



# Quarterly Newsletter

January 2006

Volume 7, Issue 1

### Director's Corner

This issue features a Policy Brief on possible ways of addressing Social Security solvency problems by Edward Gramlich and an interview in which Estelle James discusses personal accounts in the Chilean pension system.

I am delighted to welcome Edward Gramlich's participation in MRRC. After serving for eight years on the Board of Governors for the Federal Reserve System, Ned Gramlich returns to the University of Michigan as the Richard A. Musgrave Collegiate Professor at the Ford School of Public Policy. Ned chaired the Quadrennial Advisory Commission on Social Security 1994-96, and he will be personally familiar to our readers from having delivered the keynote lunchtime speech at our RRC Conference in August 2004. Drawing on his experience and expertise, his Policy Brief, entitled "Another Attempt at Social Security Reform," offers frank, concrete suggestions for addressing current Social Security solvency issues.

Estelle James is a consultant to the World Bank and USAID, and an expert on international pension system comparisons. She recently served as a member of the President's Commission to Strengthen Social Security. She has been a research scholar at MRRC since 2003. Her MRRC working paper (joint with Alejandra Cox Edwards) on "Do Individual Accounts Postpone Retirement: Evidence from Chile" attracted special attention in the press last spring. This issue presents an interview in which MRRC scientific editor, Amanda Sonnega, asks Estelle to summarize several key ideas from her long-term studies of the functioning of personal accounts in the Chilean public pension system.

John Laitner, Director



### Regular Features

FYI .....12

### Inside This Issue

MRRC Scholars at American Economic Association Meeting ..... 1  
Researcher Q & A.....2  
Another Attempt at Social Security Reform .....6

### MRRC Scholars at American Economic Association Meeting

MRRC researchers John Laitner, Olivia S. Mitchell, Kent Smetters and Daniel Silverman will participate in a session with others entitled "Efficiency Gains and Social Security Reform" at the Annual Meeting of the American Economic Association in Boston this year. The session is scheduled for January 6<sup>th</sup> at 10:15 a.m.

#### Chair:

Olivia S. Mitchell (Wharton)

#### Papers:

John Laitner & Daniel Silverman (University of Michigan), "The Effect of Social Security on the Average Age of Retirement"

Kent Smetters (Wharton), "Social Security Privatization with Elastic Labor Supply and Second-Best Taxes"

David Cutler, Jeffrey Liebman, Seamus Smyth (Kennedy School, Harvard), "How Fast Should the Social Security Retirement Age Rise?"

#### Discussants:

Daniel Silverman (University of Michigan)  
Eric French (Chicago Federal Reserve Bank)  
David Blau (University of North Carolina)

## Researcher Q & A

In this issue Estelle James discussed her research.

### How would you describe your MRRC-supported work?

My work has focused on an evaluation of the individual account system in Chile, the country with the longest experience with this type of system. In 1982 Chile replaced a traditional public pay-as-you-go defined benefit (DB) system with a system that is funded, privately managed, and largely defined contribution (DC). DC plans are sometimes called individual account systems. Each employee contributes 10% of his or her wages to the account, which is invested by pension funds (called AFPs), and another 2-3 percent is paid for administrative costs and disability and survivors' insurance. The government backs this up with a minimum pension guarantee (MPG), which sets a floor (about 25% of the average wage) to the pensions of workers who contribute for at least 20 years.

With my co-authors, we are asking what works, what doesn't work, and what can the US and other countries learn from Chile's experience? When the defined benefit is discarded, how do retirees secure lifelong income security, how are people protected who become disabled before they have accumulated a large sum, and how are women and other low earners assured a reasonable retirement income? Another set of questions concerns the impact of the new system on the broader economy, such as the labor market. We find that the devil is in the details. Through detailed regulations and carefully constructed guarantees, Chile has solved many of these potential problems. But it is still working to fine-tune and improve its system.

### How is the money in the account converted into a lifelong income stream?

In defined benefit schemes a monthly pension is automatically paid, but in individual accounts the worker ends up with an accumulation of retirement savings rather than an income stream. Will most retirees choose to

buy annuities, which are designed to last their entire lifetimes? Who annuitizes and who chooses the other main option—gradual withdrawals? Will the annuity industry grow rapidly enough to accommodate the potential new demand and will it offer attractive terms? How do policies influence retiree behavior?

Estelle James is currently a consultant to the World Bank, USAID and other organizations. Previously she was Lead Economist at the World Bank and Director of the Pension Flagship Course at the World Bank Institute. She is also a member of the Governing Board of the new pension fund in Kosovo and served as a member of the President's Commission to Strengthen Social Security in the U.S. She is principal author of *Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth*, a World Bank study that provided the first global analysis of economic problems associated with population aging.



With co-authors Guillermo Martinez and Augusto Iglesias, my work has addressed these issues. Almost two-thirds of all retirees in Chile have annuitized—a very high proportion compared with other countries. And the annuity industry has grown from almost nothing to a multi-billion dollar industry. We argue that this high rate of annuitization is not an accident; rather, it is due to detailed public policies that constrain individual choice and push retirees toward annuitization. Retirees in Chile can either annuitize or take gradual withdrawals. (Lump sum payouts are allowed only after the worker has a pension that replaces 70% of his wage). Annuities provide a promise of a lifelong income, while gradual withdrawals continue only so long as money lasts in the account. Since there are practically no public or private defined benefit plans in Chile (except for disability benefits—see below), if retirees want to be sure that they will have a

lifelong income they must annuitize. The government encourages this choice by guaranteeing most of the annuity and by allowing insurance companies selling annuities to pay commissions to independent brokers, while pension funds selling gradual withdrawals are not allowed to pay these commissions—therefore brokers steer their clients toward annuities. Insurance companies further induce annuitization by marketing aggressively, providing price-indexed annuities and offering very good terms—annuitants can expect to get back their entire premium plus interest over their lifetime.

As a result, most retirees purchase annuities. The ones who don't are those with small accumulations, who are near the government's minimum pension guarantee. If a worker's own pension does not reach this level, the government tops it up, providing they have contributed for 20 years. Individuals with small accumulations do not have to buy annuities, because the government, in effect, provides annuities for them. If the US adopts an individual account system, the Chilean example illustrates the kinds of regulations and guarantees that will ensure that all retirees receive a lifelong income—which is the object of having a mandatory system.

#### How are disabled workers protected?

The Chilean system contains an ingenious attempt to use the individual account as part of the disability insurance system, while also guaranteeing a defined benefit that is 70% of the worker's recent wage. This guaranteed defined benefit is important because the money in the account is often not enough to provide an adequate pension for disabled workers. For such eventualities, each pension fund must purchase a group insurance policy that covers all its affiliates. In exchange for a premium, the insurance company agrees to top up the account enough to finance an annuity of the required size. The cost of the group policy—less than 1% of wages per year for disability and survivors' insurance—is passed on to workers as part of their fee. With Augusto Iglesias I have been

studying how this system works and what are its pros and cons.

This system has the big advantage that part of it is pre-funded—the money in the account partially insures against disability in addition providing retirement income. As a result, the premium for the top-up insurance is only about half as much as the premium that would be necessary to cover the same size benefit in a pay-as-you-go system. Also, the premium will be less sensitive to demographic aging than a pure pay-as-you-go system, since older workers, who are more likely to become disabled, have accumulated a larger account that helps to finance their disability benefit. Another advantage is the incentive that pension funds have to avoid over-use of disability benefits, to control costs. (Detailed regulations prevent the opposite abuse by pension funds—turning down too many claims).

However, the system also has some disadvantages. First, the cost of the top-up is very sensitive to the interest rate. Since the payout on the annuity is fixed, if the returns that insurance companies earn on their investments go down, the premium that is passed on to workers must go up to cover the benefit. This has been happening recently; premiums have risen substantially over the past 3 years. This problem is really unavoidable, if a defined benefit pension is paid through private markets.

Another problem is that the system involves complex but hidden cross-subsidies, since the premium as a percentage of wage is constant for all workers, but some workers are riskier than others. Furthermore, pension funds try to economize on costs by attracting low-risk workers (women, high income) and avoiding those who are high-risk (older workers, workers in risky occupations). This may make it more difficult for high-risk workers to switch into the pension fund of their choice. This “creaming” problem could be avoided by allowing the fee that is paid by the worker to vary according to the

---

worker's risk category, or by separating disability insurance from the pension fund, putting all workers into one pool, and using a competitive bidding process to auction off the top-up function to the lowest bidding insurance company. The idea of using the accounts as part of the disability benefit is a good one, and should be considered in the US, but possibly the Chileans have not yet found the best way to implement this concept.

#### Are there provisions for protecting women?

Before I began my work with MRRC, I studied the gender impact of the Chilean reform, with colleagues Alejandra Cox Edwards and Rebeca Wong. Critics of individual account systems often argue that the tight link between payroll contributions and benefits in defined contribution plans will produce lower pensions for women, because they are low earners and therefore low contributors. In contrast, supporters of these reforms argue that they remove distortions that favored men and permit a more targeted public benefit that will help women. Moreover, regulations at the payout stage can protect women. This debate is important because the majority of old people are women, pockets of poverty among the old are concentrated in very old women, and pension programs affect work incentives for women.

On the basis of household survey data, we simulated the wage and employment histories of representative men and women. We used these histories to project what their pensions will be under the new systems and what they would have been under the old system rules. We find the Chilean reform has raised the expected level of lifetime retirement income of women relative to men. It is true that the pension from the workers' own account is much smaller for women than for men. However, this effect is mitigated by the minimum pension guarantee offered by the government, which women will receive disproportionately. Also, upon retirement husbands are required to purchase joint pensions that cover their widows as well as themselves. This is an institutionalization of the informal

family contract, in which women do much of the household work, while men engage in market work and provide the family's monetary income. The joint annuity requirement maintains this obligation even after the husband's death. Widows are allowed to keep this joint pension as well as their own pension from their own contributions. As a result of these provisions, low earning married women are the biggest relative gainers from the pension reform.

However, women are still disadvantaged in Chile because they have a normal retirement age of 60, compared with 65 for men. This means they accumulate less money in their accounts and also less contributing time, so they may not be eligible for the MPG. Chile is now considering changes that would solve these problems.

Again, the experience of Chile suggests policies that the US and other countries might adopt when individual account systems are under consideration. As low earners, women will be protected if the system as a whole includes a redistributive public benefit. Annuitization and price indexation are especially important to women, because they live longer. Widows can be protected without any expense to the public treasury if husbands are required to purchase joint pensions. Then, widows can keep their own pension in addition to the survivors' benefit, while in the US widows must choose between the two. Thus women who work in the market place are penalized in the US (because they make contributions without receiving a benefit) while women who work at home are subsidized (because they receive a benefit for which they have not contributed). This discourages market work by women in the US. In Chile, however, these subsidies and penalties based on marital status have been eliminated. Even if we don't adopt individual accounts we could change the present system to charge husbands for the spousal benefit and allow women who contribute to keep their own benefit as well. This would save tax dollars and give better protection to women.

---

**How has the Chilean system affected the labor supply of older workers?**

As the population ages, it will become increasingly important to increase the labor force participation rate of older workers by inducing them to postpone retirement. Yet, ironically, existing defined benefit pension systems contain penalties for postponing access to pensions and for continuing to work while receiving a pension. Older workers are typically required to continue contributing while receiving little or no additional benefit. As a result, retirement ages of older males have been falling in many countries. In the US most workers retire at the earliest possible age, 62, and they retire in their 50's in Europe.

With Alexandra Cox Edwards, I have been studying the impact of the Chilean reform on the probability of 1) becoming a pensioner and 2) dropping out of the labor force, for older workers. These two must be distinguished because in Chile it is possible to continue working while receiving a pension, and pensioners are exempt from the pension payroll tax. The new system swept away the penalties for continued work that existed previously, and instituted a close link between benefits and contributions. It also tightened the conditions for early pensioning. We would expect these measures to postpone the age of pensioning and to increase the labor supply of older workers, especially among pensioners.

We indeed found strong effects of the new system on both propensities, after controlling for many individual and macro-economic variables. Workers now start their pensions at a later age than they did in the old system, and pensioners in their 50's and early 60's are continuing to work—their work propensities have roughly doubled since the system began. Again, the policies that produced these results--tightened pre-conditions for early pensioning and exemption of pensioners from the pension payroll tax--might also be considered in the US—whether or not an individual account system is adopted.

In all these projects, the outcomes we observed were not inevitable. They came about as a result of detailed regulations that rule out undesirable behaviors (consuming lump sum withdrawals early in retirement, starting the pension early), require or encourage desirable behaviors (purchasing annuities, including joint annuities that protect widows, working longer). Also influential are government guarantees in strategic places-- the guaranteed minimum pension, the annuity guarantee. These regulations can help inform US policies, if we move toward an individual account system. In fact, some of these policies are relevant even if we simply modify our present pay-as-you-go system.

---

**Visit the MRRC booth (#130) in the Exhibit Hall at the Annual Meeting of the America Economic Association.**

**January 6-8, 2006 in the Boston Hynes Convention Center.**

**Hard copies of recent publications are available.**

---

---

## Another Attempt at Social Security Reform

By Edward M. Gramlich

The burdens of financing future entitlement spending for Social Security and Medicare are by-products of two very positive trends--falling birth and death rates. While these financing burdens are large and will have to be dealt with, one would think a society could at least provide the funding to accommodate highly positive trends.

Because both Social Security and Medicare are big programs, covering the whole population of certain age groups, and because there are by definition an infinite number of out years, even programs that are not quite in long-term actuarial balance can cumulate to pretty big actuarial present value burdens over a long horizon. Recent data from the report of the Trustees of Social Security and Medicare pegged the present value of out-year liabilities over an infinite horizon to be \$11 trillion for Social Security, 1.2 percent of GDP cumulated over the same period, and \$70 trillion for the various Medicare programs, 7.3 percent of cumulated GDP.

With these big deficits, the normal marginal changes that politicians are fond of will not bring the system into balance. The numbers also suggest that between the two programs Social Security is far the more manageable challenge. Not only is its deficit smaller, but Social Security involves only money, with different groups getting somewhat more or somewhat less. Medicare, by contrast, involves much bigger numbers and the possible rationing of essential health care, raising much more significant philosophical and policy issues. In this paper I will focus mainly on Social Security, with occasional forays into the Medicare domain.

Popular discussions of Social Security often focus on competing plans--this person's approach to Social Security would change x, y, and z; that person's approach

would change x or y but not z, and so on. While I have offered a specific plan in the past, this paper focuses on a broader strategy. One can imagine several ways to fill this funding gap:

- ⇒ Raise payroll taxes (or other taxes);
- ⇒ Cut benefit levels;
- ⇒ Have people work longer careers before receiving benefits;
- ⇒ Have people save more to supplement Social Security;
- ⇒ Permit people to invest their funds differently and perhaps get a higher rate of return.

I will discuss the pros and cons of each approach, and sensible ways of implementing each. I will then argue for a composite strategy that uses elements of all of the approaches.

### Raise taxes

Social Security has existed for seventy years now, and whenever the actuarial forecasts have fallen out of balance, the dominant approach has been to raise payroll tax rates. In principle, any tax could have been raised to finance higher benefits, but from the beginning the program has been tied to employment--retiree benefits are based on years of work experience and wages--and financed by payroll taxes. Hence I will confine attention to the payroll tax, recognizing that it is at least theoretically possible to use other taxes to finance any Social Security funding shortfalls.

The basic problem with following past practice and raising the payroll tax rate whenever actuarial funding problems arise is that there is no natural end to the process. Payroll tax rates began at 2 percent (1 percent paid by the employee, 1 percent paid by the employer) on the first \$3000 of wages back in 1937; now they are 12.4 percent (6.2 percent on each) on the first \$90,000 of wages. Tax rates could march right up as the system gets more costly, as they have in the past--the rate that finances pre-

sent estimated Social Security liabilities in perpetuity is on the order of 16 percent.

It may not be the worst outcome in the world to just go to 16 percent and make no other changes. Raising taxes (without a concomitant increase in spending) limits consumption and raises national saving, a macroeconomic shorthand for the share of output devoted to growing the economy. Spending cuts are likely to take effect at a much slower pace, with much less immediate impact on resources devoted to growth. At the same time, higher payroll tax rates do become increasingly distortionary (the standard formula makes tax distortions proportional to the square of the tax rate), and they certainly are politically unpopular. Despite their positive saving impact, as time goes on it may make sense to change the historical practice and not rely as dominantly on payroll tax rate increases to keep the system in balance.

But that is only part of the tax question. The other part involves how much of income should be taxed. Back in 1980 the maximum taxable wage level covered about 90 percent of wages. Recently, because of the sharp rise in the share of wage income in the upper tail, that same taxable ceiling now covers only about 84 percent of wages. Many have argued for taking the taxable maximum back up to 90 percent of wages, which would entail raising it to about \$140,000. Indeed, Medicare already taxes all wage income--were this approach used, there would be no taxable maximum at all. Raising the taxable maximum still has efficiency costs-- workers in the newly covered range obviously are assessed with a tax increase--but the effects are not as broad as a general payroll tax increase, and there is an offsetting argument for changing the distribution of the tax burden to mirror changes in the underlying distribution of income.

#### Cut benefits

Social Security benefits now total more than \$500 billion, and it would seem possible to cut benefits at least

a bit. Possible, but harder than one would think.

To begin with, there is a sociopolitical problem. Most benefits go to retirees or the disabled, and these groups are particularly vulnerable to cutbacks. Retirees have already quit working and have made their retirement plans. Social Security benefits are not promised in a legal sense, but they are at least implicitly promised, and related by formula to the past wages of retired households. If benefits for present retirees were to be cut, many vulnerable people would have to reprogram their retirement living arrangements, which they either could not do at all, or only could do with great difficulty. For this reason, Social Security benefits to retirees have rarely been cut, and even conservative Social Security reformers typically do not recommend cutting benefits for present retirees.

But there are many proposals for cutting the growth of benefit levels over time. One class of proposals involves means-testing benefits--basically reducing benefits according to the other income of retirees. Such an approach sounds good politically, but the appeal is superficial. A systematic program of means-testing would involve cutting the benefits of those who have saved during their work years (and therefore have investment income in their retirement years), or those who continue working well into their retirement years. As will be argued below, society should want to encourage both saving and working longer. Means-testing provides exactly the wrong incentives.

Another common approach to cutting benefits over time is to price-index benefits. Social Security wage indexes benefits up to age 60. This means that workers effectively get the benefit of economy-wide productivity during their working years, and that economy-wide replacement rates (the ratio of first year retirement income to last year wages for the average worker) are stable at about forty percent. Going to price indexing would effectively mean that replacement rates would slide downward

---

for as long as the price indexing is in effect--replacement rates would asymptotically approach zero. So-called progressive indexing is a hybrid where low-income wages would continue to be wage-indexed while high-income benefits are price-indexed--if continued over time, this scheme would have the system gravitate to a nearly flat benefit system at the wage indexing threshold.

While these indexing plans again look superficially appealing, do we really want replacement rates to gravitate to either zero or to a nearly flat benefit system? Such a change would fly in the face of all the assumptions Social Security has been built on for these seventy years--a system that includes everybody, but is based on earnings so that those who put in more get out more. Going to low or flat benefits changes Social Security much more into a welfare system, with relatively scant retirement income protection for middle- and upper-income households. Over time the system would likely lose its political appeal.

If full-fledged perpetual price indexing is too much to swallow, there could be some form of price indexing for a while. In the 1970s Social Security was switched from a system where the indexing was discretionary, based on Congressional upgrading every few years, to an automatic system. At the time the indexing was set so that replacement rates were at 40 percent, above their historic levels, largely because of the fear of aged poverty. But there are other defenses against aged poverty, and it would be possible to cut benefits somewhat by, say, instituting progressive indexing for a short time, letting replacement rates slide down to 30 or 35 percent, and then resuming full wage indexing.

#### Have people work longer careers

Back in 1940, at the dawn of Social Security, people arriving at age 65 could be expected to live another 14 years. People born today are expected to live an average of 21 years after age 65. Other things equal, this fact

alone makes Social Security a much better deal for younger than older workers. Other things are obviously not equal in many ways, but there is still a strong intergenerational fairness issue in having longer-lived and healthier workers work beyond age 65 before receiving Social Security benefits.

There are various standards for working out exactly how Social Security should adjust for increasing life expectancies. Using the age 65 standard, as was done above, average life expectancy has increased about two-thirds of a year per decade in the 20<sup>th</sup> century. Adopting a different standard, in 1940 twenty-year old workers looked forward to spending about 96 percent of their remaining expected lives working and 4 percent in retirement. At today's life expectancies that 96 percent ratio would translate to workers retiring in their early 70s, a slightly more rapid effective rate of increase in the retirement age. Using various health status measures, typical health status in retirement years is improving even more rapidly. Summarizing all measures combined, I have earlier computed that a reasonable standard to achieve fairness across generations would have the age at which workers receive full benefits (known as the normal retirement age) increase slightly more than a year every decade.

The standard objection to such a change is that many workers have had arduous physical careers, and are simply not in shape to work more years. But not as many workers as one might think. The Labor Department compiles statistics on the share of workers in jobs judged to be physically demanding. Back in 1950 this share was 20 percent. Now it is down to 6 percent and dropping. By the time any normal retirement age changes took effect, there would likely be only 3 to 4 percent of the workforce in such physically demanding jobs. With a broad program such as Social Security, it is impossible to find any policy change that works for everybody, and to me raising the normal retirement age has enough benefits to more than

---

outweigh any costs imposed on the relatively few workers in demanding jobs who would have to work slightly longer careers or get slightly lower benefits.

#### Have people save more

One of the surprising economic facts about present day America is how little people save. Even including pension saving, the overall personal saving rate has just dropped to zero. While many of these people saving zero have become wealthy because of capital gains on their assets, a large proportion of the population still arrive at retirement with very small financial cushions outside of Social Security.

Looking at income directly, the Social Security Administration reports that in the lowest income quintile, households age 55 and over receive 78 percent of their income from Social Security, 11 from other transfer payments, only 2 percent from earnings and 5 percent from assets. The earnings percent stays in the single digits all the way up to the fourth quintile and the asset percent in single digits to the fifth quintile. For roughly half of the population of retirees Social Security and other transfers account for more than 90 percent of living support.

The obvious answer to questions raised by low personal saving, low national saving, and overwhelming reliance on Social Security is to get people to save outside of Social Security. Earlier, I proposed a small mandatory saving account on top of Social Security. Such a plan would not have directly dealt with the financial problems of Social Security, but it would improve retirement saving more generally. I reasoned that a mandate made sense--it did not cost any budget resources, and it was automatically regulating. Those who already were saving could claim that saving to satisfy the mandate, and would not have to save any more. Those who were not saving would have to. Hence national saving would increase, mainly for those households doing little saving. But what had desirable properties in a policy sense was not all that

popular in a political sense, and my mandatory saving plan never received much support.

But there are still ways of inducing households to save more. Many employers have subsidized, tax-favored, defined contribution pension plans that are open to all employees, but often not highly-subscribed. The present practice is to permit employees to sign up, the so-called "opt-in" approach. But it would be possible to do better by automatically enrolling employees and permitting them to "opt out." Past research has shown that such a shift can significantly raise participation rates in defined contribution pension saving plans.

#### Permit people to invest their funds differently

A standard claim in the political debate about Social Security is that individuals should be able to invest at higher rates of return than are now realized from Social Security. A standard claim, but very misleading.

As Paul Samuelson showed long ago, a pure pay-as-you-go (PAYGO) pension plan has an equilibrium long run real rate of return equal to the growth of real earnings. The idea is that workers pay in a constant share of their own earnings, and get back their share of later tax collections, which are inflated by the growth of real earnings (whether this growth emanates from population growth or productivity growth).

The U.S. Social Security system is more or less on a PAYGO basis, but it does not satisfy the exact conditions of the Samuelson theorem. For one thing, in the early years of the system relatively high benefits were paid out to workers who had not contributed before the system was started--these early cohorts got especially high rates of return with everybody else along the line paying for them (the so-called legacy cost). There is also redistribution within Social Security: other things equal lower-income households get higher rates of return than do higher income households.

---

In the recent political debate, many have argued that workers would get larger returns from individual accounts, which in turn would be invested either in stocks or bonds. To assess these claims, it is helpful to invoke a macroeconomic principle: unless total capital in the economy is increased, there can be no increase overall in capital returns, only its distribution between individuals. That is why it is important to ascertain the impact of individual accounts on national saving, and indirectly on total capital in the economy.

In more specific terms, suppose individual accounts were to be “carved out” of present payroll taxes, as proposed by President Bush. The carve out would not seem to increase overall saving, but it would create a hole in the financing of Social Security benefits that must be filled by yet other revenues. Hence this approach is unlikely to increase national saving, and overall investment returns.

Individual accounts could increase overall national saving if they were “added onto” the present system, either through mandated add-ons or a change in the opt-in rules for existing defined contribution accounts. The normal return on these accounts would then be the normal return on new investments in the whole economy, which for macroeconomic reasons is likely to be somewhat greater than the average returns on existing Social Security contributions.

Does it matter whether these funds are invested in stocks or bonds? According to orthodox capital theory, it should not, at least for the population as a whole. Generally stocks outperform bonds, but a significant component of that difference in returns reflects the fact that stocks also have greater investment risk. A basic proposition of finance is that expected future risk adjusted rates of return on stocks and bonds should be equal--if not, stock or bond prices should adjust to make them equal.

Not only does investment risk affect the return on

stocks and bonds, it also bears on the overall wisdom of individual accounts. Social Security is what is known as a defined benefit pension plan--benefits depend on contributions through a legislative formula, and it does not matter to individuals how any assets of the fund are invested--the government bears the investment risk. Switching to carve out individual accounts would convert Social Security partially to a defined contribution pension plan. Some individuals would no doubt do better, and some would no doubt do worse. But individuals in the aggregate would bear much more of the investment risk. Add-on individual accounts might represent a compromise: on the normal Social Security component the government bears the risk, on the add-on component individuals bear the risk.

The upshot of this discussion is that the rate of return question is really pretty complicated, much more so than one might perceive from political advocacy arguments. Because of the underlying structure of Social Security, the basic rate of return is set by rates of economic growth. Carve out individual accounts could make some individuals better off, but they will also make some individuals worse off, and they do add to individuals’ financial risk. Add-on individual accounts will as well, but they may generate some new national saving and the existing defined benefit Social Security system will limit overall risk to individuals. Investment policy, stocks or bonds, will matter to particular individuals, if they are lucky or unlucky on their stock investments, but across the whole society the risk-adjusted rates of returns on the two asset types should be equal.

#### A Composite approach

A standard principle of policy design is that there is often sense in relying on a menu of different policy measures, to limit the costs of extreme changes in any one measure. As applied to Social Security, this principle suggests a composite of the preceding approaches.

Before getting into specifics, a word on how large is

---

the basic problem to be solved. Discussions of Social Security typically focus on a 75-year horizon. While 75 years seems like a long time, for Social Security purposes it can give very misleading answers because the population is gradually aging, and out-year deficits are typically much larger than near-term deficits. Hence as time passes, increasingly high-deficit years are added, and a plan that satisfied 75-year balance a year ago will not this year, even if no forecast variables change.

Responding to this problem, the Trustees now give permanent, or infinite horizon, estimates of out-year liabilities, and I will use those. Given the aging trends, any shorter horizon is both arbitrary and uninformative. I will also convert the discounted present value estimates mentioned previously to a percent of payroll.

The Trustees now estimate of the infinite-horizon actuarial deficits to be 3.5 percent of payroll for Social Security and 5.8 percent of payroll for Part A of Medicare, covering hospitalization insurance. Since Parts B (physician costs) and D (drugs) of Medicare are financed by a combination of participant fees, general revenues, and state contributions, it is impossible to give a meaningful payroll deficiency number, but the share of GDP measures suggest that these deficits are in some sense about twice as high for Parts B and D of Medicare as for Part A.

On the other side, I will give an illustrative menu to indicate the types of changes that are likely to be required to correct these imbalances. One possibility is to leave the payroll tax rate for Social Security and Medicare unchanged, but eliminate the taxable maximum for Social Security, conforming to what is already done for Medicare. The change would reduce the actuarial deficit by 2.1 percent of payroll. In so doing, a significant burden would be imposed on one share of the population, and this burden could be spread out by combining some payroll tax rate increases with some lifting of the taxable

maximum.

On the spending side, increasing the normal retirement age by slightly more than a year, a decade beyond the ages scheduled in present law, reduces the actuarial deficit by another 1 percent of payroll. There are also minor measures that can reduce the deficit about half a point, and if we adopted progressive indexing for a decade or so, we could get up to 2 percentage points of deficit reduction on the spending side. Combining the tax and spending changes, both of which would cause huge political problems, the overall reduction in actuarial deficits would be about 4 percent of payroll, enough to solve the Social Security problem in totality and make a start on Medicare, but still less than half of the full job that needs to be done in terms of Social Security and Medicare combined.

This menu, or something like it, uses a bit of each approach in partially resolving entitlement spending financing issues. There are some tax increases, some benefit cuts, some increases in the normal retirement age, a measure to improve saving on top of Social Security, and some freedom to invest the new individual accounts in the stock market. More will clearly have to be done to finance Medicare, but such an agenda would be a significant first step in dealing with our looming entitlement spending burden.

*Edward M. Gramlich* is the Richard A. Musgrave Collegiate Professor of Public Policy at the University of Michigan where he also serves as Interim Provost and Executive Vice President of Academic Affairs. Dr. Gramlich served on the Federal Reserve System Board of Governors for eight years.

Among many other functions, the SSA Office of Policy serves the public by making a large amount of data available. Public-use microdata files are subsets of survey or administrative data that are released to the public with all identifying information removed. Those files are valuable because they can be used for statistical analysis and research studies that cannot be carried out using aggregate information. Public-use microdata files enable researchers to create summary information that meets specialized needs and to investigate relations among variables that are not apparent based on aggregate information. Below are links to four of these data sets that may be of greatest use for research on retirement and pension policy.

### [Benefits and Earnings Public-Use File, 2004](#)

*(released October 2005)*

The Benefits and Earnings Public-Use File, 2004, consists of two separate but linkable subfiles—one with benefit information and the other with longitudinal earnings information. Sample beneficiary records drawn from the OASDI program can be linked to their corresponding earnings histories. Information about beneficiaries needed to administer the OASDI program resides on SSA's Master Beneficiary Record (MBR) file, which in December 2004 contained records for approximately 47 million individuals who were entitled to receive a Social Security benefit for that month. Data in the benefit subfile are an extract from the MBR, consisting of a 1 percent random, representative sample of approximately 470,000 records. These records are representative of OASDI beneficiaries who were entitled to receive an OASDI benefit payment for December 2004 and can be linked to the appropriate benefit record.

### [New Beneficiary Data System \(NBDS\)](#)

*(released March 1997)*

The New Beneficiary Data System contains extensive information on the changing circumstances of aged and disabled beneficiaries. Based initially on a national cross-sectional survey of new beneficiaries in 1982, the original data base has been expanded with information from administrative records and a second round of interviews in 1991. Variables measured in the original New Beneficiary Survey include demographic characteristics; employment, marital, and childbearing histories; household composition; health; income and assets; program knowledge; and information about the spouses of married respondents.

### [Old Age, Survivors, and Disability Insurance \(OASDI\) Public-Use Microdata File, 2001 Data](#)

*(released October 2003)*

Information needed to administer the OASDI program resides on SSA's Master Beneficiary Record (MBR) file, which in December 2001 contained records for approximately 46 million individuals who were entitled to receive an OASDI benefit for that month. The OASDI Public-Use Microdata File contains an extract of data fields from the MBR and consists of a 1 percent random, representative sample of persons entitled to receive an OASDI benefit payment for December 2001. This file contains approximately 460,000 records, with 16 data fields on each record.

### [Supplemental Security Income \(SSI\) Public-Use Microdata File, 2001 Data](#)

*(released October 2003)*

Information needed to administer the federal SSI program resides on SSA's Supplemental Security Record (SSR) file, which in December 2001 contained records for approximately 6.4 million individuals who received a federal SSI benefit for that month. The SSI Public-Use Microdata File contains an extract of data fields from the SSR and consists of a 5 percent random, representative sample of persons who received a federal SSI benefit in December 2001. This file contains approximately 320,000 records, with 13 data fields on each record.



Institute For Social Research  
University of Michigan  
P.O. Box 1248  
Ann Arbor, MI 48106-1248

---

The Michigan Retirement Research Center is supported by a cooperative agreement with the Social Security Administration (ref. 10-P-98358-5).

#### Regents of the University of Michigan

David A. Brandon, Ann Arbor  
Laurence B. Deitch, Bingham Farms  
Olivia P. Maynard, Goodrich  
Rebecca McGowan, Ann Arbor  
Andrea Fischer Newman, Ann Arbor  
Andrew C. Richner, Grosse Pointe Park  
S. Martin Taylor, Grosse Pointe Farms  
Katherine E. White, Ann Arbor  
Mary Sue Coleman, ex officio

#### Affiliated Institutions

Cornell University  
National Bureau of Economic Research  
RAND Corporation  
University of Michigan  
University of Pennsylvania

#### Center Information

John Laitner, Director  
Amanda Sonnega, Associate Director for External Relations  
Becky Bahlibi, Center Administrator  
Mike Chmura, Center Secretary

#### E-mail

[mrrc@isr.umich.edu](mailto:mrrc@isr.umich.edu)

#### Website

<http://www.mrrc.isr.umich.edu/>

#### Mailing Address

Michigan Retirement Research Center  
Institute for Social Research  
University of Michigan  
P.O. Box 1248  
Ann Arbor, MI 48106-1248

#### Location

Michigan Retirement Research Center  
Institute for Social Research  
University of Michigan  
426 Thompson Street, Room 3026  
Ann Arbor, MI 48104-2321

#### Phone

(734) 615-0422

#### Fax

(734) 615-2180