
What Can Countries in Other Regions Learn from Social Security Reform in Latin America?

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About a dozen countries in Latin America have enacted reforms that include elements being contemplated elsewhere, including the partial privatization of social security. It is not easy to draw universal lessons for social security reform from the experience of countries such as Argentina, Chile, and Mexico, however, where sizeable public pension systems went bankrupt before the populations aged, mainly because of mismanagement. Most developing economies have much smaller social security systems. Relatively well-managed systems in industrial countries face problems that are long term in nature and have been brought about by an aging population. The experiences of Latin America nevertheless offer some general lessons for countries in other parts of the world. These lessons relate to changes in labor market incentives accompanying reforms and how workers react to them, government actions that have met with success in managing the transition to funded pensions, and the expectations of individuals from social security systems. Latin America's reforms suggest that the most effective approach is to keep payroll taxes low, governments solvent, and social security systems focused on providing reasonable insurance against poverty in old age. JEL codes: G23, H31, H53, H55, J26.

Latin America has long experience with social security reforms. Since the early 1980s, especially during the 1990s, about a dozen countries in the region have attempted to radically reform their social security systems. Many observers have studied social security reforms and outcomes in Latin America to draw lessons. Among the more widely discussed social security reform experiences have been those of Chile, Argentina, and Mexico. Gill, Packard, and Yermo (2005), among others, have analyzed these experiences, with the objective of informing pension

Table 1. Actual and Projected Total Fertility and Life Expectancy at Birth, by Region

Region	Total fertility (children per woman)					Life expectancy at birth	
	1970–75	2000–05	2045–50			2000–05	2045–50
			Low	Medium	High		
World	4.49	2.65	1.56	2.05	2.53	65.4	75.1
Africa	6.72	4.97	2.03	2.52	3.00	49.1	65.4
Asia	5.08	2.47	1.42	1.91	2.41	67.3	77.2
Europe	2.16	1.40	1.33	1.83	2.33	73.7	80.6
Latin America and the Caribbean	5.05	2.55	1.36	1.86	2.36	71.5	79.5
Northern America	2.01	1.99	1.35	1.85	2.35	77.6	82.7
Oceania	3.23	2.32	1.42	1.92	2.42	74.0	81.2

Source: Jousten 2007, based on data from United Nations Secretariat 2005.

policy in Latin America. This article attempts to draw lessons for other countries from the Latin American experience.

As in Latin America, many other developing regions are experiencing significant demographic change. Birth rates have fallen, and life expectancy is on the rise (table 1).

Latin America offers the most varied experience with structural pension reform. Thus it provides insights into how radical reform of pension systems can help meet the pressures created by rising longevity and persistent old-age poverty.

The fiscal deficits and increasing contingent liabilities (obligations to pay sums dependent on future events) of generous public pension systems, often combined with system mismanagement, created an immediate impetus for governments to institute structural pension reforms in Latin America. Rising pension costs raise questions of fiscal sustainability across the globe, but so far only a few countries have engaged in major structural reform. Many focused instead on parametric changes—adjusting the size and scope of their single-pillar social security systems (the mandatory, pay-as-you-go, publicly provided part) by changing the rates of contributions, the benefit calculations, and the retirement age. This article assesses whether the demographic and social pressures these countries face require structural reform of social security, along the lines of the reforms adopted in Latin America.

This article does not address the special challenges of reforming pension systems for government workers; it focuses on the social security system for the employees of enterprises. Civil service pensions put significant fiscal pressures on more than half of the world's countries—including some of the largest developing economies, such as Brazil, China, and India—which have separate pension schemes for civil servants. Civil service pension reform is a contentious issue. Not

surprisingly, in most Latin American countries the reforms did not affect private and public sector employees equally. For political reasons reforming governments often avoided structural changes to the public pension systems benefiting the military and civil servants.

The article is organized as follows. The next section summarizes social security problems and reforms in various regions. The following section assesses the performance of reform in Latin America and draws lessons from that experience for other countries. The last section draws implications for policymakers considering reforms.

Social Security Problems and Reforms

The underlying conceptual framework is based on the “comprehensive insurance” concept of Ehrlich and Becker (1972, 2000). In the face of a possible loss a “comprehensive insurance” approach suggests that individuals can insure against the loss, take steps to lower the likelihood that the loss will occur, or do nothing. The purchase of insurance transfers income from “good” to “bad” times in order to reduce the magnitude of losses in bad times. Individuals can insure themselves in two ways: through mechanisms that pool the risk of the loss occurring among those who are exposed to this risk or by consumption smoothing through individual savings (“self-insurance”). In a perfect world, pensions could be left to private insurance and to individuals’ voluntary saving decisions. In the presence of imperfect information, missing markets, and other distortions government involvement becomes necessary.

In addition to insurance and consumption-smoothing objectives the two other primary objectives of pensions are poverty relief and redistribution. Redistribution complements the role of progressive taxation, for example, by subsidizing the consumption smoothing of individuals who earned little during their working years (Barr and Diamond 2006). Pension policy may also have secondary goals, such as improving the operation of labor and capital markets and encouraging individuals to save more. Some might argue that promoting economic growth is an additional objective of pensions. One of the key debates on pensions centers on the relative weights of these different objectives.

Another debate concerns whether pensions should be pay-as-you-go or funded. Most state-run pension schemes remain pay-as-you-go. Private schemes are generally funded, with pensions paid from a fund built up over time by members’ contributions. Many countries in Latin America added mandatory contributions to private-funded pensions to their existing pay-as-you-go schemes.

There is general agreement on the desirability of regulated voluntary pensions; disagreements remain over whether private schemes should be mandatory.

Supporters of the mandatory-funded private schemes emphasize that individual incentives to work, save, and incur risks are least distorted if the mandated saving flows into privately managed accounts. Individuals' pension-related decisions involve long-run choices and require a good understanding of pensions products, which are often complex. Both factors create information problems, which reduce—often considerably—people's ability to make choices that maximize their long-term well-being (Barr and Diamond 2006). Arenas and Mesa-Lago (2006) find, for example, that many workers in Chile lack the data and skills to make an informed selection of the best pension provider. Barr and Diamond (2006) argue that imperfect information in this context cannot be addressed simply by offering more information, because the issue at hand is an information-processing problem.

The most common component of a pension system is a national defined-benefit scheme in which pension benefits depend on a worker's wages and age (table 2). Some countries also require that workers contribute to individual retirement accounts, and pensions are paid from the accumulated funds. Many countries also encourage workers to contribute to individual accounts managed by financial institutions. The last two kinds of pensions are called defined-contribution plans (for a more detailed explanation of the economics of pensions, see Barr and Diamond 2006).

A recent review of pension systems in 53 countries—all 30 Organization for Economic Co-operation and Development (OECD) members plus 23 countries in Eastern Europe and Central Asia, Latin America and the Caribbean, and the Middle East and North Africa—shows that the primary differences across systems lie in three main areas (Whitehouse 2007). First, the level of social security

Table 2. Instruments for Old-Age Income Security

<i>Nature of instrument</i>	<i>Mainstay: pooling</i>		<i>Mainstay: saving</i>	
	<i>Mandatory</i>		<i>Mandatory</i>	<i>Voluntary</i>
Common name	First pillar		Second pillar	Third pillar
Main function	Insure against poverty in old age, reduce income inequality		Smooth consumption over life cycle	Smooth consumption over life cycle
Main role of government	Define benefits		Define contributions	Define incentives
Principal risk bearer	Government		Worker	Worker
Financial instrument	Unfunded pay-as-you-go		Funded individual accounts	Funded tax-preferred individual accounts

Source: Authors' compilation.

benefits (the target replacement rates) varies considerably. There is a negative link between the target replacement rate for mandatory pensions and the relative importance of voluntary private pensions. In countries such as Canada, the United Kingdom, and the United States, where voluntary private pension provisions are widespread, mandatory pensions are relatively small.

Second, the relative emphasis on pooling and saving differs significantly. Countries such as Australia, Canada, New Zealand, and the United Kingdom emphasize the pooling function; Nordic countries and most Latin American countries also have progressive systems. In continental Europe (outside the Nordic countries) and the Middle East and North Africa pensions are more strongly correlated with earnings, signaling a greater emphasis on the savings function.

Third, the relative reliance on public and private sectors varies greatly. In addition to the larger role for voluntary and private provision in countries with low target replacement rates, many countries also involve the private sector in running the mandatory pension system. The best-known cases of pension reforms that increase the role of the private sector are in Latin America and the Caribbean, followed by Eastern Europe and Central Asia. The private sector plays an important role in mandatory pension provision in about one-third of the high-income OECD countries. At the other end of the spectrum, countries in the Middle East and North Africa do not yet involve the private sector in mandatory pensions, and voluntary provisions barely exist.

The experiences of Brazil, China, India, the Russian Federation, and South Africa illustrate the range of problems faced by developing economies and transition economies. Reforms in these and other countries are described below.

Brazil

Conditions in Brazil today resemble those in some Latin American countries before they undertook the type of structural reforms assessed below. Pension reform was motivated mainly by fiscal pressures. Despite having a young population, Brazil's level of public expenditure on pensions is large. Subsidies to cover Brazil's public pension regimes' deficits rose from 4.6 percent of GDP in 1998 to 5.6 percent in 2004 (Giambiagi and de Mello 2006). So far pension reform has involved streamlining the system's mandatory first pillar and developing a third pillar of voluntary, complementary, personal saving schemes, without creating a second pillar of mandatory individual saving plans. Since the late 1990s, reform of the regime for private sector workers has been aimed at tightening eligibility conditions, reducing replacement rates, and increasing the share of population covered by social security.

East Asia

East Asia has a diverse set of pension systems. Malaysia and Singapore have large provident fund systems operating under public administration at the national level on the basis of defined contributions. The Republic of Korea, the Philippines, and Thailand have OECD—style defined-benefit pension schemes (though with lower coverage rates than industrial countries), with more emphasis on redistribution.

Like other communist countries, China formerly had defined-benefit pay-as-you-go pension systems covering urban public sector employees, and contributions were largely the responsibility of state-owned enterprises. Rising pension expenditures (caused partly by the use of early retirement as a mechanism to deal with excess workers at state enterprises) and declining contributions (the result of poor performance by state enterprises, rising unemployment, a growing informal sector, and weak enforcement) motivated China to seek the best reform alternatives (Asher and others 2005).

South Asia

India, like other countries in South Asia, is still at the beginning of its demographic transition. It has a low ratio of pensioners to workers, who continue to contribute to social security schemes. Although only 13 percent of India's labor force is covered by pensions, pension debt is becoming a serious issue. Implicit pension debt is estimated at 25 percent of GDP nationally, and in some states the extent of the problem is much greater. India is in the process of passing into law a new pension system that would shift all new central government employees to a defined contribution plan from the current defined-benefit scheme, shifting the risk of retirement financing from the government to individuals (Shah 2006). Participants in the new scheme will have access to a range of investment products from selected private sector companies. The new pension system will be offered on a voluntary basis to private sector workers. Aiming to fulfill the social protection dimension of pensions, India's noncontributory pensions target the elderly poor: the means-tested schemes administered by states and supplemented with federal funds reach 1 of every 10 elderly Indians.

Eastern Europe and Central Asia

Regionally, Europe and Central Asia is second only to Latin America in terms of pension reform activity. In the early transition period, countries in the region faced serious challenges to their social security systems as output fell, contributions declined, and the number of beneficiaries grew. Transition proved to be

challenging politically. Some countries chose parametric reforms, such as raising the retirement age, with or without changing the benefit formulas; others, especially the European Union accession countries, undertook structural reform. Ten countries in Europe and Central Asia created second pillars of mandatory, funded individual accounts.

The Russian Federation began structural reforms of its pension system in 2001. The new system comprises three pillars. The first pillar, the major component of the system, is a publicly managed pay-as-you-go, defined-benefit scheme that consists of a flat basic benefit and a notional defined-contribution scheme. The second pillar is a mandatory defined-contribution scheme with mixed public–private management. The third pillar is the voluntary privately managed component (OECD 2006).

Middle East and North Africa

Countries in the Middle East and North Africa have already put in place defined-benefit pension systems financed on a pay-as-you-go basis. Egypt, Iran, and Libya have also developed noncontributory pension schemes. Even with young populations, many pension systems in the region are not financially sustainable without reform. Despite this, reforms have been limited, with Lebanon and Morocco among the few countries considering systemic pension reform.

Sub-Saharan Africa

Noncontributory schemes in Sub-Saharan Africa exist in only a few countries, such as South Africa, where they are financed by general revenues. As in South Asia, the pension reform agenda in Sub-Saharan Africa is driven by the fiscal pressures arising from civil service pensions. Average coverage in the region is less than one-fifth of the labor force, with the rest of the population relying on its own resources and informal old-age support.

Pension systems around the world are thus diverse, with every country facing a unique set of problems. But there are some common features. Many countries in the developing world—including major economies such as China and India—have to deal with expanding social security systems that cover only small parts of their populations, and they have to do so within tight fiscal constraints. Industrial countries face problems that are long term in nature and have been brought about by an aging population. While the immediate concern behind the reform process has often been fiscal sustainability, getting the incentives right is equally important.

Performance in Latin America and Lessons of Experience

The experiences of Latin America offer some general lessons for countries in other parts of the world. Chile first adopted structural reform in 1981. Argentina, Bolivia, Colombia, Mexico, Peru, and Uruguay followed in the 1990s, and Costa Rica, El Salvador, the Dominican Republic, Ecuador, and Nicaragua followed after 2000. The notable exceptions to reform are Brazil and República Bolivariana de Venezuela.

The details of the reforms vary across countries. What is common is that a publicly mandated and administered pay-as-you-go component operated on a defined-benefit basis was retained and a publicly mandated but privately administered system of defined-contribution personal accounts was added. Governments also made some attempts to increase voluntary saving through defined incentives, such as Investment Retirement Accounts in the United States, which encourage individual retirement savings through tax benefits.

But the headline item has been the new system of personal accounts. Mandatory personal accounts constitute the second pillar. Second-pillar reforms can be classified into three categories. The first is the “Chilean model,” which made private accounts mandatory for all new workers; Bolivia, El Salvador, and Mexico also adopted this model. The second is what might be called the “Peruvian model,” which Colombia also adopted. Under this model, new workers are given a choice between a downsized pay-as-you-go pension and a private account. Under the third approach, which can be termed the “Argentine model,” new workers have a pay-as-you-go tier combined with a private account tier; Costa Rica and Uruguay also adopted this model.

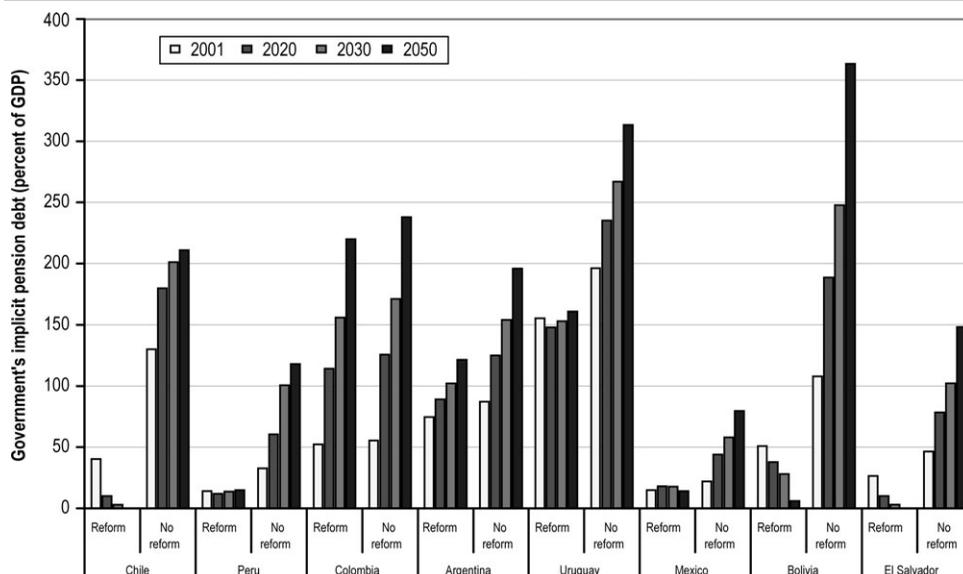
Until the early 2000s, Latin American countries were inclined to adopt some variant of these three approaches, with a tendency for later reformers to select the Chilean model, which gave new workers no choice but the personal accounts. Since then, pension reforms are as likely to eschew privatization entirely. Brazil, for example, has chosen to reform the parameters of its pay-as-you-go pensions, and Ecuador and Nicaragua have decided to postpone structural reforms.

Assessment of the fiscal, financial, and labor market effects of the reforms reveals that the results have been mixed. Performance in a variety of areas is assessed below.

Effect of Reform on System Balances

Fiscal imbalances were the primary motivation behind reforms, just as they appear to be the main concern in India, the Russia Federation, and the United States. The reforms seem to have had some success. Simulations by Gill, Packard, and Yermo (2005) for eight Latin American reformers indicate that the rate of

Figure 1. Pension-related Long-term Deficits after Reforms



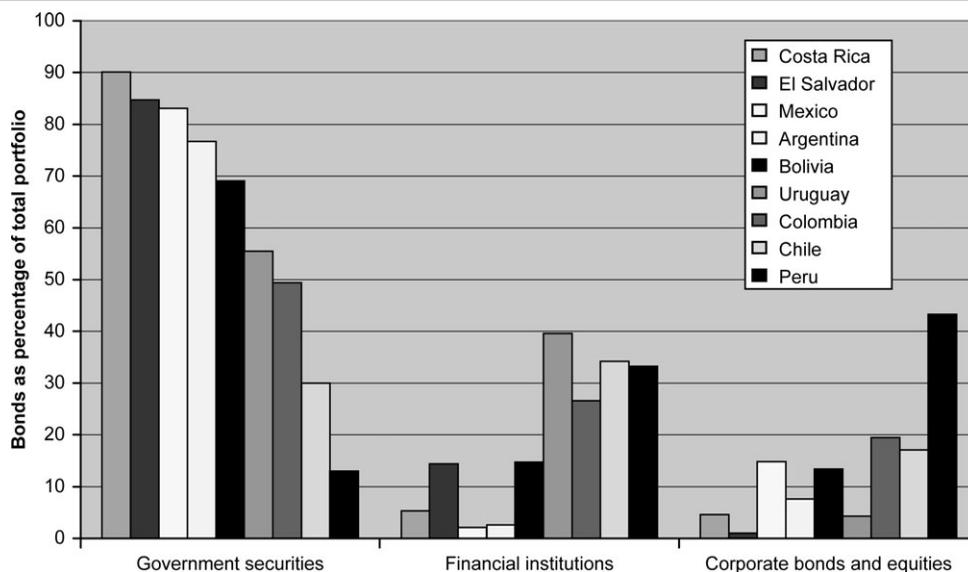
Source: Based on Gill, Packard, and Yermo (2005).

accumulation of pension debt fell sharply in most countries as a result of the reform (figure 1). In Bolivia, for example, pension-related debt would have been almost 160 percent of GDP in 2030 without reforms but is less than 50 percent of GDP with reforms. In Uruguay pension-related debt ratios for 2030 would be about 150 percent without reform and 70 percent with reform.

These are the long-term effects. In the immediate aftermath of reforms, however, these countries had to deal with the transition costs, as contributions were divided from paying benefits to the elderly to investing in the private accounts of workers. The promised benefits to current pensioners and older workers under the old system had to be paid, while part of the payroll tax flowing in had to be diverted to fund individual accounts. With contributions diverted into funded pension accounts, governments had to find ways of financing existing pay-as-you-go liabilities. For a variety of reasons, in some countries these transition costs proved to be higher than expected at the time of the reform. In Bolivia, for example, the pension-related deficit has been rising instead of falling, as projected.

More important is the fact that many countries had to finance the transition through increased government debt, some of it held by the new pension funds. With the investment regulations favoring government debt and with the thin capital markets in much of the region, Latin American workers essentially

Figure 2. Importance of Government Bonds in Private Account Portfolios



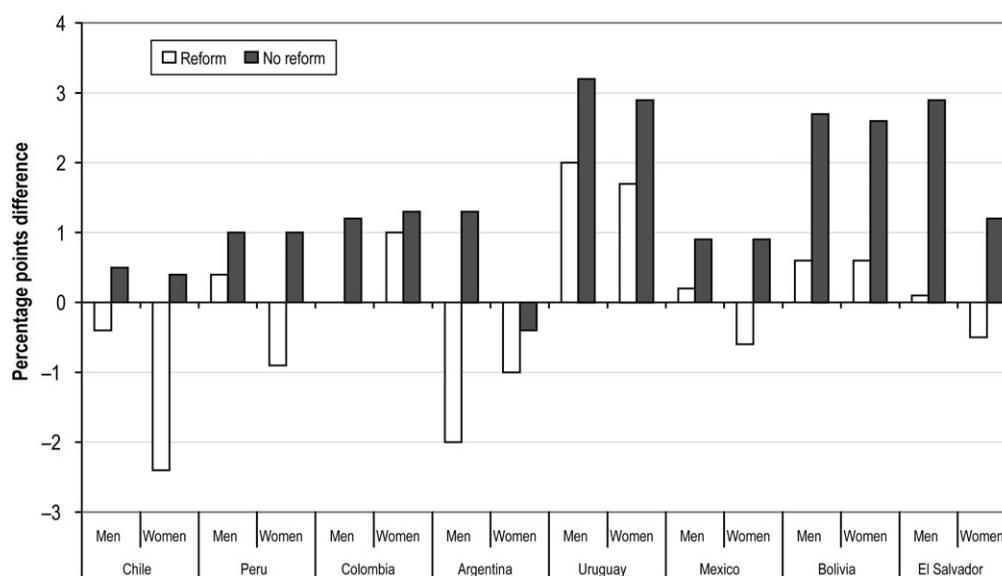
Source: Based on Gill, Packard, and Yermo (2005).

swapped pay-as-you-go debt for government bonds. Fully two-thirds of the average investment portfolio consisted of government securities (figure 2). While a case can be made that this debt is more secure, the case of Argentina—where the government wrote down its debt by more than two-thirds—suggests that this greater security is a matter of degree. Moreover, with less than 20 percent of these funds going to corporate bonds and equities, the growth effects of the reform were also likely weak.

The reforms aimed at improving labor market efficiency by strengthening the links between contributions and benefits and by reducing the regressive transfers that characterized the previous social security systems. They appear to have been successful in reducing regressive transfers (figure 3).

Although reforms have addressed within-system equity concerns, the most inequitable aspect of unreformed social security systems in Latin America was that they excluded large shares of the population from even a semblance of income security. Reforms have been less effective in addressing this problem. While the closer links between benefits and contributions may have increased participation, the effect was small. Participation rates in most countries have essentially flat-lined at levels ranging from about 10 percent to about 67 percent of the active labor force (figure 4). This lackluster performance—despite closer links between contributions and benefits—can be attributed to high (and rising)

Figure 3. Effect of Reforms on Within-system Equity



Note: Figure shows percentage-point difference in internal rates of return earned from national retirement security system by wealthiest and poorest workers.

Source: Based on Gill, Packard, and Yermo (2005).

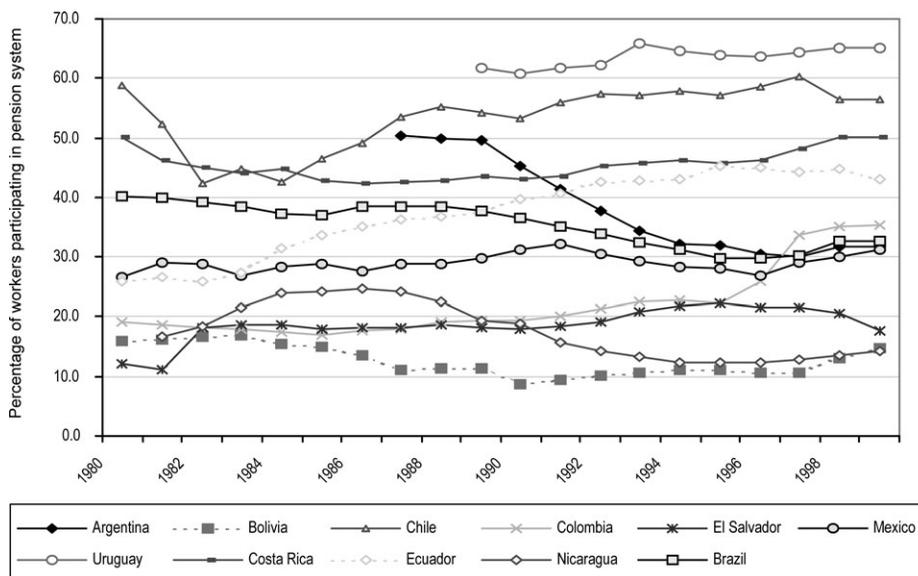
payroll taxes, as discussed below. But some of it also reflects the high management and insurance fees private pension providers charge.

Effect of Reform on Financial Markets

Reforms stimulated financial markets—but often at a high price for contributors. In Latin America as a whole the administrative costs of private schemes have been considerably higher than those of public schemes (Arenas de Mesa and Mesa-Lago 2006). In theory, private systems can reduce administrative costs through competition. In practice, multiple private providers lose the advantage of economies of scale, and considerable resources are spent on advertising and sales commissions. Administrators in private systems charge a commission (as a percentage of wages) for managing the old-age program plus a premium, transferred to an insurance company, to cover disability and survivor risks (Mesa-Lago 2006).

The evidence indicates that ensuring a captive clientele for these pension funds has led to the growth of a new industry in the reforming countries; assets held by pension funds more than doubled as a share of GDP between 1998 and 2004. But while financial market development has been hastened, contributors have generally paid a high price. This was especially the case in the early days of reform in countries such as Chile; for workers who had contributed for a decade or longer,

Figure 4. Pension System Participation Rates, before and after Reform, 1980–2000



Note: Reform dates are as follows: Argentina, 1994; Bolivia, 1997; Chile, 1981; Colombia, 1994; El Salvador, 1998; Mexico, 1997; Uruguay, 1996.

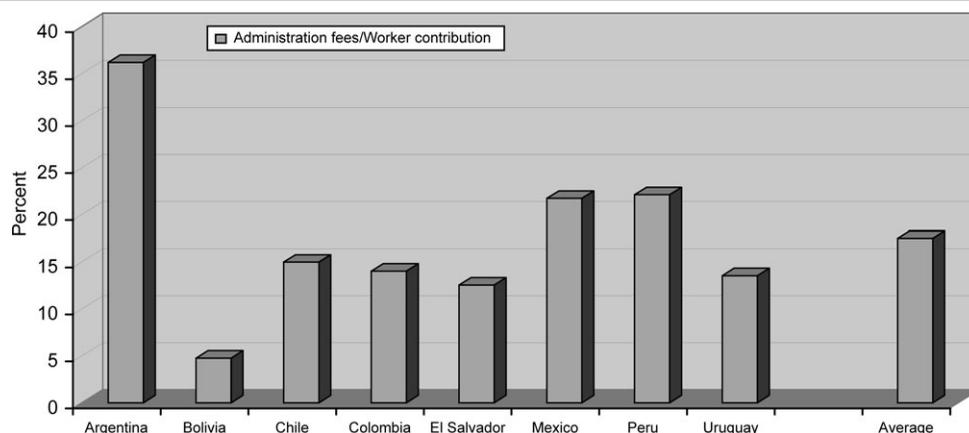
Source: Based on Gill, Packard, and Yermo (2005).

more than a quarter of contributions may have gone toward management and insurance fees. Even today, 15–20 percent of contributions go to management fees, and workers have to pay insurance fees as well (figure 5). Administrative costs may be even higher for low-wage workers in some countries. Low-wage workers often did not participate in the system before reform because of the weak connection between contributions and benefits; they may now find the new systems unattractive because of higher payroll tax rates and onerous administrative fees.

Administrative costs have generally come down as the pension fund industries have matured, but in some countries, such as Peru, the fees charged to contributors have not fallen commensurately. This has meant high profits for the fund managers. Between 1998 and 2002 the share of workers' contributions going to fees remained steady in Peru, while fund expenses fell. As a result, profit rates skyrocketed (figure 6).

Chile's recent experience appears to be similar. Competition among private pension providers in Chile has been limited because of the small number of administrators and high and increasing concentration among the largest funds (Arenas de Mesa and Mesa-Lago 2006). Even capable Latin American governments appear to find it difficult to effectively regulate these oligopolies.

Figure 5. Administrative Fees Paid by Workers, as Percentage of Total Contribution, 2002

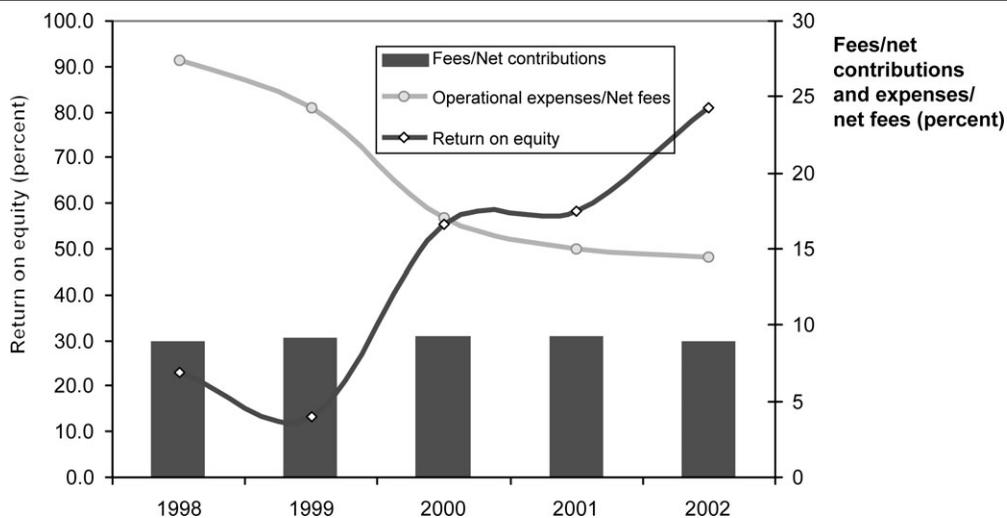


Source: Based on Gill, Packard, and Yermo (2005).

Lessons for Other Countries

Not all of these findings are relevant for other countries, because the countries and the social security issues being debated are different. However, some general lessons do emerge.

Figure 6. Pension Fund Costs, Fees, and Profits in Peru, 1998–2002



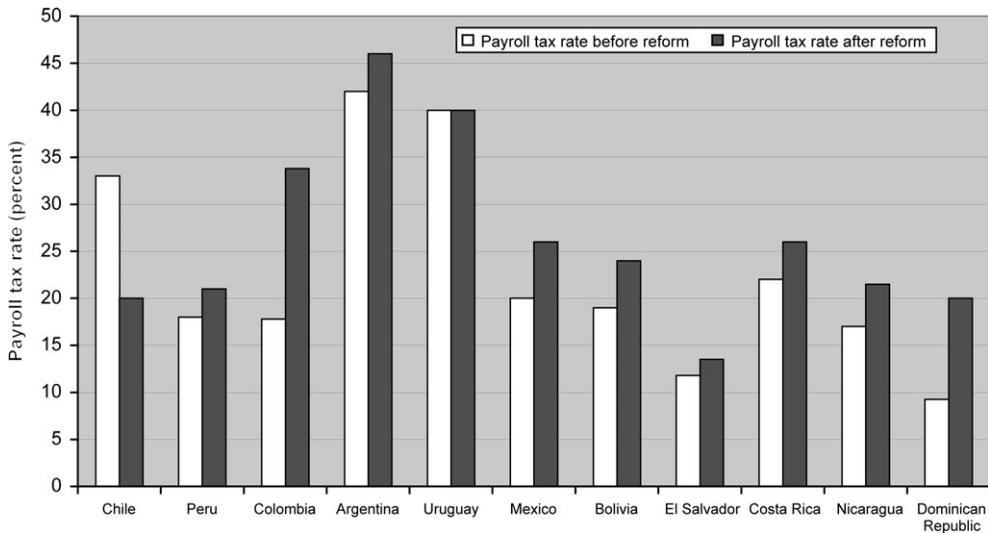
Source: Based on Gill, Packard, and Yermo (2005).

Effect of payroll taxes on labor market incentives. While the move to private accounts had a small but positive effect on participation, the negative effect of higher payroll taxes may have been greater. Given near universal coverage of social security in developed countries and many transition economies, the discussion here is focused on the incentives to work rather than to contribute to social security. In particular, the concern is about the distorting effect of social security on the age of retirement.

The Latin American experience appears to support those who argue against raising the payroll tax rate. Two findings are noteworthy. The first is that there is little evidence from Latin America that, in the presence of high transaction costs, individual accounts led to stronger labor market incentives, as evidenced in participation rates. Payroll taxes went up in all countries except Chile and Uruguay (figure 7).

The second finding is that diverting payroll contributions from pay-as-you-go systems to individual accounts appears to have adverse fiscal implications that are far more potent. Most Latin American countries had to create space for the second pillar, which required that they downsize and redesign the first pillar. Chile, Bolivia, and Mexico provided a minimum pension guarantee to low-income workers whose personal accumulations fell below a specified amount. Many structural reformers in Latin America had to deal with financing the transition. One option was to increase taxation (through payroll or broader taxes, such as income tax or a general consumption tax) or borrowing (by issuing conventional

Figure 7. Payroll Tax Rates before and after Reform



Source: Based on Gill, Packard, and Yermo (2005).

public sector debt). Another was to reduce public spending—on pensions or in general or create new revenue (through privatization, for example).

When labor is mobile across sectors and the informal economy is large, structuring the premiums for social insurance programs as payroll taxes may be ineffective. Greater reliance on a broad tax base, such as an income or consumption tax instead of a payroll tax, may be more efficient. Using a broader tax is also more consistent with the poverty prevention and redistributive functions of the remaining public pooling pillar after introduction of the multipillar model, because such a tax reduces the wedge between the formal and informal parts of the labor force. The public pooling pillar enables individuals and households to manage shocks to their income should they need to, enabling them to be more enterprising.

Effect of privatization. The pension debate in Latin America has centered on two costs associated with the move to private accounts. One is the administrative fees charged by the special pension funds set up to manage these accounts and the costs of annuitizing the accumulated funds. The other is the fiscal costs associated with the transition to private accounts. Latin America's experience with fiscal costs may be relevant for other countries.

The cases of Chile and Argentina provide contrasting experiences of the interaction of pension reform and fiscal effort. In Chile a strong fiscal effort characterized the lead-in to the pension reform: fiscal surpluses averaged more than 5 percent of GDP in the years before the 1981 reform, so that Chile's fiscal deficits after the reform were mild and short-lived. In contrast, Argentina did not substantially bolster its fiscal situation in the years leading up to its 1994 reform. Though it ran small fiscal surpluses in the two years before the reform, there is reason to believe that its fiscal stance after the reform was worse than indicated by published figures. Payroll tax deductions reduced revenues and increased pension system deficits. About half of the deterioration of the consolidated public sector fiscal deficit between 1994 and the 2001 crisis was caused by the worsening social security balance.

The degree of protection against policy risk offered by privatizing a portion of mandated pensions may also be exaggerated. The experience in countries such as Argentina illustrates how any government-organized social security system—whether directly administered or simply mandated—can fall prey to politicians. Since the start of the system about half of all privately managed assets have been invested in government bonds. During the 2001 crisis, when the government forced the pension funds to swap dollar-denominated government bonds for peso debt, the share of government bonds in the private funds' portfolio rose above three-quarters. Argentina is not unique in this regard. In Mexico, for example, several years after the reform the share of government bonds in pension fund portfolios is as high as in Argentina.

Pension system deficits contributed significantly to the deterioration of the fiscal balance in Argentina and other Latin American reformers. Many observers would underscore the importance of having a relatively strong fiscal position before undertaking structural reforms and of reducing the implicit debt of unfunded pay-as-you-go systems before making the debt explicit by shifting to a funded second pillar. But there are also concerns that this replacement could actually worsen the fiscal balances as reneging on explicit debt may be more costly than eroding real pension benefits (that is, reneging on implicit debt). The Latin American experience supports the views of advocates of general fiscal discipline rather than social security privatization as a prerequisite for ensuring a stable domestic financial sector and a friendly environment for private saving.

Worker objectives in buying old-age insurance. The experience in some Latin American countries raises questions about what individuals expect from their governments. Fiscal stability appears to be necessary for governments to fulfill these expectations; other conditions may also be required.

Latin America's experience can offer useful insights on how to curb rising pension costs and prevent pensioner poverty at the same time. Indeed, many developing economies already face rising pension spending, often combined with significant pensioner poverty (Barr 2006). Bourguignon *et al.* (2004) calculate the incidence of poverty among the elderly in 19 Latin American countries. Using household surveys to simulate the fiscal cost and impact on poverty rates of various uniform pension schemes, they show that a universal minimum pension would substantially reduce poverty among the elderly in all countries except Argentina, Brazil, Chile, and Uruguay, where minimum pension systems already exist.

Evidence from Chile and Peru, where the results of surveys (Gill, Packard, and Yermo 2005) designed to determine how households manage economic risk are available, reveals something about what workers expect from governments.¹ At the time of the survey in Peru the government had not instituted a minimum pension guarantee; the survey revealed that private financial institutions were trusted more than all three branches of government. It also revealed that more risk-averse workers chose private funds over the reformed but still risky government pay-as-you-go option.

In Chile the survey results were more revealing. Two decades after reform, workers seem to be using a system intended to act primarily as a vehicle for savings—with a small pooling component—mainly as a risk-pooling mechanism. Each cohort of workers that completes the minimum contribution requirements appears to be content with qualifying simply for the government's guarantee of minimum pension—a modest means-tested amount of about 80–90 percent of the minimum wage.

Some researchers attribute this outcome to the moral hazard associated with low-income workers realizing that any contributions beyond this are a pure tax. In fact, this behavior occurs less among the working poor and more among middle- and higher income groups; it is more consistent with a desire to purchase some insurance against old-age poverty. The switch to other savings instruments after they have qualified for this insurance also indicates that workers see the mandated private accounts as relatively expensive or risky compared with other investments. There is evidence that other retirement investments—housing, household enterprise, even the education of children—in Chile are perceived as less risky than saving in the reformed pension system (Packard 2002). There is also evidence that households prefer to gain eligibility for the low, government-guaranteed annuity and continue to save outside the system, despite the variable but high real returns they could earn in the system. This evidence suggests that they may place greater value on security than on real rates of return (Gill, Packard, and Yermo 2005).

In countries where government is generally viewed as reliable, one could make the case that workers view the social security system more as a mechanism for insurance against poverty and less as a vehicle for saving to smooth consumption. The implication may be that the social security benefit structure should be made more progressive or the system made even more progressive than it is currently in developed countries.

Main Policy Implications

It is difficult to draw universal lessons on how to reform social security systems from the experience in Latin America. Developed countries already have universal coverage and well-developed financial markets, many developing economies outside Latin America do not have well-developed contributory social security systems, and transition economies in Europe and Central Asia face entirely different challenges than emerging markets in Latin America.

These differences notwithstanding, the Latin American experience provides some useful information about the behavior of (rational) workers, the responses of (profit-seeking) firms, and the responsibility of (fiscally constrained) governments. Put another way, the experience provides insights into how workers and firms react to changes in the structure of social security systems, what workers expect from their governments, and how governments can meet these expectations. The main policy pointers appear to be the following:

- *Keep payroll taxes low.* Strengthening the links between contributions and benefits can improve labor market incentives somewhat, but higher payroll tax rates will offset these benefits.

- *Keep benefits frugal.* Public pension benefits should be small and secure, in order not to unduly discourage saving for old age while providing insurance against poverty in old age.
- *Keep governments solvent.* Fiscal prudence is the most important rule for governments that wish to provide both a safe environment for private saving and reliable insurance against old-age poverty.

While these lessons emerge from the experience in Latin America, they are also consistent with fundamental principles of the economics of insurance. Ehrlich and Becker (2000) and others propose that optimal insurance implies that rarer and more idiosyncratic losses are better pooled, while frequent and more systemic losses should be saved for. This principle can be applied to the losses associated with old age. The blessing of rising longevity implies that losing the capacity to earn is an increasingly frequent loss for individuals. The blessing of falling poverty rates implies that being poor in old age is becoming an increasingly rare loss. Rising longevity necessitates a shift to self-insurance or saving as the way to smooth consumption over one's lifetime, while falling poverty implies a shift to market insurance or pooling.

The role of governments is to facilitate these actions by individuals to insure, self-insure, and self-protect. Since there are relatively few serious impediments to the ability of individuals to save for old age, the role for governments in encouraging saving for old age should be secondary and diminish. In contrast, in the case of poverty, because of the "social" nature of the loss being insured against and well-known problems with insurance markets, the role for governments is primary.

Much of the discussion in any country should center on the role of governments in helping individuals save and smooth consumption over their lifetimes and the need to help individuals insure against the losses associated with becoming destitute in old age. While it is clear that the mainstay for consumption smoothing should be individual saving, it is less clear what role the government should play in getting individuals to save. In the case of destitution in old age, however, the role for governments is clearer: it needs to provide an instrument for insurance against the increasingly rare loss associated with falling into poverty.

For various reasons social security systems have historically bundled these two functions. The implication is that as the role of government in saving is scaled down, the insurance function becomes more, not less, important. As Lindbeck and Persson (2003, p. 60) note in their cross-regional survey of social security reforms, "Reforms do not diminish the need for basic, or guaranteed, pensions. Quite the contrary; growing reliance on quasi-actuarial and actuarially fair systems which in themselves do not encompass any systematic intra-generational

redistributive elements, makes it even more imperative to maintain a safety net to prevent poverty in old age.”

Notes

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