I. Introduction

The focus of this chapter is on recent developments relevant to the future of retirement security, particularly public pension policy. Recent trends in the United States are discussed as are developments in several other countries, some of which have potential relevance for future pension policy debates in the United States. A focus throughout is on efforts to privatize pension programs in the United States and in other countries, which often turn out to be part of a more general effort aimed at welfare state retrenchment (Harrington Meyer & Herd, 2007).

II. Social Security in the United States

A. Social Security in the United States

Social Security is important to any discussion of the future of retirement security in the United States because so many people depend on this program for a substantial fraction of their retirement income. See Chapter 13 for a thorough account of the importance of Social Security to the income of older persons. Social Security is generally referred to as a pay-as-you-go defined benefit (PAYG-DB) scheme. It is less common, but more precise to describe it as a “partial reserve” scheme (Schulz, 2001). This is because the Social Security trust funds always hold at least modest (and currently quite substantial) reserves designed to make it possible to pay benefits during periods when the payroll tax revenues being collected fall below benefits promised under current statutes. It is a PAYG scheme because benefits to current pensioners are paid for via payroll taxes on current workers and their employers. It is a DB scheme because
benefits are based on a wage-indexed average of past covered wages and the number of years as a contributor.

A recent projection is that the Social Security trust funds will be exhausted in 2037 unless some legislative changes are made (Board of Trustees, 2009). In recent decades conservative commentators have made extensive use of the term “crisis,” and some have even described Social Security as a pyramid scheme (Peterson, 1999; Borden, 1995). In contrast, liberal analysts have tended to use a different and much less sensationalistic rhetoric designed to convey the idea that there is a problem that needs to be addressed, but one that can be dealt with using a combination of modest adjustments -- sometimes referred to as “parametric” reforms (Diamond & Orszag, 2004; Kingson & Williamson, 2001).

B. Efforts to Partially Privatize Social Security in the United States

The idea of partially privatizing Social Security emerged during the early 1980s. Several of the early proponents were associated with the Cato Institute, a Washington based libertarian think tank (Ferrara, 1985). Throughout the late 1980s and early 1990s a small number of analysts and commentators associated with conservative think tanks continued the call to at least partially privatize Social Security, but it was not viewed as politically feasible by mainstream policy analysts. However, due to the relentless call from commentators on the right promoting the idea that Social Security would soon “go bankrupt” eventually gained traction. Many Americans became fearful that the funds would not be available to pay their pensions; but despite this loss of confidence, support for the program remained strong (Reno & Friedland, 1997).

Starting in the mid-1990s the idea of partially privatizing Social Security moved into the mainstream of pension policy discourse with the creation of a number of highly visible national commissions. During this period, many conservative commentators were calling for partial
privatization, and some viewed full privatization of Social Security as the eventual goal (Peterson, 1999; Ferrara & Tanner, 1998). Liberals generally opposed all proposals calling for the diversion of payroll taxes currently used to finance Social Security into funded individual retirement savings accounts (Kingson & Williamson, 1999).

In 2001 the Bush administration created a “bipartisan” committee called the President’s Commission to Strengthen Social Security (2001). To be on the committee, one had to be a proponent of some sort of plan based on individual accounts. Three proposals emerged from the commission, all calling for the introduction of individual accounts. When it became clear that along with the individual accounts would come substantial cuts in the traditional defined benefit component of Social Security, the proposed reforms looked a lot less attractive to many Americans. With the terrorists attacks of September 11, 2001 and the sharp drop in the stock market between 2000 and 2002, calls for the partial privatization of Social Security became much less frequent (Béland, 2005).

But President George W. Bush was not ready to give up. Soon after he won reelection in 2004, he began a full-cour press to sell the American public on the idea of adding funded individual accounts as part of Social Security reform. He highlighted this proposal in his 2005 State of the Union Address and then traveled around the country for about six months trying to get the American public behind the idea. In an effort to undercut support for Social Security as it is currently structured, he argued that the Social Security Trust Fund was nothing but a bunch of IOUs -- his term for the U.S. government bonds held by the Social Security Administration (Hardy & Hazelrigg, 2007). In the end this argument and his effort to sell partial privatization fell flat; the more the American public learned about the specifics of what would be involved with the partial privatization of Social Security, the less they liked the idea. In the 2006 mid-term
elections and in the 2008 Presidential election many Republicans who were up for re-election went out of their way to avoid discussion of Social Security reform and particularly proposals to partially privatize Social Security (Williamson & Watts-Roy, 2009).

C. Social Security “Parametric” Reform Proposals

There is general agreement by analysts on both the right and the left that changes in U.S. Social Security policy must soon be made to balance projected revenues and pension spending. The list below briefly summarizes some of the parametric proposals likely to be under consideration: (1) a shift to a less generous cost-of-living adjustment (COLA) in benefits, (2) a shift to a less generous formula for determining benefits, (3) an increase in the age of eligibility for full retirement benefits, (4) an increase in the cap on earnings subject to payroll taxation, (5) a flat across the board cut in benefits, (6) the introduction of “progressive price indexing,” (7) an increase in the number of years of lifetime covered employment used to compute benefits, and/or (8) an increase in the payroll tax rate. For more detailed discussions of these and other proposals see: Favreault and Michelmore (2009), U.S. Department of the Treasury (2008), Shelton (2008), Social Security Administration (2008a) and Sass, Munnell and Eschtruth (2009).

III. Employer-Sponsored Pensions in the United States

A. The Rapid Move from DB Pensions to DC pensions

There are two broad categories of employer-sponsored pensions, defined benefit (DB) pensions and defined contribution (DC) pensions (O’Rand, Ebel, & Isaacs, 2009; Schulz & Borowski, 2006). Pensions based on the DB model typically provide eligible employees with a highly predictable lifetime pension based on a formula taking into consideration years of service and earnings. Often the size of the benefit is entirely or largely based on earnings during the last few years of employment, and the benefit is sometimes adjusted or partially adjusted for inflation
during the payout years. Typically contributions to these DB plans are only made by the employer. In contrast, DC pension plans only specify the amount contributed (by the employee, employer, or both) to the employee’s retirement account, not the size of the eventual pension to be paid. The eventual pension benefit is largely a function of the amount contributed and market trends over the years.

Over the past 25 years or so the fraction of the private sector wage and salary labor force covered by an employer-based pension scheme has been relatively steady at just under 50%, but the shift from those based on the DB model to those based on the DC model has been dramatic (O’Rand et al., 2009). While coverage by DB schemes has not been declining among public sector workers, the story is quite different in the private sector. In 1980, among private sector workers who were covered by some sort of employer-sponsored pension plan, 60% were covered by DB plans alone, 17% by DC plans alone, and 23% by both. By 2006 only 8% were covered by DB plans alone while 70% were covered by DC plans alone, and 22% by both (Munnell, Aubry, & Muldoon, 2008). In the discussion that follows the focus will be on DC schemes because the trend from DB to DC schemes in the private sector is the major arena in which the partial privatization of retirement security based on the DC model is currently taking place in the United States.

B. The Emergence and Future of 401(k) Pensions

The most pervasive employer-sponsored DC pension schemes are the 401(k) plans first introduced in 1981 (VanDerhei, Holden, Alonso, & Copeland, 2008). Initially, these plans were viewed as savings plans or supplements to employer-sponsored DB plans (Munnell, Golub-Sass, & Muldoon, 2009), that is, as part of the third leg of the proverbial three-legged stool needed to assure adequate retirement income; the other two being occupational pensions (often DB plans)
and Social Security. However, the 401(k) plans have generally replaced those DB plans. Relative to DB plans, the 401(k) plans have a number of benefits for employers, but for employees the picture is more a mixture of pros and cons.

1. The Pros and Cons of 401(k) plans

One of the most important consequences of the shift from DB plans to 401(k) plans has been a dramatically reduced level of retirement income security for many workers because: (1) enrollment in 401(k) plans is voluntary and many workers (particularly young workers) elect not to participate (Munnell et al., 2009); (2) many workers “cash-out” when they move between employers; (3) many do not contribute enough to assure an adequate pension at retirement; (4) many do not sufficiently diversity their portfolio, make unwise asset allocation choices, or invest too heavily in their company’s stock (Munnell et al., 2009); and (5) Their holdings are vulnerable to sharp corrections in financial markets just prior to the time of planned retirement.

There are, however, some benefits of 401(k) plans for employees. In comparison with DB plans: (1) it is easier for the employee to keep track of the account balance in a DB scheme; (2) it is also easier to transfer the account balance when moving to a new employer; (3) 401(k) plans allow those employees who want to actively manage their pension assets to do so, although this turns out to be a mixed blessing because many of those who actively manage their accounts do a poor job of it (Munnell & Sundén, 2004); and (4) the pension assets are better protected than with many company DB schemes. The assets are administered by an independent third party, such as a mutual fund company, and as a result they are much less likely to be appropriated in connection with bankruptcy or a merger.

For employers, among the most important benefits of shifting to DC schemes are: (1) 401(k) plans reduce the cost of administering the pension system and the burdensome
bureaucratic obligations associated with the 1974 ERISA regulations and requirements (Schulz & Borowski, 2006), a particularly important consideration for small businesses; (2) the risks associated with pension fund financing are shifted from the employer to the employee (Hacker, 2006), including market risks as well as risks associated with increased longevity (of retired workers), corporate downsizing, and pension fund under funding; (3) unlike company DB plans most 401(k) plans are largely employee funded, with employers often contributing much less than they did to prior DB schemes.

2. The Problem of Major Market Corrections

Important lessons were learned from the two recent deep stock market corrections, the first between 2000 and 2002 and the second even deeper correction between late 2007 and early 2009. Both were associated with dramatic reductions in 401(k) retirement account assets, and it has become clear to many analysts that pension plans based on the 401(k) model are often less than adequate substitutes for traditional DB schemes with respect to the predictability and adequacy of the eventual pension. Market risk is only one of many reasons that the 401(k) model is not living up to expectations. In response to increasing evidence concerning the limitations of the 401(k) model, a number of proposals for reforms have been made.

3. The Implicit Assumption of Financial Literacy

The 401(k) model shifts much of the decision making about asset allocation and how much to contribute from the employer to the employee. Although some workers like the idea of being in control of these decisions, the reality is that financial literacy among many workers is quite low (Schulz & Borowski, 2006). The financial information needed to make well-informed decisions can be hard to find even for those who are interested. More problematic is the evidence suggesting that many workers are unable or unwilling to take the time to acquire the level of
financial literacy called for to protect against bad investment decisions. In an effort to deal with this lack of adequate information a number of recent reforms in 401(k) plans have been proposed that are designed to help protect workers with low levels of financial literacy.

4. Recent 401(k) Reform Proposals

It is not mandatory that employees join a 401(k) provided by an employer. Research shows that whether they do and their investing approaches are both strongly influenced by the default action set up by the employer. Recent 401(k) reform proposals focus on these default options (items 1-4 following) and include: (1) automatically enrolling employees in the plan (i.e., requiring the employee to take specific op-out action if they do not want to start a plan); (2) making it the default option to invest contributions in a mix of highly diversified mutual funds (e.g., index stock and bond funds) pegged to the approximate year the employee is projected to retire, with adjustments in the mix of funds in the investment portfolio increasingly conservative as the worker gets older and closer to retirement (D’Antona, 2009); (3) adding a default provision that automatically increases the employee’s contribution rates over the years -- starting at, for example, 3% and then gradually increasing to 6% or 9%. This would substantially increase the size of the accounts at retirement (D’Antona, 2009); (4) Making it the default option to pay the 401(k) retirement benefit as a lifetime annuity rather than as a lump sum, with the aim of reducing the number of retirees who currently take the assets as a lump sum and use them up very quickly (Harris & Walker, 2009); (5) requiring employees to roll over 401(k) assets rather than allowing them to cash out when changing jobs; and (6) replacing the current tax deduction for contributions with a tax credit.

IV. International Developments in Retirement Security Policy
The most important international public pension policy trend in recent years is the shift toward less dependence on PAYG-DB schemes and greater dependence on multi-pillar schemes that include a funded defined contribution (FDC) pillar. Typically the FDC pillar is funded by a mandatory tax paid by employees (sometimes supplemented by employer contributions). Each employee has an individual account that is invested by a private sector money management organization in financial markets. The value of the assets in these accounts is a function of the amount contributed, the fees charged to manage this money, and trends in financial markets. Because most schemes that include an FDC pillar also include a publicly financed PAYG-DB pillar as well, it is common to refer to such multi-pillar schemes as being partially privatized. Given this trend and the extent to which the issue has been debated in the United States, it is of interest to discuss how well partial privatization is working in other countries.

A. The Trend toward Partial Privatization

By the early 1980s many nations around the world with maturing PAYG-DB pension schemes in place were running deficits. In 1981 Chile became the first of these nations to confront this problem by replacing its PAYG-DB scheme with a FDC scheme. By the 1990s many nations around the world had begun to introduce reforms influenced by the Chilean model. Today approximately thirty countries have at least partially privatized their public pension schemes by adding a mandatory FDC pillar managed by private sector organizations, subject to a variety of government regulations and controls (James, 2005).

Although many factors have contributed to the spread of reforms involving reductions in commitments to existing public PAYG-DB pillars in favor of privately managed FDC pillars, among the most important has been the influence of the World Bank and the International Monetary Fund (IMF). The World Bank has provided experts willing to help set up FDC pillars
and has often offered economic incentives as well. The impact of the World Bank has been largely as a purveyor of reform policies based on the neo-liberal ideology that has been reshaping welfare-state-related social policies around the world (Madrid, 2005). Of particular note was an influential World Bank (1994) publication, *Averting the Old Age Crisis*. It called for a “three-pillar pension scheme” -- with the first pillar being a modest publicly financed demogrant or means tested benefit focusing on poverty reduction and redistribution, the second being a mandatory privately-managed and fully-funded FDC pillar designed to promote pre-retirement income replacement, and the third being a voluntary private individual savings pillar (World Bank, 1994).

In recent years the original three-pillar World Bank model came under criticism from policy analysts both outside (Kay & Sinha, 2008) and inside the World Bank. This led to a revised five-pillar version of the model (Holzmann, Hinz, & Dorfman, 2008). The “zero pillar” is typically a non-contributory social pension (or social assistance plan) financed by the local or national government. Its focus is on provision of a minimum pension aimed at poverty alleviation among the elderly poor. The “first pillar” is a mandatory PAYG-DB government scheme financed largely by an earnings-related tax. Its focus is on pre-retirement income replacement. The “second pillar” is a mandatory individual savings account often taking the form of a FDC pillar financed by a tax on employees. The “third pillar” is made up of one or more voluntary individual savings plans. It can take many forms including individual retirement account (IRA) type plans, employer-sponsored DB plans, and 401(k) type plans. The “fourth pillar” is described as a non-financial pillar. It includes informal support and various government social programs, such as those providing health or housing benefits (Holzman et al., 2008).
In the discussion below the focus is on pension schemes in four countries, each of which has introduced a FDC pillar as an optional or a mandatory pillar. These cases have been selected to illustrate some of the issues and potential outcomes with which pension analysts are dealing.

1. Chile: A Very Influential Move from the PAYG-DB to the FDC Model

One reason the Chilean FDC scheme has been so influential is that it was the first country to shift from a PAYG-DB model to the FDC model (Kritzer, 2008). Although more accurately described as a partially privatized than a fully privatized scheme, it is one of the most privatized pension programs in the world. In addition, it has been in place for almost 30 years, substantially longer than the FDC schemes introduced in other countries. Another reason the Chilean scheme has received much attention is that reports on it, particularly during the first 15 years or so, were very favorable and seemed to point to far higher “returns” for covered workers than seemed possible with comparable payroll taxes associated with existing PAYG-DB schemes in other countries (Williamson, 2005). During the 1990s it was common for proponents of partial privatization in the United States to point to what was described as a very successful privatized pension scheme in Chile (Borden, 1995). For years pension policy experts from around the world came to Chile to study its pension system, and many left as enthusiastic supporters of what they saw.

However, over time, some of the limitations of the model, as originally implemented, have emerged. This has led to a moderation of the enthusiasm for the model both within and outside of Chile (Gill, Packard, & Yermo, 2005; Holzmann & Stiglitz, 2001). Recent reforms in Chile have focused on improving the FDC pillar by increasing coverage and reducing administrative costs. At the same time there has been more government involvement, increasing attention to poverty reduction and reducing exposure to market risk (F. Bertranou, Calvo, & E. Bertranou, 2009).
The Chilean scheme seems to have worked quite well for affluent workers, particularly men with many years of full-time covered employment. It also seems to have contributed to the development of the financial sector in Chile and to the strength of the economy more generally. However, it has also become evident that the scheme has not been working as well for low-wage workers, women, rural workers, and those in the informal sector (those who work off-the-books, domestics, day labor, and the like) (Kritzer, 2008; Williamson, 2005). In addition, due to the structure of the Chilean economy, with many workers in temporary jobs and frequent periods of unemployment between covered jobs, the requirement that workers contribute for at least 20 years has excluded many workers from a very important benefit, the government-subsidized minimum pension. A major reason is that the requirement is actually for 240 months, which adds up to 20 years only for those who are employed for every month for 20 years, but can stretch to 40 years or more for workers with frequent periods of unemployment (Williamson, 2005).

In recent years a number of major reforms have been made in the original “privatized” Chilean pension scheme, representing an effort to better provide for those falling through the cracks in the scheme as structured in the early 2000s (Kritzer, 2008). It had been possible to retire early and many did so, but often the result was that workers ended up with very low pensions. Changes made in 2007 limit early retirement to those with much larger retirement accounts thus assuring that they have more adequate pension benefits. A number of major reforms were also introduced in 2008 (Barr & Diamond, 2008). The prior minimum pension guarantee was merged with the prior social assistance program to create a new program with two types of pension benefits. One is a non-contributory pension benefit that will be paid to the poorest 60% of the elderly population. The other is a new pension top-up for workers who meet the standard pension eligibility criteria, but have low levels of assets in their FDC accounts. As
of 2009, mandatory insurance premiums for disability and survivorship that had been paid by employees are now paid for by employers. In addition, over the next seven years a new requirement that the self-employed participate is being phased in. This set of reforms is expected to substantially increase coverage and the adequacy of benefits for women, low-wage workers, rural workers, and those working in the informal sector of the economy more generally (Bertranou et al., 2009).

2. Argentina: A Less Successful Latin American Experiment with Partial Privatization

During the 1970s and 1980s the Argentine PAYG-DB public pension system expanded rapidly. By the end of the 1980s it was running huge deficits, leading to lawsuits over unpaid benefits and to a major restructuring in 1993 (Arza, 2008). The pension system, which has been much influenced by the Chilean scheme, includes a mandatory PAYG-DB first pillar financed by employers. The mandatory second pillar was financed by employees themselves and offered two options either (1) a second government administered PAYG-DB plan or (2) a privately managed FDC plan (Baker & Weisbrot, 2002).

The introduction of the FDC option was motivated by several goals such as: shifting risk from the government to workers, augmenting returns on tax contributions, and reinforcing ownership rights by reducing the political risk that the government would cut previously promised benefits. Unfortunately, the diversion of tax contributions, previously available to pay pensions to current retirees, into the new FDC accounts reduced government revenues far more than anticipated, making it impossible to pay the full pensions to current retirees. According to some analysts, the introduction of these new FDC accounts significantly contributed to Argentina’s financial meltdown in 2001 (Arza, 2008). The FDC accounts were U.S. dollar denominated and at the time the peso was pegged to the U.S. dollar. In an effort to deal with its
fiscal crisis the government required that these accounts be shifted from US dollars to pesos. These assets soon lost 60% to 70% of their value when the peso was allowed to float (Bertranou, Rofman, & Grushka, 2003). In addition, the government was forced to cut benefits from the DB component of the public pension system by 13%, a cut that according to some analysts was more drastic than would have been necessary absent the introduction of the FDC account option (Baker & Weisbrot, 2002).

One of the goals of the FDC accounts was to protect pension tax contributions from the political risks of benefit cuts during periods of fiscal crisis, a goal that clearly was not realized in connection with the 2001 crisis. Yet another example of failure in connection with this goal was the reform in 2008 which required many workers who had previously opted for the FDC second pillar to shift to the government administered DB option for the second pillar. The assets in their individual accounts were nationalized. At retirement workers who had been contributing to these FDC accounts are to be given “credit” for the years contributing to the now defunct FDC second pillar (Social Security Administration, 2008b). It is not clear that they will ever be fully compensated for the appropriation of the funds in these accounts (Rofman, Fajnzylber, & Herrera, 2008). Given the Argentine experience, there is reason to question the argument by many FDC advocates that such accounts will be safe from government appropriation because they will be viewed as private property (Kay, 2009).

3. China: Funded Accounts for Both Urban and Rural Areas?

Old-age pensions for the general (urban) population were introduced in 1951 very soon after the founding of the People’s Republic of China in 1949. The original pensions for the PAYG-DB schemes covered only the urban population working in state-owned enterprises and urban collectives. By the 1980s it had become clear that with the move toward a market economy the
traditional PAYG-DB pension schemes, which were administered and financed by the large state-owned enterprises, were not going to be sustainable. During the 1990s China began to experiment with schemes that included both a PAYG-DB pillar and an individual FDC pillar (Williamson & Deitelbaum, 2005). The current scheme for the urban population is based primarily on two-pillars. The first is a PAYG-DB pillar financed by a 20% payroll tax on employers. The second is a FDC pillar financed by an 8% payroll tax on employees (OECD, 2009).

There is some good news and some bad news with respect to how well the current urban system is working. The good news is that the income replacement rates are high for China across a range of income levels, with a 68% replacement rate for those with average earnings; this compares favorably with an average of 58% for the OECD nations (OECD, 2009). The bad news is that in about 75% of China’s 31 provinces, for most workers the 8% payroll contribution designated to fund their individual accounts is being diverted to pay pensions to those who are currently retired. A record is being kept of those tax contributions with a promise to repay workers (with interest) at some later point in time (Williamson, Shen, & Yang, 2009). For this reason the FDC component of the current Chinese urban scheme is in reality a variant of the (Notional Defined Contribution) NDC model to be discussed below.

Prior to 2009 no more than 10% of rural old people were receiving pensions from any sort of scheme, but in 2009, China started to implement a new voluntary contributory pension scheme for rural residents that includes contributions from workers and from the government (Shen & Williamson, 2010). The government’s goal is to offer the program in 10% of the counties in each province by the end of 2009, increasing to 100% of counties by 2020. The number of workers actually participating will be lower in poor areas and higher in more affluent areas, such as the
suburbs of Beijing where it is already about 80% (Shen & Williamson, 2010). The program, called New Rural Social Pension Insurance, began as an experimental program in 2007 and 2008 in selected areas (HelpAge International, 2008). There are two components of the pension. One is the basic pension; it is based on contributions from both the national and local (provincial and county) government. In poor counties benefits from this pension are set at a level close to the poverty level. In more affluent counties there is a greater contribution from the local government and the benefits can be much higher. The second is a funded component based on the amount the worker contributes over the years. For those who elect to participate, there is a minimum contribution that varies from one county to another and tends to range between 4% and 8% of the average wage; but if workers contribute more, they are promised higher pension benefits when they become age eligible (60 for men, 55 for women) and have contributed for at least 15 years.

This new pension plan is a great improvement for those living in rural areas, but it is unlikely to meet the needs of the poorest of the poor because participation is voluntary and many of them will not be able to afford to pay the necessary premiums (HelpAge International, 2008). There is also the issue of how well the money in the FDC accounts will be managed by the county-level officials responsible for overseeing the funds generated from the contributions made by participating workers.


In 1975 legislation was enacted that created a second-tier earnings-related plan in the UK called the State Earnings Related Pension System (SERPS), but also allowed employers to opt-out of that scheme in favor of their own occupational schemes (Williamson, 2002). In 2002 SERPS was replaced by the State Second Pensions (S2P) plan. The new scheme made some changes that favored low-wage workers.
More relevant to the debate over the proposed partial privatization of Social Security in the United States was the legislation enacted by Thatcher’s government in 1986 creating incentives for workers to opt-out of SERPS (or out of their employer-sponsored occupation pension plans) in favor of individually directed DC schemes called Approved Personal Pensions (hereafter, personal pensions) with freedom to choose from among many privately managed plans (Schulz & Borowski, 2006). These pensions were in many ways similar to IRAs in the Untied States. While popular at first, within a few years public support for the personal pensions started to weaken. One reason was that workers became more aware of the high fees when buying into or transferring between providers. The high annual management charges were also a concern. The net effect of these fees was poor returns for many workers, particularly those with smaller accounts (Waine, 2009). Another problem was the loss of confidence in the scheme due to the misleading financial advice given to potential clients by sales staff working for some of the organizations managing the personal pension plans (Blake, 2000).

An effort was made by the Blair government to respond to some of these problems with the introduction in 2001 of a new scheme call stakeholder pensions. These pensions worked in much the same way as the personal pensions, but they were designed to better serve lower income employees (Schulz & Borowski, 2006). Employers that did not offer their own occupational pensions were required to offer stakeholder pensions to their workers. The stakeholder pensions were in many ways an improvement over the personal pensions. For example, they reduced the fees that made the personal pensions particularly bad investments for those with small personal accounts, and they eliminated the fees associated with moving from one provider to another (Walker & Foster, 2006; House of Commons Treasury Committee, 2006). But the changes made
were not enough to solve the problem of “undersaving” as relatively few workers signed up for the new stakeholder pensions (Waine, 2009).

In 2002 a government appointed Pensions Commission was charged with making a thorough review of the British pension system. It concluded that it was not working well (Pensions Commission, 2005). It was described as the most complex pension system in the world, as contributing to increasing inequality, as failing to provide adequate incentives to save, and as having very high administrative costs (Schulz & Binstock, 2008).

More recently, based largely on recommendations from the Pensions Commission, the Pensions Act of 2008 introduced yet another program designed to deal with what the government calls the problem of undersaving on the part of British workers (Waine, 2009). This legislation mandates that as of 2012 every new employee over age 22 and earning over a specified income threshold must be automatically enrolled in either the employer’s occupational pension plan or in a new plan called “personal accounts” (DWP, 2009). This new scheme will by 2016 require a contribution of 8% per year split among the employee 4%, the employer 3%, and the government 1%. Employees will still have the ability to opt-out of either of these alternatives, but through a series of incentives the government is attempting to make the personal accounts plans affordable and appealing so that many employees will continue participating (Curry, 2008).

The new personal accounts scheme does have potential problems, some of which it shares with the prior stakeholder pensions and personal pensions. It still puts workers at risk of potentially large declines in fund assets due to adverse swings in the stock market during the period just prior to planned retirement. It also puts the worker at annuity risk due to the substantial differences in the value of the annuity depending on interest rate fluctuations just prior to retirement. In addition, the model still assumes much more by way of financial literacy
than most workers have or are willing to acquire. Some British analysts argue that the long-term real returns for low-wage workers contributing to personal account schemes may be positive, but are more likely to be negative. Others emphasize that low returns are particularly likely for women (Price, 2007; Waine, 2009). These problems and the tendency to foster increased economic inequality are all problems that are common to the FDC component of partial privatization schemes in the UK and in the other countries that we have considered as well.

B. Are There Viable Alternatives to Partial Privatization?

When partial privatization has been introduced in transition nations such as China the diversion of payroll tax contributions into funded accounts can put a major strain on the capacity of a nation to finance pensions for those currently retired. This fiscal stress can, as in the case of Argentina, contribute to a financial meltdown of the national economy. In some developing economies such as Chile and Argentina partial privatization has been associated with a decrease in pension coverage and an incentive to shift to jobs in the grey economy. But not all of the consequences of partial privatization are bad. There is evidence from Chile and several other countries that partial privatization does promoted the development of capital markets which in the long run is likely to foster economic development (Williamson, 2005). It has also proven useful as a way to reduce government pension spending which in an era of population aging is a high government priority in many nations.

Around the world, PAYG-DB pension systems are being reformed and partial privatization is the new model getting the most attention. However, there are two others that have also been attracting attention in recent years, the Notional Defined Contribution (NDC) plans and social pensions. Both can be viewed as alternatives to partial privatization.

1. The Notional Defined Contribution (NDC) Model
The NDC model combines elements of the PAYG-DB model with elements of the FDC model. It incorporates DC provisions into PAYG pension schemes designed to assure a tighter actuarial link between payroll tax contributions made and benefits paid than is the case with most PAYG-DB schemes. It does this in part by creating notional (unfunded) individual accounts that are “annunitized” at retirement. NDC schemes are typically one pillar in a multi-pillar scheme.

Between 1995 and 2002, NDC schemes were introduced in Italy, Latvia, Sweden, Poland, Russia, the Kyrgyz Republic, and Mongolia (Holzmann & Palmer, 2006; Williamson, Howling, & Maroto, 2006; Williamson, 2004). In addition, both Brazil and China have added quasi NDC pillars (Lindeman, Rabalino, & Rutkowski, 2006).

Pension policy makers generally turn to the NDC model when confronted with serious budgetary pressure linked to unsustainable PAYG-DB pension schemes (Holzman & Palmer, 2006). This is the same context in which many nations have turned to the FDC model. The NDC model can look particularly attractive when a nation cannot afford the startup costs associated with the transition from a mature and relatively generous PAYG-DB scheme to a FDC scheme. That transition often calls for the diversion of at least a portion of current payroll tax contributions into funded individual accounts; but if payment of current pensions under the existing scheme is a major fiscal burden, a new scheme calling for the diversion of a portion of current revenues into individual accounts can be problematic. The NDC model, however, being unfunded, does not require the diversion of payroll tax revenues to get started as all tax contributions continue to be used to pay benefits to current pensioners.

Each of the existing NDC schemes has its unique provisions, but the following are characteristics that all or most of them share. First, each worker has an individual notional (unfunded) account that records notional credit based on the payroll tax contributions made by...
the worker and any matching contributions made by the employer. Second, the tax contributions made are not used to purchase financial securities and for this reason the notional assets are not vulnerable to a dramatic decrease in value due to a sharp drop in financial markets during the period just prior to retirement. Third, the notional assets (credit) in the account are indexed each year based on changes in wage levels, price levels, the “wage-sum” or the GDP. The wage-sum is based on the number of workers contributing (and thus changes in the size of the workforce) and the average wage level. Fourth, with an NDC scheme the link between payroll tax contributions and the eventual pension paid is more transparent and actuarially fair in the eyes of many workers than is the case with typical PAYG-DB schemes. Fifth, NDC schemes have a specified minimum number of years contributing and a minimum age for eligibility (which may vary by gender). Sixth, there is an annuity formula, that varies in details from one country to another, for converting the notional credit into a pension at retirement. Typically this formula factors in the unisex life expectancy for the person’s age cohort at the time of retirement. Seventh, many NDC schemes have automatic stabilizer provisions that help bring the schemes into fiscal balance when pension costs start to exceed revenues. For example, such provisions may call for lower pensions or a reduction in the annual amount credited to the accounts. Eighth, some countries give notional credit for time covered by a prior PAYG-DB scheme; others credit periods when the person is not contributing to the scheme for certain designated reasons such as time spent at home caring a young child (Williamson, 2004).

How well do the NDC schemes seem to be working out? In many countries they have been in place for 10 years or less, so any conclusions must be viewed as tentative. The cases of Sweden and Italy illustrate that outcomes for different industrial nations vary. In general, reports from Sweden are positive (Sundén, 2009; Palmer, 2007). Sweden has a multi-pillar scheme and there
have not been problems with the NDC pillar, but the FDC pillar has not lived up to expectations. In Italy the new NDC pillar has been problematic (OECD, 2009). There have been problems linked to overly generous formulas used to calculate pension entitlements and problems due to the slow rate of transition from the prior PAYG-DB scheme to the new NDC based scheme.

The NDC model has also been used in a number of transitional economies including Latvia, Russia, Poland, the Kyrgyz Republic, and Mongolia. Latvia implemented its scheme in 1996 and during the early years there were a lot of problems, particularly with how to deal with those who were retired or near retirement under the prior very generous PAYG-DB schemes inherited from the Soviet era. The government felt obligated to make ad hoc adjustments to deal with the high poverty levels among those already retired or trying to retire in connection with the new scheme. The pension records were poor, and the new nation did not have the administrative structure in place that was fully up to the task of managing the scheme (Vanovska, 2006; Fultz, 2006).

The Latvian model adjusts notional assets based on the wage-sum, and this provision turned out to introduce much more volatility than had been anticipated. In 2009 Latvia made several adjustments, including substantial cuts in benefits to current pensioners, designed to balance payroll tax revenues and pension expenditures. Of particular note is a recent decision to substantially increase the size of tax contributions to the NDC pillar while at the same time reducing tax contributions to the FDC pillar, reflecting a preference for the NDC pillar during periods of fiscal stress (Social Security Administration, 2009).

The NDC model has some potential benefits relative to the PAYG-DB alternative and other benefits relative to the FDC alternative, but like any pension model it has its own limitations as well. Among the most frequently mentioned limitations are the following. First, it requires the capacity to keep accurate long-term records of tax contributions and the annual adjustments
added to those contributions. This will not be a problem in industrial nations, but it could be a problem in some transitional nations, and very likely will be a problem in many poor nations. The administrative structure requirements make it inappropriate for poor nations or for the large poor rural populations in some middle income nations such as Brazil. Brazil has a pension system for its urban population that draws on some NDC principles, but no effort is currently being made to extend the NDC model to its poor rural population to supplement or replace the current rural social pension. Second, without some sort of social assistance, minimum pension, or social pension pillar, there will be problems of pension adequacy for low-wage workers. An NDC pillar is generally not redistributive and has no way to provide pension benefits for workers who spend much of their lives working in the informal sector of the economy. Third, being wage-based and not being redistributive, the NDC model is not going to work as well for women as for men. This is in part due to patterns of lower wages, lower rates of attachments to the formal sector of the economy, and more irregular work histories among women. However, there are some countries, such as Sweden, in which notional credit is given, up to specified limits, for time spent out of the labor force taking care of young children. This benefit helps to reduce, but does not eliminate the gender gap. Fourth, while the notional assets in an NDC scheme are protected from the fluctuations in financial markets that FDC schemes are vulnerable to, the NDC schemes do need indexing and the various forms of indexing that are used (wage changes, price changes, wage-sum changes, and GDP changes) are also potential sources of risk.

2. Do Social Pensions Make Sense for Rural Areas of Developing Nations?

Social pension schemes (also referred to as social assistance) are noncontributory universal or means-tested pensions that focus on poverty alleviation. Such a scheme may serve as the only public pension, as in Namibia, or as a supplementary pillar, often a safety net for those not
covered by contributory schemes, as with the schemes for the rural population in Brazil (Palacios & Sluchynsky, 2006). A recent World Bank report calls for the inclusion of a “zero pillar” (social pension) funded from general government revenues (Willmore, 2007; Holzmann & Hinz, 2005). This pillar may be particularly useful in rural areas of developing countries, venues that often lack the administrative infrastructures needed to support contributory pension schemes (Palacios & Sluchynsky, 2006). Social Pensions are sometimes combined with PAYG-DB schemes, FDC schemes, or NDC schemes, but they are typically designed to cover workers, often rural workers, not covered by contributory pension schemes (Johnson & Williamson, 2006).

Any assessment of the appropriateness of the social pension model for a particular country calls for consideration of the relative economic position of the older population; the more impoverished the older population is relative to other age groups, the stronger the case for such schemes. However, if the differences are not large, some analysts will argue there may be better ways for the government to spend that money to meet the needs of the poor (Palacios & Sluchynsky, 2006). Some point to potential adverse consequences of social pensions, such as reduced familial assistance to the elderly and the substantial fiscal cost (Palacios & Sluchynsky, 2006). However, many countries that have adopted these schemes experience not only reductions in poverty among the elderly, but also other indirect benefits, such as increased investment in children’s education and increased local investment (Lloyd-Sherlock, 2006; Johnson & Williamson, 2006).

Namibia has a universal social pension as its primary old-age security scheme for both the rural and the urban population. There is no mandated contributory pension scheme. The social pension is financed by the central government from general revenues. It is a very low flat rate
pension, and participation is high (Stewart & Yermo, 2009). To qualify for this pension a resident must be 60 years old and a citizen; there is no means-testing involved. The impact of the pension benefit often extends beyond the recipients themselves because pensioners spend on average only 28% of the benefit on their own expenses, with the rest going to meet other family needs (Palacios & Sluchynsky, 2006).

During the early years there were serious problems with fraud (e.g., efforts to collect benefits on behalf of those who were long dead) and armed robbery of those responsible for disbursing the payments. These have been largely overcome, through outsourcing administration to private contractors who since 1996 have used armored cars, armed guards, and a sophisticated pensioner identification system based on fingerprint checks and electronic ID cards. All this has substantially increased administrative costs (Willmore, 2007). Although the benefits of the program are far reaching, there is some concern about the long-term future of the scheme as the population of Namibia ages. The proportion of people who are age 60 and over in Namibia is projected to increase from 6% to 21% within a few decades. This has led to discussions about the need to add a mandatory contributory pension pillar to the current social pension scheme in the not too distant future (Stewart & Yermo, 2009).

In 1988 Brazil introduced a social pension called the Previdência Rural to reduce rural poverty (Barrientos, 2002). To become eligible for this pension, one must be at least 60 years old, be a rural resident, and have proof of being a rural worker. The Previdência Rural substitutes years of rural work for the years of contribution associated with the urban contributory scheme. There is also a 2.2% contribution to the program made by the purchaser of rurally-produced goods, but these tax revenues alone are insufficient to entirely fund the program. The gap is filled by the diversion of a portion of the revenues from the urban contributory scheme (Schwarzer &
Querino, 2002). For 80 to 90 percent of rural pensioners their social pension benefits are set at a level close to the minimum wage and this typically provides at least half of the household income. The benefits of this rural pension extend beyond poverty alleviation as it also fosters agricultural development, trade union financing, and support for the local economy (Schwarzer & Querino, 2002). However, for a variety of reasons, this program does not reach the entire rural poor older population. Many of the poorest of the poor in both rural and urban areas are covered by a separate means-tested social assistance program. This program requires that per capita household income not exceed a quarter of the minimum wage and that the beneficiary be at least 65 years old. It also requires that no other social insurance program benefits are received and recertification of eligibility every two years (SSA & ISSA, 2008; Barrientos, 2002).

V. Conclusion: The Future of Retirement Security

In the United States much of the debate over the future of retirement security has in recent years focused on proposals to divert a portion of the Social Security payroll tax into funded individual accounts. This effort has been part of a more general push for welfare state retrenchment and, most recently, federal budget deficit reduction. Although it is unlikely that we will soon see the introduction of mandatory individual accounts, it is likely that we will see a number of parametric reforms enacted, some of which will have important distributional consequences. There will be both winners and losers.

While the debate over the partial privatization of Social Security via the introduction of FDC accounts is currently off the table in the United States, this is not true with respect to the partial privatization of retirement security. The dramatic shift from employer-sponsored DB schemes to 401(k) and similar FDC schemes represents an increase in dependence on the FDC model for retirement security that has not been given the attention that it deserves. The question is not
whether the United States should consider the partial privatization of retirement security based on the FDC model, as this has already taken place. The discussion now is how to reform the 401(k) model to better protect the millions of American workers who will have an increasing share of their retirement assets invested in and retirement security linked to these accounts.

To date relatively few nations have extensive experience with the partial privatization of social security based on the inclusion of FDC pillars as part of multi-pillar schemes. The evidence from the 30 or so countries that have introduced such schemes is mixed, as is illustrated by the experience of the countries considered here. Many of these countries, including Chile, are making changes designed to remedy some of the problems that have emerged in connection with the original versions of their FDC schemes. In the years ahead, these reformed schemes may turn out to work well, and the models could end up having a significant impact on future debates over Social Security reform in the United States. It is also possible that in the vast majority of countries, privatization will turn out to work well only for the most affluent workers, an outcome that may also influence future debates in the United States.

Is the international experience with the NDC model likely to influence future debates over Social Security reform in the United States? Reforms need to be made and a NDC pillar could be used to help realize some of the goals reformers will be considering. It would offer a way to help balance revenues and pension costs. It would also add a way to share the burden of balancing pension revenues and expenditures between retirees and workers. It would strengthen the link between tax contributions and eventual pension benefits without making workers vulnerable to swings in financial markets. It would also help avoid several other sources of risk that would increase were we to add an FDC pillar (Hacker, 2006). The experience of Sweden suggests that the NDC model can work well in an advanced industrial country. But the NDC model would
represent a radical structural change in Social Security, a scheme that can be brought into balance financially by a combination of far less radical changes referred to as parametric reforms. An NDC pillar could be used and would be useful if introduced, but it is not needed and probably would not be politically popular in the United States at this point in time. NDCs make more sense for nations with PAYG-DB pension schemes that are much more seriously out of balance.

Endnote:

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