Executive Summary

The argument that Social Security is a bad deal for today’s workers and that they would get higher returns and benefits by investing through personal accounts instead has gained broader and broader acceptance. This view has greatly fueled reforms and proposals in the United States and abroad that are based on personal, private investment and insurance accounts.

However, the National Committee to Preserve Social Security and Medicare recently released a voluminous study by John Mueller arguing that Social Security would provide higher returns and benefits than a system of personal investment accounts for all workers today, of all income levels and family combinations. That conclusion, directly contradicting a wide range of analysts, institutions, leaders, and countries around the world, results from extreme and untenable assumptions:

- Mueller assumes that the returns to workers investing in the stock market will be 77 percent less over the next 75 years than stock market investors have earned over the past 75 years.
- He assumes that over the next 75 years investors will get a negative real return on corporate bonds, down dramatically from the 3 to 4 percent real return that has prevailed over the past 75 years.
- He projects that the rate of economic growth over the next 75 years will decline by over 50 percent compared with the past 75 years, and he fails to account anywhere for the increase in economic growth that would result from Social Security privatization.
- Mueller assumes administrative costs for personal retirement accounts that are more than two times and probably over five times what the costs would likely be in the early start-up years, and 25 to 50 times what the costs would likely be in later years.
- Mueller assumes a transition financing plan that imposes increased taxes on workers and their retirement accounts, failing to recognize studies showing how the transition could be financed without higher taxes or effective reductions in the projected benefits from the personal accounts.
- Mueller fails to take into account the before-tax, real rate of return to capital, which measures the full, net benefit produced by the private capital investments made through the personal retirement accounts.

Mueller’s analysis only proves the opposite of his intended result. By showing what extreme and unrealistic assumptions are needed for Social Security to pay better benefits, he effectively establishes once again that personal accounts would pay far better returns and benefits than Social Security.
Mueller’s study directly contradicts a wide range of analysts, institutions, leaders, and countries around the world.

Introduction

Advocates of a personal retirement account option to Social Security have long contended that allowing workers to invest in private capital markets would provide far higher returns and retirement benefits than the current Social Security system. In recent years, this view has gained broader and broader acceptance. The National Committee to Preserve Social Security and Medicare, however, recently released a voluminous study by John Mueller, which argues that Social Security would provide higher returns and benefits than a system of private investment accounts for all workers today, of all income levels and family combinations.

Mueller’s study directly contradicts a wide range of analysts, institutions, leaders, and countries around the world, including

- President Clinton, who has proposed allowing the government to invest Social Security funds in real private investments precisely because those investments produce a higher return than a pay-as-you-go system.
- Harvard economics professor Martin Feldstein, president of the National Bureau of Economic Research and previously chairman of former president Ronald Reagan’s Council of Economic Advisers. In a recent study, Feldstein showed that the rate of return on private capital investment was so much higher than the rate of return on Social Security that workers could get the same retirement benefits promised by Social Security by investing just 2 to 3 percentage points of the 12.4 percent Social Security payroll tax in a system of personal investment accounts.
- The Cato Institute, whose numerous studies on this question over the past 20 years have consistently shown that a system of personal investment and insurance accounts would provide today’s workers at least three to five times the benefits promised by Social Security.
- The Heritage Foundation, which has produced numerous studies over the past couple of years confirming the results found by Cato.
- The World Bank, which has promoted a private investment account system as an alternative to Social Security around the world at least since publication of its comprehensive study in 1994, Averting the Old-Age Crisis.
- The 1994–1995 Social Security Advisory Council, appointed by President Clinton, all of whose members agreed on the need to move away from Social Security’s pay-as-you-go system and to introduce real private capital investment through some means, precisely because such investment would produce a much higher return. Five of the 12 members supported a personal retirement account option for 5 percentage points of the 12.4 percent Social Security tax, specifically to gain the much higher returns and benefits such invested personal accounts would produce.

- The nations of Argentina, Australia, Bolivia, Chile, Colombia, El Salvador, Great Britain, Hungary, Mexico, Peru, Poland, Sweden, Uruguay, and others, which have adopted personal investment account systems precisely to improve returns and benefits for their workers, and where workers are already receiving better returns and benefits than those offered under the former, traditional social security systems in those countries.

Mueller’s study fails to show that these studies, authors, institutions, leaders, and nations are wrong. Indeed, Mueller’s assumptions show just how far one must go in order to arrive at his conclusions:

- Mueller assumes that the returns to workers investing in the stock market over the next 75 years would be 77 percent less than the returns stock market investors have earned over the past 75 years. With the stock market at record levels, investors do not seem to expect any such catastrophic drop in returns.
- Mueller assumes that over the next 75 years investors would get a negative real rate of return on corporate bonds, down dramatically from the 3 to 4 percent average real return that has prevailed over the past 75 years.
- Mueller projects that the rate of economic growth over the next 75 years would decline by over 50 percent compared with the past 75 years, creating, in his own words, “an economic ice age.” He does not anywhere take into account the increase in economic growth that would result from a personal account option to Social Security. By contrast, Feldstein estimates that the present value of the net economic benefit from such reform is $10 trillion to $20 trillion.
- Mueller assumes administrative costs for the personal retirement accounts would be more than double and probably five times higher than those projected by independent analysts for the early start-up years of the accounts. For the later years, Mueller assumes costs 25 to 50 times what others project.

From these effects alone, workers in Mueller’s study would actually receive a negative real rate of return on their private retirement account investments, an assumption that is inconsistent with the very existence of savings,
investment, and private capital markets in the real world.

Mueller also assumes a reform plan that would finance the transition to the new system by imposing increased taxes on workers and their retirement accounts, reducing their returns and benefits from the private system even further. In doing so, Mueller fails to take into account the full, before-tax, real rate of return to capital, which measures the full net benefit produced by the private capital investments made through the personal retirement accounts. As shown in the studies discussed above, this full return produces large amounts of revenue over time that can be used to help finance the transition to the new system, without reducing the benefits to workers from the private retirement system.

The net result of all these errors is that Mueller incorrectly projects rates of return for private retirement investments that are several percentage points into the negative range.

### Social Security’s Rate of Return in Theory

Social Security primarily operates on a pay-as-you-go basis. The taxes paid into the program by today’s workers are not saved to pay for their future benefits. Instead, they are immediately paid out to finance the benefits of current retirees. The future retirement benefits of today’s workers will then similarly be paid out of the taxes of the next generation of workers. Even today, when Social Security is running a temporary cash surplus, almost 90 percent of the tax funds paid into the system are immediately paid out to current beneficiaries.

Those who retire in the early years of a pay-as-you-go program have paid the program’s payroll taxes along with their employers for just a few years. But the benefits paid to such retirees are not limited to what would be paid if based on the taxes they and their employers paid into the system. Instead, in a pay-as-you-go system, those retirees are paid full benefits out of the taxes of those who are still working. Such benefits naturally represent very high returns on the relatively small amount of taxes paid by these workers and their employers during their working careers. In his writings, Mueller repeatedly points to these early high returns as evidence that Social Security is not a bad deal.

Over time, however, the returns paid by a pay-as-you-go system fall steadily, as the workers retiring each year will have paid the program’s payroll taxes, along with their employers, for more of their working years. The full benefits paid to later retirees out of the available revenue flow naturally represent a lower rate of return on the larger amount of taxes they paid during their careers.

Ultimately, workers retire who have paid the program’s payroll taxes along with their employers for their entire working careers. What kind of rate of return does a pay-as-you-go system pay during the mature stage?

A pay-as-you-go system makes no real investments and earns no actual investment returns. It is a mere redistribution system, taking money from workers and giving it to retirees. Consequently, it creates no economic output or production that can finance returns and higher benefits for workers over time.

Nevertheless, a stable, mature, pay-as-you-go system can finance an effective return equal to the rate at which payroll tax revenues grow over time. Higher payroll tax revenues can finance higher benefits growing at the same rate, providing an effective return.

Mueller repeatedly insists that returns will equal the rate of economic growth, but that misstates the case. Actually, the rate of return of a mature, stable, pay-as-you-go system equals the rate of growth of wages covered by the system plus the rate of growth of the population of workers covered by the system.

Long-established economic and demographic trends in the United States indicate how low that return is likely to be. Over the past 30 years, the rate of growth in real earnings covered by Social Security has been less than 1 percent on a per worker basis. Going back to 1951, almost 50 years, the rate of growth in real covered earnings has been 1.2 percent.

In addition, for almost 30 years now, the fertility rate, or number of lifetime births per woman, has been too low to maintain a constant population. That low fertility rate continues a long-term trend of decline over the past 200 years. The powerful social, economic, and technological trends behind this long-term decline are unlikely to be reversed. Many West European countries, in fact, have significantly lower fertility rates than the United States and are expecting substantial declines in population as a result.
Social Security's Rate of Return in Practice

A number of studies in recent years have examined the actual rate of return under Social Security and found it to be exactly what was predicted under the theoretical discussion above.

1. In our 1998 book, A New Deal for Social Security, Michael Tanner and I updated a study that I conducted for the National Chamber Foundation in 1986. Using economic and demographic assumptions taken from the Social Security trustees’ intermediate assumptions, adjusting for survivors and disability benefits, and assuming that, somehow, Social Security would pay all promised benefits, we found that most workers who entered the workforce after 1985 would receive rates of return of 1.0 to 1.5 percent or less.10

2. Those results closely matched the results of a study that I conducted in 1985 with Professor John Lott, then at the Wharton School and now at Yale Law School. The 1985 study, which looked at workers entering the workforce in 1983, also showed rates of return from Social Security for most workers in the range of 1.0 to 1.5 percent.11

3. The Heritage Foundation concluded in 1998 that the rate of return to an average two-earner family (both 30 years old) was just 1.23 percent, while the return to African-American men was actually negative.12

4. In a 1988 study for the National Bureau of Economic Research, John Geanakopolis, Olivia Mitchell, and Stephen Zeldes concluded that workers born after 1970 could expect a rate of return of less than 2 percent. The study also suggested that most proposals for preserving Social Security’s solvency would further reduce this rate of return.13

5. The Social Security Administration itself estimates that workers born after 1973 will receive rates of return ranging from 3.7 percent for a low-wage, single-income couple to just 0.4 percent for a high-wage earning single male.14 The overall rate of return for all workers born in a given year was estimated at slightly below 3 percent for those born in 1940, 2 percent for those born in 1960, and below 1 percent for those who will be born in the next century.15

6. The president’s 1994–1995 Advisory Council on Social Security found that most future workers could expect rates of return between 1 and 2 percent, while some high-income workers were already receiving negative rates of return.16

7. The General Accounting Office reports that a two-earner couple born in 1973 with average earnings would receive a rate of return from Social Security of approximately 2.1 percent. However, the GAO notes that that rate of return is what is promised under an unbalanced system. If taxes are raised or benefits reduced to keep the system in balance, the rate of return would decline to between 1.7 and 1.9 percent.17

Better Returns through Private Investment

In contrast to the pay-as-you-go Social Security system, in a private, fully funded system, the money paid in over the worker’s career is saved and invested in real capital investments in the market. These capital investments create output and income, and that production finances a rate of return paid on such investments. That rate of return can then be used to finance higher benefits in retirement.

The return paid by a private, fully funded system is the return earned on the system’s capital investments, which is the before-tax, real rate of return to capital. That return represents the full amount of benefits produced by the private, fully funded system. Even if some of the return is taxed away, that just means some of the benefits are being used to finance government programs rather than being channeled entirely into retirement income. The resulting tax revenues, however, are still counted as part of the full benefits produced by the private retirement system—even if devoting those resources to...
Over the past 75 years, the United States has averaged about 9.3 percent real rate of return to corporate capital in the government spending.

Feldstein has estimated that the before-tax, real rate of return to corporate capital in the current U.S. tax system. Even before paying out dividends, interest, and capital gains to individual investors, businesses pay substantial federal, state, and local taxes on their capital returns. Some investment vehicles, such as corporate bonds, also shift some of the returns to others in return for reduced risk. Nevertheless, the full, before-tax return is the appropriate return to consider for the analysis here because it measures the full amount of the returns produced and available through the private, invested system.

The difference between the 9.3 percent real return for a fully funded, invested system and the 1.0 to 1.5 percent real return for a mature, pay-as-you-go system is truly overwhelming. A pay-as-you-go system dependent on the rate of growth of real wages and the working population can never hope to come anywhere near the before-tax, real return to capital. The enormous gulf between these returns illustrates that, even after considerable taxation at the business level, the returns on stocks and bonds in the marketplace will always be much higher than the returns from a mature, pay-as-you-go system. Concomitantly, a private, fully funded system invested in stocks and bonds and other private capital investment vehicles will always pay much higher benefits than a mature, pay-as-you-go Social Security system.

Finally, there is an important qualitative difference between the returns from an invested, fully funded system and from a pay-as-you-go Social Security system. The capital return in the fully funded system results from the output and income produced by the system’s capital investments. As a result, the returns and benefits in that system can be paid without burdening others. But a pay-as-you-go system produces no output or income. It just transfers funds from one segment of the population to another. The entire pay-as-you-go return is taken from the output produced by others, making retirees better off only by making workers worse off. Under a pay-as-you-go system, workers and retirees together lose the full 9.3 percent before-tax, real return to capital produced by a private, fully funded system because the pay-as-you-go redistribution system produces nothing.

Thus, the essential difference between the private, fully funded system and the public, pay-as-you-go system is that the former relies on wealth creation, while the latter relies on income redistribution. Returns and benefits over the long run are so much higher through the fully funded system precisely because the redistribution game under the pay-as-you-go system ultimately cannot keep up with the production and associated returns created by the capital investments in the fully funded system.

Several studies have compared the benefits promised by Social Security with the benefits that would be provided through private capital investment, on both a prospective and retrospective basis. These include the following:

In A New Deal for Social Security, Michael Tanner and I calculated that a middle-income, one-earner family could expect benefits as much as six times greater through private investment than through Social Security. A low-income worker could expect benefits nearly four times higher. Most workers could expect to receive at least three to five times the benefits promised by Social Security.\(^{19}\)

In a 1996 study for Cato, William Shipman similarly found that privately investing the retirement portion of payroll taxes would yield benefits three to five times greater than those provided by Social Security.\(^{20}\)

Finally, Martin Feldstein estimated that privately investing as little as 2.5 percentage points of the payroll tax would provide benefits at least as high as those from Social Security.\(^{21}\)

Other studies have found similar results.\(^{22}\)

Mueller’s Failed Critique

Mueller attacks the argument for a private, fully funded system from every angle, offering a series of criticisms. Each of these criticisms, discussed below, fails completely. Indeed, his failed critique proves rather than disproves the strength of the argument for a privately invested system.

Economic Growth Projections

Mueller insists that the argument for a private, fully funded system is based on "projec-
Feldstein estimated that the present value of the net beneficial effects to the economy over future years would be $10 trillion to $20 trillion.

But many other factors affect future economic growth. Slower population growth may cause real wages to rise and unemployment to fall. Technological innovation may have a powerful effect on economic growth that more than offsets slower population growth. Indeed, slower workforce growth may cause technological innovation to be more rapidly applied, to make up for the shortfall in workers. Capital investment in general may increase to make up for the worker shortfall, also adding to economic growth. The SSA is not in a position to evaluate and project all of these factors.

Most critically, the assumption of slower economic growth does not take into account the effect of Social Security privatization in increasing economic growth. The SSA is charged with projecting the financial market condition of Social Security under current law, so the effect of reform is not within its purview. But Mueller’s analysis cannot correctly evaluate the impact of privatization without including its effect in increasing economic growth.

As discussed above, such reform would greatly expand the economy by increasing savings and investment and by improving the efficiency of the labor market. Indeed, Feldstein estimated that the present value of the net beneficial effects to the economy over future years would be $10 trillion to $20 trillion. The World Bank has also advocated Social Security reform based on personal retirement savings accounts precisely because of the highly beneficial effect on economic growth. Ultimately, if Social Security privatization and other free market reforms such as tax reform are adopted, economic growth over the next generation will likely be higher rather than lower.

Finally, the biggest problem with Mueller’s argument is that the way in which he relates economic growth to stock market returns is completely wrong. Mueller argues that the share of national income going to capital cannot continually rise; if it did, ultimately, the entire national income would go to capital. So, over the long run the growth in income to capital must stabilize at the rate of economic growth. Therefore, he argues that, if capital returns are higher than economic growth, that must be due to appreciation in the stock price rather than income to the stock. He then calculates that—given SSA’s lower economic growth projections—to achieve the returns to stocks in future years that have prevailed over the past 75 years,
stock appreciation would have to be so great that price/earnings ratios for stocks would have to soar to absurd levels.

The problem with his argument is that the rate of return to capital, even apart from stock price appreciation, is not the same as the rate of growth of total capital income. When Feldstein says the real return to capital has been 9.3 percent per year, that does not mean that total capital income has grown by 9.3 percent per year. Unless the return is saved and reinvested in capital, then, all else being equal, total capital income will not grow at all during the year. The same capital stock earning the same 9.3 percent real return the next year will produce the same capital income as the previous year, not one penny more. Total capital income can even decline, despite a stable and continuing 9.3 percent real return, if there is net dissaving and the total capital stock declines during the year. The rate of growth in capital income over the long run depends on the rate of growth of the capital stock, not the long-run return to capital.

A simple example will make this clear. Assume an economy with a capital stock of 1,000 units. Total national income is 200 units: capital earns 100 units of income each year, and labor earns 100 units of income. The annual rate of return to capital is, therefore, 10 percent.

Now assume the rate of economic growth, or growth in national income, is 0 percent year after year. If the capital stock remains at 1,000 units, the return to capital can continue to be 100 units, or 10 percent, year after year as well. If the 1,000 units of capital stock remain the same, the share of national income will continue to be 100 units and will not grow despite the 10 percent annual return. Moreover, there is no capital or stock price appreciation in this example and no change in the price/earnings ratio of stocks, even though capital returns are 10 percent per year and the rate of economic growth is 0 percent. The 0 percent annual rate of economic growth does not mean that the 10 percent return to capital must fall.

Now assume the rate of economic growth, or growth in national income, is 2 percent year after year. As long as the capital stock of 1,000 units grows no faster than 2 percent as well, capital can continue to earn 10 percent without increasing its total 50 percent share of national income. Again, the rate of growth of capital income is determined by the rate of growth of the capital stock, not the rate of return to capital.

That explains why the real rate of return to stocks and to capital has been higher than the real rate of economic growth over the past 75 years, indeed as far back as the available data go. And that is why Feldstein can talk about a long-run real rate of return to capital of 9.3 percent, which is way above any expected real rate of growth for the overall economy.

While the rate of economic growth can affect the return to capital and to stocks in any given year, it does not determine capital returns. Long-run capital returns are determined by the marginal productivity of capital (plus the tax wedge). The marginal productivity of capital in turn ultimately reflects the time preference of investors for consumption today versus saving (deferring consumption today and consuming more tomorrow). This time preference plus applicable risk premiums determine the return that investors demand to stay in the market with their savings rather than withdraw those savings and consume them. If the return to capital falls below that level, reflecting lower capital productivity, investors will begin withdrawing capital until the return rises to the level reflecting their time and risk preferences. The reduced supply of capital increases the marginal productivity of capital to a level sufficient to sustain the preferred returns. That is standard economic theory.

The same argument applies to the return to bonds. The corporate bond return reflects the return to capital as well, with much of that return traded away in return for reduced risk. Mueller again wrongly assumes that the interest rate is the same as the rate of increase in debt, and that, therefore, the rate of interest must be less than the rate of economic growth over the long run; if not, debt would grow faster than the economy to an unmanageable level. But as everyone who has a mortgage knows, the interest rate is not the same as the rate of increase in debt. Total debt can actually fall while interest rates rise and vice versa. The rate of growth of debt depends on the additional amount borrowed compared with the amount paid off each year, which is not necessarily the same percentage as the interest rate.

Consequently, Mueller is simply wrong in arguing that the financial market return assumptions in the analyses cited above are inconsistent with expected economic growth. The projected higher returns and benefits under private, personal investment and insurance accounts do not imply excessively high price/earnings ratios.
Risk Adjustment

Mueller argues that the assumed returns to stocks and bonds for private retirement accounts must also be adjusted for risk. Citing the variation in rates of return in financial markets, he pronounces that assumed stock and bond returns must drop 2.9 percentage points to make up for this variation. He insists that this “risk-adjusted” return must be assumed in calculating what workers can expect to receive in returns and benefits from private investment accounts. Mueller’s argument reflects a complete misapplication and misunderstanding of the concept of risk adjustment.

First, Mueller does not recognize the risks involved in Social Security. Mueller states that Social Security “offers a risk no higher than short-term Treasury bills.” But that view directly contradicts the U.S. Supreme Court ruling in Fleming v. Nestor. In that case, the Supreme Court held that workers and retirees have no contractual or property rights to their Social Security benefits. The program’s benefits are not backed by the full faith and credit of the U.S. government and are not constitutionally guaranteed like U.S. government bonds and Treasury bills. Therefore, the Court held, Congress may reduce or cut off Social Security benefits for anyone at any time.

Social Security is in fact highly risky. Because workers in the program do not have any assets or property rights to support their retirement benefits, they are totally dependent on the interplay of national politics for such benefits. Even apart from general policy, discrete subgroups of beneficiaries can become politically unpopular and suffer Social Security benefit cuts as a result. More generally, overall economic or budget conditions, or public opposition to tax increases, can lead to Social Security benefit cuts. Social Security benefits have been reduced indirectly several times in the past 20 years or so, and many leaders, analysts, and commentators are calling for more changes to deal with Social Security’s long-term financial crisis. Mueller himself suggests either a 20 percent reduction in Social Security benefits or a delay in the retirement age to 70. Some Democratic members of Congress have even introduced bills providing for substantial long-term benefit reductions.

The risk is heightened by the SSA’s own projections showing that, by the time workers who enter the workforce today are in retirement, under intermediate projections revenues will fall at least one-quarter short. Those projections indicate a virtual certainty that today’s young workers will not receive the Social Security benefits currently promised.

On the other side of the equation, Mueller also errs in calculating the risk in private capital markets. For one thing, he apparently relies on the year-by-year variation in financial market returns to calculate his supposed risk adjustment. But the variations to consider are the differences from one 45-year working career to the next because workers do not draw benefits out of their accounts until retirement. Indeed, arguably, the variation from one adult lifetime to another, a period of 60 years or so, should be considered, as the personal retirement accounts would continue to be invested throughout retirement. The variation over these long periods would be much less than year-to-year fluctuations.

More important, Mueller treats the risk-adjusted return as if it is the expected return, or the actual return that workers can expect to receive in the marketplace. But the risk-adjusted return is not the expected return. Mueller states that he is risk adjusting to compare “an investment that was absolutely certain for the median investor.” Such a risk adjustment would produce a return that investors would likely exceed with such a probability that it is virtually certain. In other words, almost all workers would, in fact, receive more than such a risk-adjusted return. It is not an estimate of the return investors would likely receive in the marketplace.

Investors in the marketplace would receive the actual marketplace returns, not the “risk-adjusted” returns. If average market returns over the next 75 years are the same as over the past 75 years, then investors on average will receive average returns—7.7 percent for stocks and 3 to 4 percent for corporate bonds—not some lower risk-adjusted return. A risk-adjustment analysis, if done right, may be helpful in comparing the risk/reward tradeoffs of different investments but should not be confused with a calculation of how much workers can expect to receive in Social Security benefits.
benefits than Social Security. Investments would produce lower returns and is highly unlikely that a portfolio of private average market returns. Our analysis showed it what would happen if workers received below- Tanner and I accounted for risk by looking at return has been over the long run in the past. While no one knows what the actual return will be exactly over the next 75 years, there is no better estimate than what the actual return will be exactly over the next 75 years. If Mueller is correct, we should expect the bond markets to start closing down soon, as investors will not buy bonds that provide them with an expected negative real return.

### Administrative Costs

Mueller assumes in his analysis that administrative costs would equal 1 percentage point, or 100 basis points, of the assets in each worker’s personal retirement account each year. But that is far higher than the costs projected by most other studies.

Indeed, administrative costs in the Thrift Savings Plan for federal employees are about 9 basis points, or about 0.09 percent of assets managed. In this system, workers and their federal employers contribute to individual accounts that are invested in various funds chosen by each worker. The College Retirement Equity Fund, the nation’s largest defined contribution plan, has administrative costs of about 25 basis points. In that plan, which covers workers in higher education and research institutions, the workers and their employers contribute to personal retirement investment accounts that are invested in a broad range of funds chosen by each worker. For defined contribution retirement plans overall, which many employers now provide to their workers, administrative costs average 17 basis points.

Even for mutual funds available to anyone in the market today, the median administrative cost is 38 basis points for funds that invest broadly in the entire S&P 500. The Vanguard Index 500 fund keeps its costs down to 19 basis points.

As David John and Gareth Davis of the Heritage Foundation rightly state:

A system of private Social Security accounts most likely would be structured so that administrative costs would be even lower than those incurred by private retirement accounts today. This is because a privatized Social Security system operating on a national scale would have many more participants than the private alternatives have.
That view is confirmed in a pathbreaking study by William Shipman, who sought to cost out an actual personal retirement account system serving as an alternative to Social Security. His company, State Street Global Advisors, is one of the largest retirement investment management firms in the world. In his study, he utilized the actual cost model that his company and others use to determine the fees for their administration of retirement investments and plans. The study took into account every cost detail down to postage and the cost of individual phone links and calls that would be needed to service the accounts.

Shipman found that for an account where workers invest only 2 percentage points of the Social Security payroll tax, by the fifth year, after some initial start-up costs, the administrative fees would range from a low of 19 basis points to a high of 35 basis points. A comprehensive alternative to Social Security would in fact reduce costs through economies of scale and other cost reduction factors.

For larger accounts, administrative fees would fall almost proportionally. If workers could invest a full 10 percentage points of the payroll tax for retirement, the relative administrative costs would range from less than 10 basis points on the low end to less than 20 basis points on the high end.

Moreover, as the accounts grew, after five years these costs would fall more and more. Thus, we have the incredible shrinking administrative costs issue.

Understanding is greatly enhanced by looking at the actual dollar amounts of these administrative costs per account. The costs of administering the Federal Thrift Savings Plan are about $16 per account per year. Administrative costs for employer-defined contribution plans are generally $35 per account. Administrative costs for standard mutual funds are about $21 on average. Shipman’s study indicates a range of about $5 to $9 by the fifth year.

The only cost factor that would grow significantly over time is the investment management fee because that cost grows as the assets grow. Shipman states that this fee could be easily covered with just 2 basis points. For an account of $50,000, that would be $10. For an account of $100,000, that would be $20. For $250,000, the fee would be $50. For $500,000, the fee would be $100.

Those numbers show how far off the mark Mueller’s administrative cost assumptions become over time. His assumption of 100 basis points is more than double and probably five times higher than likely administrative costs in the early years. In later years, when account balances have accumulated, Mueller’s projected administrative costs become even more fanciful. For example, when an account balance reaches $50,000, an administrative charge of 100 basis points would be $500 for the year. On an account of $100,000, Mueller’s assumed administrative costs of 100 basis points would amount to a $1,000 fee for the year. On a $500,000 account, Mueller assumes administrative costs of $5,000 per year.

Adding Mueller’s administrative cost assumptions to his adjustments for economic growth and risk means that the real net return investors could expect on stocks in future years is just 0.8 percent. If Mueller is right, then we should expect the imminent demise of the New York Stock Exchange, as stock investors could get better returns on federally guaranteed U.S. Treasury bonds.

With just the adjustments we have discussed so far, Mueller basically assumes that any investment portfolio combining substantial proportions of both stocks and bonds would earn a negative net real rate of return over the next 75 years.

The Transition Tax

After starting with an impossibly low projection for future returns to private capital investment, Mueller next applies a “transition tax” to the personal retirement accounts to finance the new system. He phases in the personal account system over an 80-year period and consequently applies the tax to (and reduces the benefits from) personal accounts for anyone in the foreseeable future. During that period, as workers start paying into the personal accounts in place of Social Security, he effectively finances any shortfall in revenues to pay Social Security benefits by imposing increased taxes on workers and their retirement accounts. Naturally, that reduces the net returns earned on the accounts, pushing them further into the negative range.

Mueller’s argument misses one of the central points of A New Deal for Social Security. We showed how the transition to the new system could be financed without effectively offsetting
the returns and benefits of the personal accounts.\textsuperscript{47}

If workers begin paying into personal retirement accounts rather than Social Security, financing to replace those funds is needed to continue paying Social Security benefits to current retirees. In \textit{A New Deal for Social Security}, we discussed the many different ways this transition financing requirement could be met without effectively reducing the projected returns and benefits from the personal accounts. We even presented year-by-year cash flow projections showing how one combination of transition financing sources could get the job done.\textsuperscript{48}

Mueller argues that all these alternative means of financing the transition are the economic equivalent of a transition tax directly on the personal retirement accounts, and his methodology only makes these transition costs explicit. His argument is incorrect.

First, Mueller’s analysis completely fails to take into account the full, before-tax, real rate of return to capital. As discussed above, the returns to stocks and bonds that Tanner and I used to calculate the benefits from personal retirement accounts were the returns remaining after considerable taxation paid at the business level. (Again, Feldstein estimates this full, before-tax, real return at 9.3 percent, much higher than the assumed returns in the above analysis.) In \textit{A New Deal for Social Security}, we showed that the remainder of this full, real return would appear in substantial tax revenue generated by the gains on investments made through the personal retirement accounts. Over time, this revenue would cover a major part of the needed transition financing.

Mueller nowhere accounts for this full, before-tax, real return, which has always been central to Feldstein’s and others’ analyses.\textsuperscript{49}

The tax revenue from investment gains is certainly not the same as Mueller’s transition tax. His transition tax would be an additional tax on of the remaining stock and bond returns, after the business taxes on the full, before-tax return to capital. The revenue we describe would be produced under existing law and would be in addition to the returns and benefits to the personal account benefits discussed above. It is produced by the remainder of the full, before-tax, real return to capital of 9.3 percent not accounted for by the stock and bond returns in \textit{A New Deal for Social Security}.

Second, Mueller does not account for currently projected surpluses in Social Security and the general budget, which could also be used to cover a major part of the transition financing. Mueller might argue that these surpluses could be used for tax cuts instead, and not adopting such a tax cut would then effectively be a transition tax. But the personal retirement account option is in fact a tax cut. People would be allowed to keep their Social Security tax money in their own personal accounts as part of their own personal property, earning market investment returns. In retirement, they would receive that money as income with no strings attached. Indeed, that would be the biggest tax cut in world history. This source of transition financing does not reduce or offset the returns and benefits from personal retirement accounts.

Third, the personal retirement account reform would generate substantial new economic growth, through its effects on both the labor markets and the capital markets, as Feldstein and many others have argued.\textsuperscript{50} That growth would generate substantial new revenues, which could also help finance the transition. Again, however, those revenues would not be the equivalent of a transition tax offsetting the returns and benefits of the personal retirement accounts.

Fourth, Nobel laureate Milton Friedman argues that the entire transition could be financed by issuing government debt. In the \textit{New York Times}, Friedman recently wrote:

\begin{quote}
To see the phoniness of “transition costs” (the supposed net cost of privatizing the current Social Security system) consider the following thought experiment. As of Jan. 1, 2000, the current Social Security system is repealed. To meet current commitments, every participant in the system will receive a Government obligation equal to his or her actuarial share of the unfunded liability.

For those already retired, that would be an obligation—a Treasury bill or bond—with a market value equal to the present actuarial value of expected future benefits minus expected future payroll taxes, if any. For everyone else, it would be an obligation due when the individual would have been eligible to receive benefits under the current system. And the maturi-
\end{quote}
Friedman argues that issuing government bonds to finance the transition is only explicitly recognizing the implicit debt in the unfunded liability of Social Security. Friedman argues that issuing government bonds to finance the transition is only explicitly recognizing the implicit debt in the unfunded liability of Social Security. Chile financed about half of its transition by issuing such bonds, and that did not hinder the enormous success of the reform in that country. In *A New Deal for Social Security*, we advocated covering only about 15 percent of the transition financing through such debt, in the form of federal zero coupon bonds. We advocated paying off bonds out of the net gains in later years after the transition financing was fully covered. Mueller complains about the cost of government debt. But when the reform only explicitly recognizes already existing implicit debt, there are no new costs; and when the explicit debt is later paid off, that is a net gain.

Fifth, in *A New Deal for Social Security*, we advocated cutting other government spending by $60 billion a year in today’s dollars for eight years to help with transition financing. That amount is less—relative to the total federal budget—than former president Reagan’s 1981 budget cuts. Contrary to conventional “Beltway” wisdom, such spending cuts are not the economic equivalent of a transition tax on workers. The spending may be wasteful or even counterproductive, and cutting it may, therefore, be a net economic benefit rather than an economic cost. Indeed, in our view, this would almost certainly be so. In any event, voters can ultimately decide whether they see such spending reduction as effectively a prohibitive transition tax.

Finally, in the proposal advanced in *A New Deal for Social Security*, workers and employers would each pay 5 percent of wages into the personal retirement accounts. They then would each pay the remaining 1.2 percent of the current tax for another 10 years, after which the tax would end, providing an effective 20 percent cut in the current payroll tax rate of 6.2 percent each on employer and employee. The continuing 1.2 percent tax could be considered a modest opt-out fee to help finance the transition, but it is a tax workers are already paying today and it is offset by the later tax cut.

Mueller insists that moving toward a system of personal retirement accounts necessarily forces the working generation at the time to pay for two retirements: their parents’ through continued payment of Social Security benefits, and their own through savings in their personal accounts. But as we have shown, that argument is a simplified mischaracterization of what is involved in the transition to the new system.

Financing the transition as we proposed in *A New Deal for Social Security* would certainly not involve workers paying for two retirements. We financed most of the transition out of the net benefits of the reform. That was possible because the move to personal, invested accounts would produce a massive increase in total wealth over time—Feldstein estimates an increase of $10 trillion to $20 trillion on a present discounted value basis. Part of this increase could be used to finance the bulk of the transition, while still leaving workers far better off, with the much higher returns and benefits previously discussed.

The shift to personal investment accounts would involve a change from the current pay-as-you-go system—where funds are immediately paid out in current benefits rather than saved for the future—to a fully funded system—where today’s payments would be saved to finance the future benefits of today’s workers. All that workers would pay for in this transition is the increased savings for the fully funded system. Benefits would be paid to current retirees under both the current system and the personal account reforms. So those payments would not be a net cost of the reform. All that the reform would add is increased savings to fully fund the system, which should be worthwhile because of the returns on the savings and the other benefits of the reform.

Therefore, it is wrong to speak of transition “costs” involved in the shift to the new system. Such reform does not involve “cost” in the true
sense of the word, meaning a sacrifice or consumption of resources. The funds paid into the new system would not be lost; they would be saved for the future and put to productive use in the meantime, earning a return that would further help pay for future benefits. What is involved in such reform is an issue of transition financing, not transition costs. The question is how to finance the savings for the fully funded system, not paying a cost that involves a permanent loss.

Indeed, because of the increased productivity of the private, fully funded system, the burden of financing the savings for the new system would be less than the burden of financing the projected deficits of the current Social Security system. By the time the supposed trust funds run out in 2034, the deficits starting in 2014 will total more than $2.5 trillion. After 2034, deficits equal to a third or more of annual Social Security spending continue perpetually.

Another way to illustrate this argument is to look at it from a balance sheet perspective, as William Shipman did in his study for Cato. Social Security has unfunded liabilities of more than $9 trillion. A shift to personal retirement accounts would not increase those liabilities, adding to costs. Rather, it would reduce and ultimately eliminate those liabilities. It would do so by generating new assets through the savings and investments of the private system, producing higher income and economic growth that would offset and eventually eliminate those liabilities. Indeed, those assets and the returns they generate would be a less costly way to pay off those liabilities. Consequently, shifting to personal accounts would not increase costs; it would reduce them.

The Labor Market and Other Considerations

Finally, Mueller levels a series of criticisms regarding work and earnings issues and how to account for the uncertainties in life expectancy. He says that correcting for these errors would further reduce the returns and benefits from personal retirement accounts that have been projected by advocates of those accounts. These criticisms, however, do not apply to the model projecting the returns and benefits from the personal accounts we proposed in A New Deal for Social Security.

Mueller insists that all models showing the superiority of personal retirement accounts over Social Security assume certainty about the age of death. They allegedly assume workers will live to their life expectancy and then die. Mueller insists that when the more realistic assumption of uncertainty is introduced, and the calculation assumes variance in the age of death based on real probabilities, returns and benefits will fall.

But the model constructed to calculate the returns and benefits presented in A New Deal for Social Security did not assume workers would simply live to their life expectancy and then die. The expected value of future benefits was calculated on the basis of the probability of dying or living for every year out to age 105. The model used the SSA’s own data and assumptions regarding these probabilities and how they would change over time. So that analysis did not assume certainty about death and is not subject to Mueller’s criticism.

Next Mueller argues that the calculations assume flat earnings histories for hypothetical workers, with the workers earning the same income at every age. But our model did not assume flat earnings. It assumed that wages increased every year at the SSA’s own assumed rate of increase in wages. Mueller argues that the typical pattern of earnings is actually hill-shaped, with earnings peaking in middle age and declining as retirement approaches. But that pattern of earnings would produce higher benefits from the personal accounts than the steady upclimb assumed in our model. The higher contributions to the accounts during the peak earning years would have more years to earn investment returns because they would come in middle age rather than closer to retirement.

Mueller then argues that the calculations of personal retirement account benefits assume full-time employment every year, with no periods of unemployment or nonwork. Yet, he says, workers often experience unemployment, and women in particular often go for long periods without working in the labor market, especially when they choose to stay home and raise children. Failing to account for these periods overstates the benefits from personal accounts because workers would not be contributing to their accounts during periods of unemployment or nonwork.

However, many of the studies discussed above did include examples where the wife did not work outside the home. Indeed, in A New Deal for Social Security, we included four
Mueller assumes that the returns to workers investing in the stock market will be 77 percent less over the next 75 years than stock market investors have earned over the past 75 years.

Examples where one spouse never works outside the home. We also included several examples where the wife works full-time in the labor market, at different income levels. Every possible degree of labor force participation by the wife is covered within that range.

As men experienced periods of unemployment or nonwork they would indeed get less in benefits from the personal retirement accounts. But they would also get less from Social Security, as the earnings history on which their benefits are calculated would be lower. Their benefits would reflect the experience of workers with lower average earnings. The examples in our study included a broad range of earnings histories, from lifetime minimum-wage earners to lifetime earners at the maximum taxable wage. The range of possibilities for men, therefore, was effectively covered as well.

Mueller also argues that “in constructing examples intended to be representative of the general population, we need to focus on the experience of families with children, since most people will pass through this category in their lives.” In A New Deal for Social Security every couple was assumed to have two children. Because of Social Security’s maximum benefit provisions, families with more children would not get more in benefits.

Finally, Mueller argues that the calculations of personal account benefits assume unisex earnings—that workers earn incomes equal to an average of male and female workers. In fact, in one of our examples, the husband earned the average income for males each year and the wife earned the average income for females each year. The other examples included the broadest possible range of relevant earnings histories, including examples where the wife’s earnings history differed from the husband’s. This broad range would cover all possible earnings histories for women as well as men.

Mueller’s Mistakes

Mueller concludes that everyone alive today would lose under a system of personal retirement accounts as compared with Social Security. A representative couple born in 1955 and entering the workforce in the late 1970s would lose about one-fourth of the benefits that Social Security would pay. A couple born in 1990 and entering the workforce more than 20 years later would lose more than half the benefits Social Security would pay. Even a couple born in 2025 and retiring in 2087 would lose through personal retirement accounts as compared with Social Security under what Mueller sees as the most realistic assumption.

The fallacies in Mueller’s calculations that produced these ridiculous conclusions are demonstrated above, as Mueller’s criticisms fail to correctly analyze these issues. The discussion below shows how these criticisms apply directly to Mueller’s calculations and adds further criticisms.

First, Mueller assumes that the returns to workers investing in the stock market will be 77 percent less over the next 75 years than stock market investors have earned over the past 75 years. He reaches this result by starting with a real stock market return of 6.7 percent, even though the return since 1926 has been 7.85 percent. He then reduces this return by 2 percentage points for slower economic growth and 2.9 percentage points for risk adjustment. The fallacies in these reductions were discussed above. Nonetheless, these reductions leave his assumed real return on stocks at 1.8 percent, 77 percent less than the return of 7.85 percent earned on stocks all the way back to 1926.

Second, he assumes massively negative real returns on corporate bonds over the next 75 years, down dramatically from the 3 to 4 percent real return they have earned over the past 75 years. He reaches this result by starting with a real return of 2.8 percent on corporate bonds. As with stock market returns, he reduces this return by 2 percentage points for slower economic growth and 2.9 percentage points for risk adjustment, leaving a negative real return of around 2 percent. Of course, this result is inconsistent with the very existence of the bond markets, as no one would buy a bond with a negative expected real rate of return.

Third, Mueller assumes excessively high administrative costs for the personal retirement accounts. As already discussed, Mueller’s assumptions are unreasonable, and probably five times higher than likely administrative costs in the early start-up years of a personal account. In the later years, as the account balance grows, Mueller’s assumptions about administrative costs are 25 to 50 times the actual likely costs.
Adding in Mueller’s administrative cost assumption and the adjustments discussed above, his estimate of the real return investors would receive on stocks in future years would be just 0.8 percent. That is less than the government-guaranteed return on U.S. bonds or certificates of deposit. If that is all workers could get on stocks, there would be no stock market investment and no stock market.

Moreover, any investment portfolio combining substantial proportions of both stocks and corporate bonds would earn a negative real rate of return under all of Mueller’s adjustments. That is not a serious appraisal of the likely returns in private financial markets.

Fourth, Mueller fails to take into account anywhere in his analysis the full, before-tax, real rate of return to capital. Again, that return represents the full amount of the benefits produced by the capital investment made through the personal retirement accounts. Feldstein’s estimate of this full, real return at 9.3 percent on average serves as the basis for his entire analysis of Social Security reform involving personal accounts. In failing to consider this full, before-tax, real return, Mueller has failed to take into account the full net benefits of personal retirement accounts.

Fifth, Mueller fails to take into account the effect of a personal account option on economic growth. Such reform would greatly expand the economy by increasing savings and investment and by improving the efficiency of the labor market. Again, that is how Feldstein reaches his estimate that the present value of the net benefit to the United States from such reform would be $10 trillion to $20 trillion. Instead, Mueller assumes that the rate of economic growth over the next 75 years will decline by over 50 percent compared with the past 75 years.

Sixth, Mueller applies a transition tax to the personal retirement accounts to finance the transition to the new system. That further reduces the effective returns on the accounts, pushing them farther into the negative range, with returns as low as negative 3 to 4 percent. But, again, in A New Deal for Social Security, we showed how the transition to the personal retirement accounts could be financed without offsetting the returns and benefits to those accounts. The sources for such financing include the new tax revenue produced by the full, before-tax, real return to capital; the projected surpluses in Social Security and the general federal budget; reductions in other government spending; the sale of some government bonds; new revenues from enhanced economic growth; and others. The transition would be possible because the move to personal accounts would produce a massive increase in total wealth. Part of that increase could be used to help finance the bulk of the transition, while still leaving workers far better off.

Mueller states in his conclusion that “low expected returns from Social Security are not due to its pay-as-you-go funding, but to the assumption of slower future economic growth, which would equally reduce financial asset returns.”

But our analysis has shown that this statement is utterly fallacious. The low return to Social Security’s pay-as-you-go system is due to its reliance on mere income redistribution. An invested, personal account system would always pay much higher benefits in the mature stage because it relies on wealth creation. Even granting a redistributed, shadow return to a pay-as-you-go system equal to the rate of growth of real wages and of the covered working population, this return could never hope to come anywhere near the full, before-tax, real return to capital produced by the personal account investments.

Incredibly, Mueller states, “The market cannot duplicate . . . survivor’s benefits for family members of workers who die prematurely.”

Apparently, Mueller has never heard of life insurance. Part of the funds contributed to the personal retirement accounts could be used to buy private life insurance that would provide the same survivor benefits for those who die prematurely as Social Security does. Indeed, after a number of years in the workforce, workers would have accumulated enough funds in their personal retirement accounts to finance such benefits directly if they died, without life insurance. The personal account systems in Chile and other countries operate that way.

Mueller attacks a Heritage Foundation study showing that Social Security provides a particularly bad deal for blacks because of their lower life expectancy, saying, “Among the more remarkable flaws was the peculiar assumption that higher mortality of African-Americans, or of anyone, would lower the rate of return on a Social Security annuity, but not a private annuity. The simple fact is that anyone who does not live as long as the rest of the population will
Investors who put their money where their mouth is do not agree with Mueller that returns on stocks and other financial market instruments are about to suffer a catastrophic collapse.

receive a lower rate of return from an annuity, public or private.”¹ This statement is based on a misunderstanding of the personal account system and how it would work.

In the personal account system, the worker would directly own the accumulated funds and could use them in the way that would best serve his or her family, unlike Social Security. The worker would not need to use all the accumulated funds in the account to buy an annuity. The worker could withdraw funds from the account under actuarially determined limits to ensure that the funds would not run out before death. Withdrawals are allowed in Chile and other countries and would be particularly viable with a guaranteed minimum benefit equal to what Social Security would pay as long as the withdrawal limitations were followed. Moreover, workers could use part of their retirement account funds for an annuity paying what Social Security would pay, leaving the rest for later withdrawals or for their children.

In addition, in the private sector, legal structures could be developed to enable blacks to obtain actuarially fair annuities. For example, the National Association for the Advancement of Colored People or other groups devoted to black membership could be legally authorized to sell annuities to their members. The private sector has the flexibility to adapt to the different needs of different people that a public, congressionally determined program does not have.

Finally, Mueller states, “The assumption that the Treasury bond rate will remain permanently above the rate of economic growth is crucial to the argument against pay-as-you-go Social Security.”² But the argument makes no such assumption, and this proposition has nothing to do with the case for a personal retirement account option to Social Security.

Conclusion

All of the voluminous pages in Mueller’s study, and all of the voluminous computer runs underlying them, only prove the opposite of Mueller’s conclusion. Mueller’s study shows only that it takes a negative real rate of return on private capital investment for Social Security to beat personal retirement accounts. Of course, such a negative return is inconsistent with the very existence of private capital markets, for people do not invest to lose money. Mueller’s conclusions are directly contrary to studies by the Cato Institute, the Heritage Foundation, and other think tanks; the analyses of Harvard Professor Martin Feldstein, the National Bureau of Economic Research, and the World Bank; the conclusions and recommendations of the 1994–1995 Social Security Advisory Council and of President Clinton himself; and the findings and actual experience of an increasing number of countries around the world. They are also directly contrary to the judgment of millions of capital market investors who at this moment have produced the greatest bull market in world history. These investors, who put their money where their mouth is, do not agree with Mueller that returns on stocks and other financial market instruments are about to suffer a catastrophic collapse.

The conclusions of the 1994–1995 Social Security Advisory Council and even the proposals by President Clinton in his 1999 State of the Union address established a broad consensus on the issues addressed in this study. Notwithstanding John Mueller’s arguments to the contrary, it is now agreed that real private capital market investment will provide much better returns and benefits for workers than pay-as-you-go Social Security.

If Mueller and the members of the National Committee to Preserve Social Security and Medicare do not agree with this consensus, then they are free to choose to stay in the Social Security system. But those millions of workers who do not agree with them must be free to make their own choice with their own money.

Notes


3. For further discussion of the points in this section, see Peter J. Ferrara and Michael Tanner, A New Deal for Social Security (Washington: Cato Institute, 1998), Chapter 4.

4. Indeed, even the remaining 10 percent has not been saved and invested in the past. It has been lent to the federal government, where it has financed additional government spending. In return, Social Security receives a newly issued government IOU promising to pay Social Security back when it needs the money. This process results in
higher government spending and higher government debt.


7. The data for this complete period are reported in the annual trustees reports for previous years.

8. 1999 Annual Trustees Report, Table II.D.2.


25. Ibid., p. 5.


29. But if future economic growth is going to be higher than the SSA assumes, are the SSA’s projections regarding the future financial condition of Social Security too pessimistic as well? This has become a popular argument among those who do not want any change in Social Security. But higher economic growth resulting from privatization of Social Security and other free-market reforms is not inconsistent with the SSA’s projections of the performance of Social Security under current law.

Moreover, the defenders of the status quo like Mueller do not seem to realize that the SSA’s assumptions regarding economic growth have no significant effect on its projections of the financial condition of Social Security. The real effect on those projections occurs through the more detailed assumptions regarding matters such as real wage growth, labor force participation, and unemployment on the economic side and fertility and longevity on the demographic side. The assumptions on these matters are not overly pessimistic for projections over the next 75 years. So the projections showing the severe long-term financial problems of Social Security are realistic.

In fact, over the past 20 years, the SSA has responded to critics who have argued that its assumptions were too rosy, making its assumptions far more realistic over that time. In one key area, though, its assumptions remain far too optimistic. The SSA assumes a dramatic slowdown of the rate of increase in life expectancy in future decades. While life expectancy has increased by 31 percent for males and 43 percent for females over the past 50 years, the SSA projects an increase over the next 50 years of only 13 percent for males and 10 percent for females. Given high-tech advances in genetics, biotechnology, and other medical fields, the rate of increase in longevity is more likely to accelerate over the next 50 years than slow sharply as the SSA now assumes. The difference in this one assumption alone can make an enormous difference in the long-term financial prospects of Social Security, swamping the financing of the program.


31. Ibid.


33. 1999 Annual Trustees Report, Table II.F.16.

35. See also Shipman, “Retiring with Dignity,” p. 2.
40. Ibid., p. 8.
41. Ibid.
42. Ibid., p. 7.
44. Genetski, p. 7.
45. John and Davis, p. 2.
47. Ferrara and Tanner, Chapter 9.
48. Ferrara and Tanner, Table 9.3.
49. This issue was central to the analysis in Cato’s earliest works on Social Security, such as Peter Ferrara, Social Security: The Inherent Contradiction.
50. Ferrara and Tanner, Chapter 6.
52. Ferrara and Tanner, pp. 175–77.
54. Ferrara and Tanner, p. 177.
55. Mueller, Winners and Losers, pp. 3–4, 7–8, Table 1.
56. Ibid.
57. Ibid.
58. Ibid., p. 37.
59. Ibid., p. 1.
60. Ibid., p. 21.
61. Ibid., p. 19.
62. Ibid., p. 20.