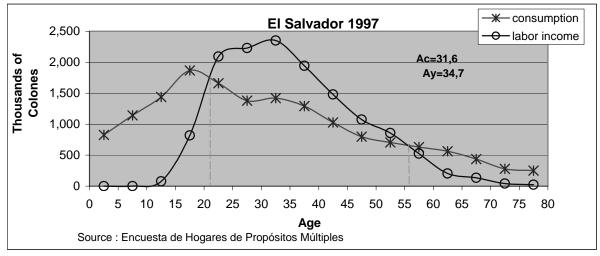


Figure 1. Consumption and labor earnings by age

\_

<sup>&</sup>lt;sup>2</sup> based on consumption and income data from household consumption/budget surveys in each country depicted in figure 1, assuming that the consumption deficit of young dependents is entirely financed by transfers.





Ac = Average age of consumption Ay = Average age of labor earnings

There are some significant differences across countries. Chile has a higher average consumption age than Mexico and El Salvador, which is due mainly to Chile's more aged population. The lower average age of labor earnings in El Salvador with respect to Mexico, and even more so with respect to Chile, is due to El Salvador's younger population as well as significantly higher relative earnings of older adults in Chile. The graph shows that the age at which individuals switch from the dependent stage to surplus generators is highest in Chile, somewhat lower Mexico, and is lowest in El Salvador. This pattern, as well as that of the ages at which individuals abandon the surplus stage and become older dependents earlier, is directly proportional to the degree of ageing of their respective population. Irrespective of the differences, however, there is a clear aggregate net "descending" average pattern of reallocations in the three countries, from

-

<sup>&</sup>lt;sup>3</sup> evidenced by an average age of earnings higher that that of consumption

older to younger ages, a common situation in less industrialized settings (Lee, 2003, figure 2).

How much of the transfers are channeled through the State, what proportion of them are familial/private, and what distributional effects do they have? These are the questions we address next, on the basis of the available evidence for Latin American countries.

## 2. Distributive effects and sustainability of public spending and transfer programs

There is an increasing recognition by fiscal analysts and policy makers of the usefulness of taking into account the age-specificity of public spending and transfers, as a complement to the traditional analyses of incidence of fiscal policy by income levels, and to the traditional budget assessments and projections based on aggregate deficit and public debt indicators. An important reason for this is that the traditional budget measures become less appropriate to assess the sustainability of current policies, in contexts of rapid population aging and government policy more concentrated on social programs that are age-related (Gokhale and Smetters, 2004). In fact, a number of industrialized countries have been explicitly incorporating the generational dimension of public budgets for some time now, concerned about the effects of their aging populations on government spending on pensions, health, long-term care and education. These analyses have made it possible to evaluate alternative inter-temporal finance strategies for these sectors and for public spending as a whole (recent studies along these lines are those of Heller & Hauner, 2005; Comley & McKissack, 2005, and Gokhale, 2005).

A few countries in the Latin American region have undertaken analyses of the distributive effects of taxes and public spending that correlate with age, such as education, social security and some health programs, with varying degrees of specificity. In Chile, Arenas & Guzmán (2003) and Arenas (2005), analyze some broad distributional effects of public social spending and the anti-cyclical nature of the country's "fiscal surplus" policy. Government transfers have been concentrated in children's education and nutritional programs, and health and social security for the retirees and assistance for the elderly poor. As for their distributional impact, the evidence suggests that over the last decade, fiscal policy and especially social spending, has had a substantial positive effect on the reduction of poverty observed during that period, from 38,6% in 1990 to 20,6% in 2000. Public policy has also, in good part, compensated for the effects of the short-term economic cycles, thanks to the fiscal surplus rule in place, which has also made a key contribution to the medium and long-term financial sustainability of the overall budget, and of social programs in particular.

In a different setting, Paes de Barro and Carvalho (2003) show that social spending in Brazil has not been very effective in improving income distribution or poverty levels between 1981 and 2001.<sup>4</sup> According to the authors, there are several factors that explain this situation, the most important of which is the lack of distributive focus of social

4

<sup>&</sup>lt;sup>4</sup> although the percentage of extreme poverty in Brazil has decreased by some 10.5 percentage points, a very good overall performance, 90% of the result was due to improved economic growth, and only 10% was due to improved income distribution.

programs. They report that in two cases, one childcare program aimed at poor children aged 0 to 6 years, and another for children and teenagers between the ages of 6 and 15 of poor families ("Bolsa Escola"), the distribution of resources among states does not correlate well with the target population in those age groups. More recently, the government has launched a new program ("Bolsa Família") that unifies all previous transfer programs aimed at poor families, and intends to improve efficacy in producing a more progressive incidence of social spending (Brazil, 2005).

The authors also warn us about the generational distribution of resources for social public spending, again, from a poverty-reduction perspective: "compensatory" transfer programs have been found to be much more beneficial for the elderly than for children (Paes de Barros & Carvalho, 2003; p.8), with the result that, after transfers, child poverty rates more than triple those of the elderly. Turra and Queiroz (2005) arrive at a qualitatively similar conclusion regarding the differential age incidence of transfers, through an indepth examination of 1996 data.

Mexico (2004), provides another interesting example, since it was one of the few Latin American countries that decreased poverty levels and inequality between 1999 and 2002. A detailed study of the distributive effects of the different types of taxes and expenditures in 2002<sup>5</sup> found that transfers, both from the government and from other households, helped to reduce inequality (as measured by the Gini coefficient) by 3% when assessed with respect to total household income, or by 1% with respect to income per capita. Much of public spending in Mexico on education, pensions, electricity subsidies and transfers resulting from programs such as *Progresa/Oportunidades* and *Procampo*, is targeted at specific age groups. The most progressive programs are pre-school and primary school education programs, health programs for the entire population and *Oportunidades*, a (conditional) cash-transfer program for poor families. On the other hand, spending on pensions from the social security systems for private workers (IMSS), public employees (ISSTE) and institutional/formal health plans, are assessed to be quite regressive. In spite of the latter, when the ensemble of taxes paid is compared to the total benefits and cash transfers received from the government, the net redistributive impact of fiscal policy is found to be progressive.

Perhaps the study that has most clearly considered social spending by age groups is that carried out for Costa Rica (Trejos, 2005; see also Estado de la Nación, 2004), which examines changes in the distribution of fiscal spending during the 1990s according to income quintiles, and regional, generational and gender variables<sup>6</sup>. The study shows that

-

<sup>&</sup>lt;sup>5</sup> The national survey on household income and spending (ENIGH) of 2002 was the main source of information. This was complemented with data from the accounts of the Federal Treasury (which includes national accounts, records from the Mexican social security institute (IMSS) and other state entities). Nutrition, health, and other surveys, as well as an evaluation of the *Progresa* program, were also used.

<sup>&</sup>lt;sup>6</sup> The beneficiaries of State programs were identified on the basis of the multi-purpose household surveys (EHPM) and the national survey on social investment (ENISO). Public social investment was allocated to individuals in proportion to the distribution of beneficiaries of each program. In this way, it was possible to estimate the level of investment according to income, age group, gender and geographical area, and to calculate the corresponding distributional changes between 1990 y 2002.

between 1990 and 2002, "social public investment" increased in real terms and improved the income distribution, especially in programs aimed at teenagers (12 to 17 years of age) and the over-50 population. However, in per capita terms, it is children (those under-12) and the elderly that benefit the most from increased spending. These effects came hand to hand with the greater increase in spending on basic education and especially on social security, the sector found to be the most regressive of all the programs studied. Thus despite the overall increase in social spending ("social investment" as referred to in the paper), there is concern over the restrictions imposed on spending in other sectors, particularly in higher education. In fact, spending on higher education has decreased in real absolute and relative terms over the period analyzed, a trend that, if continued, could well damage the present and future competitiveness of the Costa Rican economy.

The studies reviewed constitute good advances towards a more systematic and integral examination of intra and intergenerational distributional incidence of taxes and public spending, although the data, definitions and methods used vary from one country to the other, and therefore the results are not easily comparable. A more consistent examination of these issues is possible using "generational accounting", an analytical approach specifically designed for this purpose, to which will turn next.

## 3. Generational accounting in Latin American countries

Generational accounts measure, in present value, the taxes paid over a cohort's lifetime net of benefits received from the public sector, and show whether the continuation of current policies is financed in an intergenerationally fair manner, or if they imply passing a net cost to future generations. Generational accounting is thus the flip side of the intertemporal fiscal balance, and serves to evaluate the sustainability of current policies and their projection on to the future.

This approach seems to be particularly appropriate for analyzing social protection systems and policies, because it explicitly considers the associated intergenerational transfers, the present and future solvency of the fiscal systems as they are affected by demographic aging, as well as the final consequences on the population groups that the programs seek to protect.

Small differences in the generational accounts in a given country, or differences between countries at a given moment in time, should not necessarily be a cause for alarm, especially when a political consensus can be achieved by current generations to take responsibility for the inter-temporal financing of current policies. Although the generational balance is a much better measure of the fiscal stance and its sustainability than many traditional fiscal indicators, it is well known that the estimates are sensitive to several assumptions in the accounting framework (Auerbach et. al., 1999; Haveman, 1994; Bonnet, 2002). For example, those regarding the rate of discount to convert future flows into present values, or the specific treatment of some public transfers, such as education. Nonetheless, there would be legitimate cause for concern and intervention if the net sum of lifetime taxes, transfers and government expenditure (the generational

balance), imposes disproportionate net tax burdens for some groups in comparison to others, or if they imply a large absolute burden for one or more generations.

In Latin America, we know of studies on generational accounts for Argentina, Brazil and Mexico<sup>7</sup>. In the study of Argentina, Altamiranda (1999) evaluated the sustainability of fiscal policy and the "convertibility plan", implemented during the first half of the 1990s, which included a privatization program and the beginning of the pensions system reform. The author estimates that the privatization program, which generated fiscal income of US\$ 18.7 billion between 1990 and 1994, had nonetheless a negative impact on net national wealth of US\$ 9.9 billion (equivalent to 3.5% GDP in 1994). Moreover, the privatizations increased intergenerational imbalances (defined as the higher net taxes to be paid by future generations in comparison with those alive today) by 2% to 10%, according to the assumptions made, added on to base imbalances of 70% to 124%.

The introduction of social security reform produced a generational imbalance equivalent to a permanent reduction of pensions between 33% and 48%. Also, given that almost 60% of private pension funds had been invested in state bonds (circa 1995), that particular form of investment of pension fund assets had little effect on the government intertemporal balance. This is because although the net present value of taxes decreased, the national debt stock rose<sup>8</sup>, meaning that there was a change in composition rather than in level of the intertemporal budget.

Taken as a whole, the policies of the first half of the 1990s are considered by Altamiranda to be unsustainable, as they imply the transfer of a net tax burden to future generations of 75% to 150% greater than that of taxpayers in 1995. Thus, according to the author, what appeared to be an initially balanced and macroeconomically stabilizing adjustment evaluated on the basis of the period flows, had implicit substantial intertemporal and intergenerational imbalances. The aging population is one of the factors behind this imbalance, with a weight that varies according to other assumptions in the model. A more recent study by Cetrángolo and Jiménez (2003) provides a detailed and more nuanced assessment of the fiscal policies over the last couple of decades, concurring with the previous analysis in putting the insolvency of the reformed social security system, together with a series of internal and external problems, as a key component of the fiscal imbalance that was associated to the 2001-2002 economic crisis.

The analysis carried out in Brazil (Malvar, 1999) follows a methodology very much in line with that used in the Argentina study, and those of other countries examined in Auerbach et al. (1999). Brazil displays an even greater imbalance in generational accounts than Argentina, as the net tax burden for future generations is estimated in the base scenario to be 116% greater than that of taxpayers in the mid 90s. The ageing population plays an important role (the imbalance would decrease by almost half had the demographic structure remained stable), and to a much lesser degree, the growth of

<sup>8</sup> This kind of effect occurs, in different degrees, in all of the reforms that introduce or increase prefunding, where a substantial proportion of the pension funds are invested in public debt.

7

<sup>&</sup>lt;sup>7</sup> Generational accounting or models based on it have also been applied to specific sectors or reforms, for example the assessment reforms of national pension systems in Chile and Uruguay.

national debt. As in the Argentinean case, the imbalance is found to be related, for the most part, to the insolvency of the social security system, which was worsened by legislation incorporated into the 1988 constitution, which instituted improvements in benefits, and even lowered the retirement age for rural workers, without securing adequate funding for those measures.

To reinstate the intertemporal balance in Brazil in the mid-1990s, it would have been necessary to make such drastic adjustments as a permanent cut in government spending of 26.2% and a tax increase of 11.7% (including social security contributions), or a reduction of 17.9% in public transfers to workers. If no adjustments are made, the net payments of future generations will continue to grow substantially. The author highlights the necessity and importance of correcting these imbalances, and not just for intergenerational equity considerations. Since the elderly, who have disproportionately benefited from net government transfers, have a relatively high propensity to consume, the correction of the imbalance would also have a positive affect on savings and growth.

The generational accounting analysis for Mexico, carried out by Sales & Videgaray (2000) concludes that Mexican fiscal policy, as assessed in 1999-2000, did not present an intertemporal imbalance. In fact, a (positive) balance of 11% was found in favor of future generations; in other words, those born after the year 2000 are projected to face a tax burden 11% *lower* than the preceding generations. The study follows the same basic methodology as in the previously mentioned studies, with several differences. First, it is clear, as the authors state, that in Mexico the oil sector plays an important role in the results, as it provides a very large proportion (more than 30%) of tax revenue, and oil production significantly affects aggregate economic growth. For this reason, the study pays special attention to this sector.

Secondly, some assumptions in the Mexico study seem less realistic than those of the studies already mentioned; in particular, the change in the Mexican demographic structure from 2030 onwards was assimilated to that of the United States, and for pensions payments, the age profile as the United States social security system was adopted. Finally, spending on education was not included in the accounting, as no data was available at the time the study was made. This could also be remedied by using information that became available subsequently, but in any case, as the authors note, the non-inclusion of education in the accounts biases the result downward; i.e., the balance would be even more positive than reported had it been included.

In summary, different situations are verified in Latin America regarding the effect of public expenditure and transfers on income distribution and generational equity. We observe several cases of globally progressive redistributive effects in Chile, Costa Rica, Mexico, and also cases of low distributive effectiveness, as in Brazil. There are cases of

<sup>9</sup> Chile is another country with evidence of inter-temporal sustainability of its public budget, based however

on sustainability indicators different from those of generational accounting (see Crispi & Vega, 2003). <sup>10</sup> It would certainly be better to use the projections available for Mexico, and to obtain the age schedule of pensions from the Mexican 2002 national survey of household income and expenditure instead. However, the results for the aggregate generational balance would not necessarily be too drastically different.

significant intergenerational imbalances in fiscal policy, which are affected by the degree and speed of population aging, and by the insolvency built-in some policies and reforms to the pensions system (Argentina and Brazil in the 1990s). In other settings, there is evidence that the overall fiscal position and transfer programs is intergenerationally balanced and sustainable over time (Mexico and Chile, circa 2000).

#### 4. Private transfers

Private transfers are important in all regions of the world, and we can presume that this must also be the case in Latin America, because of the significant role that family ties play in support networks and because the coverage of social protection systems in the majority of countries is far from universal. However, the information and studies on private transfers are much scarcer than those regarding public transfers, as there are data limitations in the majority of countries that impede a detailed and systematic analysis. However, the information that does exist sheds some light on the circumstances under which private transfers occur in the region and the sort of effects they have.

Some studies are of reduced geographical scale and are based on small samples of households, such as that carried out by Kaufman & Lindauer (1984) in El Salvador<sup>11</sup>, which examined monetary transfers *between* households and their role in maintaining "minimum" family consumption. The study found that a third of households were receiving private transfers, and that they accounted for 11% of the total income of these poor households. Households headed by women were more likely to receive transfers than those headed by men (60% and 25% respectively), and the amount of the transfer was inversely related to the recipient household's earned income.

The transfers appear to serve to satisfy basic needs and to alleviate poverty in recipient households, but they take place for the most part within the "extended family" context. Consequently, the observed progressive redistribution has limited scope, and does not come close to substituting for the needed public sector redistribution for poverty reduction. The authors suggest that transfers may be provided for altruistic or even paternalistic motives, although they could also well be the result of a social contract aimed at reducing the risk of insatisfaction of basic consumption needs.

Several other studies on private transfers are based on surveys representative of large cities (Saad, 2005b), of the urban population of some countries (Cox et. al. 1996), or more exceptionally, are representative at the national level (Torche and Spilerman, 2005; Wong and Espinoza, 2005), but with a main focus on older adults.

Two recent studies by Saad (2005a, 2005b) stress, on the one hand, the key role of coresidence in facilitating different types of intra-familial support, material transfers and in improving the well-being of older adults in the Latin American and Caribbean countries. Evidence obtained for four major cities (Sao Paulo, Buenos Aires, Montevideo and Mexico City) shows that the population over age 50 is involved in reciprocal support and

9

<sup>&</sup>lt;sup>11</sup> Based on a survey of 500 households in poor districts of the city of Santa Ana, compiled in 1976.

exchanges, with the same and different generational groups. The intense exchanges documented point to a possibly partial compensation for insufficient public transfers to support the needs of the elderly, and also hint at an important role of the older population as a source of support for other family members in contexts of adverse economic conditions.

Wong and Espinoza (2005) examined the changes in Mexico between 2001 and 2003 in transfer receipt and giving for persons aged 50 and over to their children, or to non-family members under the age of 50. They paid particular attention to individuals that switched from being donors to recipients of transfers, and vice-versa, in a multivariate framework. The results show that persons over the age of 50 decrease their propensity to make transfers over time. Age is an important factor, which has a positive correlation with ceasing to be donors and with becoming transfer recipients. Widows and adults with many children are more likely to be recipients of transfers than other persons of the same age. As may be expected, individuals with higher incomes are less likely to be recipients, and more likely to be donors, a finding consistent with those of Saad (2005b) for the four metropolitan areas mentioned above. Contrary to expectation, the individual's health status does not appear to affect the likelihood of receiving or making transfers.

Torche and Spilerman (2005) used a retrospective survey of "intergenerational financial linkages" carried out on 4,408 households in Chile in 2003, to study the extent to which the wealth of parents affects the standard of living and possession of assets of their children when they reach adulthood. The study confirms that children's economic status has a high correlation with that of their parents' income when the children were young, and show that the dominant intervening variable is the children's educational level. The authors conclude that investment in human capital (education), which positively and directly affects their level of labor income, is the main direct determinant of the children's current standard of living. They also note that the high standard of living enjoyed by some children raised in low-income families could be due, at least in part, to public education and other social programs. This hypothesis, if confirmed through more rigorous testing at the micro level, would bear out the conclusions reached by Arenas and Guzmán (2001) at the macro level, regarding the efficacy of the redistribution of government expenditure and fiscal policy.

For the second dependent variable, the ownership of assets, the results are somewhat different. The variables representing the parental economic status did not appear to be significant, except for the parental household wealth variable. When the children's characteristics are controlled for, parental wealth continues to be significant, but to a lesser degree. The authors conclude from this evidence that parents transfer wealth to their children directly, in the form of physical or financial assets (as opposed to human capital formation, the main vehicle for the intergenerational transmission of the standard of living). In any case, some care would be warranted in interpreting the distinct results, as income and wealth are so closely associated, that it is very difficult to tell their determinants apart.

Cox et. al. (1996) studied the transfers between parents and children in urban areas of Peru and the variables that determine them, including income, education, as well as some household characteristics. They also discuss whether the motives behind such transfers could be altruistic or the result of implicit contracts of intertemporal mutual assistance. They find in all cases that the *probability* of receiving transfers over the life cycle is U-shaped, and has an inverse relationship with lifecycle earnings (which has an inverse U-shape). This provides some direct confirmation, once again, that transfers from parents to children and vice-versa, provide important "smoothing" of lifecycle consumption. But the *amount* of transfers given from parents to children has a sign that changes from positive for income up to 2900 soles, to negative marginal effects above that level. Similarly, the amount transferred by children to parents increases for income levels up to 3,700 soles and stabilizes or slightly decreases thereafter. As the authors explain, these findings do not seem consistent with altruistic motivations, which would imply an overall *negative* effect of the recipients' income on the amount of the transfer received. <sup>12</sup>

Interestingly, it was also found that the level of social security benefits had a negative effect on the amount of transfers from children to parents, which suggests some substitution of private transfers for those provided by the government. It was also found that ill health and unemployment increase the likelihood of receiving transfers.

In sum, the studies reviewed indicate that transfers are indeed an important means to smooth consumption over the life cycle and, in some settings (e. g., poor neighborhoods in El Salvador), over the economic cycle as well. In general, families or individuals with lower income or which are otherwise disadvantaged are more likely to receive transfers, but the motive is not always clearly altruistic; in fact, in some cases (e. g., urban Peru) the evidence seems more consistent with an exchange motive. All the studies that use data on transfer giving and receipt suggest that the support provided through transfers is mutual: all generational groups, including the elderly, include both transfer recipients and givers.

### 5. Redistributive and poverty-reduction effect of transfers

In the previous sections we have seen that, with some exceptions, *public* transfers have had an overall redistributive effect, especially in the case of education, health and cash transfer programs that benefit primarily young children. Pension and other programs for the elderly in several cases are found to be regressive in the traditional sense of the income-class incidence. *Private* transfers, studied for the most part through small or medium-scale surveys, seem to serve different purposes and have more complex effects according to the specific setting; in all cases they seem to benefit individuals in the dependent ages, in many cases they benefit more individuals with relatively lower income or that are otherwise disadvantaged, but in at least some settings, private transfers between parents and children correlate positively with income and wealth, thus

\_

<sup>&</sup>lt;sup>12</sup> The evidence appears more consistent with the theory of implicit intertemporal contracts, according to which parents agree to transfer more resources to their children in the expectation that they will in turn provide larger transfers to the parents in their old age. This can also explain transfers from children to parents, to the extent that they increase the likelihood of future bequests.

providing, on the contrary, some basis for an intergenerational reproduction of economic well-being.

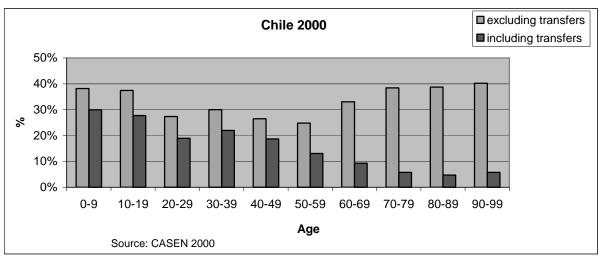
I examine next the data from nationally representative household surveys, as in the first section of this paper, of Chile, Mexico and El Salvador. The analysis reported here follows up on a previous, detailed study by Uthoff and Ruedi (2002) that examined the efficacy of transfers in alleviating poverty in seven Latin American countries in 1996/1997, using information of monetary transfers from household surveys. That study showed that transfers, both public and private, accounted for 4% to 22% of total household income in the countries studied, and that they had a "poverty-reduction" effect between 2.5 and 13.4 percentage points, depending on the country.

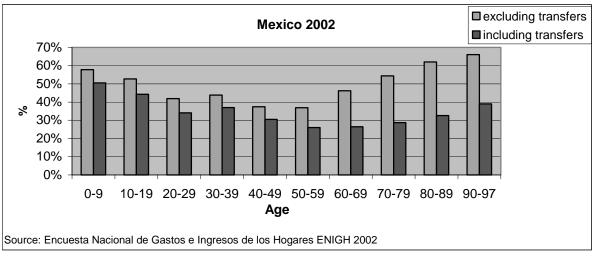
More specifically, the study found that transfers had a substantial effect mainly on inactive household heads aged 65 and over, and had little effect in reducing poverty among the unemployed. This can be explained because, despite their limitations, social security and pensions benefit more people and account for a large proportion of government social expenditure, in comparison with the coverage of unemployment insurance, which in most countries in the region is very reduced. The study showed that in households headed by unemployed or low-income individuals aged 25 to 64, transfers reduce poverty from 37% to 30%, while the effect on the total population is a reduction of poverty from 43% to 29%.

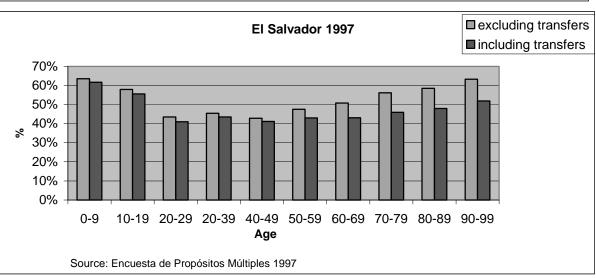
We now present new estimates using data from the most recent surveys in Chile, Mexico and El Salvador, with an emphasis on the incidence of poverty and transfers by age of individuals. It is important to note that transfer income, as measured in the respective surveys, account for 14% of total income in Chile, 15% in Mexico and 9% in El Salvador. These transfers help to reduce poverty by 18, 9 and 3 percentage points, respectively. The different degrees of efficacy are due mainly to the aggregate size of transfers, since the degree of concentration of transfers on the poor in El Salvador is similar to that of Chile and higher than in Mexico.

Figure 2 shows the poverty rates of different age groups excluding and including transfers, and thus illustrates the different effectiveness of transfers in reducing poverty in the three countries.

Figure 2. Incidence of poverty by age group, excluding and including transfers







In observing the different age groups, note that in the three countries there is a compensatory effect on poverty proportionately higher among the elderly than in the rest of the population, especially in comparison with children and teenagers. <sup>13</sup> In particular, younger individuals display near or below-average incidence of poverty excluding transfers, but when transfers are included, they end up with poverty rates significantly above average, higher than those of adults in virtually all cases.

These estimates suggest then that there is room for considerable improvement in the redistributive effect of transfers. The effect across generations is not either necessarily balanced, as they tend to benefit very markedly the elderly, which can certainly be justified in terms of the aims of the of social security systems. However, viewed from a broader perspective of intergenerational solidarity and productive efficiency, those aims should not lead to neglect the other population groups, especially children and teenagers, who are subject to high poverty rates in almost all the countries studied. As we saw earlier, in some settings this problem is compounded by the deficiency of transfers for secondary and higher education, which could jeopardize present and future productivity growth.

#### 6. Final remarks

Our review of intergenerational transfers in Latin America leads to the following observations. First, these transfers are of a substantial aggregate magnitude, and in practically all documented cases, they are essential in smoothing lifecycle consumption and contribute significantly to alleviate poverty, in varying degrees.

Secondly, public transfers are not always strongly redistributive; in certain countries and sectors, they have been found to be rather regressive, and tend to favor some generational groups much more than others. In several countries, public transfers have a greater poverty-reduction effect among older adults than among children, which weigh heavily within the poor population in most countries of the region.

Analyses that take into account the changing demographic structure together with the age-specificity of public programs and transfers show that in some countries, the ensemble of social programs and fiscal policy appears to be intertemporally unbalanced, with ensuing serious budgetary and macroeconomic consequences in the medium and long term. Population ageing and the insolvency of social security systems are among the important factors of the imbalances. These situations have a flip side in intergenerational inequity, as future generations are burdened with significantly higher net taxes than the present ones, to finance the continuation of policies into the future.

Thirdly, the redistributive effect of private transfers is even less clear-cut, since in many cases they appear to be directed foremost individuals with lower incomes, but in other situations they tend to favor to a greater extent those who are relatively better off, thus providing a basis for an intergenerational reproduction of poverty and wealth. We found some evidence of substitution of private for public transfers, which in any case seem far

<sup>&</sup>lt;sup>13</sup> Recall that this is the same type of effect that Paes de Barro and Carvalho (2003) find in Brazil.

from sufficient to replace the state responsibility over the provision of social services and protection to the population as a whole.

We found important advances in the knowledge and analysis of these types of questions in several countries, but there is clearly much room for improvement in the region for the development of a more systematic information basis that would allow for periodic, more precise and comparable diagnostics. As can be appreciated from several of the cases reviewed, they can make a good contribution in identifying policy options to improve the intra and intergenerational distributive equity of policies and social protection programs.

### **Bibliography**

Altamiranda, M. (1999) "Argentina's generational accounts: is the convertibility plan's fiscal policy sustainable?" in A. Auerbach, L. Kotlikoff, W. Leibfritz (1999) *Generational accounting around the world*. NBER, U. of Chicago Press.

Arenas, A. (2005) "Transferencias gubernamentales en Chile: la dimension generacional". Presentation at the *Taller sobre transformaciones demográficas, transferencias intergeneracionales y protección social en América Latina*, Santiago, Chile, July 6 and 7, 2005.

Arenas. A, and Guzmán. J. (2003) "Política fiscal y protección social en Chile", *ECLAC Review No. 81*, ECLAC, December 2003.

Auerbach, A., Gokhale, J. and Kotlikoff, L. (1991) "Generational accounts: a meaningful alternative to deficit accounting", in D. Bradford (ed.), *Tax policy and the economy*, vol. 5, Cambridge: MIT Press, 55-110.

Auerbach, A., Kotlikoff, L. Y Leibfritz, W. (1999) *Generational accounting around the world*. NBER, U. of Chicago Press.

Bonnet, C. (2002) "Comptabilité générationnelle appliquée à la France: quelques facteurs d'instabilité des résultats". *Economie et Prévision*, No. 154. Paris, France.

Brazil (2005) "Programa Bolsa Família" in http://www.fomezero.gov.br/.

Cetrángolo, O. and Jiménez, J.P. (2003) "Política fiscal en Argentina durante el regimen de convertibilidad" *Serie Gestión Pública* No. 35, ILPES/ECLAC, Santiago, Chile, May 2003.

Comley, B. and Mckissak, A. (2005) "Expenditure Growth, Fiscal Sustainability and Pre Funding Strategies in OECD Countries", Paper presented at the Seventh Workshop on Public Finance of the Bank of Italy, Perugia, 31 March 2005.

Cox. D, Eser Z., & Jiménez, E. (1996) "Motives for private transfers over the life cycle: an analytical framework and evidence from Peru." RPO 674-49, The World Bank.

Crispi, J. and Vega, A. (2003) "Sostenibilidad y regla fiscal: análisis e indicadores para Chile" Estudios de Finanzas Públicas, December 2003. Ministry of Finance, Budget Directorate.

Gokhale, J. (2005) "The distribution of US public expenditures across generations" Paper presented at the Seventh Workshop on Public Finance of the Bank of Italy, Perugia, 31 March 2005.

Gokhale, J. and Smetters, K. (2004) "Fiscal and generational imbalances: New budget measures for new budget priorities". In Banca D'Italia, Research Department Public Finance Workshop, 2004, *Public Debt*. Rome, Italy.

Haveman R. (1994). "Should generational accounts replace Public Budgets and deficits?". Journal of Economics Perspectives, vol 8, n 1, pp. 95-111.

Heller, P. and Hauner, D. (2005) "Characterizing the expenditure uncertainty of the industrial countries in the 21st century", Paper presented at the Seventh Workshop on Public Finance of the Bank of Italy, Perugia, 31 March 2005.

Kaufman, D. & Lindauer, D. (1984) "Income transfers within extended families to meet basic needs: The evidence from El Salvador". World Bank Staff Working Papers, No. 644, Washington, D.C.

Lee, R. D. (2003) "Demographic change, welfare, and intergenerational transfers: a global overview" in *GENUS*, Volume LIX, No. 3-4, July-December 2003, Universitá Degli Studi Di Roma "La Sapienza", Rome, Italy.

Lee, R. D. (2004) "The formal demography of population aging, transfers and the economic life cycle", in L. Martin and S. Preston, eds., *The Demography of Aging*, National Academy Press, pp. 8-94.

Malvar, R. V. (1999) "Generational accounting in Brazil", in A. Auerbach, L. Kotlikoff, W. Leibfritz (1999), in A. Auerbach, L. Kotlikoff, W. Leibfritz (1999) *Generational accounting around the world*. NBER, U. of Chicago Press.

Mason, A., Lee, R., Tung, A., Lai, M.S., Miller, T. (2005) "Population Aging and Intergenerational Transfers. Introducing age into National Accounts". Paper presented at the *XXV IUSSP International Population Conference*, Tours, France, 18-23 July, 2005.

Mexico (2004) "Distribución del pago de impuestos y recepción del gasto público por deciles de hogares y personas: Resultados para el año de 2002" Ministry of Finance and Public Credit, in collaboration with the World Bank and the Centro de Investigación y Docencia Económicas, Mexico. Available (in Spanish) at:

http://www.shcp.sse.gob.mx/contenidos/shcp/documentos/comunicado\_art\_29\_lif\_2005\_art\_31\_sat.pdf

Paes de Barro, R., and Carvalho, M. (2003) "Desafios para a Política Social Brasileira", *Texto para Discussao* No. 985, IPEA.

Saad, P. (1005a) "Arreglos residenciales y transferencias de apoyo informales de los adultos mayors de América Latina y el Caribe". Paper presented at the *Taller sobre transformaciones demográficas, transferencias intergeneracionales y protección social en América Latina*, Santiago, Chile, July 6 and 7, 2005.

Saad, P. (2005b) "Informal support networks among older adults in Latin America: *comparative studies of SABE surveys*". Presented at the *XXV IUSSP International Population Conference*, Tours, France, 18-23 July 2005.

Sales, C. and Videgaray, L. (2000) "La sustentabilidad de largo plazo de la política fiscal en México: un enfoque de cuentas generacionales". *Gaceta de Economía*, Suplemento sobre Política Fiscal en México, Año 5, Núm. 9. Instituto Tecnológico Autónomo de México.

Torche, F. and Spilerman, S. (2005, forthcoming) "Parental wealth effects on living standards and asset holding: results from Chile" forthcoming in Ed Wolff (editor) *International perspectives on Household Wealth*, Cheltenham, U.K: Edward Elgar.

Trejos. J. D. (2005) "Evolución de la equidad de la inversión social pública desde los años noventa", en *Desarrollo Humano Sostenible, Estado de la Nación*. San José, Costa Rica.

Turra, C. and Queiroz, B. (2005) "Intergenerational transfers and socioeconomic inequality in Brazil: a first look", Paper presented at the *Taller sobre transformaciones demográficas*, transferencias intergeneracionales y protección social en América Latina, Santiago, Chile, July 6 and 7, 2005.

Uthoff, A. and Ruedi, N. (2002) "Diferencias en la efectividad de la política social para atenuar la incidencia de la pobreza: un análisis a partir de las encuestas de hogares", Special Studies Unit, ECLAC.

Uthoff, A., Bravo, J., Vera, C., and Ruedi, N. (2005) "Cambios en la estructura por edades de la población, transferencias intergeneracionales y protección social en América Latina". Paper presented at the *Taller sobre transformaciones demográficas, transferencias intergeneracionales y protección social en América Latina*, Santiago, Chile, July 6 and 7, 2005.

Wong, R. and Espinoza, M. (2005) "Dynamics of intergeneracional assistance in middle and oldage in Mexico" Paper presented at the Population Association of America Meetings, Philadelphia, PA, April 2005.