Social Security

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1. Presentation

Welfare systems are key elements within social security programs offered by various countries. A common feature among various welfare systems is that their goal is to provide public insurance against some of life's contingencies, such as illness, disability and death.

First, this report presents demographic indicators showing that Latin American countries already feel and will increasingly experience in the future the pressure on welfare systems. Then, it addresses issues concerning the reforms taken place in the 1990s. Section 4 shows the impact of the 2008 financial crisis at the privatization of welfare systems, the topic of the previous section. Section 5 presents data on pension coverage of the economically active population (EAP) and the elderly. Also in this section, there is information of coverage to the elderly through noncontributory retirement systems, which were created to reduce the under-coverage of elderly in several countries. The sixth and final section shows the final considerations of this report.

2. The role of demography

With regard to welfare systems, one of the main challenges is related to demographic trends, especially the fall in the birth rate, the decrease in mortality rate (albeit slower than the birth rate) and population aging. The interesting thing about demography is that when a country achieves progress on the living conditions of people, its response exerts some pressure on pension systems.

It may be noted that projections point to a sharp increase in the median age in all the selected countries. According to the projection, in 2050 Brazil and Chile will have the highest median age, while Bolivia and Venezuela will be the ones with the lowest value (Table 1).

The rise in the median age of the population is reflected in the rise of one of the main demography indicators that interest scholars in welfare issues: the percentage of population aged 60 or over. Data shows that, with the exception of Argentina and Uruguay, which in 2000 showed a high percentage of elderly in the population, all other countries will have more than twice the percentage of elderly. Projections indicate values around 30% in Brazil and Chile, the highest projected percentages for 2050 (Table 2).

Another very important demographic indicator for the study of social security is the dependency ratio. According to Table 3, this indicator decreased in all selected countries between 2000 and 2010. When this happens, it is common to say that the country is experiencing the so-called demographic bonus[1]. However, the trend in most countries for 2050 is a increase in the dependency ratio. Projections show that Chile (81.7), Brazil (79.7) and Uruguay (78.4) will have the highest indicators in 2050, while Bolivia (58.7), Paraguay (61.8) and El Salvador (64.7) will have the lowest.

The dependency ratio is one of the best indicators when it comes to demographic pressure on welfare policies. The higher the number of inactive peoples against the working age population, the greater the pressure on the system. The issue is even more delicate in Latin American countries due to the large number of workers in the informal economy that do not contribute to the welfare system. The demographic factor and the labor market situation were the main factors responsible for the reform movement that affected Latin American welfare systems in the 1990s, which will be the subject of the next section.

1 The demographic bonus occurs when most of the population is of working age.

3. Crisis and reforms

Demographic trends were undoubtedly a factor of pressure on the financial stability of welfare systems in many countries. Specifically in Latin America, the rules for granting and calculating benefits in several countries were another element of pressure in the upswing of welfare spending. But we have to highlight the severe economic crisis faced by these countries in the 1980s, which cost millions of jobs and created more difficulties in financing welfare policies.

The conjunction of the crisis in the labor market, sometimes benevolent rules and population aging generated a serious crisis on welfare systems in Latin America in the 1980s and 1990s. This crisis triggered a series of parametric and structural[2] reforms in welfare systems in many Latin American countries.

As can be seen from Table 4, eight countries out of the group of the twelve selected underwent total or partial privatization in their welfare systems. Except for Eastern European countries, nowhere on the globe have there been so many structural reforms in pension systems. It is worth noting that countries that did not reform their systems structurally put in place a series of structural changes. All countries changed their pension systems over the past 20 years.

One could mention the main advantages of a funded pension system with individual accounts: greater transparency; greater incentive for workers to accumulate resources in their individual accounts and curbing the influence of demographic factors on the system's sustainability. There are also some positives points related to macroeconomic variables, such as the increased availability of resources (due to individual savings) that can be directed to productive activities.

When it comes to the disadvantages, the main one is that the distributive element of the pension system is lost when it shifts from pay-as-

2 Parametric reforms modify retirement parameters such as age, contribution years and calculation of benefit amounts. In turn, structural reforms shift from the pay-as-you-go pension system to one with individual accounts, also known as (partial or total) privatized welfare systems. A country may shift its funding scheme from capitalization to pay-as-you-go, which is also a structural reform.

you-go to capitalization, since individuals have now received the accumulated value of their contributions and investment income, minus all costs. The main inconvenience related of the capitalization scheme is its high costs. Even in a mature system like Chile's, whose reform occurred in 1981, the high costs of managing pension funds are still being discussed. The consequences of high costs will be felt when the employee retires and receives a retirement value way below the expected level, due precisely to these costs.

Thus, one can summarize that pension systems based on individual capitalization accounts exchange demographic risk for market risk. Population aging and rising dependency ratio no longer represent direct risks to the long-term sustainability of the system. However, since the funds saved are invested in financial assets, should those assets depreciate, the system could go wrong and would not be able to replace the income of its members properly. Finance models show that it is possible to mitigate the risk of an investment by diversifying the portfolio of resources correctly. The problem arises when we seek this correct portfolio, especially when the market as a whole faces a crisis. The next section of this report shows some of the impacts of the 2008 financial crisis on pension systems of Latin American countries that underwent structural reforms.

4. Impacts of the 2008 financial crisis on privatized pension systems

By observing the real rate of return from countries that have privatized their pension systems, it is possible to understand the negative impact represented by the crisis, especially in 2008 (Chart 1. Real rates of gross income in selected countries – Jan/Dec 2008 1).

As can be seen, the impact of the financial crisis on privatized pension systems in the selected Latin American countries was heterogeneous. In Bolivia, profitability was the lowest negative observed at 1.9%, whereas Peru recorded the largest negative drop by 26.7%.

To better understand the impact of the crisis on the profitability recorded in 2008, it is necessary to look at other annual results to have a

picture of privatized systems' results. Table 5 shows the cumulative profitability from 2002 to 2009. Its data shows, on the one hand, that the 2008 crisis caused the cumulative result for that year to go back to levels observed in 2004 in Uruguay, in 2005 in Bolivia and Chile and in 2006 in other selected countries. On the other hand, the strong real return observed in 2009 helped recover losses of the previous year in Bolivia, El Salvador and Mexico, but was insufficient to that end for other countries.

One of the main inferences that can be done on the cumulative results presented is that the worker who planned to retire in 2008, either did so with a much lower than expected benefit or had to postpone his plans to exit the labor market. For those already retired, the 2008 result represented a huge drop in their accumulated assets that may result in lower benefits in the near future.

The strongly negative 2008 result generated losses in accrued assets for workers and retirees in countries that privatized to some extent their social security system. But an interesting safeguard must be made here: we are always talking about workers affiliated to the social security system or retired, that is, always referring to workers covered by their own pension system. It is known that Latin America has a huge undercoverage problem of the working population. In many countries, more than half of the economically active population is unprotected in terms of welfare. This is precisely the subject of the next section.

5. Contributory and Non-Contributory Pension Coverage

The coverage of contributory social security programs shows the percentage of the economically active population (EAP) which contributes to the system in relation to the total EAP. Its measurement is important, among other reasons, because it indicates how much of the EAP will be entitled to the contributory pension benefit and what is the potential public claiming for non-contributory (or care) benefits in the future, which is completely relevant, since one of the roles of a social security system is to prevent individuals from the risk of poverty when in old age.

Table 6 shows that the group of countries consisting of Brazil, Chile and Uruguay has the highest EAP coverage. In the last available year, these countries covered more than half of the EAP. At the extreme opposite are El Salvador, Paraguay and Peru, with less than 30% EAP coverage.

When comparing data from the beginning and the end of the decade, it is possible to see that all countries, except El Salvador, perceived an improvement in the EAP coverage (Chart 2. Pension coverage of EAP in selected countries – 2000/2010 2). Data displays a strong coverage growth in Chile. In absolute terms, the last measurement registered more than 15 percentage points higher with respect to the oldest one. In percentage terms, Peru had the highest increase (35%) going from 13.7% to 18.5% coverage, which is still a very low figure.

It is also important to measure the pension coverage of the elderly[3], since this age group usually has a low participation rate in the labor market and, therefore, their main source of income is no longer the job. The higher the coverage, the lower the number of elderly living in poverty.

Argentina recorded the largest increase in absolute terms of coverage of the elderly during the decade (Chart 3). It is worth recalling that, in 2008, the Argentinian government decided to renationalize its pension system and also adopted laws with clear incentives to increase pension coverage of both workers and the elderly. Regarding the elderly, in general, access to social security benefits was facilitated upon contribution deducted from benefits to be received of those who lacked certain periods of contribution in order to be eligible for retirement.

Also according to Chart 3, except for Argentina, Brazil and Uruguay, all other countries showed low pension coverage for the elderly. This may mean high poverty incidence in the elderly population. One way to mitigate this risk is to introduce non-contributory benefits for them.

Latin American countries began to implement non-contributory pension schemes mainly from the 1990s. It was a movement which recognized that the low social security membership of the working population generates a number of elderly who are unable to work and left without any

3 Pension coverage for the elderly is defined here as the number of people aged 65 years or over who receive (contributory or non-contributory) social security benefits in relation to all aged 65 years or over.

kind of social security protection from the contributory system. Thus, the non-contributory benefits act as a mechanism to combat poverty among the elderly, especially those who have no contributory retirement system. Table 5 shows countries with non-contributory programs, selection tool and minimum age to access the benefits.

As can be seen in Table 7, only Bolivia has a universal non-contributory social security program. Other countries require people to meet income criteria, and some, to fit into certain categories based on responses to socioeconomic questionnaires. The advantage of universal programs is that they cater for everyone from a certain age, but their fiscal cost tends to be higher. Therefore, this type of solution is not very common.

One of the main results expected from the privatization of pension systems, that is the raising of the pension coverage increase of the EAP, was not achieved. On the contrary, in most countries the coverage reduced, resulting in a low coverage among the elderly. These uncovered elderly are exactly the public targeted by non-contributory programs. It is noteworthy to mention that, even in countries that have not privatized their pension system (Brazil is the best example), non-contributory programs have been established or expanded also to cover the population not protected by the contributory pension system.

Table 8 shows the coverage of non-contributory pension programs in selected countries in the last year with available data. The largest programs are in Brazil and Mexico. Also noteworthy in terms of size are Chile and Argentina's programs.

6. Final considerations

Welfare systems are key elements in social security programs offered in different countries. One of its main functions is to provide a public insurance against certain contingencies such as illness, disability, death and old age. Additionally, since with advancing age individuals lose working capacity and thus the ability to generate income through labor pension systems also play a role in combating poverty in old age.

To understand the current situation and future challenges of pension systems in Latin American countries, it is particularly important to resume, albeit briefly, the process of crisis and reforms which occurred during the 1990s. It is a fact that most Latin American countries have been noting the demographic consequences of the improvement of living conditions of their populations, and these consequences represent demographic pressures on social security systems. However, this argument requires further study since while demography is a major element of pressure on pension systems in European countries with mature age structures one cannot say the same for Latin America.

Pension coverage is historically lower in Latin America compared to Europe. Thus, the labor market becomes another element of pressure on pension systems in Latin American countries due to the recurrent problems of inadequate funding as a consequence of unemployment and informality.

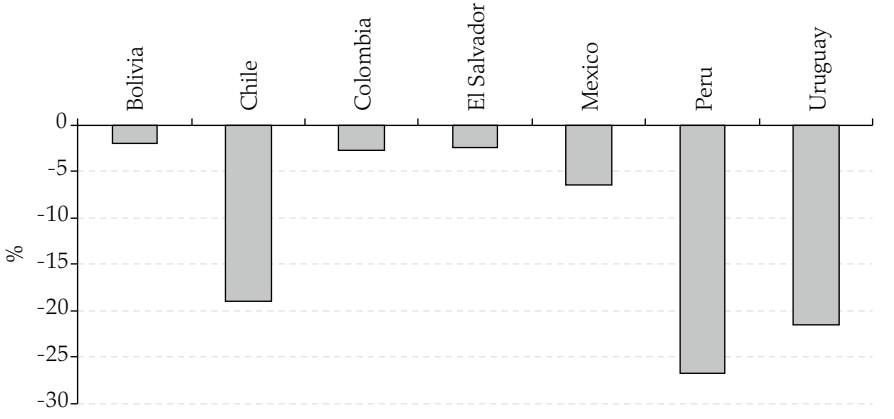
The combination of demographic factors and especially the structural change in labor markets in the 1980s and 1990s culminated in several pension systems reforms in Latin America. The most dramatic solution was the privatization of the Chilean system in 1981; therefore, way before the discussions about deeper reforms in other countries took place. During the 1990s, several Latin American countries, with the help of organizations like the World Bank and the IMF, reformed their systems the way Chile did. In fact, even those who did not adopt structural reforms implemented the so-called parametric reforms. In other words, all countries changed their pension systems.

An important point of discussion encompassing the entire debate on structural *versus* parametric reforms relates to the functions of a pension system. If only those who contributed will receive benefits and these benefits are directly linked to the contributions paid during the working life, the income replacement function is being privileged over the distributive functions and, especially, the fight against poverty. So, regarding Latin America, where the income replacement function prevailed in a scenario with a historically low social security participation rate for EAP, the outcome was a large number of elderly without pension coverage, which potentially increases the risk of becoming poor in old age.

Several countries have adopted non-contributory pension systems to address the pension coverage *gap*. Some of them are very large, such as in Brazil and Mexico, while others are still incipient, such as in Peru. The idea is to use these benefits as a way of transferring income to the elderly and reducing their risk of entering poverty.

Despite several reforms, current and future challenges are still being discussed. Ensuring the population's income at the stage of life where earning income from work is no longer possible becomes increasingly imperative. The challenge is to fulfill this role while maintaining the long-term sustainability and not forgetting that there are large numbers of workers who need to be included in the pension systems.

Chart 1. Real rates of gross income in selected countries – Jan/Dec 2008

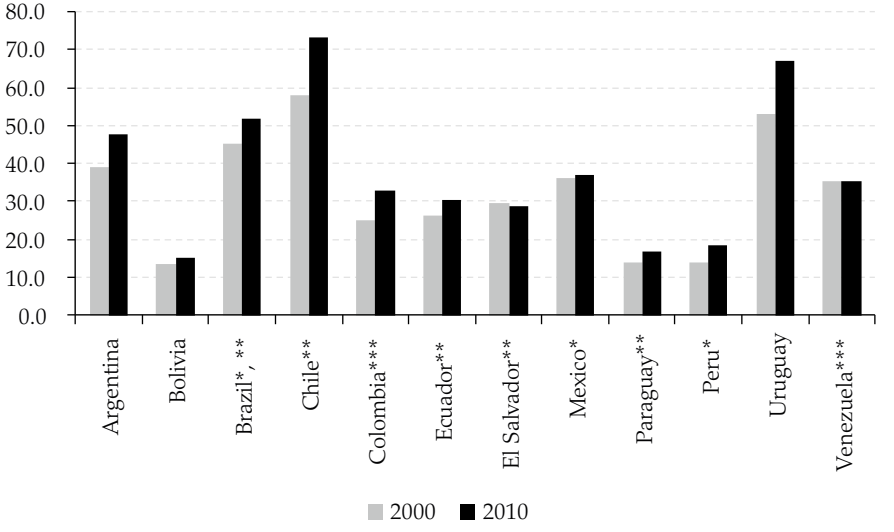


Source: AIOS 2008.

Note: Gross return does not take into account the effect of administrative fees charged.

Data from 2007 (last available data)

Chart 2. Pension coverage of EAP in selected countries – 2000/2010



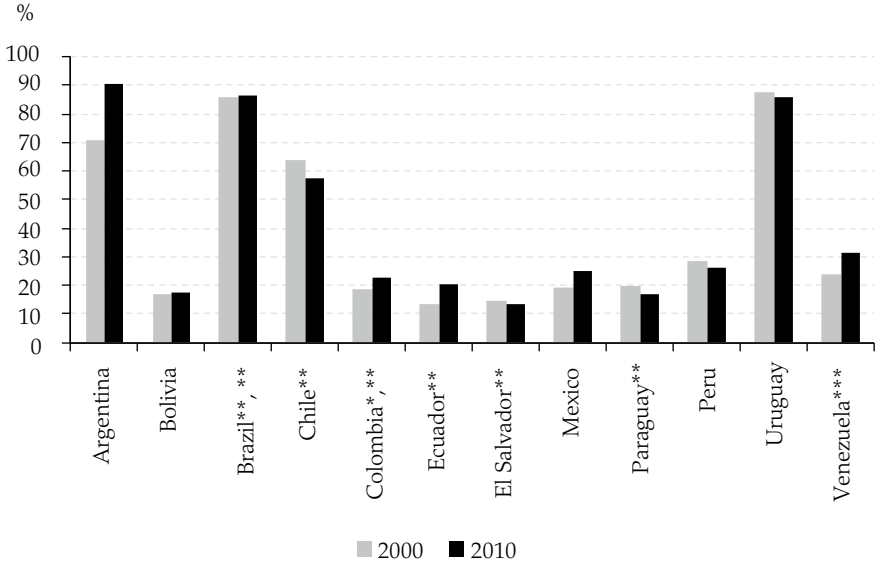
Source: Rofman and Oliveri (2011).

* Data from 2001.

** Data from 2009.

*** Data from 2006.

Chart 3. Pension coverage of the elderly population in selected countries – 2000/2010



Source: Rofman and Oliveri (2011).

* Data from 2001 (the one from 2000 is not available)

** Data from 2009 (last available data)

*** Data from 2006 (last available data)

Table 1. Median age in selected countries – remarks and projections

	2000	2010	2020	2030	2040	2050
Argentina	27.9	30.4	32.9	35.6	38.2	40.6
Bolivia	20.0	21.7	24.6	28.3	32.3	36.3
Brazil	25.3	29.0	33.5	37.7	41.5	45.2
Chile	28.7	32.1	35.5	39.5	43.2	45.6
Colombia	23,8	26.8	29.8	32.9	35.7	38.3
Ecuador	22.6	25.6	29.0	32.7	36.6	40.4
El Salvador	20.7	23.2	27.0	31.6	35.9	39.7
Mexico	23.4	27.4	31.4	35.8	40.1	43.8
Paraguay	20.4	23.1	26.2	29.8	33.5	37.4
Peru	22.9	25.6	28.8	32.4	36.0	39.3
Uruguay	31.6	33.8	35.6	37.9	40.6	42.9
Venezuela	23.3	26.1	29.3	32.5	35.6	38.6

Source: CELADE-CEPAL. Revised in 2011.

Table 2. Percentage of population aged 60 or over in selected countries – remarks and projections

	2000	2010	2020	2030	2040	2050
Argentina	13.6	14.6	16.4	18.3	21.8	25.3
Bolivia	6.4	7.1	8.7	10.8	13.9	17.7
Brazil	8.1	10.2	14.0	18.9	24.0	29.5
Chile	10.2	13.1	17.6	23.0	26.5	30.6
Colombia	6.9	8.6	12.0	16.2	19.6	22.9
Ecuador	7.4	9.0	11.9	15.4	19.7	24.5
El Salvador	8.0	9.4	10.8	13.3	16.5	21.5
Mexico	7.5	9.2	12.5	17.0	23.2	27.9
Paraguay	6.5	7.7	9.7	12.0	14.7	19.6
Peru	7.2	8.8	11.1	14.5	18.6	22.8
Uruguay	17.4	18.5	20.2	22.3	25.3	27.8
Venezuela	6.7	8.6	11.5	15.1	18.5	22.5

Source: CELADE-CEPAL. Revised in 2011.

Table 3. Dependency rate in selected countries – remarks and projections

	2000	2010	2020	2030	2040	2050
Argentina	70.9	65.3	64.9	64.1	68.4	74.3
Bolivia	85.6	75.9	65.5	59.0	57.0	58.7
Brazil	60.6	55.3	52.3	57.7	67.0	79.7
Chile	61.3	54.4	59.1	68.0	72.0	81.7
Colombia	65.8	59.6	60.7	64.9	67.9	72.5
Ecuador	71.8	64.8	61.2	60.8	64.1	71.1
El Salvador	86.2	70.7	60.8	57.4	56.3	64.7
Mexico	68.2	59.1	55.8	58.1	67.5	77.7
Paraguay	80.8	70.0	63.6	58.4	56.3	61.8
Peru	70.4	63.2	59.2	59.6	63.0	68.5
Uruguay	72.2	69.3	68.8	70.4	74.6	78.4
Venezuela	68.0	61.6	60.6	61.5	63.7	69.2

Source: CELADE-CEPAL. Revised in 2011.

Dependency rate = ((pop. 0-14 + pop. 60 or over) / pop. 15-59) * 100

Table 4. Structural reforms of Social Security in selected countries

	Year	Structural
Argentina	1993	Yes
Bolivia	1997	Yes
Brazil	-	No
Chile	1981	Yes
Colombia	1994	Yes
Ecuador*	2001	No
El Salvador	1998	Yes
Mexico	1998	Yes
Paraguay	-	No
Peru	1993	Yes
Uruguay	1996	Yes
Venezuela	-	No

Source: The Americas Social Security Report – 2010.

Table 5. Real gross profit accumulated in selected countries – 2002/2009

	2002	2003	2004	2005	2006	2007	2008	2009
Bolivia	115.5	124.6	131.7	136.3	140.2	136.1	133.5	143.4
Chile	103.0	113.8	123.9	129.6	150.1	157.6	127.8	143.1
Colombia	100.0	100.0	110.4	131.4	134.9	136.1	132.5	155.4
El Salvador	102.4	107.3	109.8	111.4	112.8	114.3	111.7	116.1
Mexico	104.7	111.2	116.2	125.5	136.4	139.8	130.7	148.4
Peru	111.2	134.8	142.3	168.5	213.7	256.8	188.2	210.2
Uruguay	140.6	179.4	191.2	200.0	219.0	220.1	172.8	199.9

Source: Elaborated by the author based on AIOS data.

Note: 2001 = 100.

Table 6. Pension coverage of EAP in selected countries – 2000 to 2010

(%)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Argentina	39.0	36.9	34.1	33.4	35.2	37.8	41.0	45.1	45.7	45.7	47.5
Bolivia	13.4	13.0	10.7	-	11.5	12.5	13.8	15.0	-	-	-
Brazil	-	45.1	44.7	45.3	45.8	46.4	47.9	49.6	51.2	52.0	-
Chile	58.1	-	-	58.7	-	-	62.9	-	-	73.1	-
Colombia	-	25.2	30.6	25.2	-	27.2	28.3	31.5	32.3	32.7	-
Ecuador	26.3	26.6	-	26.1	26.3	26.3	25.6	26.4	27.6	30.4	-
El Salvador	29.7	29.7	29.8	29.8	28.8	29.1	30.1	29.9	30.9	28.6	-
Mexico	36.1	-	34.8	-	36.0	35.4	35.0	-	39.0	-	37.0
Paraguay	13.9	-	12.9	13.0	11.6	15.0	12.8	16.2	16.9	16.9	-
Peru	-	13.7	13.9	14.8	14.7	12.4	14.0	16.0	16.8	18.3	18.5
Uruguay	52.9	52.6	51.8	50.0	51.4	56.6	61.1	62.5	65.5	65.9	66.8
Venezuela	35.1	35.5	32.4	30.2	31.9	32.6	35.3	-	-	-	-

Source: Rofman and Oliveri (2011).

Table 7. Non-contributory pension scheme in selected countries

Countries	Selection tool	Age
Argentina	Means test (personal income) or legal dispensation	70
	Universal	
	Bonosol (discontinued)	65
Bolivia	"Renta Dignidad"	60
Brazil (rural)	Working time in a household economy scheme	55y/60y W/M
Brazil (urban)	Means test (household income per capita < ¼ of minimum wage)	65
Chile	Means test (based on income and replies to questionnaire)	65
Colombia	Means test (household income per capita) and must have resided in the country for at least 10 years	52y/57y W/M
Ecuador	Means test (household income per capita)	65
Mexico	Live in rural communities with less than 30 thousand residents and replies to the Socioeconomic Information Single Questionnaire	70
Peru	Means test (household income per capita) and replies to a socioeconomic questionnaire	65
Uruguay	Means test (household income)	70

Source: Barrientos (2006) and CEPAL.

Table 8. Non-contributory pension coverage in selected countries

Countries	Coverage (people)	Year
Argentina	1,085,973	2011
Bolivia	899,246	2011
Brazil (rural)	8,460,400	2011
Brazil (urban)	1,747,366	2011
Chile	1,085,973	2011
Colombia	593,448	2010
Ecuador	532,479	2011
Mexico	2,032,467	2011
Peru	3,785	2011
Uruguay	82,890	2010

Source: CEPAL.