

Lessons from Pension Reform in the Americas

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Lessons from Pension Reform in the Americas

The issue of social security reform is a topic of considerable debate throughout the Western hemisphere and indeed throughout the world. Over the past few decades, many countries in the Americas have faced insolvencies in their pension systems and have taken significant steps to make their systems financially viable for future generations. Chile, more than twenty-five years ago, was the first country to adopt a defined-contribution (DC) system. In the years since, many other countries have reformed their pension systems, in many cases inspired by the Chilean model.

To evaluate the successes and failures of these pension reforms in Latin American region, a conference was held in Atlanta in March 2006, cohosted by the Federal Reserve Bank of Atlanta's Americas Center, the Instituto Tecnológico Autónomo de México, and the Pension Research Council of The Wharton School. Participants included scholars and policymakers from Chile, Peru, Uruguay, Argentina, Brazil, Costa Rica, Canada, and Mexico, who presented and discussed their investigations into many nations' pension system reforms. Other scholars presented research findings on broader issues, such as the effects of recent pension reforms on gender and factors affecting individual decisions with respect to pension savings. Current and former World Bank officials discussed current policy and presented new ideas and recommendations based on the experiences of these countries.

This working paper summarizes key messages from the papers and discussions. The summary begins with an overview of the country case studies, led by Chile, followed by a discussion of trends that have resulted in greater longevity and wealth in the industrialized countries. Next is a focus on gender issues and the effects of human behavior on pension design.

After reviewing some new research on pension plan design, we end with an overview of the lessons learned from pension reform in the Americas.

Country Studies

The pension reforms that began with Chile more than twenty-five years ago in Chile have rippled outward throughout the region and beyond. As countries around the world face insolvencies in their own pension systems and evaluate their next steps, they can look toward the experiences of countries in the Americas that have already revised their systems. To this end, key policymakers and advisers from several countries in the Americas presented their analyses of the pension reforms in their countries.

Chile

David Bravo, from the Universidad de Chile's Department of Economics, pointed out that many Latin American countries have been and are experiencing solvency issues with their own pension systems, which are by and large pay-as-you-go, or PAYGO. Many of these countries have looked to the Chilean pension system as a success story, with its funded DC individual accounts managed by private pension fund administration firms (known as AFPs), supplemented with a social safety net. The current Chilean pension system replaced the old PAYGO system that existed prior to the 1980 pension reform. Now in its twenty-fifth year, however, the system is again coming under scrutiny. The newly elected Chilean president, Michelle Bachelet, has expressed concerns about insufficient contributions, accumulations and commissions, and lack of financial knowledge on the part of the people.

Bravo noted that until recently, a lack of microeconomic data prevented any well informed discussion of policy issues of the sort raised by the new president concerning the pension system. To this end, he and a team of U.S. researchers designed and fielded the Social

Protection Survey, or *Encuesta Previsión Social* (EPS). This household survey was designed to gather microeconomic data on the Chilean labor market and social insurance system.¹ The findings of the EPS were reviewed in a paper Bravo coauthored with Alberto Arenas de Mesa (Deputy Director of the Ministry of Finance of Chile, Office of the Budget), Jere R. Behrman (University of Pennsylvania), Olivia S. Mitchell (University of Pennsylvania), and Petra E. Todd (University of Pennsylvania). This survey gave a clearer picture of who participates in the Chilean retirement system and what lifetime contribution patterns look like; what people have accumulated in the Chilean retirement system and what benefits may be anticipated; and how financially knowledgeable Chileans are about their retirement system. Bravo suggested that these findings will inform future policy discussions of the Chilean pension system and will be beneficial to the newly elected Chilean president, who has put pension reform high on her policy agenda.

Turning to the first topic, Bravo noted how he and his fellow researchers found patterns of contributions to the AFP system, with significant differences in self reporting across the categories of sex, age, and education as well as differences between self reports and administrative records. For instance, men reported more months of contributions than did women (120:90, close to a 40% difference), attributable to women's tendency to leave the workforce to rear children. When the researchers looked at the administrative records, they found that on average men over-reported their months of contributions by about 20% and women by about 25% — suggesting that individuals underestimate the extent of shortfall in coverage for sufficient months to satisfy the twenty-year minimum contribution requirement for the state-guaranteed minimum pension for participants in the AFPs. This shortfall points to a greater reliance on welfare pensions than would be indicated by the self reports. In addition, spells of reported non-contributions are strongly associated with non-employment rather than with

evasion. Bravo suggested that to increase coverage, efforts might best be directed towards reducing non-employment periods.

Only 40% of EPS respondents said they could estimate their AFP account balances. Respondents who did were quite accurate in their estimates and, significantly, their balances were four times higher than those who did not know their balances. Across the entire sample, the median AFP balance derived from administrative records totals \$1.5 million pesos (~US\$2,800); the balance of those able to provide estimates averaged about \$3 million Chilean pesos (~US\$5,600). Another fact that emerged was that recognition bonds are worth as much as AFP system assets for respondents entitled to them, with the median account worth about \$4 million pesos (~US\$8,000). Bravo stressed that analysts must recognize both sources of support when projecting retirement benefits.

The results highlight considerable information gaps concerning the Chilean pension system, which may limit the system's effectiveness. For example, while two thirds of the respondents remembered receiving periodic reports on their contributions and projected future benefits, only a fraction of these could provide details such as payroll tax rates and commission rates, which Bravo felt indicates a need to increase competition among AFP providers. Most respondents also did not know their AFP balances nor details of their multi-funded system and of minimum pension eligibility requirements.

Bravo proposed that to build a more resilient pension system, people must be more aware of eligibility requirements. Greater financial literacy is essential in enhancing the contribution and investment patterns of individuals. Further, for the government to make useful budgetary projections, better data on who is in the system, who is contributing, and who is likely to try to obtain the minimum pension guarantee and/or social assistance is necessary. If too few Chileans obtain AFP benefits or if replacement rates are low, there will be political pressures to change it.

Pressure may grow to increase the minimum pension guarantee and welfare pensions, with negative fiscal implications. There may also be pressure to allow phased withdrawals instead of annuitizing the payoffs, which also poses risks for the government. Yet Bravo reminded his listeners that the pension system is still young and in transition. Most people retiring now were actually not covered by the new system over their entire work lives.

Following the presentation, questions from conference participants focused on AFP market behavior, financial literacy, and policy. The first topic discussed was the high rate of AFP switches. One participant pointed out that in Mexico, approximately 70% of the switches that take place are people moving from higher-fee to lower-fee funds. Bravo said that the Chilean government strictly regulates switching, because in the past, providers sometimes offered gifts to lure consumers to their plans. Another question asked about what standardized information was sent to contributors and how they used it. Unfortunately, over half of the affiliate addresses in AFP records were incorrect when the EPS surveyors sought to find respondents, which called into question the providers' recordkeeping processes. He pointed out that changes have been made to simplify the financial reports but that two-thirds of those who said they received the report did not read it; an even smaller percentage said they understood it; and a very tiny percentage actually used the report to make decisions. Although the government is boosting efforts to clarify these financial reports, more could be done. While Chileans do lack information, it was noted that US 401(k) participants are just as under-informed but conducting financial literacy campaigns is costly. Bravo indicated that boosting competition among AFP providers might help resolve some of the financial illiteracy. Regarding the issue of coverage, the EPS data has other interesting insights — for instance, it shows that only a third of those not contributing to the pension system are self-employed.

Peru

The challenges of pension reform in Peru were discussed by Eduardo Morón of the Universidad del Pacífico, who presented a paper he coauthored with Eliana Carranza, also of the Universidad del Pacífico. In 1992 the country introduced a fully funded DC system, managed by private pension managers (SPPs, in Spanish). Due to popular opposition, however, the old public system (SNP) was not terminated, and indeed unlike in the Chilean case, workers are still able to join the public system. Accordingly, the reform has not been completed, leaving room for continuous revisions and straining the private system. First, the SPP has had to invest significant resources defending its existence. Second, its performance has been affected by the constantly changing rules. Third, the SPP has had to compete with the public system to attract that same pool of workers but under unequal conditions and regulations. In fact, until legislation was enacted in 1995, workers had more incentives to join the public system than the private. These incentives included lower contribution rates and a minimum pension guarantee that the private system lacked (until a minimum pension guarantee was implemented in 2001).

A common criticism of the Peruvian private system is that it has not boosted coverage rates. Indeed, coverage may have even declined slightly since the reform. However, Morón noted that because Peru has one of the largest informal sectors in Latin America, 58 % versus 47% for the region, the target market is very narrow. In addition, benefits may not have been extended to a larger group, but the benefits that the reformed system offers are much more stable. Regarding AFP competition, some analysts accuse the four AFPs of behaving as an oligopoly and using price agreements to earn non-competitive profits. Indeed, antitrust complaints were filed after they earned high rates of return on equity. Market concentration, as well as high fees, has been the target of many legislative initiatives ranging from closing the private pension system to arbitrarily capping administrative charges. Yet a different look at the data may soften some of

these criticisms. For example, market concentration at first inspection appears very high (measured by the Herfindahl-Hirschmann index, or HHI), but the number of firms is very small and changes in the sample. Morón and Carranza recomputed market concentration using the HHI, accounting for these changes, and found that market concentration is actually quite low; each AFP actually has about a quarter of market share. As for administrative fees, when they are calculated as a percentage of the mandatory contribution rate, they can appear high because the mandatory rate is set by congress and is low. However, Morón and Carranza said that if legislation restores the original contribution rate, the fees in Peru will come close to the regional average.

The experiences of the years since the reform consistently suggest that a better role for government would be to complement the services provided by the private sector to extend the coverage to sectors that are difficult to reach. Pending reforms if passed will help resolve the issues of coverage, administrative fees, and competition. Rather than focusing on legislation to reduce AFP profits, he argued that government intervention should refocus on resolving the real problems of extending coverage and increasing competition without excess government distortion of the market. For example, to help extend coverage, he suggested introducing a universal non-contributory, means-tested pension; redefining the first pillar as a mandatory pooling system that provides a cross-subsidized minimum pension; and creating individual capitalization accounts that provide affiliates with pensions consistent with their earnings. He concluded that the Peruvian pension is not failing and there is no need to go back to the public system, but that the system will have to boost coverage.

Argentina

Argentina instituted a major pension reform in 1993 following an extremely serious macroeconomic crisis. Partly inspired by Chile's experience, Argentina replaced its purely pay-as-you-go (PAYGO) system with a mixed model that incorporated elements of both public and private systems. According to Rafael Rofman of the World Bank, the pension reform was actually a combination of four separate but interdependent reforms: parametric changes, which resulted in stricter requirements; benefit formula changes shifting from a defined benefit (DB) formula tying benefits to previous earnings to a DC structure; financial reforms, introducing a funded scheme; and institutional changes, creating private companies to manage pension funds for a fee (in Argentina, AFJPs) and public agencies to share in other management aspects. His analysis included a look at coverage rates, and other indirect economic effects, such as the impact upon capital and labor markets, and reviewed some problems that have been part of the reformed system all along but that were exacerbated by another financial crisis in Argentina in 2001-02. These problems included coverage, institutional design, AFJP efficiency, and system fragmentation.

With respect to coverage, Rofman said that since the reform coverage has continued to decline, and the composition of contributors has changed significantly, with serious implications for a system in which worker participation determines the right to future benefits. While the participation of the two richest quintiles increased from 1994 to 2004, the participation rates of the two poorest quintiles decreased dramatically. Rofman also discussed how the system's dysfunctional institutional structure has had an indirect economic impact. The pension system is heterogeneous, its hierarchical structure is often blurred in practice, and the role of the Ministry of Labor has been much weaker than expected. Rofman suggested that perhaps legislation and enforcement could be more consistent on agency roles, or that the government could reduce the

number of agencies and abandon functional specialization as the main organizing principle. However, that could risk concentrating too much power in one institution. Meanwhile, the tax collecting agency is often accused of putting social security low in its priorities, and competition among the privately run pension fund managers (AFJPs) remains low, but might be boosted with a public information campaign or simpler switching procedures.

Despite the 2001-02 crisis and vagaries in investment regulations, the pension funds have produced reasonable returns over time. On average, they have produced an average real return of nearly 10% per year since 1995. While volatility has been important, in some cases it can be attributed to a delay in adjusting valuation to the actual conditions of the market.

Rofman concluded his paper by looking at system fragmentation, which is a problem, with resulting inequities and sustainability problems. With more than 100 independent schemes and with recent legislation creating new civil servant and professional funds at the provincial level, the trend toward integration that occurred during most of the twentieth century is being reversed. Policy makers must renew the drive towards integration, by integrating all systems into the national pension system or with a better coordinated supervision system.

The discussion following Rofman's presentation focused mostly on AFJP competition and pension fund valuations. Addressing the question of how much of the estimated 10% pension fund return the individual actually gets after fees and commissions, Rofman said that currently fees affect returns by between one and two percentage points, which would decline with more AFJP competition. The discussion then turned to how to determine the valuation of pension funds that were renegotiated after the financial crisis. Rofman said that assets were valued based on their technical value rather than market value. The 2001 crisis left a significant gap between the technical and market values, as most of these assets were denominated in U.S. dollars but the value was in Argentinean pesos. Even though the bonds were worth only 30% of

their face value in dollars, on paper they retained their full value in pesos. Rofman said that for political reasons no one has made an official estimation of the actual market value of pension fund investments, but some “back-of-the-envelope calculations” suggest that by early 2006 the gap between their technical and market values was somewhere between 10 and 20%.

Uruguay and Costa Rica

The evolution of Uruguay’s new mixed social security system was taken up by Rodolfo Saldain, a consultant and the former president of Uruguay’s Social Security Bank. After outlining how the extensive network of social security institutions developed in the first half of the twentieth century, the legislature initiated a series of attempts to reform the pension system and ultimately approved a structural pension reform in 1994. This new model is based upon a multi-pillar or mixed system, with contributions and benefits linked to both a state-managed PAYGO system and privately managed individual savings accounts. Workers contribute to each fund according to where their income falls within a salary level band. The public sector participates by providing a basic safety net pension (PAYGO system) to complement the mandatory system of individual capitalization. Administration is carried out by sole-purpose corporations known as AFAPs. The firm with the largest number of affiliates and administered funds, República AFAP, is controlled by three state-owned firms. AFAPs invest pension fund assets and maintain updated individual savings accounts data.

Since its implementation, the 1995 reform had faced challenges arising from design issues, ties to financial markets, and political and social acceptance. Saldain noted that Uruguay is unique in reserving a strong role for a state-owned institution administering private funds. He pointed to legal regulations that lead to the homogenization of investment policies and the lack of appropriate investment instruments, which in turn contribute to a concentration of investment

in instruments issued by the public sector. He also noted that the new pension system emerged in good condition from the country's worst financial crisis in 2002. He concluded that the system faces renewed political challenges since the election of an opposition government that has in the past opposed the creation of the new mixed system. However, he also believes that the lack of a viable alternative to the 1995 reform suggests that current policies will be maintained, notwithstanding the introduction of advisable and necessary adjustments.

Turning to Costa Rica, Juliana Martínez Franzoni of The University of Costa Rica noted that the last two decades saw a major transformation whereby the pension system was converted into a "mixed model" combining collective and individual savings. The reform sought to avert a financial crisis in the pension system, and was negotiated by authorities and civil society actors with technical support from international organizations. The paper analyzed two recent structural reforms intended to enhance system efficiency and equity. The first created a multi-pillar system including the Disability, Old-Age, and Survivorship Regime (RIVM, for its Spanish acronym) that currently reaches nine out of every 10 insured workers in the country. The second modified requirements and benefits of the RIVM and created new benefits, while seeking to strengthen the collective capitalization system. Martínez Franzoni emphasized that, contrary to most countries in the region, reforms were gradual, negotiated, and involved the participation of civil society organizations. She also suggested that the 2000 reform was highly effective in its structural component but it did not effectively address administrative inefficiency. The recently-implemented 2005 reform also had implementation problems which reveal challenges to institutional effectiveness.

Mexico

In 1997 Mexico abandoned its pay-as-you-go (PAYGO) system of the disability, old age, and death security system and instead instituted a new system based upon individual defined contribution accounts. The government asserted that the reformed system would bring greater coverage by increasing the number of workers in the formal sector, providing greater incentives for individuals to save for retirement, and deepening capital markets. The new system faces a number of challenges, including a reduction in the ratio of contributors relative to (despite a rise in affiliates); private pension fund managers' (AFOREs) high commission charges; and the likelihood that the government will have to support the old-age poor if lower-income individuals retire with insufficient funds in their accounts, according to Tapen Sinha and Maria de los Angeles Yañez of the Instituto Tecnológico Autónomo de México. On the other hand, they note, the government bond market has deepened, bringing more financial security to the pension system.

The authors note that coverage is a critical issue, pointing out the divergence between the number of affiliates in the AFOREs and the number of contributors. Although the labor force grew by more than 12% since the implementation of the new system, contributors rose only 8%, a discrepancy attributed to more informal than formal workers. Affiliates of the different AFOREs also contribute at different rates, and the larger AFOREs contain a larger proportion of regularly contributing affiliates, which might suggest that bigger funds attract clients with more consistent employment. Sinha and Yañez recalculated balances per contributor rather than per affiliate and found that the average balance is US\$3,375 compared to US\$1,292 for all affiliates, a threefold difference resulting from there being three times more affiliates on average than contributors.

Sinha speculated that the more costly funds might be offering higher returns, that their service might be better, or even that expensive funds might be more successful at marketing their AFOREs. While AFORE charges have decreased since 2004, Sinha and Yañez say that the method of reporting falling charges has been flawed. First, an AFORE reports its charges not for the date in which it is reported but rather over the next twenty-five years. Second, although the 2004 change means the transfer is no longer penalized, new entrants still must pay the highest possible fee. Finally, average charges do not count the number of affiliates in each AFORE; a new entrant gets the same weight as the established affiliate. Thus, average charges are not falling that rapidly. The authors challenge the claim that higher rates of return are associated with AFOREs with higher fees. Higher returns are more than offset by the high fees, and higher fees come with higher risks. In general, affiliates are better off by staying with AFOREs that charge the lowest fees.

The authors also challenge the government regulatory agency CONSAR's finding that despite high initial costs of the transition in the first two decades of reform, costs eventually fall below what they would have been without reform. CONSAR based its cost estimates on the payments that must be made to individuals owed benefits under the old system and to affiliates under the new system who would not have accumulated enough savings to receive pension equal to one minimum wage. However, Sinha said that a more accurate way to compare the numbers is to convert them to present values. Recalculating costs with and without reform, the present value of cost without reform is lower than the present value of cost with reform, for any discount rate above 3%. Thus, they argue, from a macroeconomic view, the reform may not have been financially necessary.

Even more costs to the system will occur when the government has to "top up" the minimum pension promised under the new system, which provides two guarantees. First, if an

annuity bought by a transition worker using an AFORE balance does not exceed what the individual would have received under the old system, he or she can retire under the old system. Second, if the accumulated amount is less than the floor value of the new pension plan under the AFOREs, the government must fill in the deficit. Fulfilling the first guarantee means the government must provide funds to fill in the gap for individuals who were 50 or older when the new system was instituted. At present, no provision is being made for the financial contingencies of these two guarantees, which will likely affect more than half the people in the system. In addition, many low-income individuals will not spend the minimum required twenty-five years in the formal labor market, a situation that increases the likelihood of shortfall.

Finally, the authors point out that the system unfairly affects women compared to men. Their average pension would be lower than that for men both because of their lower earnings and greater longevity.

Canada

Robert Brown of the University of Waterloo looked at a series of pension reforms Canada underwent in 1996-97. The Canadian social security system is a three-tier government-sponsored system. The first tier is the Old Age Security (OAS), legislated in 1927. All Canadian citizens and legal residents with forty years of residence after age 18 are eligible for a full pension, with benefits starting at age 65. The second tier is the Guaranteed Income Supplement (GIS), which is part of the OAS. It was introduced in 1966 along with the C/QPP. (Brown noted that the Canada and Quebec pension plans are virtually identical and mostly described them together, noting differences when relevant.) Because there was a ten-year transition period when the C/QPP was introduced before retirees could collect a full benefit, the government added the GIS to the OAS temporarily to cover this transition. This “temporary” measure remains an essential part of the

pension system. Payments are made out of tax revenues, and no contributions are required.

Benefits are nontaxable. Nearly 80% of all single GIS recipients are women. On the third tier is the C/QPP, with full benefits first paid in 1976.

Brown turned to the economic and political reasons leading to the social security reforms in 1996-97, citing the important federal deficit, population aging, and actuarial reasons. From the time the CPP was created in 1966 until the mid-1980s, the CPP built up reserve funds equal to two years' expenditures. By the mid-1980s, however, reserve funds were depleted and actuarial reports predicted that the system would be exhausted by 2016. They also estimated that contribution rates would have to rise to 14.2%. The government at first increased the contribution rate gradually, to 6% by 1997. In 1996, however, the Canadian Institute of Actuaries presented actuarial data suggesting that economic and demographic variables had changed since the system's 1966 implementation and that the PAYGO approach no longer worked.

The government instituted a parametric rather than a structural reform. Changes decreased benefits by about 9.3%, boosted funding, and raised the rate of return earned on reserved fund assets. The reforms did not affect retired CPP pensioners or anyone over 65 as of December 31, 1997, nor anyone already receiving disability, survivor, or combined benefits. Other modifications included a change in the formula used to determine retirement pension and other earnings-related benefits, which went from being based on an average of the YMPE in the last three years to the last five years before calculation. Contribution schedules were altered, resulting in a rapid increase in contributions and an increase in reserve funds. Brown predicted that these extra contributions will create reserve funds equal to five years of expenditures — in other words, the CPP would be 20% funded. Finally, CPP reserve funds were no longer lent to the provincial governments but instead, were invested by an independent agency (the CPPIB) with a mandate to maximize long-term returns without undue risk of loss. The CPPIB is subject

to similar investment rules as other pension funds in the private sector; it can invest in a highly-diversified portfolio with the aim to achieve higher rates of return than under the pre-reform provincial-bond arrangement. By June 2005, the CPP portfolio had grown to \$87 billion, and the CPPIB expects to be managing \$200 billion within 10 years.

Recent actuarial valuations of the CPP, which has operating surpluses, indicate that it is projected to be actuarially sound for another 75 years, which is not the case for the QPP, which may require future contribution increases or benefit decreases to remain viable. In 2004 the administrative expense ratio for the CPP was 1.6% of one year's expenses and 1.2% for the QPP. Brown said that the government provides tax incentives for private savings, as contributions are mostly tax-deductible for both the worker and employer. Investment income accrues tax free but becomes fully taxable at retirement.

Brown said that with the CPP reforms, the Canadian social security system now promises workers an enhanced level of income security while still leaving ample room for individual savings and investments.

Brazil

The pension system in Brazil is very different from those in other Latin American countries, according to Milko Matijascic of Salesian University in São Paulo and Stephen Kay of the Federal Reserve Bank of Atlanta. This is because the pension system was written into the 1988 constitution, which means that revisions involve passing a constitutional amendment that requires a 3/5 majority in the Chamber of Deputies. Second, it is the largest anti-poverty program in the country. Third, Brazil already had a large private pension fund sector before reform, so efforts to restructure the system post-1988 have been parametric, focusing on improving the

efficiency and equity of the state-run public systems. Most recently, reforms have called for defined contributions without the funded accounts seen in the rest of the region.

The federally-controlled social security system, compulsory for all salaried workers and optional for self-employed, consists of the General Social Security Regime (all self-employed, urban, and rural workers in the private sector and in government-owned companies) and the Statutory Social Security Regimes for Civil Servants (federal civil servants). States and municipalities have their own pension systems. In addition, the retirement system includes the so-called “Closed Private Pension Programs” (EFPC) geared toward workers in private-sector firms (and supervised by the Secretary of Supplemental Pensions of the Ministry of Social Security) and “Open Private Pension Programs” (EAPC), which are DC systems open to any workers seeking supplemental retirement savings.

The 1998 constitutional reform under the Cardoso administration introduced the *fator previdenciário*, a measure that calculated benefits through a formula based on age, time of contribution, life expectancy at retirement, and indexation, to account for inflation. Many consider the *fator previdenciário* to be akin to a notional defined contribution (NDC) system, whereby contributions and benefits are strictly linked but contributions do not go into individual funded savings accounts. Other changes included linking benefits to years of contribution, not to years worked; ending early retirement for new workers; setting a minimum age for civil service retirement; making pension benefits contingent upon mathematical reserves; setting a maximum of 50% share by employers in funding the pension funds of the state-owned companies, and introducing guarantees of portability and vesting.

Many considered Cardoso’s reforms insufficient, and in April 2003 the Lula administration began a new reform effort, which sought to reduce differences in the values of pension benefits between public and private sector employees. The government proposed a

constitutional reform for the public employee program that included lowering benefits for civil servants and cutting the early retirement benefit; raising the minimum time of contribution; establishing defined contribution pension funds for new public employees; and creating individual private accounts to cover pensions above the new INSS ceiling. The new rules eliminated the parity between wages of current employees and retirement benefits for new employees, and provided an incentive for public employees to continue working until age 60 since their benefits will be cut before that.

These measures are projected to result in savings of \$19 billion over the next twenty years. Nevertheless, the question of how to finance the pay-as-you-go pensions is difficult to resolve. Rural workers, domestic workers, and informal urban workers represent 50% of the working population and do not contribute. The 1988 constitution set up a mechanism to compensate for difference in workers' capacity to contribute by redistributing funds provided by levies on a broader revenue base. Pensions are thus financed by both payroll taxes, other taxes on earnings, profits, and financial transactions, and general treasury funds.

The authors point out that pension reform in Brazil is an ongoing process and note that the current debate falls into different camps. One side focuses on pension deficits. With revenues below expenditures and an INSS deficit of 1.7% of GDP in 2004 and a 3.6% of GDP deficit for the civil servants system, reforms are urgently needed. The other side focuses on the overall social policy budget, arguing that it should be treated as a whole and that its overall revenue sources, as taxes on payroll, company profits, revenues, and financial transactions should be compared to overall expenses on health, welfare and pension. If all of the designated revenue were taken into account (including the 20% of federal social security budget assigned to other expenditures by the DRU), then the system would actually be in surplus (2.9% of GDP in 2004). Others focus on the poverty-alleviation role of social security in Brazil. The immediate policy

challenges of improving equity and efficiency could be enhanced through improved regulatory and managerial performance. In particular, the authors single out the importance of a crackdown on rampant corruption and irregular benefits. They also express concern over the feasibility of a conventional PAYGO social security system given actuarial disequilibrium.

Selected Topics

Additional papers and presentations examined several topics with broad implications for pension reform. Robert W. Fogel (University of Chicago, The Graduate School of Business, and the National Bureau of Economic Research) focused the discussion on interdependent economic and demographic trends that began in the eighteenth century and continue on a global level with accelerating force. The Nobel Prize-winner pointed to the period between 1800 and 1950 as one of remarkable progress, when the largely agricultural countries of North America and Western Europe became the urbanized, economic forces that they are today, largely because of improvements in nutrition. He attributed half the English growth rate in per capita income between 1790 and 1980 to improvements in nutrition and human physiology.

Global economic growth will continue, he said, particularly in East and South Asia, where the rate of growth has been three or four times that of the long-term rates of Europe and America. He predicted that these countries will overtake the western nations by 2020. China and India, which together have 40% of the world's population, are heavily investing in the education of their populations relative to the western countries. Between 1998 and 2003 in China, the number of college students rose from 3.4 to 9 million. Two other factors are contributing to their high rate of growth: large shares of their labor forces are currently in the low-producing agricultural sector, meaning there is huge potential for growth when labor shifts into sectors with higher value per worker. In addition, these countries are not now at the "global frontier" of

technology so need only adapt existing, rather than develop, global technology to their specific conditions to raise labor productivity.

The rate of growth of the rich nations, which has been about 3.3% a year in GDP, will actually increase because of accelerating technological change — which has resulted in the phenomenon that Fogel referred to as “technophysio” development, whereby a synergy between physiology and technology has influenced human biology in a way that is not genetic but has been “rapid, culturally transmitted, and not necessarily stable.” Because of technophysio evolution, humans have increased their body size by over 50% and their longevity by over 100% over the past three centuries. He cited one demographer who argues that college students today have an even chance of living to a hundred. In addition, he predicted that with current global resources humans will continue to invest in health improvements. Based on past economic growth rates, the share of GDP “expended on healthcare could double (to 30% in the U.S.) by 2035. Chronic conditions and disabilities will continue to decline. These trends in economic growth and physiological improvements give him great hope for the “future health of the young generation.”

The general demographic changes that Fogel addressed affect industrialized and developing countries alike, in the Americas and beyond, and makes it clear that the boon of greater longevity also brings with it risks. As legislators and policymakers engage in pension reform, they must incorporate contingency plans that allow for change, including revising mortality tables, pushing back the retirement age, and insuring that benefits are adequately financed.

The discussion turned to studies examining the influence of default choices on behavior, given three tendencies of human nature: procrastination based on the complexity of the decision-making task, procrastination generated by present-based preferences, and a perception of the

default as an endorsement. John Beshears (Harvard University), James J. Choi (Yale University), David Laibson (Harvard University and NBER), and Brigitte C. Madrian (University of Pennsylvania and NBER) provide evidence refuting the standard economic theory that suggests that if transaction costs are small then defaults should not matter, propose some rationales for these effects on decision making, and consider the role of public policy towards retirement saving when defaults matter.

One issue pertinent to default choices is that savings outcomes must be determined when workers make no active decision. The authors found that with automatic enrollment, participation rates are much higher than with opt-in enrollment patterns, and employees in the default auto-enrollment plans tended not to change the default contribution rate or asset allocation at which they were automatically enrolled. Other important defaults Madrian discussed pertained to defined contribution (DC) savings when U.S. employees change jobs and to annuities. For example, over two-thirds of employees with savings under \$5,000, compared to about one-third of those with larger balances, receive a cash payout when they change employers — the employer default — and most often they spend this money rather than roll it over into another savings plan. “Elective defaults” are also of interest, such as a “contribution rate escalator” offered by some employers whereby participants choose a built-in savings rate increase. Other companies they looked at offered the elective default “Quick Enrollment” (QE), which enabled employees to enroll at a pre-selected contribution rate and asset allocation and thereby simplified the complex decision of asset allocation. As in automatic enrollment, however, QE induced a cluster of enrollees at the default contribution rate and asset allocation.

In general, DC savings plans require employees to make complex decisions. An employee first has to decide the percentage of pay to contribute and then must select from an array of fund options, which, depending on employer offerings, can lead to a multitude of

options. Psychology literature has documented the tendency of individuals to put off making decisions as the complexity of the task increases — or procrastination based on the complexity of the decision-making task. In addition, surveys have found that many people are not equipped to make complicated financial decisions. Automatic enrollment and QE increase savings plan participation because they simplify decision making. On the other hand, the authors note that because participation increases are much greater under automatic enrollment than under QE, more is involved than just simplification of the task.

Furthermore, the lack of financial sophistication on the part of many individuals can lead them to search for advice without knowing where to find it. As a result, employees may view the employer default as an employer endorsement, which would also significantly affect savings outcomes. For example, in companies that began automatic enrollment for new hires, existing employees who enrolled after automatic enrollment had three times more assets allocated to the default investment fund than employees who enrolled before automatic enrollment.

Public policy itself can significantly affect savings outcomes, the authors found, and that policy makers should consider all issues. The public social security system in Sweden, for example, has selected a default asset allocation that actually performs better than those of individuals who have selected their own. This and other evidence points to the clear need to think more carefully about the potential role of more nuanced defaults that apply only to some individuals in certain situations. Public policy could prohibit employer matches in employer stock, for example, because of the lack of diversification and double risk to the employee — risks that many employees do not understand. The authors conclude that defaults are very powerful on realized savings outcomes at every stage of the savings lifecycle: savings plan participation, contributions, asset allocation, rollovers, and decumulation. That defaults can so easily sway such a significant economic outcome has important implications both for

understanding the psychology of economic decision making and for the role of public policy toward savings. Defaults are not neutral, as they can facilitate or hinder better savings outcomes.

Further research on the limitations of human behavior and how these result in retirement saving pitfalls was the focus of work by Kurt Weyland of the University of Texas. He explored how decision makers in Latin America used bounded rationality rather than fully systematic information processing when evaluating pension reform in their countries. To that extent, he expressed concern that some nations may have followed Chile's example too closely. Specifically, some reforming countries fell back on the three principle shortcuts of bounded rationalism documented by cognitive psychologists: availability, representativeness, and anchoring.

By "availability" he means that memory recall and attention is shaped by vivid, drastic, and striking information. For instance, Chile's model of radical pension privatization captured the attention of decision makers in Latin America in its boldness, squeezing out other sources of relevant information such as the notional defined contribution scheme developed in Europe. Consequently, Latin America's pension reform debate during the 1990s tended to dwell on the pros and cons of Chile.

"Representativeness" induces people to base judgments on logically irrelevant similarities, overestimating the significance of patterns that appear in small samples and mistaking short-term trends as proof of structural tendencies. Bounded rationalists also resort to associative reasoning and attribute the characteristics of parts to wholes and vice versa, thus seeing the components of successful systems as inherently good. Weyland argued that some Latin American decision makers may have inferred from the initially stellar returns earned by Chile's pension system that the new model was inherently superior to the old pay-as-you-go system. As a result, they may have held social security privatization responsible for the rise in

domestic savings and investment in Chile, which fueled sustained growth from 1985 onward. Finally “anchoring” induces people to base their judgments on any given clue, even a logically arbitrary hint. Even when they adjust their opinions with additional information and experience, they diverge from this accidental starting point much less than full rationality would require. Accordingly, pension reformers in many Latin American countries may have followed the Chilean model more closely than they should have. While political considerations and pressures in later stages of the decision making process led to more or less profound changes in several nations, these modifications mostly affected the administration or range of applicability of pension privatization rather than reshaping the core of the new scheme. Since bounded rational decision makers shy away from a thorough restructuring, the new social security systems of many Latin American countries retain great similarities to the Chilean original.

Because they were less developed than their neighbors and had limited domestic expertise, Weyland believes that several countries, Bolivia, El Salvador, and Peru, in particular, followed the Chilean model even when doing so may have not been reasonable given their particular circumstances. That is, the decision makers conducted few systematic and balanced cost-benefit analyses, and instead preferred imitation over innovation and redesign.

Gender is an understudied issue in pension reform debate with significant implications, particularly in multi-pillar systems, where the tight link between payroll contributions and benefits in the DC pillar, which results in lower pensions for women, is pitted against the supposed mitigating effects of the DB pillar. Estelle James, consultant, formerly of the World Bank, discussed a research project she conducted with Alejandra Cox Edwards and Rebeca Wong that investigated the effects on gender of the reformed pensions systems in Chile, Mexico, and Argentina. The authors conclude that the gender ratio in these new systems would improve because of the reforms and that low-earning married women (and single men) would receive the

greatest relative gains. In general, although women's own-annuities are lower than those of men in multi-pillar pension schemes, they are recipients of net public transfers and private intra-household transfers through joint pensions that bring them greater gain under the reforms than men.

Under the reformed systems, women with average employment experience receive own-annuities that are only 20 to 50% of those of men with similar education. Their lower own-annuities are tied both to labor market and demographic differences between women and men. Traditionally, women have less continuous employment than men and do not earn as much over time. Thus, the reformed systems, which link benefits to earnings or contributions, are likely to cover a smaller percentage of women and to produce lower benefits for them. In addition, women are more likely to grow very old, by which time they have used up any voluntary savings and so are more likely to live in poverty. They are also more likely to become widows.

The gender ratio would be narrowed substantially, the authors say, if women were to delay retiring until age 65. (The retirement age for women in Chile and Argentina is 60 years; in Mexico, 65 years.) They would collect interest for five more years and their annuities would cover five fewer years — and their monthly pensions would increase by almost 50%. If women worked and contributed during this period, the savings would be even more beneficial. The equal retirement ages for men and women in Mexico is the main reason why the female/male ratio of annuities is projected to be higher than in Argentina and similar to that in Chile, despite the relatively lower wages and work histories of Mexican women.

Income from the public benefit — the minimum pension guarantee in Chile, the social quota in Mexico, the flat benefit and widow's flat in Argentina — and joint annuities are mitigating factors. Public benefits are all targeted to low earners, a majority of whom are women.

Furthermore, husbands are required to provide joint annuities, which favor women. In Chile and Mexico, the widow gets 60% of the husband's annuity amount; in Argentina, 70%.

Altogether, the total lifetime pension from own-annuity, public benefit, and joint annuity brings the present value of lifetime benefits for women much closer to that of men, according to the authors.

Michelle Dion, assistant professor at the Sam Nunn School of International Affairs at the Georgia Institute of Technology in Atlanta, elaborated on some of the points made by James and proposed some alternative interpretations and solutions to gender inequities. While she agreed that women have made significant gains in lifetime benefits under the reformed systems and that raising the retirement ages in Chile and Argentina would reduce gender discrepancies, taking the gender equity perspective makes it necessary to interpret the findings more cautiously. The new systems actually compound labor market inequities and such policy changes as raising women's retirement age in Argentina and Chile might not be effective. Even if women were to work five years longer, the average married women's replacement rates would still be less than 50%.

In addition, women do not disproportionately benefit from transfers. In Mexico, for example, the social quota (a government-paid benefit) only favors women by a very slight margin. Furthermore, most women do not contribute enough to earn these public transfers. World Bank data show that in Argentina, for example, women with university degrees must meet the thirty-year requirement to get the flat benefit, which means that the transfers do not actually materialize for most women. Incentives do exist for women to work longer, especially in Mexico, which would qualify them for the minimum pension guarantees. On the other hand, she said, evidence from the Chilean Social Protection Survey suggests that people overestimate their

contribution rate, so incentives would have to be very strong to encourage women to stay in the labor market long enough to earn the minimum pension.

Intra-family transfers do not favor women. In fact, the reforms have made it harder for women to claim partner benefits because they require documentation, which many Latin American women do not have given the large number of common law marriages. The burden of providing evidence of cohabitating for a certain amount of time disproportionately affects low-income women. From a sociological perspective, a reliance on intra-family transfers erodes women social citizenship rights and reinforces a male breadwinner bias that undermines women's independence. Finally, relying on intra-family transfers may create a potential strain on the welfare of the extended families that support women in old age. In Mexico, for example, a large percentage of elderly women get most of their old age support from their extended family. Trade-offs are being made in terms of investment in human capital for younger members of the family.

Dion concluded that alternate reforms could be more appropriate and would help resolve some of the gender disparities. These reforms could address wage inequalities between men and women, invest in women's human capital, and support women's workforce participation.

Looking Back at the World Bank's Role in Pension Reform in Latin America

During the round table discussion, three principal authors of influential World Bank reports on pension reform — Robert Holzmann, Estelle James, and Truman Packard — discussed the primary achievements and challenges of pension reform in the region. James began the discussion by reviewing what she felt were some areas of misunderstanding surrounding the World Bank publication for which she was principal author: *Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth* (1994, Oxford: Oxford University Press). Her

message was that old age security plans should have both a mandatory savings component aimed at wage-replacement, usually privately-managed, funded, and defined contribution (DC); and a tax-financed pay-as-you-go (PAYGO) component, publicly managed, with a redistributive and poverty prevention objective. She argued that this dual structure permits the system to better manage the two objectives of old age programs — mandatory saving to solve the problem of myopia, which impedes consumption-smoothing, and redistribution to solve the poverty problem of lifetime low earners. A funded plan is an appropriate way to handle retirement saving. It avoids the sharp increase in contributions or drop in benefits that would be needed over time as populations age. Private management is the best way to invest the funds because it minimizes potential political manipulation and misallocation of capital that usually occur with public management. The public part of the multi-pillar system would then concentrate on redistribution and providing a safety net — which only governments can do.

Beyond these principles, that book did not prescribe specific steps to achieve this balance. She noted: “We have been accused of saying every country should imitate Chile,” which she believed is inaccurate. She also discussed some of the implementation issues of these mixed pensions systems, issues that have become clearer since the book was published. She listed partial coverage and low density of contributions, high administrative costs, questions about policy during the payout stage, and transition costs.

With respect to low coverage, James said that *Averting* shows a close correlation between coverage rate and a country’s stage of development. It is difficult to enforce contributions on the self-employed, small firms, household production and agriculture, which dominate in low- and middle-income countries. The capacity of a country to mandate contributions and enforce the mandate improves as development increases, which is why coverage in contributory schemes is a problem in low- and middle-income countries. She said that if coverage is a priority, pensions

must be financed out of general revenues, and the method of accomplishing universal coverage needs more detailed exploration. Means testing, presumably because only a small portion of the population will qualify, results in a relatively cheap, affordable program but carries certain disincentives, including mistargeting the poor, discouraging work and saving, opening avenues for corruption, and incurring high transaction costs. A flat (uniform) benefit based on residence and age avoids some of these problems but costs more.

James next addressed the implementation issue of administrative fees, often perceived as a serious impediment to the success of private plans. At first, these fees are very high due to startup costs, fixed costs of each account, and the costs of putting an IT system in place, implementing the collection and record keeping system, and conducting marketing. However, she pointed out that if one views these costs as a percentage of assets, the numbers decrease dramatically as account size increases, because they are largely fixed in nature. In Chile, currently, these costs are under 1% of assets, which is considerably less than the average mutual fund in the U.S. However, she said that a mandatory scheme, with many people forced to contribute, should be able to do even better and pointed to the extremely high rate of return on equity (ROE) for AFP owners, which ranges between 20 and 60% a year in most Latin American countries. For a mandatory scheme, James said, fees of 1% per year or more are unacceptable, after the start-up phase has passed. Fees could be reduced by using the institutional market rather than retail market. In the institutional market, large investors use cost-reducing measures such as choosing, based on a competitive bidding process, a small number of asset managers with low charges to manage substantial amounts of money. In countries that have used this approach, costs have been much lower. Examples are the Thrift-Savings Plan for civil service workers in the U.S., the international competitive bidding process used in Bolivia and Kosovo, and employer-sponsored (large group) plans in several of the developed countries. Separating the record-

keeping from the investment function and emphasizing passive management facilitates this process.

In a follow-on study, authors Indermit S. Gill, Truman Packard, and Juan Yermo further developed some of these policy message (*Keeping the Promise of Social Security in Latin America* 2005. Washington, D.C.: The International Bank for Reconstruction and Development). But Packard also argued that “how we got to those conclusions is very different and important.” He argued that the new study had a novel conceptual micro-economic framework of savings and insurance, which led those authors to conclude that individual savings are an effective way to achieve consumption-smoothing. He also contended that risk pooling is the most appropriate instrument to cover the risk of poverty among the elderly. Packard emphasized that the real issue is, specifically, defined-benefit (DB) risk-pooling versus defined contribution (DC) individualization (or individual savings). He also claimed that their model gave them guidance regarding how much weight should be assigned to the different pillars. For instance, weights must be assigned to the risk-pooling component versus the savings component of the new multi-pillar systems, in ways that make sense given country circumstances.

Packard also focused on pension coverage, arguing against mandates for saving and relying instead on people’s rationality. While his study did not advocate a full repeal of saving mandates, they believe that mandates should be scrutinized. This is because a mandate may actually dissuade people from participating in the system, and because the mandated private system is managed by a financial sector where poor regulation is in place leading to the cost and competition problems many countries are currently experiencing.

Robert Holzmann further elaborated on crucial issues in a discussion tied to a new volume which he co-edited (*Pension Reform: Issues and Prospects for Non-Financial Defined Contributions (NDC) Schemes* Robert Holzmann and Robert Palmer, eds. 2005. Washington,

D.C.: The International Bank for Reconstruction and Development/The World Bank). His book was again focused on risk management but via a different route. To this end, his volume proposes the addition of a fourth pillar, incorporating the access of individuals to health, housing, and family. It also recognizes the need to clearly identify key target groups — such as the formal sector, the informal sector, lifetime poor, non-poor, and so forth — and to link these groups to the type of risk management, or pillar, that would work for them. Finally, it encourages a progression toward change in the system rather than a leap; for example, moving from an unfunded system to a capable financial market system then to a funded system. Holzmann also noted that each country must define its own objectives before identifying the means to achieve them, which means that no one system will sit all countries.

He also proposed a middle ground between public and private, funded or unfunded; that is, what is now known as a notional defined contribution system, or NDC. The NDC has the “analytical niceties and incentives” of the private system but in an unfunded method. NDCs may not solve all countries’ problems but allows many countries with a lot of liabilities and no payback capacity to move ahead. NDCs can also benefit some developing or middle-income countries. In further discussion, James emphasized the importance of a precise understanding of NDCs, especially with regard to funding versus nonfunding. Though an NDC plan can give the labor market the advantages of a DC plan without creating the transition costs, she said, it remains pay-as-you-go. The NDC still requires higher contribution rates or lower benefit rates as the dependency rate increases.² The NDC also does not afford the potential increase of national saving and financial market development inherent in a funded private pillar, nor does it offer redistribution or poverty prevention as does the public pillar recommended in *Averting*. Instead, other arrangements (such as Sweden’s minimum pension) are needed for this purpose. The NDC

is mainly useful in countries with large pension debts that are not able to manage the transition to a large funded pillar.

Holzmann contended that the NDC is effective but needs a balancing mechanism, which is provided by interest rate. He said also that funding does not help with regard to demography and likely does not increase the saving rate, but that it does help with regard to development of a financial sector — and mandates to achieve this are not necessary. James said that the issue of whether funding increases the saving rate is closely related to the issue of transition costs. If the government finances the costs of transition to pre-funding through increasing public debt, then more private saving and more public “dis-saving” result, and there is no impact on net national saving. On the other hand, if transition costs are covered in some other way — for example, with more taxes, less government spending, or reduced benefits — the build-up of private accounts will increase national saving. Chile achieved this by building a fiscal surplus to finance the transition but some other countries did not because their transition was largely debt financed. Holzmann agreed in theory with these observations but said it is possible to increase savings without moving to a funded system.

Stepping Back: The Future of Retirement Systems in the Americas

Perspectives on pension and social security reform around the Americas were offered by Olivia S. Mitchell of the University of Pennsylvania, who emphasized the importance of precision in both terminology and thinking concerning social security systems. This is critical, as this concept of social security itself is extremely variable. In some countries, for example, social security is simply old-age security; others include unemployment and severance pay; still others include disability and survivor benefits, all with enormously varying costs. In addition, terms such as “replacement rates” and “transition costs” can be highly changeable. Replacement rates,

for example, sometimes means that benefits are price-indexed, sometimes that they are wage-indexed. Again, the difference can mean a huge difference in the costs of the system. When Mitchell served on the President's Commission to Strengthen Social Security in the U.S., that commission proposed bringing the national system into balance by price- rather than wage-indexing the benefit accrual path. Doing so would enhance the system's solvency, ensure that no benefits would fall in purchasing power, and provide money to raise benefits for low-wage workers and poor widows, without cutting benefits.

Another lesson Mitchell discussed was that old-age system reform must be properly conceived as a process, rather than a one-shot change. Indeed, the process is never over. For example, the adoption of individual accounts programs by many Latin American nations has tended to dwell on the accumulation phase, and only now is more attention being devoted to key infrastructural elements required to support the new system. These often include tax reform, healthcare reform, labor legislation overhaul, and capital market reform. She underscored that the challenge is to develop a trajectory for a pension reform and then keep on a steady path, remarking that "after all, we are asking participants to make decisions about working, saving, and investing that will affect their financial wellbeing 60 or 80 years into the future." She said it is important to be stable and yet remain flexible, because sometimes policies, such as early retirement for women, can be shortsighted and should be changed.

Among Mitchell's suggestions for the future were to make retirement saving easier and more automatic; create more country-specific debate on how much can be afforded for minimum benefits; increase research on the capital market to make pension offerings more cost-effective; and build more microeconomic data, as the *Encuesta Previsión Social* did in Chile, the Health and Retirement Study in the U.S., and Mexico's Health and Aging Study.

Conclusion

There is no single roadmap, no “one size fits all,” when it comes to pension reform. The papers presented in the conference “Lessons from Pension Reform,” describing a whole spectrum of experiences in the Americas, made this reality very clear. Defined-contribution savings accounts, high on the pension reform agenda since the 1990s, have been adopted by many of the countries examined here. Beyond the issue of individual accounts, the policy makers and legislators have grappled in different ways with a host of other complex policy issues related to pensions. We see a range of variation in the role of the state, the provision of minimum pensions, overall coverage, regulation, investment rules, and benefit guarantees. The experiences described in this conference give us a rich source of learning material with respect to the implementation and consequences of these reforms.

One clear lesson this conference has offered is that specific administrative details matter and can have significant long-term distributional outcomes. Beshears, Choi, Laibson, and Madrian demonstrated how decisions made on a national or corporate level can significantly affect an individual’s action (or lack of action) in planning his or her retirement. Sinha and de los Angeles Yañez showed how the Mexican government’s decision to allocate workers to AFOREs based on cost assumptions has serious implications not only for the individuals placed in these AFOREs, who are not paying the lowest fees, but also for the overall system in terms of its cost. James, Edwards, and Wong revealed the systematic impact of mixed-pillar systems with respect to gender, an understudied area subject to much debate.

The critical role of financial education is another valuable lesson. The presentation on Chile’s Social Protection Survey, described by de Mesa, Bravo, Behrman, Mitchell, and Todd, teaches us that on an individual level a lack of basic education and understanding of how the

pension system works can add costs to the system, which is true for industrialized and developing countries alike.

Finally, politics can make or break the reform. Pensions are always subject to politically motivated reform, as shown in Carranza and Morón's discussion of the volatility of the Peruvian government and the constant threat to roll back the pension reform. Similar dynamics are at play in other countries, like Uruguay. Matijascic and Kay commented on the particular political challenges of reform when the pension system is codified in the constitution and reforms can require a constitutional amendment, as is the case in Brazil. In general, changing political realities in Latin America raise questions with respect to how new governments might continue, stall, or roll back reforms.

This uncertainty about staying the course with respect to pension reform, as Mitchell pointed out, is not good for the long-term health of these systems that are expected to deliver benefits far into the future. Some countries, like Brazil and Costa Rica, took a very slow and gradual approach. However, even countries that implemented reforms more rapidly, like Uruguay, Argentina, and Peru, are continually assessing the need to make additional changes. While the pace may vary, reform in the region is an iterative and ongoing process, and a clear commitment to the reform path is fundamental for the long-term success of the region's pension systems.

References

- Alberto Arenas de Mesa, Jere R. Behrman, Olivia S. Mitchell, and Petra E. Todd. “The Chilean Pension Reform Turns 25: Lessons from the Social Protection Survey.”
- Robert L. Brown. “Reforms to Canadian Social Security, 1996/97.”
- John Beshears, James J. Choi, David Laibson, and Brigitte C. Madrian. “The Importance of Default Options for Retirement Saving Outcomes: Evidence from the United States.”
- Michelle Dion, Comments on Estelle James, Alejandra Cox Edwards, and Rebeca Wong. “The Gender Impact of Social Security Reform in Latin America.”
- Robert W. Fogel. “Toward an Era of Longevity and Wealth.”
- Juliana Martínez Franzoni. “The Costa Rica Reform.”
- Estelle James, Alejandra Cox Edwards, and Rebeca Wong. “The Gender Impact of Social Security Reform in Latin America.”
- Milko Matijascic and Stephen Kay. “Pensions in Brazil and the Limits of Parametric Reform in Latin America”
- Olivia S. Mitchell. “The Future of Retirement Systems in the Americas.”
- Eduardo Morón and Eliana Carranza. “The Peruvian Pension Reform: Ailing or Failing?”
- Rafael Rofman. “The Pension System in Argentina.”
- Rodolfo Saldain. “Uruguay: A Mixed Reform.”
- Tapen Sinha and Maria de los Angeles Yañez. “A Decade of Government Mandated Privately Run Pension in Mexico: What Have We Learned?”

Endnotes

¹ The first wave of the EPS was fielded from April to December 2002 and collected data from approximately 17,246 individuals, from a frame of about 8.1 million, who were working, unemployed, out of the labor force, receiving pensions, or deceased. These individuals were affiliated with the old or the new system for at least one month during the period between 1981 and 2001. The second wave of EPS, in 2004, included not only those from the first survey but also two new subsamples (individuals not affiliated with the social security system and new entrants into the AFP system between 2002 and 2004), which Bravo said made survey results representative of the entire Chilean population. The EPS asked respondents for socio-demographic information and current labor market data for each member of the household, detailed information about receipt of pensions and types of pension plan participation, and retrospective labor market history going back to 1980. The results were merged with monthly social security records available since 1981 as well as with administrative records on pension contributions and earnings in both the PAYGO and AFP systems since 1980; data on the amounts of recognition bonds (RBs); monthly data on account changes in individual investment accounts, and switches between AFPs; AFP commissions charged; and investment returns earned on all accounts in AFP system.

² In an NDC the annuity rate adjusts downward to keep the system financially sustainable as longevity increases, but there is no automatic adjustment process if the dependency rate rises due to falling fertility or labor force participation. Sweden deals with this problem by reducing benefits via a “brake” but this is not an inherent part of the NDC. In a funded plan reduced fertility does not require lower benefits since the funds in the account can support the same replacement rate regardless of how many younger workers are around to pay the payroll tax.