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ABSTRACT

The primary goal of this study is to cast light on what might happen were the United States to partially privatize its Social Security system. The analysis draws on evidence from four Latin American countries that have privatized their public pension schemes (Chile, Mexico, Bolivia, and El Salvador) and four that have partially privatized (Argentina, Uruguay, Colombia, and Peru). In Latin America privatization tends to have positive economic effects. It contributes to the development of financial institutions and to an increase in investment capital. There is less consensus, but at least some evidence suggesting that it may increase the national savings rate and economic growth. However, privatization also leads to higher administrative costs as well as an increase in both income and gender inequality. In addition, there is a risk that many low-wage workers and particularly women will end up worse off with defined contribution than with defined benefit schemes.

Key words: social security, women, distributional, inequality

PRIVATIZING PUBLIC PENSION SYSTEMS: LESSONS FOR THE UNITED STATES FROM LATIN AMERICA

For the past several years, international social welfare policy experts have spent a great deal of time discussing the relative merits of the privatization or partial privatization of public pension schemes. In recent years we have begun to see efforts to address this issue based on evidence concerning pension reforms in various OECD countries (Myles & Pierson, in press; Weaver, 1998; Myles & Quadagno, 1997). Of particular note are studies that have focused on the United Kingdom (Liu, 1999; Thompson, 1999) and Sweden (Súnden, 1998; Palmer, in press), two nations that have recently taken steps to privatize their public pension systems. However, in the recent debate over the proposed partial privatization of Social Security in the United States, much more attention has been given to reforms that have been introduced in Chile and other Latin American countries than to those in OECD countries. Until the United Kingdom and Sweden have had more experience with individual accounts, it is likely that this trend will continue.

Until the 1990s, Chile was the only Latin American country that had privatized its public pension system, but during the decade of the 1990s seven other Latin American nations fully or partially privatized their public pension schemes. Latin America now provides several models of full privatization and several models of partial privatization. Over the next few decades these countries will provide a wealth of information about both the short and long-term consequences of privatization.

Since the mid-1990s there has been a great deal of discussion in the United States about a variety of different proposals designed to partially privatize the Social Security system. Some have been critical of such proposals (Baker, 1997; Ball, 1997; Williamson, 1997), but the emphasis has been on the potential advantages to the government (such as reducing the public burden of providing for the retirement of the baby boomers and the generations that follow the boomers) and to workers in the aggregate (Beard, 1996; Bipartisan Commission on Entitlement and Tax Reform, 1995; Kotlikoff, 1992). There has been relatively little attention to the risks and potential problems associated with privatization. With a few noteworthy exceptions (e.g., Schulz, Roseman & Rix, in press), there has been little attention to the possible distributional consequences of privatization, the differential risks and benefits for different population subgroups, particularly those defined by gender, race, and income.

When major changes are being considered in a program that impacts the lives of as many Americans as does the Social Security system, it behooves us to find out as much as we possibly can about what is likely to happen or what might happen before making such changes. There are a number of ways in which relevant information can be obtained; each alternative has its strengths and its limitations. One approach, and the approach considered here, is to look at what has happened in other countries that have had some experience with these policies. Efforts to generalize to the United States from such evidence must be carried out with considerable caution due to the many differences between these countries and the United States. While it would be a mistake to assume that reforms related to privatization in other nations would have basically the same consequences in the United States as in those nations, it would also be short-sighted not to at least take a close look at what has happened in those nations. When attempting to generalize from the experience of other nations to the United States, it is important to take into consideration differences in program history (such as whether the nation has had a long history of wage-related public pensions), differences in cultural values (such as the strength of the commitment to individual responsibility and self-help or those that undergird the status of women), and structural differences (such as degree of democracy or the strength of interest groups that have reason to oppose proposed reforms).

The major objective of this article is to say something about what might happen were the United States to partially privatize its Social Security system based on the experience of several Latin American nations. In this context particular attention will be given to the Chilean case as it is the country with the longest experience (almost twenty years) with funded individual retirement savings accounts.

Any transition from an existing defined benefit public pension system (e.g., the current Social Security system in the United States) to an alternative based on the defined contribution approach (e.g., 401 (k) plans in the United States) will involve substantial transitional costs. There is a risk that one generation will in effect end up paying for the retirement of its parental generation while at the same time setting aside savings to pay for its own retirement. For this reason it is important to raise questions about which population subgroups are bearing the brunt of these transition costs. It is also important to consider the distributional consequences of privatization more generally.

In the next section, the focus is on policy lessons for the United States derived from the Chilean experience. The following section extends that discussion to include evidence from seven other Latin American countries. In the final (discussion) section, the implications of contextual issues are explored, particularly those linked to historical, structural, and cultural differences between these nations and the United States. Throughout the article, major conclusions are presented in the form of generalizations or lessons for the United States based on the experience of one or more of these countries. Some of these lessons constitute arguments in support of partial privatization; others point to potential problems. Given the highly political nature of the debate over privatization, some of these generalizations will be strongly contested by advocates of privatization and others will be equally strongly contested by critics of privatization.

LESSONS FROM CHILE

In 1981 Chile became the first nation in the world to shift from a public pay-as-you-go (PAYGO) defined benefit pension system to a privatized defined contribution alternative based on individual accounts. Chile is particularly important to the present analysis as it is the nation with the longest experience with defined contribution individual accounts. It is also valuable as a case study of a nation making the transition from a PAYGO public defined-benefit system to a privatized system based on individual accounts.

In 1924 Chile became the first nation in Latin America to introduce a national public pension system. During the early years, the scheme covered only a fraction of the population and only a few occupational categories. Over the years, the proportion of workers included increased, and by the early 1970s the program covered approximately three-quarters of the population (Mujica & Larrañaga, 1992). However, by the mid-1970s the Chilean scheme could no longer function without huge subsidies out of general government revenues (Edwards, 1998). Due to a number of factors, the system was not generating payroll tax revenues that were adequate to cover pension obligations even with payroll tax rates as high as 25 percent. Despite massive government subsidy, 70 percent of retirees were receiving benefits at a level below the official minimum old age pension (Graham, 1998, p. 47). The pension scheme was supposed to replace 70 percent of a manual worker's final wage, but by the late 1970s the replacement rate was closer to 20 percent (Simone, 1983). There were also serious problem of non-compliance due in part to very high payroll tax rates (Kay, 1997c).

The privatization of the pension system in 1981 was part of a more general effort by General Augusto Pinochet to marketize the Chilean economy (Williamson & Hochman, 1995). The authoritarian Pinochet regime was able to impose this policy shift despite opposition from a number of groups, including public sector workers, teachers, health workers, academic experts, and union members (Kay, 1996; Edwards, 1998, p. 39; Piñera, 1992, pp. 23-30). Given the number of people affected, the amount of opposition was quite limited. Among the general public, opposition was not great in part because the scheme it was replacing was performing so poorly; it was paying the minimum pension to approximately 93 percent of pensioners. Another reason was that for the first year or so only new workers were required to enroll in the new scheme. Those already covered by the old PAYGO scheme were not required to shift. Many older workers did remain with the old scheme and even today approximately 5 percent of workers are still covered under the old scheme (Piñera, 1999, p. 15). Yet another reason the shift was not strongly opposed is that workers were given strong economic incentives to shift to the new scheme. Those who did shift were given an 18 percent wage increase. They were also given a “recognition bond” to compensate them for contributions already made to the old PAYGO system (Kritzer, 1996).

The privatized scheme in Chile is mandatory for all new employees, but optional for the self-employed. Each worker contributes 10 percent of his or her wage (up to a specified ceiling) into one of 8 (this is down from 22 in 1994) approved pension funds (called AFPs). These are privately managed funds that compete with one another to attract enrollees (called "affiliates"). Over and above this 10 percent contribution there is an additional fee that varies from one fund to another, but averages about 3 percent, to pay for disability and survivor's insurance as well as to pay for the cost of administering the funds, marketing costs, and profit (Queisser, 1999, p. 8). The fund management industry is highly regulated by the government. For example, the state sets limits with respect to the maximum proportion of assets that can be invested in each of seven asset categories such as stocks, bonds, foreign equities, etc. If the return for a fund falls more than 2 percent below the average for all pension funds, it is required to make up the difference out of its own asset reserves (Queisser, 1998, p. 77). To protect covered workers, the corporate finances of the AFP are kept separate from those of the pension fund assets it administers. If the AFP goes under, the government steps in and finds another manager for the pension fund assets. Workers who are dissatisfied with the investment results of one AFP can shift to another AFP.

After contributing for twenty years or more, the worker uses the accumulated assets to purchase an annuity. If the resulting annuity would fall below the minimum pension, the worker is awarded a minimum pension. For the first few years, the benefits are paid for using funds in the account; after those funds have been depleted, the government picks up the cost of the minimum pension. As Chile is a small nation (15 million people), a nation with less well-developed financial institutions, a nation with a much lower standard of living, and a nation with a very different cultural background, it is important to be very cautious when attempting to make judgments as to how the Chilean experience can best be used to inform the current debate over Social Security reform in the United States. However, it is also the one nation in the world that has extensive experience with the process of shifting from a defined benefit scheme to a scheme based on privatized individual accounts.

The Chilean scheme is generally described as a fully-privatized scheme despite extensive government involvement. The government is responsible for regulating the AFPs so as to protect workers from fraud and risky investment strategies; it is responsible for guaranteeing a minimum pension to low-wage workers who have contributed for 20 years or more; it pays for the recognition bonds; and it pays for the pensions of those who retired under the former system. The term “fully-privatized” refers to the decision to require all new workers to shift to the new defined contribution individual accounts scheme.

Over the long run, rates of return for assets held in individual retirement savings accounts are likely to be high relative to the "imputed" returns on contributions to the typical PAYGO defined benefit public pension schemes. The rate of return for contributions made in connection with a public PAYGO defined benefit scheme is typically determined by the rate of increase of wages in the country. This rate is typically much below the rate of return on capital assets. In Chile, between 1981 and the end of 1998 the average real rate of return for AFP investments was 11 percent

(Piñera, 1999, p. 13). If we take into consideration the payroll tax of approximately 3 percent that goes to cover administrative expenses, the average return turns out to be much lower (James, 1997), closer to 7.4 percent (Kay, 1997b). It is also of note that the very high returns during the early years were due in large part to investments in government bonds that paid high (double digit) interest rates; a relatively small share of these pension assets were allocated to common stock (Kritzer, 1996, p. 49). In recent years, at retirement the pension has replaced approximately 78 percent of a typical worker's income averaged over the ten years just prior to retirement (Piñera, 1999, p. 15). While the 18-year-average return has been high, the real (inflation-adjusted) return on assets held in Chile's AFPs has been much lower in recent years; for example, for the years between 1995 and 1998 it was: -2.5%, 3.5%, 4.7%, and -1.1% respectively (Piñera, 1999, p. 14). According to some analysts it is reasonable to expect that future inflation-adjusted returns will average between 2 and 5 percent per year (Kay, 1997c; Gillion & Bonilla, 1992).

Privatization is likely to have positive effects on the economy. In Chile, pension reform has definitely had a positive impact on the development of capital markets (Arenas de Mesa & Bertranou, 1997). By 1995, the funds held by the AFPs had increased to 40 percent of the GDP and clearly had made a major contribution to the development of Chilean capital markets (Queisser, 1999, p. 18). There is also much agreement that privatization has contributed to the development of financial institutions in Chile. Not only did it increase the funds available for investment, it led to increased disclosure requirements for public companies, the development of risk classification agencies for bonds, improved bank supervision, new securities and corporation laws, and other such changes associated with modern financial institutions (World Bank, 1994, p. 213). These benefits with respect to the development of financial institutions are much more likely to be repeated in other nations at a comparable level of economic development than in the United States and other OECD nations that already have well-developed financial institutions.

Some experts argue that privatization has definitely increased the savings rate (Edwards, 1998, p. 52); others that it may or may not have had such an impact (Kritzer, 1996, p. 49; Myers, 1992, p. 53). While there is general agreement that between 1986 and 1996 the savings rate increased from about 10 percent to about 29 percent, there is disagreement as to why. Many critics and some supporters of privatization point out that it is hard to say how much of this change in savings rate was due to pension reform given that there were a number of other major changes that would also be expected to contribute to an increase in the savings rate taking place during this same period of time (World Bank, 1994, p. 209). A related argument is that much of the increase in savings due to the pension accounts may have replaced other forms of savings (Graham, 1998, p. 50).

Similarly, some argue that there has been a positive impact on the rate of economic growth (Piñera, 1999; Kay, 1997c); more common is the view that there may have been such an impact (Arenas de Mesa & Montecinos, in press). There is general agreement that Chile has experienced a great deal of economic growth since the early 1980s, but there is much less agreement about how much (if any) of that growth can be attributed to pension reform.

The individual accounts approach gives workers more mobility than they have with private defined benefit occupational pensions. When workers are covered by defined benefit schemes they are often subjected to severe penalties if they leave (or they are asked to leave) the organization prior to reaching retirement age. In contrast, Chilean workers own their individual accounts and are fully vested at all times. There is no penalty or loss of assets when a worker moves from one job to another. In Chile pension reform unlinked pensions from occupational categories (under the old scheme many occupational groups had their own defined benefit schemes) making it easier for workers to move from job to job (Graham, 1998, p. 50). This increased labor flexibility is good for the worker and it is also good for the overall economy. It is of note that this is an advantage relative to defined benefit occupational pensions and relative to the structure of Chile's old pension system, but it is not an advantage relative to the Social Security system in the United States.

General revenues can be used to help finance the transition from a PAYGO to a privatized scheme. In Chile approximately 40 percent of the cost of the transition has been financed by government bonds paying market rates. These bonds are primarily being sold to the AFPs and will be gradually redeemed by the government using general revenues during the retirement years of those covered under the old system (Piñera, 1999, p. 11). This is viewed as a way to distribute the cost of burden of the transition across generations. The burden on general revenues due to transition costs had started to decline by the mid 1990s (Edwards, 1998, p. 51). Some advocates of privatization for the United States have also suggested that the transition could at least in part be financed by selling bonds here as well (Beard, 1996, p. 157).

With privatization, returns on retirement savings tend to be greater for high-wage workers than for low-wage workers. While the return on invested capital is the same for everyone who is invested in a particular fund, there are a number of flat-fee expenses that have the effect of reducing the net return for employees who earn less and thus contribute less (Graham, 1998, p. 52; Kay, 1997c). For example, with several, but not all of the AFPs there is a flat rate transaction fee for each contribution that has the effect of reducing the net return on contributions for workers making small contributions. Further adding to this regressive effect are the penalties linked to interruptions in the flow of contributions associated with moving in and out of the labor force, a pattern that is more common for low-wage than high-wage workers. A substantial fraction of covered workers end up with AFP accounts that are so low that they will qualify for the minimum pension. What can we say about the returns for their accounts? There are two somewhat contradictory ways to analyze their returns. We could say that their effective returns are higher than those of workers with slightly higher wages who do qualify for a pension, because the government in effect adds money to their account after retirement. Or we could say that their perceived returns are lower than those of workers who earn enough to justify a regular pension, because they realize no increase in their eventual pension based either on the size of their contributions or the performance of assets in their accounts.

With privatization, returns for women tend to be lower than returns for men. One reason returns tend to be lower for women is that they often earn less than men. Sex discrimination in Chile is not against the law, and this discrimination reduces women's wages (Elter & Briant, 1995, p. 28). They are disproportionately represented at the lower end of the income distribution. They are also more likely to move in and out of the labor force and as a result are less likely to reach the 20 years of contribution required for the minimum pension (Elter & Briant, 1995, p. 23). One study reports that a typical woman who retires at age 60 is able to purchase an annuity that replaces only 57 percent of her former salary in contrast to the 86 percent replacement rate for the average man retiring at age 65 (Kay, 1997c). The lower replacement rate is due in part to lower wages, in part to less time in the labor force, and in part to the use of gender specific annuity tables (Kay, 1997b). Because women live longer than men, for the same size AFP account at retirement, a woman's monthly pension payment is lower. On average, women and men retiring at the same age and with the same sized AFP fund accounts can expect the same lifetime pension benefit, but the lower monthly benefit for women does making paying the bills more difficult, particularly for unmarried women.

The administrative costs associated with the individual accounts tend to be high. The administrative costs associated with the AFP accounts are less than transparent as there are a number of periodic transaction fees in addition to the initial 2.5 to 3.5 percent fee. For small accounts these fees can eat up much of any advantage there might have been of investing in private financial markets as opposed to participating in the old government PAYGO defined benefit scheme (Diamond, 1996). Many commentators present figures on rate of return for the Chilean pension funds that do not take into consideration costs associated with marketing and the administration of these funds. When such costs are factored in the real rate of return for the period between 1982 and 1995, it drops from 12.7 to 7.4 percent (Kay, 1997c). There is evidence suggesting that the cost of administering Chile's privatized scheme is higher than it was with the old PAYGO scheme (Diamond, 1994).

The marketing costs associated with the AFPs are high and getting higher. The returns for the various funds tend to be very much alike due in large part to the stiff penalties for falling below the average return for all AFPs. Given these similar rates of return, the funds must find other grounds on which to attract enrollees. Incentives such as free cell telephones and bicycles are used to get workers to shift from one AFP to another (Rotella, 1998; Friedland, 1997). This marketing effort calls for a large sales staff and other marketing expenses (Kay, 1997c). The cost of all this marketing, estimated to be $200 million in 1996 (Graham, 1998, p. 53), tends to reduce the net return for participating workers. Over the years the sales staffs for the various AFPs have grown considerably as competition between AFPs has become intense. Between 1990 and 1997, the sales force in Chile has grown from 3,500 to 20,000 (Graham, 1998, p. 53). It is also estimated that as many as 50 percent of all enrollees switch AFPs each year (Queisser, 1999, p. 23).

Privatization may promote movement from the formal to the informal labor market. In an effort to avoid paying the high payroll taxes associated with the privatization scheme (which approaches 20 percent for Chilean workers when we include the contribution for health insurance as well), some workers are moving from the formal to the informal sector of the labor force. This move is particularly attractive to workers who have 20 years of contribution credit (this number often includes credit for several years spent contributing to the former PAYGO scheme) and who realize (or expect) that the savings in their individual accounts at retirement will be so low that they will qualify for the government financed minimum pension (Arenas de mesa & Bertranou, 1997). One estimate is that between 30 and 40 percent of those currently covered will end up taking the minimum pension (Kritzer, 1996). According to some recent accounts, the number making this choice is increasing and the long-run result could be a substantial economic burden on the government (*El Espectador*, 1996).

EVIDENCE FROM OTHER LATIN AMERICAN NATIONS

Chile is no longer the only Latin American nation to have introduced defined contribution individual accounts. During the 1990s several other countries have privatized or partially-privatized their social security systems: Peru (1993), Argentina (1994), Colombia (1994), Uruguay (1995), Mexico (1997), Bolivia (1997), and El Salvador (1998) (Cruz-Saco & Mesa-Lago, 1998a; Mesa-Lago, 1997; Peirce, 1997; Queisser, 1998, 1999; Willimason & Pampel, 1998; Stanton & Whiteford, 1998). While all of these countries have adopted some form of privatization, the schemes in Bolivia, El Salvador, and Mexico are fully privatized and thus closer to the Chilean model. The other countries have adopted mixed or coexisting programs that include a PAYGO pillar. All of these countries have adapted aspects of the Chilean model, but have done so in ways that respond to nation specific economic, social, and political contextual factors.

Those countries that have fully privatized their pension systems have replaced the old system and require all employees who are new entrants to the workforce to participate in the new scheme. For example, the program in El Salvador requires all new employees and all younger employees (those who were under age 36 in 1998) to enroll in the privatized scheme. The old scheme remains in place for older employees, but as in Chile, it is gradually being phased out (Queisser, 1998, p. 133). In Mexico and Bolivia all employees have been shifted to the new privatized schemes.

Partial privatization can take many forms and in Latin America it has done so. In addition to the nations that have fully privatized their national pension schemes or are on the road to full privatization, there are an equal number of nations that have opted for partial privatization. These include Argentina, Colombia, Uruguay, and Peru. Some systems have eligibility restrictions for participation. For example, in 1995 in Uruguay those earning below 5,000 Uruguayan pesos (US$ 812) per year had to enroll in the nation's defined benefit public pension scheme, and those who earned over this limit had to enroll in the privatized scheme (Davrieux, 1997). As this limit is indexed, by 1999 it had increased to 9,171 Uruguayan pesos (US$ 798). In Peru workers entering the labor market have a choice between the privatized scheme and the public pension system, but once the choice has been made they are not allowed to switch. In Colombia workers may switch between the systems once every three years, and in Argentina workers also have the option of switching up to twice a year (Queisser, 1998, 1999; Isuani & San Martino, 1998).

One common change as the Chilean model has been adapted to the needs of other nations has been to centralize the collection of pension contributions in an effort to reduce fraud. In Chile, the contributions are collected by the employer and sent to the designated AFP. The same is true in Bolivia and El Salvador. But in many other countries such as Argentina, Mexico, and Uruguay, government agencies collect the contributions which are then sent along to the specified pension fund administrators. The reason for the central collection of contributions is that it makes it easier for government regulators to keep track of certain types of fraud, such as employers who are slow sending employee contributions to the pension fund administrators. Employers that collude with employees to under report income are another problem; the result is low contributions or no contributions to the AFPs (Vittas, 1997, p. 5; Zapatta, 1997, p. 69). However, central collection can also be problematic if there is inefficiency or fraud on the part of central government employees

(Thompson, 1999, pp. 9-10).

Individual retirement savings accounts are typically funded entirely by employees themselves, but in some countries the cost of funding these accounts is shared with employers or the government. In Argentina, Colombia, Uruguay, Bolivia, and Peru the practice is the same as in Chile; only the employee makes contributions to the individual accounts. Contributions in these countries range between 7 and 10 percent. In Mexico the 6.45 percent contributions to the individual accounts is split three ways; the employee contributes 1.125 percent, the employer contributes 5.15 percent, and the government contributes .225 percent (Cruz-Saco & Mesa Lago, 1998b, p. 391; Mesa-Lago, 1997, pp. 396, 404). In El Salvador the 10.5 percent contribution to the individual accounts is split between the employee and the employer with the employer paying a slightly larger share (5.50 and 5.15 percent respectively) (Superintedencia de Pensiones, 1999).

In Colombia there is a special one percent tax on high-income employees (those earning at least four times the minimum wage). The funds generated from this source are matched with government funds and the money is then used to subsidize the contributions of targeted low-income groups in an effort to bring them into the system (Queisser, 1998, pp. 26, 98; Cardenas Rivera, 1998, pp. 188).

In several of these nations with privatized schemes there is a guaranteed minimum pension for workers who have been covered for a specified number of years, but for one reason or another end up with a very low pension benefit. In Chile such a pension is available after 20 years of contribution. In El Salvador and Mexico it is available after 24 years (Cruz-Saco & Mesa-Lago, 1998b, p. 392). But in some countries such as Bolivia and Peru (Graham, 1998, p.52; Queisser, 1998, p. 68) there is no such guaranteed minimum pension. Chile's minimum pension is 25 percent of the national average wage and is indexed to inflation. The minimum pension in El Salvador is set by the government and is not indexed to inflation or changes in the overall standard of living. In

Mexico it is equal to the minimum salary in Mexico City (Queisser, 1998, p. 68). In Argentina 35 years of contributions are required and the minimum pension is determined by the government. Colombia has a minimum pension that is equal to one minimum wage, eligibility requires 23 years of contributions (Cruz-Saco & Mesa-Lago, 1998b, p. 406). In countries such as Argentina and Colombia the women and low-wage workers most likely to be in need of a minimum pension often will have opted for the defined benefit scheme.

Most of these countries require that benefits from the individual retirement savings account be taken in the form of an annuity that will last for the person's lifetime or in the form of a scheduled series of payments designed to provide coverage for a specified number of years based on life expectancy. Typically the funds in these accounts are used to buy an annuity or a series of scheduled payments (Queisser, 1998, pp. 80-81). But in some countries, like Chile, it is possible to take a portion of the retirement savings as a lump sum so long as the amount left in the account provides what is considered an adequate minimum annuity income (Edwards, 1998, p. 48). In some cases, such as Peru, there is the option as to whether or not to buy an annuity that includes survivor benefits (U.S. Social Security Administration, 1997, p. 280). In some such as Bolivia, the benefits can be taken in the form of a fixed or a variable annuity (Mesa-Lago, 1997, p. 397).

In most of these countries the government specifies upper limits with respect to the proportion of the pension fund assets that can be invested in various asset classes. Some countries, such as Chile, Argentina, and Mexico, allow investments outside the country; others, such as Bolivia, require that all assets be invested domestically. Regulations with respect to upper limits as to the fraction of fund assets invested in various asset class are present in Chile, Mexico, El Salvador, Bolivia, and Uruguay. One reason for such regulation is to control the risk level of benefits. Control over where funds are invested is also used to assure that the assets are used to finance domestic needs for investment capital. The realization that a funded scheme will generate substantial assets that in turn can be used to stimulate economic growth has become a major argument in favor of privatization (Iwasaki, 1996; Reisen, 1997). For some countries, such as Mexico, Uruguay, and Bolivia, rules about how much is to be invested in various assets classes are used to assure that a specified portion of the assets be invested in government bonds (Quiesser, 1998). Policymakers expect these funded accounts to have a positive impact on the economy independent of the actual long-term returns for individual workers. Bolivia and Mexico do not guarantee minimum yields (Mesa-Lago, 1997, p. 438). In several of these countries the amount invested in government bonds is quite high, for example, in the fall of 1998, it was 100 percent in Bolivia, 94 percent in Mexico, and 79 percent in Uruguay. In contrast, the amount invested in bonds was only about 41 percent in Chile and 46 percent in Argentina (Garcia, 1998).

Very little evidence is currently available with respect to the distributional consequences of these various privatization schemes, but what is available suggests that women and low-wage workers tend to do less well than men and higher-wage workers. It is difficult to make generalizations about how well women and low-wage workers are doing or will do in connection with these schemes relative to how they did with old defined benefit schemes. One reason is that the old schemes were typically in very bad shape when the change was introduced. In many of these countries benefits under the defined benefit scheme had become very low and payroll taxes had become very high due to problems in the way the plans were designed. The old scheme in many countries covered only a very small fraction of the population and it often excluded a large portion of low-wage workers (Graham, 1998; Queisser, 1998). The old schemes often had provisions making it possible for certain categories of workers, typically those in high-wage public service occupations such as judges, to get very high pension benefits relative to payroll tax contributions (Ayala Oramas, 1997;

Queisser, 1997, 1998).

In Chile, low-wage workers do not do as well as higher-wage workers for two reasons. One is that they tend to have less regular work histories with more movement in and out of the formal sector of the economy. The other is that the amount of money in their accounts is generally lower. In the Chilean schemes there are a variety of flat rate fees that have the effect of reducing the long-term returns for the accounts of low-wage workers more than the accounts of high-wage workers. Because women tend to earn less and tend to move in and out of the paid labor force more than men, they tend to end up with lower returns than do men (Arenas de Mesa & Montecinos, in press; Kay, 1997c). In Peru, women and low-wage workers tend to do less well for the same reasons mentioned in connection with Chile (Graham, 1998, p. 122). An additional factor for Peru is that there is no minimum pension; it was not included due to the large number of low-wage workers (Graham, 1998, p. 52). In Argentina, an important factor is the 30 year limit for eligibility for the minimum pension. Women and low-wage workers are less likely to have accumulated 30 years in covered jobs and for this reason will be less likely to be eligible for that pension (Elter & Briant, 1995; Graham, 1998, p. 52). However, in Argentina there is a special provision for homemakers allowing them to participate in the second-tier pension making a reduced contribution.

When workers shift from a defined benefit scheme to a defined contribution individual accounts scheme, they generally get credit for prior contributions to the defined benefit scheme, but the way credit is given takes many forms. One method found in Chile is a "recognition bond" that corresponds to contributions made to the prior scheme (Queisser, 1998, p. 48). Over the years there is an increase in the value of this bond due to imputed interest and at retirement the government redeems the bond. This spreads the reimbursement over many years (as workers will retire in different years) reducing the fiscal burden on the government. An alternative approach is illustrated in

Argentina where the worker is issued a special lifetime pension available after a minimum of 30 years of contributions to the system (Cruz-Saco & Mesa-Lago, 1998b, p. 400). As a result, the government spreads repayment over an ever longer period of time than in Chile. In Bolivia there is a compensatory pension made at retirement to those who contributed for 5 or more years to the old defined benefit system that is adjusted for the number of years worked. The policy is similar in Peru with a requirement of 4 years of contribution and in Colombia the requirement is 3 years (Mesa-Lago, 1997, p. 400). In El Salvador there is also a special payment at the time of retirement (Mesa-Lago, 1997, p. 396). In Mexico the number of years contributing to the old system is added to the number of years contributing to the new system to meet the years of contribution requirement. At the time of retirement a worker's pension is calculated two ways, based on the new system and based on the old system. The worker then gets the larger of the two benefits (Queisser, 1998, p. 50; Stanton & Whiteford, 1998, p. 160). In Uruguay there is no special compensation for contributions to the prior scheme; however, the number of years of contribution count toward the number of years a person must contribute to become eligible for a pension under the new scheme (Queisser, 1998, p.50). In some countries, such as Peru, these bonds are not indexed; in others such as El Salvador and Argentina they are indexed, but no interest is paid (Cruz-Saco & Mesa Lago, 1998b, p. 395; Queisser, 1998, p. 29). In Colombia and Argentina the bond is indexed and pays a real return over and above inflation (Mesa-Lago, 1997, p. 400).

Workers generally have very little control over how the assets in their pension funds are invested. In Chile, for example, currently there are eight pension funds to select among, but the types of investments made are very similar across funds. Due to the penalty for a return on AFP assets of more than two percent below the average, fund managers tend to adopt very similar asset allocation plans (Reisen, 1997, p. 12). In Chile each of these pension managers is responsible for only one fund, a fund that will combine investments in many different asset classes. In Mexico, in contrast, some of the pension fund organizations will soon be able to set up several subfunds allowing workers to move their assets between these subfunds (Queisser, 1998). The goal is to give the worker more control over investment decisions than they have in Chile, but still no where near the control that IRA and 401(k) investors have in the United States.

In most of these countries the self-employed can participate in the defined contribution individual accounts, but typically very few do. In Chile coverage of the self-employed is voluntary and estimates of the proportion covered are between 10 and 20 percent (Queisser, 1999, p. 21; Kritzer, 1996, p. 49). Participation is also voluntary in El Salvador, Bolivia, Peru, Colombia, and Mexico. In Uruguay participation of the self-employed is mandatory, but only if their income is above the income limit at which coverage by the privatized scheme become mandatory. In Argentina the self-employed must participate in the earning-related second-tier pension, but there is a choice between the defined contribution individual accounts and the public defined benefit scheme (Cruz-Saco & Mesa-Lago, 1998b, p. 399).

In some countries workers can retire early so long as they have accumulated sufficient funds in their individual retirement savings accounts. In Chile a worker can retire as soon as he or she has accumulated sufficient funds to purchase an annuity that will pay at least 110 percent of the minimum old-age pension or if it is equal to at least 50 percent of his or her average (indexed) wage over the prior ten years (Kritzer, 1996, p. 47). There are similar policies in place in Mexico (Stanton & Whiteford, 1998, p. 161), El Salvador (Queisser, 1998), Bolivia, and Colombia (Mesa-Lago, 1997).

DISCUSSION

Most of what we know about the impact of the privatization of national pension schemes in Latin America is based on the Chilean case because the other schemes are comparatively recent. While there will be much to learn from these other models in the years ahead, their primary relevance to the current debate over the proposed privatization of Social Security in the United States is for what they tell us about the different ways in which national pension schemes can be partially or fully privatized.

In recent years we have seen the emergence of what could become a worldwide trend in national pension policy, a trend away from the PAYGO defined benefit schemes and a trend toward greater emphasis on funded defined contribution schemes. A number of structural, cultural, and ideological factors have played a role in shaping the policies that have emerged.

Some structural factors have been present in most, if not all, of the Latin American nations that have shifted from PAYGO defined benefit schemes to systems that depend all or in part on a funded defined contribution component. They were all finding it increasingly difficult to provide promised benefits as their pension systems matured and their populations aged. Policymakers in these nations were concerned about projected demographic trends pointing to a continued graying of the age structure. A factor that has received less attention, but is also important in many of these countries, is concern with the maintenance of international competitiveness (Kay, 1997a, p. 9).

In some nations, country specific structural factors have been important. In Chile, for example, the transition from a defined benefit PAYGO scheme to a fully privatized scheme was made possible by the power of General Augusto Pinochet's authoritarian regime. By contrast, when Argentina made its move in the direction of privatization, policymakers had to contend with a more democratic political context (Isuani & San Martino, 1998, p. 131). It was necessary to compromise in the face of opposition from various interest groups and the result was a scheme giving workers a choice between the defined benefit and the defined contribution approach for the earnings-related tier of the national pension system. In Peru there was public discussion, but less interest group politics involved, in the decision to partially privatize (Cruz-Saco, 1998, p. 166-168).

Another important factor has been program history. In general it has been easier for nations without mature PAYGO defined benefit schemes covering most of the population to make the shift to defined contribution individual account schemes (Myles & Pierson, in press). This line of reasoning can be used to explain why it was politically easier for a country like Britain (that did not have a mature earnings-related defined benefit scheme in place in the mid-1980s) to partially privatize its national pension scheme than it would be for the United States (that does have a mature defined benefit scheme in place) to do the same today.

But how do we account for the Chilean case? Unlike Britain, Chile did have a mature PAYGO defined benefit scheme in place when the decision to privatize was made. Part of the answer is that Chile's commitment to the defined benefit approach had been substantially undercut by the steady decline in the proportion of pre-retirement income that the system was able to provide. It was clear to most Chileans that something had to be done. The payroll taxes were becoming unbearably high and benefits were still falling. In short, the Chilean policy legacy had become problematic. There were similar problems in Argentina (Isuani & San Martino, 1998, p. 133-135), Peru (Cruz-Saco, 1998, p. 167), and many of the other countries.

Cultural factors also have played an important role in many of these countries. In Chile it was possible to impose privatization because the structural power of Pinochet's authoritarian regime trumped the nation's populist and paternalistic political values that supported the prior public defined benefit scheme. In some countries that considered making the shift in the structural context of greater democracy such as Argentina, Uruguay, and Peru, these traditional political values seem to have contributed to making it more difficult to make as dramatic a split with the past (Cruz-Saco, 1998, p. 168).

Given this line of analysis, how do we account for policy developments in Mexico, a country that opted for full privatization despite greater democracy than was present in Chile in the early 1980s? Why did Mexico end up adopting a model closer to that of Chile than that of Argentina? One response is that the process was different. It took seven years for Mexico to move from serious discussion about privatization to the implementation of the scheme; in Chile the decision was made much quicker. One reason it took as long as it did in Mexico was the opposition of various interest groups such as the unions (Cruz-Saco & Mesa-Lago, 1998, p. 380). Another part of the explanation is that Mexican workers covered in 1997 (the year the transition was made) by the old defined benefit system, at retirement will have the option of collecting benefits based on either the new scheme or the old scheme, whichever yields the greater pension benefit (Cruz-Saco & Mesa-Lago, 1998, p. 386). This is arguably a more generous alternative than that offered Chilean workers in 1981. While Mexico did in the end opt for full privatization, it did so in a way that reflected the different political context in which the decision was made.

The difference in the degree of concern about the impact of privatization on women as opposed to men throughout Latin America reflects the influence of regional cultural factors. The evidence suggests that the privatization of public pension schemes in Latin America has been particularly problematic for women (Graham, 1998; Kay, 1997b, 1997c). This is consistent with evidence from the World Values Survey suggesting that the economic status of women is of greater concern in countries such as Sweden and Denmark than it is in countries such as Chile, Argentina, and Mexico (Inglehart, Basañez, & Moreno, 1998, v128). As mentioned earlier, in many Latin American countries it is not only common to discriminate against women, but also legal to do so (Elter & Briant, 1995). That being the case, it is not surprising to find more attention in Sweden than in Chile to the potential impact of pension reform on women, particularly low-income women. For example, in Sweden, unlike Chile, the retirement annuities will not be gender specific. In addition the Swedish government will give pension contribution credit to women who take a few years off work to care for their children (Palmer, in press; Klingvall, 1998).

Starting in the late 1970s and particularly since the late 1980s the ideological center of gravity among national pension policymakers has been shifting to the right, not just in the Latin American countries being considered in this analysis, but also in many other nations including Britain, the United States, and Sweden. The assumptions and beliefs embodied in the ideology of the free market lead adherents to market-based solutions to a variety of social policy issues. The ideology of market-based social policy is sweeping around the world with little by way of successful opposition from those on the left who have traditionally been skeptical of this degree of reliance on market-based policies.

The collapse of the communist regimes in Eastern Europe and the subsequent difficulty that many of these nations have had in adapting to a capitalist world system have contributed to a discrediting of not only socialism, but also generous welfare states. Defined benefit public pension systems (which often include redistributive payout provisions) as well as other generous health and social welfare programs are increasingly being viewed as placing an unacceptable burden on the state. The solution to the problem of social provision according to advocates of this ideology is to make individuals and their families increasingly responsible. The goal is to shift the burden and the risk from the state to the individual.

Due to demographic trends, the maturation of existing public pension systems, and the pressures of world markets, it is becoming increasingly difficult for governments to finance expensive pension systems. The belief in market-based solutions offers what looks like a way out of both current and projected future financing problems through the partial or the full privatization of national pension systems. How well this approach will work in the long run remains to be seen; but in the short run it is looking attractive to policymakers in an increasing number of nations, both rich and poor.

The focus of the present analysis is on what policymakers in the United States have to learn from the evidence with respect to privatization efforts in Chile and other Latin American nations. One of the major lessons from these various case studies is that it is possible to shift from a PAYGO defined benefit scheme to a scheme that depends in part or even entirely on defined contribution individual accounts. It has been both politically and economically possible to make the shift in these nations. There is no evidence to suggest that the Chilean economy or any other Latin American economy has been harmed by the shift in the direction of privatization, and there is at least some evidence suggesting that the shift has had positive economic effects.

The extent to which the creation of individual accounts will increase the national savings rate is often overstated by advocates of privatization. Clearly a portion of what goes into such accounts is offset by reduced individual savings outside such accounts. However, there is evidence from Chile suggesting that privatization has led to an increase in the national savings rate (Edwards, 1998). Privatization has resulted in a substantial increase in investment capital (Queisser, 1999; Arenas de Mesa & Bertranou, 1997). While experts disagree as to whether privatization has had a positive impact on economic growth, a number argue that the impact has been positive (Piñera, 1999; Kay, 1997c). The move toward privatization has also led to a decrease in the projected size of the future national debt. Future reductions in the size of the national debt would be likely to contribute to economic growth over the long run.

In Chile, the individual retirement savings accounts tend to be popular, particularly among middle- and upper-income male workers (Navarro, 1997,p. 30; Diamond, 1994, p. 26). There is good reason for this as the returns on contributions to these accounts in recent years have been greater than the imputed returns in connection with the public defined benefit scheme. However, there is much less interest in these individual accounts among low-wage workers. One reason is that many low-wage workers will end up with low balances in their accounts when they reach retirement age. As a result they will end up taking the guaranteed minimum pension, and the size of that pension will not be influenced by the balance in their accounts, except to the extent that they will be ineligible for these pensions if the balance is over a specified level.

The personal retirement savings accounts are also less likely to be attractive to women than to men. In Latin America as throughout the industrial world, women tend to earn substantially less then men and tend to spend fewer years in the paid labor force (Schulz et al., in press; Elter & Briant, 1995). The result is that more women can expect to receive the guaranteed minimum pension when they retire. In other countries, like Britain, these considerations lead many low-income women to opt for the public pension scheme rather than the individual accounts alternative (Liu, 1999).

While privatized accounts seem to have positive consequences for the overall economy, in the long run the benefits may turn out to be quite modest. While a shift from the more redistributive approach implicit in most defined benefit schemes towards less redistributive defined contribution schemes may have some positive consequences for the overall economy, and maybe for the average worker as well, those benefits will come at a price. There is at least suggestive evidence that such a shift in pension policy is likely to be associated with both an increase in income inequality (Borzutzky, 1998, p. 53; Graham, 1998, p. 123) and an increase in gender inequality (Kay 1997c; Elter & Briant, 1995).

One of the most important unresolved questions at this point is how patient the public will be when their individual retirement savings accounts are subjected to the consequences of prolonged declines in financial markets. After a few nations have gone through such periods, the consequences of the decision to shift the financial risk from the state to the individual will come to be much more clearly understood by both policymakers and the general public.

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