

PAL REVIEW



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Social security and development in Latin America

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This article is a summary of a longer study by the author which was commissioned by ECLAC, on the financial situation of social security in 20 Latin American countries. These countries are grouped according to their social security situation, and their similarities, differences and trends with respect to financing and financial equilibrium are examined. Of the wide variety of topics covered in such a vast area of study the author focuses on the historical evolution of social security, problems of coverage, benefits, financing and costs and the impact of social security on development.

As a result of his study, the author concludes that urgent reform of social security is needed: in the pioneer countries, in order to face problems of short-term financing, the vestiges of stratification and the maintenance of the level of basic benefits; and in the countries which have newer social security systems, in order to extend the coverage through a system of financing that can guarantee long-term benefits.

During the hundred years since the introduction of social security in Germany —the predecessor of the modern programmes— significant progress has been made in this area in many Latin American countries. These programmes have played a fundamental part in preventing loss of income by the head of the family through social risks and in advancing curative medicine. By the end of the last century programmes already existed in the region for protecting public employees and the military, and from the beginning of this century, groups of workers in strategic sectors such as public services enjoyed this protection. In 1984, 70 and 60 years, had elapsed respectively since the first laws were enacted in the hemisphere to cover workers against occupational accidents and diseases (Uruguay) and against the risks of old age, disability, death and ordinary illness (Chile). These countries were ahead of the United States in introducing this type of programme and are ahead of that country even today in programmes such as mother and child health and family allowances. As in other areas, Latin America leads the Third World in its development of social security.¹

But progress in social security has not been consistent throughout the region and faces serious problems, even in countries which have achieved greater development. While it is true that several countries have succeeded in providing coverage for the entire population, when Brazil (where more than half of the persons covered are concentrated is excluded), the overall coverage of the region falls short of 43% and in the majority of the countries it is lower than 25%. To this must be added the significant inequalities in coverage by occupational category, sector of economic activity and geographical unit. In many countries the cost of social security is excessive compared with their economic capacity. At the beginning of the 1970s, the social security burden in the two

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¹A summary of the progress made in social security in Latin America during this century appears in Tamburi (1984). See also Frank (1982).

pioneer countries reached 14% and 17% of the gross domestic product: a proportion which, at the world level, was only exceeded in the most industrialized countries of Europe. At the beginning of the 1980s, that burden approached or surpassed 10% of the gross domestic product in five countries, equalling the percentage in Japan and being comparable to that of the United States, the USSR, Spain, Australia and New Zealand (13-14%).

During the 1960s, social security in the pioneer countries showed an actuarial and sometimes financial imbalance which worsened in the 1970s and was complicated even more by the economic crisis of those years. In an attempt to resolve this situation, a number of Latin

American countries have restructured their social security, the most important —and diametrically opposed— reforms being those bringing the Cuban system under State control and putting the Chilean system in private hands.

Apart from the economic importance of social security, the way in which it is financed can affect the replacement of labour by capital, the generation of savings and investment and income distribution. It is only recently that certain regional or international development agencies have begun to study social security in Latin America from the economic standpoint and to include this subject in some of their country studies.

I

The historical evolution of social security

For purposes of simplicity, the term 'social security' is used systematically throughout this article and encompasses five main programmes: occupational hazards (health and money coverage against occupational accidents and illness); old age, disability and survivors, pensions (as well as seniority, and lay-off or dismissal pensions in some countries); health care and money benefits in case of illness, ordinary or non-labour accidents and maternity; family allowances; and unemployment benefits. In addition, social security frequently includes other benefits such as funeral assistance, personal and housing loans, day-care centres for children, as well as public assistance or social programmes (health care and pensions for low-income groups which cannot join the contributory programmes).

Technically speaking, the majority of the countries of Latin America have mandatory social insurance systems or are between the stage of social insurance and the more advanced stage of full social security, which are two different concepts of social protection. Only a few

countries have systems with features that are more typical of social security than of social insurance. Social insurance, which was introduced into Germany by Otto Bismarck in the 1880s, is based on employment relations which shape the system: i) separate programmes to cover different social risks (especially occupational hazards, pensions and sickness); ii) coverage of the essentially urban labour force employed in a relationship of dependence (wage-earners); iii) tripartite salary-based contributions (paid by the person insured, the employer and the State); iv) benefits directly linked to contributions; and v) technical/financial capitalization systems.

Social security, which started out in the United Kingdom with the ideas contained in Sir William Beveridge's report at the beginning of the 1940s —with a strong Keynesian influence— is based on a series of innovative principles which promote: i) unification —under a single managing or co-ordinating body— of the various social insurance programmes with public assistance and health care (combining

preventive and curative medicine) and with employment programmes and family allowances (principle of unity); ii) uniformity of the conditions for acquiring rights and elimination of unjustified inequalities among the persons insured (principle of equality); iii) total coverage of the population, whether employed or unemployed (principle of universality) and of all social risks (principle of comprehensiveness); iv) financing through taxation, minimum basic but adequate benefits—not linked to contributions—and progressive distribution of income (principle of solidarity); and v) technical/financial distribution systems (Mesa-Lago, 1959).

1. *The pioneer countries and stratification*

In a small group of pioneer countries, which were the most developed ones (Chile, Uruguay, Argentina, Cuba, Brazil), the social security system emerged at an early stage (during the 1920s) but it did so in a gradual and piecemeal fashion, giving rise to a multiplicity of managing institutions which protected different occupational groups through independent subsystems, with their own legislation, administration, financing and benefits. The State contributed to the financing of the subsystems through the creation of specific taxes or direct budgetary support. The subsystems gradually incorporated broader occupational groups or labour sectors as well as their dependents, but generally with more scanty benefits and more stringent conditions for acquiring the right to benefits. The process by which the subsystems made their appearance was approximately as follows: first they were extended to the armed forces, public employees and teachers; then to employees and workers in transport, energy, banking, communications and other public services, much later to the mass of urban workers and employees (frequently separated into two large groups), and finally to agricultural workers and self-employed (independent) workers, small farmers and entrepreneurs, and domestic servants.

This type of evolution resulted in a stratified social security system, since it acquired a

pyramidal structure, with relatively small groups of persons protected by privileged subsystems at the apex of the centre and the majority of the population with subsystems providing less protection at the base. There were significant and usually unjustified differences between the subsystems and the overall system lacked co-ordination. The stratified system had negative effects: legal confusion, administrative complexity, high operating costs, difficulty in establishing a single register and effective control of evasion, obstacles to combining length of service and contribution accredited in various institutions, and considerable inequalities.

The theories seeking to explain the evolution of social security identify among its basic causes economic development² and the dissemination or demonstration effect generated by international agencies and pioneer countries (Collier and Messick, 1975), but those theories do not explain the phenomenon of stratification. Considerable debate has been going on for a decade now about the two main driving forces of this phenomenon: the pressure groups and the State. The power base of the occupational groups described lies in their military strength, their administration of the government, the scarcity of their skills on the labour market and their union organization, and they bring pressure to bear on the State—sometimes in conjunction with political parties—in order to obtain social security concessions. Studies on various countries in the region show that, in general, the more powerful the pressure groups are, the greater the extent to which they enjoy earlier and more comprehensive coverage, more generous benefits and more advantageous means of financing (Mesa-Lago, 1977a and 1978). The State cannot be a mere passive receiver of pressures from groups. It must also exercise its

²Pauker (1968) has tried to prove that the financial burden of social security is a result of economic development and that the greater that burden, the greater will be the redistribution function of the system. Zschock (1985) also contends that social security extends and becomes less inequitable with economic growth and growth of the size of the government. In contrast, Aaron (1967) has produced evidence that refutes the above viewpoint and sustains the theory that the age of the system is the most important variable explaining the level of expenditure on social security.

own initiative by using social security as the instrument to co-opt, neutralize and control those groups in order to maintain some sort of social order (Malloy, 1979)- The evolution in which the role of the pressure groups have been preponderant is typical of the populist and democratic-pluralist political systems such as those in Chile and Uruguay during the first seven decades of the twentieth century. The evolution in which the role of the State has been preponderant is more typical of political systems which, while also populist, have an authoritarian and corporatist inclination such as those in Brazil under Getulio Vargas and Argentina under Juan Perón. In practice, both forces (the pressure groups and the State) have worked hand-in-hand in both types of political systems and it is sometimes difficult to determine which was the predominant one (Mesa-Lago, 1977b).

As economic development, urbanization, trade union and political mobilization processes advanced in the pioneer countries, the groups which enjoyed no protection gained enough power to secure coverage within already existing or new subsystems. In some countries, they were even able to secure some benefits that had been reserved for the old systems, thereby achieving some extension of privileges to the masses. The cost of the process of making coverage universal, combined with the generous benefits and the liberal conditions for acquiring them, became excessive and created a financial imbalance in many subsystems.

Social security reform, promoted by national and international technical studies, advocated the unification and uniformity of the subsystems and the elimination of costly privileges. But the groups were so powerful that the State was compelled to postpone the reforms, sometimes for decades. The political changes that occurred in these countries during the 1960s and 1970s reinforced the State *power vis-a-vis* the pressure groups (which in many cases were disbanded or had their power significantly reduced) and facilitated the process of reforming social security (Borzutsky, 1984).

In some countries (Cuba, Brazil), virtually the entire system was unified, in others (Argentina, Uruguay) a central integrating or co-ordinating agency was formed which

combined different organizations under a uniform system and finally in one country (Chile) some measures were taken to make the old system uniform and eliminate privileges, but above all a new system was created, strongly influenced by private insurance and favouring individuality and multiplicity.

2. Countries with relatively unified systems

The second form of evolution of social security took place in countries whose main systems were established since the 1940s and were influenced by the new trends inspired by the International Labour Organisation and the Beveridge report, which sought to avoid the problems created in the pioneer countries. At the time, some of the countries in question were relatively developed (Mexico), but most of them had a low level of industrial development and in almost all of them the rural sector predominated over the urban sector. In these countries, a general managing agency was established which was responsible for eventually covering the entire population, although at the start the system was limited to the capital and the main cities.

In the more developed countries of this second group, before the establishment of the general managing agency there had been a number of social security institutions which protected the most powerful pressure groups: the armed forces, public employees, teachers, and energy and railroad workers (Colombia, Costa Rica, Mexico, Paraguay, Peru, Venezuela). Furthermore, in some countries (Mexico, Costa Rica) a number of exceptions were made after the general managing agency was created, with a view to establishing separate subsystems for certain groups (almost always in the public sector). However, these groups were usually small and (except for the armed forces and public employees) represented only a small percentage of the coverage provided by the general managing agency.

In any event, although there is a certain degree of stratification in all these countries, it has never approached the level *it* reached in the first group. Because social security was introduced later in this second group, and also

because of its relative unity and uniformity and its lower coverage of risk and population, these systems generally did not face the administrative and financial problems of the first group and therefore no radical changes were needed. Even so, however, the countries heading this group (those with the highest coverage, growing maturity of the pension programme and high costs) are beginning to face the financial problems typical of the first group. Costa Rica is the most serious case since, because of its policy of speeding up population coverage in the 1960s and 1970s, its social security costs are close to those of the countries in the first group even though its pension programme has still not fully matured.

3. *Countries which introduced social security at a later stage*

Lastly, we can identify a third group of countries which also have relatively unified social security systems: indeed, to a greater degree than those of the second group. These are the least developed countries of the region: Central America (except for Costa Rica and Panama) and the Latin

American Caribbean (except for Cuba). In this group, social security did not generally appear until the 1950s and 1960s, and the general managing agency covers virtually all the persons insured (although the armed forces and sometimes public employees have separate subsystems); population coverage is very low and sometimes limited to the capital city and the most heavily populated cities. These countries are not usually faced with short and medium-term financial difficulties, and their main problem is to extend coverage to the population at large.

Although in general the unification process has advanced in the region, there are still stratified systems or systems whose unification process has not been completed. Furthermore, the integration of the health institutions (social security, the Ministry of Health, etc.) and their policies is urgently needed in the majority of the countries. Finally, with very few exceptions, social security has not been incorporated into the national plans. This incorporation would facilitate the processes both of unifying social security and of uniting social security and health.

II

Problems of coverage, benefits, financing and costs

1. *Coverage*

In general, the figures on statistical coverage of the population by social security are very inadequate. The ECLAC study—based on a survey and relatively uniform calculations—shows that in 1980, 61% of the total population and of the economically active population (EAP) were covered for health and pensions respectively. However, when Brazil is excluded from the calculations, the regional coverage falls to 43% and in the majority of countries does not even reach 25%. The most developed countries of the

region were the first to introduce social security and currently have the highest coverage of the population, whereas the least developed have the lowest coverage: 100% to 75% in Cuba, Brazil, Argentina and Costa Rica; 74% to 50% in Uruguay, Chile, Mexico and Panama (the first two countries would probably fall in the first group if coverage of indigents and coverage by mutual funds were to be added); 49% to 25% in Venezuela and Bolivia; and 24% to 1% in Paraguay, Peru, Guatemala, Colombia, Nicaragua, Ecuador, Dominican Republic, Honduras, El Salvador and Haiti (the countries

are placed in descending order of coverage).

In the majority of the countries, the persons insured are urban wage-earners (and their close dependents) whereas agricultural workers, independent workers (or the self-employed), domestic servants and the unemployed (as well as the dependence of all these) are not insured. In approximately a quarter of the countries—the least developed ones—coverage is limited to the capital and the most important cities. The economic crisis of the present decade has caused a decline in coverage in several countries because of the increase in unemployment, self-employment and evasion.

There seems to be a positive correlation between the degree of coverage by social security, on the one hand, and the labour skills, income and level of development of the regions of a country, on the other. A recent study of Brazil shows a positive correlation between the degree of coverage and level of skills or employment status and income, with the lowest coverage being recorded among the unemployed, unskilled workers (especially agricultural or self-employed workers) and those with the lowest income. The information from four countries (Chile, Colombia, Costa Rica and Mexico) on the level of coverage (1979-1981) of the economically active population by sector of economic activity indicates that the highest coverage is recorded in electricity, gas and water (75% to 100%), manufacturing (51% to 90%) and transport and communications (34% to 71%), whereas the lowest is found in agriculture (4% to 59%, with the highest percentages being registered in Costa Rica and Chile, the countries which come closest to total coverage). Finally, information from six countries (Chile, Costa Rica, Guatemala, Mexico, Panama and Peru) on the differences in the level of geographical coverage (1979-1981) shows that the most developed states/provinces/departments (industrialized, unionized, urbanized, with the highest percentage of wage-earners and highest per capita income) have significantly higher coverage than the least developed states/provinces/departments (agricultural, little unionized, rural, with the highest percentage of independent workers and the lowest per capita income). The extremes of

geographical coverage fluctuate between 39% and 95% in Chile, 54% and 100% in Costa Rica, 0.2% and 33% in Guatemala, 5% and 100% in Mexico, 13% and 73% in Panama, and 3% and 27% in Peru. With one exception, the province/state/department in which the capital city is located has the highest coverage. To summarize, the most needy groups are not provided with social security protection in the vast majority of the countries and so the key question is whether it is feasible to extend coverage to include those groups (ECLAC, 1985; Isuani, 1984, pp. 96 and 97; Isuani and Mesa-Lago, 1981).

The low coverage and its slow extension in the region appear to have a relation with the Bismarckian model, imported from Europe, which is financed by the wage contributions of the persons insured and employers. In many Latin American countries, it is not wage-earners who constitute the majority of the labour force but rather unpaid independent or family workers. It is not surprising, then, that the most developed countries of the region have the highest percentages both of the wage-earning labour force and of social security coverage, whereas the least developed countries have the lowest percentages of both. As a general rule, coverage does not exceed the percentage of the urban formal sector (in some countries it also includes the rural modern sector) leaving the urban informal and rural traditional sectors without any protection. A few countries have succeeded in changing the system of financing and in incorporating the sector not covered, through public assistance programmes (Chile, Costa Rica, Cuba) or transfers from the urban to the rural sector (Brazil) or special programmes to cover the peasant population (Ecuador, Mexico).

One of the most serious problems facing social security in the region is how to speed up extension of coverage and reduce its inequalities despite the structural and conjunctural obstacles.

2. *Benefits*

The pioneer countries in social security (Argentina, Brazil, Chile, Uruguay) cover all the social risks with different programmes:

pensions, health/maternity, occupational hazards, unemployment and family allowances (Cuba has no official programme of family allowances or unemployment benefit, but the latter does not appear to be necessary because of the virtually full employment situation). The older the social security system of a country, the more generous are the benefits and the more flexible the conditions for acquiring rights: the retirement age is relatively early because the original legislation was enacted when life-expectancy was lower; pensions are granted on the basis of length of service—regardless of the age of the person insured—which makes it possible to retire at a very early age; very costly health benefits are granted such as contact lens, orthodontics, and treatment abroad; and there are "social benefits" such as housing programmes, mortgage and personal loans, co-operative stores and sports and cultural services. In the pioneer countries, the bulk of the expenditure on benefits is for pensions, reaching 80% in Uruguay, and this proportion is on the increase because of the maturity of the pension programme and the increasing longevity of the pensioners. This tendency, combined with demographic and financial factors, appears to lead eventually to financial imbalance.

The stratification of the typical social security system of the pioneer countries (at least until the unification and uniformity processes were introduced) has led to significant inequalities in benefits, since the most powerful groups receive more and better benefits than the least powerful. In a study of five countries, the legal differences between the five groups covered were measured on the basis of six criteria: conditions for acquiring the right to benefits; base salary used to compute benefits; amount of benefit; pension cost-of-living adjustment; possibility of obtaining several pensions or combining one pension with a paid job; and time required to apply for and receive the benefit. The study also compared the availability of health services (hospital beds and doctors per insured person) and their quality for the various groups. The groups were placed on the following order, from best to worse: i) armed forced, ii) public employees, iii) élite of the working class, iv) private non-manual workers and v) rank and file manual workers.

The study points out, however, that a process of extending privileges to the masses frequently occurs in the pioneer countries, so that the groups at the base of the pyramid are sometimes able to secure some of the benefits that were previously reserved for the groups at the top (Mesa-Lago, 1978).

The countries where social security was introduced later do not usually have as many programmes as the pioneer countries. Moreover, many of these countries have given priority to vertical rather than horizontal expansion of social security. The small percentage of the population covered receives more and more benefits and this has increased the difficulty of extending coverage to the bulk of the population. Hence, the greatest source of inequality in these countries is the low population coverage. In this group of countries, up to 80% of the expenditure on benefits is allocated to the health programme and the increasing reserves of the pension programme are often used partly to finance the construction and equipment of hospitals. Although it may be justifiable from a social point of view, this investment is not financially profitable and gradually whittles away the capital of the pension fund, so that when the pension programme matures, the entire system is faced with financial disequilibrium.

3. *Financing and costs*

Social security in Latin America is financed basically by contributions calculated on the basis of the nominal salary which, according to the law, are paid by the person insured and his employer and also by the State in some countries. The older the social security system of a country and the wider the coverage, the higher the percentage of total wage contributions, and the larger that portion which, by law, must be paid by the employer (the effect of this contribution is discussed in the following section). In the pioneer countries, the total wage contribution fluctuates between 26% and 46% and was even higher before several countries reduced it or replaced it by a value-added tax.

Depending on the percentage of the wage contribution and the breakdown of the income collected by source, the insured person pays less

than one-third of the social security burden. The remaining two-thirds are paid by the employer and to a lesser extent by the State; income from investments represents less than one-tenth of the income. Consequently, according to the law (without taking incidence into account) the insured person finances only a fraction of the benefits, and this situation is made potentially more unfair in countries with very low population coverage. In the Dominican Republic, for example, coverage is lower than 8% and the insured person contributes 17% of the total wage contribution, which would suggest that the uninsured population (through possible transfers to prices and taxes) helps to finance the social security of the small percentage which is covered.

Another serious problem is the evasion of payment by employers, resulting from poor techniques of registration, identification and control of payments. Inflation has aggravated this problem, since any delay in making contributions reduces their real value. Furthermore, the State frequently fails to fulfil its obligations not only as a tripartite contributor but also as an employer. In countries like Costa Rica, Ecuador and Peru, the State debt has reached alarming proportions and has sometimes even threatened the financial balance of the social security system.

Social security costs in Latin America are the highest of the developing countries and are close to those of developed countries like Japan. According to the 1985 ECLAC report, in 1980 social security costs, as a percentage of the gross domestic product, fluctuated between 1% and 11% as follows (the countries are placed in descending order of percentages): 11% to 10% in Uruguay, Chile and Argentina; 9% to 7% in Cuba, Costa Rica and Panama; 6% to 4% in Brazil and Colombia; 3% in Mexico, Peru, Venezuela, Ecuador, Bolivia and Honduras; 2% in Paraguay, the Dominican Republic, Guatemala, Nicaragua and El Salvador; and 1% in Haiti. In many countries of the region, social security is faced with an actuarial imbalance and, in some, even with a short-term financial crisis.

The pioneer countries with the oldest systems usually have the highest costs and are in the worst actuarial and financial situation. The

expenses systematically increase for the following reasons: the almost universal population coverage; very generous benefits; the maturity of pension programmes; the growing numbers of pensioners who retire early and live longer than initially projected; the cost-of-living adjustment of pensions, and the growing expenses of curative medicine (in proportion as the pathological profile comes to resemble that of the developed countries). Furthermore, the system's revenue is proportionately smaller because of the impossibility or difficulty of extending the coverage beyond the point reached; evasion and delay in payment of contributions (especially in countries with high inflation); failure by the State to fulfil its obligations; the difficulty of increasing contributions (since they are already very high); and the very low or negative profitability of the investments.

The economic crisis of the current decade has aggravated the financial problems. The increase in unemployment, the decline in real wages and the bankruptcy of many enterprises have reduced the income of the social security system. The cost of servicing the external debt and other domestic priorities exercise strong pressure on the State to reduce or postpone its social security obligations. In some countries, the costs of the system are still growing because of the structural and conjunctural reasons stated.

In the countries with the oldest pension programmes, a gradual change has occurred in the method of financing. There has been a shift from the "uniform average premium" method to the "phased average premium" method and then to the "distribution" method. This means that capitalization (aimed at ensuring the payment of future pensions for a long period ahead) is replaced by distribution (which tends to ensure payment only on the basis of the costs of the current year). Since costs increase every year (because of the growing numbers of pensioners) the burden is being transferred to future generations, where an increasingly small proportion of active workers must pay growing contributions. The viability of this transfer is politically and economically doubtful. The country in the worst situation in the region is Uruguay, which in 1983 had a demographic

burden ratio of 0.8, in other words, approximately one active person had to finance one non-working person (in contrast, the actuarial calculations of the United States project that, at the beginning of the twenty-first century, the ratio will be two active persons financing one non-working person.) If these countries were unable to achieve actuarial and financial balance when the ratio of the demographic burden was much lower, they will be less able to do so in the future when the ratio will be much higher.

The Latin American countries with the most recent social security systems are not threatened with financial imbalance in the short and medium term (their main problem is how to extend the coverage of the population). Nevertheless, their social security systems basically follow the model of the pioneer countries, with the shortcomings described, so that they will eventually face similar problems. These countries, however, have more time to change the model for one which can extend the coverage on a more solid financial base.

III

The impact of social security on development

This section examines the impact of Latin American social security on three decisive aspects of development: savings and investment, distribution and employment. It should be noted from the outset that neither the theory nor the empirical studies are conclusive in these matters and that their analysis is made even more difficult in the case of Latin America because of the absence or unreliability of information on the functional distribution of income between labour and capital, the impact of social security contributions and taxes, the proper measurement of benefits (especially health benefits) and the various effects on the conduct of employers and workers (Musgrove, 1984). Nevertheless, a summary is given here of the stage that the theoretical discussion has reached, the empirical evidence (which was almost always obtained from outside the region), and some studies carried out on specific countries and the criticisms of them.

1. *Savings and investment*

The impact of social security on savings and investment depends on the surplus in the social security accounts and the effect that this excess

can have on other sources of domestic savings (private and public sectors) and external sources (Arellano, 1984; Wallich, 1982). The social security surplus or deficit derives from the factors of the system itself (for example, type of programmes, technical and financial system, degree of maturity, administrative costs) as well as exogenous factors (age structure of the population, rate of wage increases, general state of the economy). Short-term risk programmes (sickness, maternity, unemployment) usually follow the system of year-by-year distribution and generate a deficit rather than a surplus, whereas the long-term programmes (pensions), which use capitalization systems, generate sizeable reserves which are used as a basis for investment. Reference has already been made, however, to the general trend in the region to replace capitalization systems by distribution ones. Moreover, as will be seen subsequently, the region has a very poor record in respect of efficiency in investing the reserve funds.

The impact of social security on investment also depends on the sources of financing and the incidence of the contribution; a recent IDB/INTAL study expresses the view that the investment rate declines more when social

security really is financed by the employers than when it is paid for by the person insured or consumer (Arroba and others, 1980). The maturity of a pension programme depends *inter alia* on how long it has been in existence, the qualifying age for pensions, and the relative youth or age of the population; therefore, the older the programme, the lower the retirement age and the older the population, the greater will be the passive/active ratio and the smaller will be the surpluses and *vice versa*. A young population tends to grow rapidly, expanding the labour force, and if the coverage of the system increases its income will also increase; in contrast, in an aging population the potential number of contributors is reduced and the number of pensioners increases. If real wages are increasing, then the base of social security contributions is also increasing. On the other hand, a deep recession which reduces employment and real wages will have a negative impact on income and can reduce the surplus.

The traditional approach is that social security reduces individual saving and the demand for private insurance, since the person insured expects that his contributions will be returned to him in the form of a pension and that therefore he does not have to accumulate a surplus during his working life. On the other hand, earlier retirement extends the period of retirement and this can stimulate savings during the active working life. The planning horizon of an insured person and his perception of the social security contribution (as a mere tax or as payment for future benefits, guaranteed by a healthy actuarial system) influence his attitudes towards saving and his preferences for a particular type of social security programme (short or long term). In the developed countries with older populations and more solvent social security, the horizon appears more distant than in Latin America, where, because of a younger population, financial imbalances in social security and high inflation, more relative importance is given to the short-term plans such as health and family allowances (Arellano, 1984 and Musgrove, 1984). Social security and the government are competing for the same tax base and some assume that there is always a trade-off between them. But if there is not enough private saving and the State establishes a minimum

income level, social security may eliminate State social assistance payments and reduce the public deficit. Social security can increase the cost of exports and make them less competitive (compared with those countries that have no social security or which have a smaller social security burden) and can thus contribute to a possible reduction of potential external saving.

Debate and research on these subjects, carried on primarily in the United States and in other developed countries, have yielded contradictory results. A study of 16 OECD countries found no evidence that social security affects private savings or slows down development (Break, 1981; Koskela and Viren, 1983). If it is so difficult to assess this impact in developed countries, where statistics are more accurately kept and social security coverage is universal, it is even more so in Latin America. Even within the same country interpretations are different: thus, in Chile one study (Wallich, 1982) found that social security had had a negative impact on saving, but another later study (Arellano, 1984) took the view that after the necessary adjustments were made, social security was seen to have generated a surplus (albeit a declining one) instead of a negative saving.

But if uncertainty exists over the above-mentioned aspects there is no doubt, at least, about the inefficient investment of social security reserve funds in Latin America. In 1977, in 14 countries studied by ILO (1981), the percentage of social security income derived from investments was lower than 3-5% in nine of them. In almost the whole region, social security agencies are not designed to act as financial intermediaries, their staff has no investment experience, they have not developed an investment plan and they have not coordinated their investments with national plans. Furthermore, there is little development of the capital market and inflation has whittled away the value of the reserves and given an incentive to employers to withhold their contributions and those of their employees, because by delaying payment their real value is reduced (Diéguez, 1978).

Reserves have usually been invested in: a) bonds and other State securities that are often not negotiable and in fact have been compulsory

loans to cover budgetary deficits, so that the agencies have wasted their funds on "worthless securities"; b) personal loans and mortgages, usually to the persons insured who, thanks to inflation (and the lack of loan adjustments) have obtained capital practically free and depleted the social security capital; c) loans to health programmes to cover their deficits, which are plausible from a social point of view but not profitable; d) loans for housing construction, very often to the persons insured themselves, which yield a very low or negative return, because of rent freezes, inefficient collection and amortization with depreciated money and e) in a few cases, investment in agriculture, industry, commerce (co-operative shops for the insured persons) and services (cinemas, theatres, sports) which also have a very low return (ILO, 1966). In virtually the whole region, the rate of return on the social security funds is only a fraction of the bank interest rate, and in many cases the real return has been negative.

In practice, many of the investment programmes have amounted to disguised subsidies to insured persons and have caused the gradual decapitalization of the social security reserves. This, in turn, has had a serious impact on the financial and actuarial equilibrium of social security in many countries of the region.

2. *Distribution of income and employment*

The impact of social security on income distribution is also a much discussed topic, on which there are few empirical studies in Latin America. A leading aspect is the ratio between coverage and distribution; in general, it can be said that the most universal systems are less regressive than those which provide low coverage. However, with very few exceptions, persons below the critical poverty line are not covered by social security; this is usually the case of the unemployed, of workers who work without pay for a relative or are self-employed, agricultural workers and domestic servants. A study conducted during the 1970s pointed out that while the most developed countries with a higher coverage were also those with the smallest proportion of poor people, the percentage of their economically active

population which was not covered (except in Cuba) exceeded the percentage of the critically poor (Mesa-Lago, 1980).

The manner of financing can be another cause of regression. In many countries, the insured person's wage contribution has a ceiling, so that, proportionally, those who gain more contribute less. It has already been said that more than two-thirds of the legal contribution is the responsibility of the State and the employer. The State contribution is sometimes made through a specific tax on the services or goods produced by the group that is covered, but which is paid by the entire population; thus, when social security coverage is very low, the effect of that tax is probably regressive, since the persons not covered, who are those with a lower income, contribute to the system without receiving anything in exchange. In other cases, the State deducts its contribution from its overall revenue; if the bulk of this revenue comes from sales taxes and these are imposed on both essential and luxury consumption alike, the effect must also be regressive when the coverage is low. It has been argued, on the other hand, that if there are State subsidies on basic goods and services or the bulk of the sales tax is levied on non-essential or luxury goods, the impact will probably be neutral, since the covered group is also the one on which the tax falls heaviest (Musgrove, 1984). But even in this case, the group without coverage—which is the lowest income group and does not benefit from social security—will be contributing something to the system (for example by purchasing manufactured goods) and the possibility of its acquiring goods or services encumbered by the tax would be even more remote. Furthermore, in stratified social security systems, the State usually assigns a larger contribution (or pays a larger contribution itself) in the case of the relatively higher income groups, whereas it assigns a smaller contribution (or does not pay any contribution itself) in the case of the lower income groups. For example, the State covers the growing deficit of the subsystems of public employees and the armed forces, but delays or reduces its contributions to the general subsystem that covers the mass of workers.

The incidence of the employer's contribution may be of three different types: the

employer may actually pay it; it may be "passed back", that is to say, the person insured may actually pay for it through a reduction in his real wages; or it may be "passed on": in other words, to the consumer through higher prices (Arroba and others, 1980, pp. 320-330). The theory is that in the long run the entrepreneur calculates not only wages but also all the additional benefits (including his contribution to social security) as his production cost and takes that total cost into account in his calculation of marginal productivity.

Let us take the case of the initial introduction or subsequent increase of the employer's contribution to social security. It is assumed that in developed market economies, the labour supply is inelastic (at least with respect to the normal working day and the main family wage) and that the worker negotiates with his employer a wage compensation packet including additional benefits such as the social security contribution which the worker perceives as part of his salary. If, furthermore, social security coverage is almost universal and the employer's contribution is uniform (so that the worker cannot avoid its incidence by taking a job that is not covered or one with a lower contribution), it may be concluded that the worker absorbs that contribution by a reduction in his real wages. On the other hand, it is assumed that in developing economies the labour supply is elastic, because labour is plentiful and because the low social security coverage (or different contributions in stratified systems) make it possible for the worker to take jobs without coverage or with a lower contribution. It is assumed further that the worker does not perceive the employer's contribution as a part of his salary and that, therefore, there is no backward transfer. In this case, the employer has two options: he may transfer the contribution to the consumer by increasing prices, or reduce employment in line with the marginal productivity. Whatever he does, the impact is always regressive, either because employment is reduced or because the transfer to the consumer makes the person who is not covered contribute to the system of the person who is.

The empirical evidence with respect to the transfers is very contradictory and is almost always based on the experience of the developed

countries. Musgrove (1984) took into account both the employer's and the worker's contribution and found that in the short term the workers absorbed 75% of the cost and the employer 25%, whereas in the medium and long term the burden was shared equally between workers and consumers. Break (1981), in a study of 64 countries which took only the employer's contribution into account—but assumed that the labour supply was inelastic and that the workers regarded the employer's contribution as part of their salary—concluded that the worker absorbed the entire burden. Break also maintains that in the developed countries the transfer to the consumer can occur in the short term but not in the long term in a situation of equilibrium, whereas in Latin America, with less competition, it is not known what would occur in the long term. Empirical simulations indicate that absorption by the worker has a less regressive impact than transfer to the consumer, although the difference is not great.

According to the above, in the developed countries the insured person absorbs the employer's contribution through a cut in real wages and therefore the impact on employment and distribution is neutral (assuming that the contribution is uniform). In the developing countries, in contrast, the insured person does not absorb the employer's contribution and therefore either the employer absorbs it himself, or he reduces the labour demand, or he passes on the cost to the consumer. In the latter case the negative impact on employment would be less but not neutral, since there are some employers who could transfer it more easily than others (and the employer with no coverage would not have to transfer it).

The most developed Latin American countries are closer to the first model. In these cases, we have high or almost universal coverage and according to some, an inelastic or less than perfectly elastic labour supply.³ But on the other hand, there does not appear to be any backward

³Musgrove (1984) feels that even in the developing countries skilled labour is not plentiful and he assumes that in negotiations with the State or the employers the latter's contribution is included as part of the wage package. Consequently the skilled labour supply is not perfectly elastic and the workers probably pay a part of that contribution.

transfer in the short term (or at least this effect is very small), because of institutional and economic barriers and different patterns of behaviour (Foxley and others, 1977; Wilson, 1984). In the first place, State intervention through labour and social security legislation is much greater in these countries than in many developed market economies; thus, for example the law sets a minimum wage which operates as a lower limit for wage reductions. Moreover, in some countries the employer must even pay the insured person's contribution when the latter's wage is only equal to the minimum (Mexico), or must pay the difference with the minimum contribution when the wage of the person insured is lower than that corresponding to that contribution (Peru), which considerably increases the labour cost of this group. In the second place, in several of these countries (such as Chile, at least up to the mid-1970s) the price fixing method most frequently used is the average cost plus a profit margin, which facilitates the forward transfer of costs. In the third place, in countries where there are measures to protect the consumer goods industries this also facilitates price increases. In the fourth place, the workers do not appear to perceive the employer's contribution as part of their wages, since the unions usually pressure the State to assign a heavier burden to the employer than to the person insured, and those issues are not included in collective bargaining since they are already regulated by law. In the fifth place, the law and the unions make it extremely difficult to dismiss anyone for economic reasons and the processing of such dismissals is lengthy and costly; the employer can of course avoid hiring additional labour. All of this suggests that transfer of costs to the consumer—at least in the short term—is the most normal procedure in these cases and it is also facilitated by oligopolistic structures although the elasticity of substitution of products whose prices are raised in this way must be close to zero if it is to have any major effect. The impact of this transfer on distribution must be regressive, since it affects the low-income group, which has no coverage and receives no benefits from the social security system but nevertheless contributes to it. In the few countries which have almost universal

coverage, this regressive effect would diminish, if the contribution were also uniform. In this case, it could also happen that in the medium and long term there was a reverse or backward transfer with an effect similar to that in the developed economies. Although not all employers would be equally able to transfer the contribution to prices (because of differences in competition, substitution elasticity, etc.) there might be a sufficiently widespread increase in prices to accelerate inflation and reduce real wages. This could be the case in the countries with the most highly developed social security systems and high inflation rates.

Another point of view stresses the differences, which are more marked in the least developed countries, between the formal sector (with total or partial coverage by social security) and the informal sector (no coverage). In this case it is assumed that the employer's contribution is transferred neither forward nor backward, so the effect would be a reduction (or stagnation) of the demand for labour in the formal sector. According to this approach, social security (sometimes linked to a policy of capital incentives) increases the relative cost of the labour factor as against capital which gives an incentive to replace labour by capital. This distortion triggers off a chain reaction: less labour is used in the formal sector, fewer workers move from the informal to the formal sector, the growing labour surplus has a depressive effect on wages in the informal sector, the wage differences between the two sectors grow, and since there is less available capital in the sector which receives no coverage, its productivity and economic growth decline compared to those of the sector which receives coverage (Kornevall, 1977). A change from wage-based contributions to a neutral financing system (or one which draws no distinction between the factors, such as value added tax) could correct this problem.

It has rightly been pointed out that when the employer's contribution has a regressive effect, this cannot be double—there cannot be both a reduction in the demand for labour and transfer of the burden to the consumer, for both effects cannot operate with equal force or simultaneously (Tokman, 1984). It is quite possible, however, that one effect may occur in

the short term and another in the medium and long term in a single sector or in different sectors, for example as follows: a) a reduction in the demand for labour in the covered formal sector can in the long run result in a decline in real wages in the informal sector which has no coverage; b) transfer of prices can in the long term reduce the demand for products of the covered sector and affect employment, and c) a generalized transfer of the prices due to almost universal coverage can result in a cut in real wages in the medium or long term.

Although it is not possible to make generalizations on such a weak theoretical and empirical base, everything that has been said suggests that when there is greater economic development and social security coverage, the impact seems to be greater in the direction of reducing real wages and possibly less as regards employment and the transfer to prices. The regressive impact seems to be greatest in the least developed countries.

In general, benefits appear to have a more progressive impact on distribution than contributions but this largely depends on the extent of the coverage, the legislative uniformity and the type of programme: when there is wider universality and uniformity there is greater progressivity; furthermore, social assistance, health and family allowances programmes usually have a more progressive impact than pensions. Pensions are calculated, in almost all countries, in proportion to the income of the person insured and therefore reproduce the inequality in the general income distribution. In contrast, health benefits are basically equal, that is, they are not proportionate to income although in the stratified systems there are differences with respect to the availability and quality of the services. Moreover, the poorest groups have the greatest incidence of illness (because of poor nutrition and hygiene), and since private medical care is too expensive for them, the poor use the health services more often than the high-income groups; these latter, although they are covered by the health services usually prefer to use private doctors and clinics and only resort to the social security services in extreme cases. Notwithstanding this, it has been argued that the health programmes appear to be

more progressive than they would have been if the benefits provided were measured not by their cost but by what the user would be prepared to pay for them (Musgrove, 1984). Family allowances also have a more progressive impact than pensions, since in many cases they are granted to low-income families and are almost always fixed (that is, an equal amount is paid in respect of each child) rather than being proportionate to wages. Furthermore, the poorer families are generally larger than middle-income families. Finally, social assistance programmes are directed towards the poorest sectors of the population, so that they probably have the most progressive impact on income distribution. It has already been indicated that as the social security systems grow older, a larger percentage of the costs is allocated to pensions, thereby increasing the regressive impact; however, this is compensated for by extending the coverage and the social assistance programmes to those not previously covered (Mesa-Lago, 1980).

3. Empirical studies in Latin America on the impact on distribution

The empirical studies in Latin America on the global impact of social security are confined to a few countries, namely, the most developed ones (Argentina, Brazil, Chile and Costa Rica), and do not always cover every programme. Moreover, because they use different methodologies and are of different dates it is not possible to make a strict comparison.

The oldest study (ECLAC, 1969) is on Argentina and it measures the redistributive impact of the pension programme (1950-1960), showing a slightly progressive net effect: 1.7% was transferred from the top income strata (highest 10%) to the rest, combined as the lower strata. It would have been more appropriate to break down the redistributive effect within the 90% lower strata in order to investigate the transfer between the 30% poorest (not covered at that time) and the intermediate sector with better protection. Diéguez and Petrecolla (1974) compared the average benefits between different groups covered in 1952 to 1972,

showing an almost perfect positive association between the amount of the benefit and the insolvency of the system: throughout the entire period, the armed forces paid the highest benefit but showed the largest deficit, which was covered by the State.

Rezende's study (1974) on Brazil, conducted in 1973, reveals the most progressive effect of all the countries for which information exists: within the covered urban sector, the poorest group received benefits (sickness, maternity and pensions) that were double their contribution, whereas the highest income group received from one-third to one-fifth of what it contributed. This did not take into account the assistance programme which covers the rural sector and is partly financed by a contribution from the urban sector (and which should therefore have had a sharply progressive effect), nor did it include the armed forces and public employees (who probably received more than they contributed). Although the net effect of the overall system on distribution is not known, it was probably progressive (see also Rezende and Mahar, 1974). Two studies have been conducted in Costa Rica on the redistributive impact of the health and maternity programme. The study by Green (1977) on personal income was conducted in 1973, when contributions still had ceilings and half of the population was not covered and it showed an almost neutral effect. The study by Briceño and Méndez (1982) on family income, carried out in 1978 (when the ceilings had already been removed and coverage had been considerably extended) indicated a regressive

impact on financing but a very progressive one on benefits, and there was a slightly progressive net effect: 2% was transferred from the 20% highest income group to the 40% lowest income group.

Chile is the country with most studies on the subject, and the majority of them indicate a regressive effect on income distribution because of transfers from the non-covered population to the covered and, within the latter group, transfers from lower income groups to higher income groups (Mesa-Lago, 1978). The most recent study (Foxley and others, 1977), conducted in 1969, shows a regressive effect on financing and a progressive effect on benefits, with a net or slightly progressive impact: 0.5% is transferred from the 2% with the highest income to the 30% with the lowest income. But this study excludes both the sector without coverage and the armed forces and other privileged groups, so that the net overall effect was probably regressive. During the same year a study on the health programme alone showed the only progressive transfer: the lowest income group received an average benefit 1.6 times greater than that of the highest income group (Arellano, 1976).

While the studies on the more developed Latin American countries show a neutral or slightly progressive impact by social security on income distribution, it is logical to assume that in the least developed countries, with a much lower coverage, the impact is regressive. However, it will not be possible to substantiate this assumption within the limits of this article.

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