Social Security, Saving, and the Economy

Updated February 15, 2001

Brian W. Cashell
Specialist in Quantitative Economics
Government and Finance Division
Summary

One issue that never seems far from the minds of policymakers is Social Security. At the heart of the issue is the large shortfall of projected revenues needed to meet the mounting costs of the system. For the moment, the amount of Social Security tax receipts exceeds the amount of benefits being paid out. The Social Security trustees estimate that, beginning in 2015, the amount of benefits being paid out will exceed tax collections. In 2025, the total income of the trust fund, which includes interest on the assets held by the fund, will fall below the total outlays of the fund. According to the trustees’ best estimate, the trust fund will be exhausted in the year 2037.

Some have argued that because the Social Security trust fund is intended to meet rising future costs of the program, its surplus should not be counted as contributing to official measures of the budget surplus. With regard to current saving, however, it makes no difference whether the surplus is credited to the trust fund or simply seen as financing current federal government outlays (including Social Security benefits). Off-budget surpluses contribute to national saving in exactly the same way as on-budget surpluses do. The additional saving they represent adds to the national saving rate and allows current investment spending to be higher than it would otherwise be.

With respect to household saving for retirement, how much is “enough” may be a subjective matter. But, one standard might be whether or not accumulated wealth is sufficient to avoid a decline in living standards upon retirement. A number of studies have found, however, that Americans may not tend to save enough to avoid such a decline in their living standard.

Social Security may affect saving in several ways. It may reduce household saving as participants pay some of their Social Security contributions by reducing what they otherwise would have set aside. It reduces the risk associated with retirement planning and so may free participants to cut precautionary saving. It may, however, encourage additional saving by making it possible to retire earlier, thus giving participants a longer period of retirement to plan for. To the extent that Social Security involves a transfer of income from workers to retirees, it tends to reduce household saving by shifting resources from potentially high savers to those who save less.

Proposed reforms have different effects on saving. Those that would move toward a more fully funded system would be likely to increase national saving, investment, and the size of the economy in the future. Reforms that would partially “privatize” using individual accounts, might tend to reduce national saving, unless contributions to those accounts were mandatory. Those that invested Social Security funds in private sector assets would be unlikely to have any effect on national saving. This report will be updated as economic events warrant.
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Social Security, Saving, and the Economy

One issue of perennial concern to policymakers is Social Security. At the heart of the issue is the large shortfall of projected revenues needed to meet the mounting costs of the system, beginning in about 2015. Taxes on those currently in the workforce are credited to the trust fund and benefits to retirees are debited from the trust fund. The balance of the fund itself consists of Treasury securities.

At the moment, the amount of tax receipts exceeds the amount of benefits being paid out, and so the balance in the trust fund is growing. The current “best estimate” of the Social Security trustees is that beginning in 2015 the amount of benefits being paid out will exceed tax collections. In 2025, the total income of the trust fund which includes interest on the assets held by the fund will fall below the total outlays of the fund. According to the trustees’ best estimate, the trust fund will be exhausted in the year 2037.1

Because benefits are projected to exceed receipts in 2015, there is concern among many policymakers that changes need to be made now. If steps are not taken now, it is argued, much more drastic changes will be needed down the road.

The major function of Social Security is to provide a base upon which to secure the income of the retired population. It does so by transferring income from the working population to those who are no longer in the labor force because of retirement or disability. This is also known as an intergenerational compact, by which those currently working support the retired population with the expectation that future workers will, in turn, provide for their retirement benefits. It also serves a social welfare function, by paying relatively more to retirees who were low-income earners, and survivors and dependents.

From a macroeconomic perspective, however, what matters is the effect on national saving. In a general sense, the economy is blind to the sources of saving. What matters is that saving, whether from the household, business, or public sector is channeled into investments which increase the capital stock, raise productivity and add to economic growth.

If individuals set aside substantial amounts during their working lives then the accumulated wealth and their expected Social Security benefits may be sufficient to provide for their retirement years. The more individuals save for their retirement, the

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1The trustees publish three estimates using different assumptions about costs. They call the intermediate projection their “best estimate.” This refers to both Old-Age and Survivors Insurance (OASI) and Disability Insurance (DI), which collectively are referred to as OASDI. See the 2000 OASDI trustee’s report, available on the internet at: [http://www.ssa.gov/OACT/TR/index.html]
higher their standard of living will be when they do retire. If individuals are not saving enough to provide for some minimal standard of living in retirement, then increased saving in the public sector is one way of increasing national resources out of which to fund retirement benefits in the future. The larger the economy is, the better able we will be, as a nation, to assure a given standard of living to all retirees.  

This paper examines the determinants of household saving and how household saving may be affected by Social Security. The potential effects of possible changes in Social Security on household and national saving are also discussed.

**Saving and the Economy**

By definition, saving is that proportion of income that is not consumed. Rather, it is made available to sustain and increase the stock of productive capital. Combined with labor and technological advances, it is this capital which contributes to the production of all the goods and services that make up national output.

Reducing the share of income that is consumed and increasing the share that is saved, will tend to raise the amount of capital available to the labor force. The more capital there is available to the workforce, the greater the production of goods and services will be. In other words, by saving more now we will be able to consume more in the future.

From a macroeconomic perspective, it makes little if any difference where the saving comes from. In terms of the collective resources of the Nation, a dollar of saving means a dollar of investment whether it is household, business, or public sector saving.

The measure that matters with respect to the federal government’s saving is the unified budget. For some purposes, the budget is divided into two accounts; one is referred to as “on-budget” and the other is “off-budget.” The so called off-budget surplus consists almost entirely of Social Security receipts and outlays.

Some have argued that Social Security should not be counted as contributing to official measures of the budget surplus. Keeping Social Security off budget is a procedural device by which Congress signals that the Social Security program should be insulated from other operations of the budget. “Lockbox” proposals go further in an attempt to deter the current and future Congresses from using Social Security surpluses to justify spending increases for other federal programs or for tax cuts.

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2A larger economy will make it relatively easier to provide retirement benefits. In dealing with the long-range Social Security funding problem, for example, a larger economy would ease any actions needed to fully fund benefit obligations. Increasing federal government saving now reduces outstanding federal debt and reduces outlays now devoted to financing the existing public sector debt.

3The Postal Service is also included in the off-budget account.

4Some proponents of accounting devices that isolate Social Security from the rest of the (continued...)
With regard to current saving, however, it makes no difference whether those revenues are credited to the trust fund or simply seen as financing current federal government outlays (including Social Security benefits). Without the excess revenues from Social Security taxes, the surplus would be smaller (or there would be a budget deficit), and the federal government’s contribution to the national savings pool would be smaller as well. Off-budget surpluses contribute to national saving in exactly the same way as on-budget surpluses do. The additional saving they represent adds to the national saving rate and allows current investment spending to be higher than it would otherwise be.

Until recently, the federal government had a negative saving rate. Rather than contributing money to the pool of funds available for investment, it ran a budget deficit and had to compete for funds in credit markets with those seeking funds for investing. Now with a budget surplus, the federal government takes in more in tax revenues than it spends. The unified budget surplus represents saving.

**Explaining Household Saving**

Any examination of Social Security and its effects on households must begin with an explanation of household saving behavior. What do households take into account when deciding whether, and how much, to save?

**Life cycle saving.** Most economists analyze household saving behavior using what is known as the life-cycle model of consumer behavior. The life-cycle model begins with the basic assumption that most individuals are not myopic but rather take their expected lifetimes into account when deciding how much out of current income to save and how much to spend.

The life-cycle model assumes that individuals seek to avoid large fluctuations in their standard of living over the course of their lifetimes. The model further takes as a given that individuals’ incomes tend to follow a predictable pattern over the course of their lifetimes. Typically, that would mean relatively low levels of income during the initial years of work, increases in income up to retirement, and then a drop in income during retirement.

If consumption followed the same pattern as income, it would make for substantial changes in living standards over the course of a lifetime. Instead, consumers are presumed to vary the rate at which they save out of income in order to dampen the effect of changes in income on consumption. Thus, the typical pattern would be that individuals save relatively little in the early stages of their working lives. Then, during peak earning years, saving rates tend to be higher in order to accumulate

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4(...continued)

budget claim that this would result in greater government saving. This assumes that spending and tax policy decisions depend on what happens to the trust fund.

5Neither would it matter with respect to Social Security deficits, currently projected to begin in 2015.
wealth off of which to live during retirement, when saving tends to fall off considerably.\(^6\)

**Precautionary saving.** There is a second consideration that may motivate household saving in addition to retirement. While there may be a typical pattern to incomes, on average, over lifetimes, there is also a certain amount of uncertainty associated with an individual’s income at a given time in the future. For example, some incomes vary over the course of the business cycle, and from time to time people may also experience episodes of either voluntary or involuntary unemployment. Thus, in addition to serving as a buffer against lifetime income fluctuations, some fraction of saving may also act to insure against the risks of shorter-term fluctuations in income. This kind of saving may also help to insure against whatever risk might be associated with one’s pension plan. It is generally referred to as precautionary saving.

While this may not account for all the possible incentives households have to save it is enough of a framework to make some general observations about household saving behavior. For example, a temporary decline in incomes will not necessarily have an effect on consumer spending, or on an individual’s long-term saving rate, since households have already set funds aside for just such a rainy day. But, any change in prospects that are likely to extend over an entire lifetime might well affect saving behavior.

**Recent trends in household saving.** Social Security was created to help secure the economic condition of the retired population by forcing them to save more now in exchange for expected future benefits. Concern remains, however, that many are still not setting aside enough on their own in order to provide adequately for retirement.\(^7\)

Since at least the early 1990s, there has been considerable concern on the part of public policymakers that Americans are not saving enough. It has often been noted that Americans save less than they used to, and that we save less than most other industrialized nations. Those concerns were part of the motivation for the policies that contributed to the elimination of the federal budget deficit.\(^8\)

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\(^6\) People with higher incomes tend to save more than those with lower incomes; not necessarily just because their incomes are higher, but also because they are more likely to be in their peak earning years.

\(^7\) Social Security is not the only source of retirement income. In fact, in the national income and product accounts published by the Department of Commerce, contributions to Social Security are not counted as part of household saving.

\(^8\) Such as the omnibus Budget Reconciliation Act of 1993, which included both tax increases and spending cuts. There has also been a reduction in defense spending relative to GDP. See: Alesina, Alberto. The Political Economy of the Budget Surplus in the United States. *Journal of Economic Perspectives*, volume 14, number 3, Summer 2000. pp. 3-19.
Personal saving, as measured in the standard economic accounts, has been less than robust in the 1990s. Figure 1 shows personal saving as a percentage of aftertax personal income since 1959. The personal saving rate has fallen steadily from well over 10% in the early 1980s to less than zero in 2000.

![Figure 1. Personal Saving Rate, 1959-2000](chart)

However, this measure of saving may give a distorted picture. One of the most marked characteristics of the economy during much of the 1990s, was the dramatic rise in equity prices. But, capital gains are not included in the measure of saving shown in figure 1. A measure of saving based on changes in household net worth would tell a different story. In fact, much of the decline in measured savings may be due to the large increase in equity prices. Between 1990 and 1999, total household net worth more than doubled, while the ratio of household net worth to aftertax income rose from 480% to 616%.

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The extent to which the apparent decline in saving is of concern may depend on the durability of the increase in equity prices. If, as some economists have argued, the stock market is overvalued and these gains in equity prices are temporary, households may find that they have not set aside enough to satisfy their retirement plans.

With respect to household saving, how much is “enough” may be a subjective matter. One standard might be whether or not accumulated wealth is sufficient to avoid a decline in living standards upon retirement. The life cycle model discussed above assumes that individuals seek to avoid substantial ups and downs in consumption over the course of a lifetime. One might assume, then, that the goal of retirement saving is to avoid a significant drop in living standards after retirement.

A number of studies have found, however, that Americans may not save enough to avoid such a decline in their living standard. One study, by Hamermesh, of consumption patterns over time found that accumulated wealth, both private and through Social Security, was not sufficient to sustain consumption in early retirement. This study found that, typically, households gradually reduced their consumption spending within several years of having retired.\(^{11}\)

A more recent study, by Bernheim and Scholz, also found that Americans were not saving enough to prepare for retirement.\(^{12}\) In particular, they found a distinct difference in saving behavior between those with a college education and the rest of the population. In general, those households with a college education were found to have saved enough to avoid a substantial cutback in consumption on retiring while those with less than a college education had not.\(^{13}\)

In a separate study of household saving behavior, Bernheim concluded that the typical baby-boom household was saving at about one-third the rate at which they would need to save in order to continue to maintain their current standard of living into retirement.\(^{14}\)

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\(^{13}\)Income and education tend to be correlated, as are saving and income. Nonetheless, Bernheim and Scholz suggest that one reason some save less than others is that they may not be fully aware of the importance of saving, and that education might be effective in encouraging them to save more.

Social Security and Household Saving

Social Security was intended to provide a base upon which to secure the income of the retired population. As such, it might have been expected to increase the national rate of saving by adding to what households were already setting aside.

However, there is an important question as to whether or not Social Security is a close substitute for personal saving. If it is, Social Security may lead individuals to save less than they would have in its absence.

Consider the stereotypical saver described by the life cycle model discussed above. How would the introduction of a program which required workers to contribute to a retirement fund for their own eventual benefit affect their saving behavior? Whether and how much individual savings are affected by the introduction of such a program would likely depend on the specific features of the program. Suppose that the contributions yielded the same return as other forms of financial assets households might otherwise buy with their saving. In that case, it might be reasonable to expect that individuals would be indifferent between either saving directly or via the contributions to their retirement fund. The introduction of such a program might simply cause individuals to reduce other saving to offset the amount of their contribution.

Suppose, however, that when the program is introduced, retirement benefits are immediately available to everyone who is qualified. This would be closer to a pay-as-you-go system. In this case, those who were very near retirement would contribute relatively little to the program while still receiving the full stream of benefits in retirement. Because those who immediately receive benefits would have contributed little to the program there would be a significant transfer of income from those still working to those in retirement.

Of these two groups, workers tend to save more than do those who are retired. The transfer of income from relatively high savers to relatively low savers would tend to bring down the overall household saving rate. In a strictly pay-as-you-go pension system there would be no offsetting saving on the part of the public sector; all of the contributions would be distributed. Thus, the introduction of a pure pay-as-you-go Social Security system would tend to reduce the national saving rate.

Another way in which Social Security might influence saving was suggested by economist Martin Feldstein. Feldstein argued that Social Security, or any pension for that matter, might lead people to retire sooner than they otherwise would have. For one thing, once a covered worker becomes eligible for an annuity, his pay effectively drops by the amount of the annuity, since he is only working for the difference between his earnings and what his annuity would be.
In an effort to measure the effect of Social Security on saving, Feldstein examined the effect of Social Security wealth on personal saving using data from 1930 to 1992. Social Security wealth was defined as the discounted present value of promised Social Security benefits. Feldstein found that, for each dollar increase in Social Security wealth, personal savings fell by two or three cents. Other studies on the effect of changes in wealth on household saving have found that for each dollar increase in household wealth, saving out of current income falls by somewhere between 1 and 7 cents.

If Social Security encourages workers to retire early, then there is a longer period of retirement to save for. But, workers anticipating an earlier retirement might tend to save more on their own. That aspect of Social Security might then tend to raise the personal saving rate. There are two potentially offsetting effects — Social Security substituting for personal saving, and encouraging longer retirement. The first effect tends to reduce personal saving, the second tends to raise it.

Social Security may also affect the precautionary motive for saving. Social Security, as it now stands, is a defined benefit program. In other words, retirement benefits, although they are based on career earnings, are fixed in real terms upon retirement. After that, they do not vary and continue as long as the beneficiary survives. In contrast, were individuals to provide entirely for their own retirement, there would be several sources of risk. For example, there would be uncertainty regarding how long a period of retirement would have to provided for, and there would be some risk associated with those investments which make up individuals’ nest eggs.

Thus, Social Security may affect saving in several ways. It may reduce household saving as participants pay some of their Social Security contributions by reducing what they otherwise would have set aside in other investments. It reduces the risk associated with retirement planning and so may free participants to cut precautionary saving. It may also encourage additional saving by making it possible to retire earlier thus providing participants a longer period of retirement to plan for. To the extent that Social Security involves a transfer of income from workers to retirees, it tends to reduce total saving by shifting resources from high savers to relatively low savers.

**Saving and Social Security Reform**

As it now stands, Social Security is partially funded. In 2015, benefit payments are projected to exceed tax receipts and, if that happens, will have to be funded out of general revenues. Because of that, some policymakers urged that changes need to be made. The argument is that whatever costs there are to assuring future benefit payments and boosting the confidence of participants in the program will be more

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easily borne if they are spread out over a long period of time rather than put off until some inevitable day of reckoning.\textsuperscript{18}

In the long-run, from a national perspective, what matters is how much we save now. Whether it is household saving, business saving, or a federal budget surplus, increased saving means increased investment, a larger capital stock, and higher future living standards. The more that is saved now, the larger the economy will be in the future. If Social Security is changed, those changes could affect saving in one way or another. Using the basic model of life-cycle and precautionary saving explained above it is possible to make a few relevant observations about the potential effects of various kinds of Social Security reform proposals on saving.\textsuperscript{19}

There are two broad kinds of reform possibilities that have been most discussed. One is a shift towards a fully-funded plan. The second is a switch from the \textit{defined benefits} that currently characterize Social Security to one that is at least partly a \textit{defined contribution} plan with variable benefits. This second kind of proposal includes some of the suggestions that would privatize some or all of the Social Security program. Another proposal that has been advanced would have some of the trust fund invested in private securities such as corporate stock.

\textbf{Fully funded vs. pay as you go.} If Social Security were fully funded, that would mean that each generation contributed enough to fully provide for their benefits on retirement, and there would be no intergenerational transfers. A pure pay-as-you-go system, on the other hand, would have no trust fund at all, and all Social Security retirement benefits would be paid for by the current contributions of the working population. In this case there would be a continuing transfer of income between generations. Because Social Security is only partially funded, at some point in the future all benefits will be transfers from the working population to retirees if no changes are made.

Switching to a more fully funded program would necessarily involve some combination of increased contributions and reduced benefits. However, any increase in taxes, or cut in benefits, might be partially offset by a reduction in other forms of household saving. A reduction in benefits could also lead households to save less as they seek to maintain a constant level of consumption given a cut in income. For those still working, a cut in prospective benefits might encourage additional saving.

A shift towards a fully funded system would also tend to reduce the intergenerational redistribution of income. A pure pay-as-you-go system takes income from workers, who tend to be savers, and gives it to retirees who tend to save relatively little. In a fully funded system, workers would finance their own retirement benefits. Shifting from a pay-as-you-go system to a fully funded one might reduce the

\textsuperscript{18}In principle, the Social Security trust fund represents the obligation of the federal government to pay future benefits. In practice, in an economic sense, it is current Social Security receipts and outlays that matter.

overall bias against saving which is due to the shift of income from savers to dis-savers.

Shifting Social Security closer to a fully funded program might also increase confidence on the part of participants that future benefits would be paid. This might serve to diminish the precautionary incentive to save and tend to reduce household saving.

A shift towards a more fully funded system might lead to a reduction in measured household saving but it is unlikely that the reduction in household saving would offset the increase in public sector saving. The net result is that such a shift would be likely to raise the national saving rate.

**Defined benefit vs. defined contribution.** Other proposals for Social Security reform involve at least a partial shift from a defined benefit plan to a defined contribution plan. A defined benefit plan is one where the benefits are set in advance, and while participants must contribute, their benefits do not depend on the performance of those assets in which they are invested. Participants in a defined contribution retirement plan contribute a set amount periodically into an account, and their ultimate retirement benefits depend on the return on the investments held in those accounts.

Depending on the existing level of confidence in future benefits, a shift towards a defined contribution plan might involve an increase in the perceived, or actual, risk faced by participants. To some extent, future benefits would depend on the performance of those assets in which contributions were invested. An increase in risk might lead households to save more for precautionary reasons. A switch towards a defined contribution plan might not, however, involve a great increase in perceived risk given the apparent skepticism among those working now as to whether or not they will get their full Social Security benefits on retiring. If the assets in which the defined contributions are invested yield a higher return, participants might have an incentive to reduce other forms of saving.

Switching to a defined contribution plan, or partially privatizing Social Security, would reduce the federal government surplus because money that had been collected as taxes would be invested directly by individuals. The measured household saving rate would go up as households themselves invested those funds which previously had been paid into the Social Security trust fund. If these new contributions were mandatory, there would be no net effect on national saving as the increase in household saving would offset the decrease in federal government saving.

If the defined contributions were not mandatory, however, it is possible that the household saving would not rise enough to offset the decline in the federal government saving rate. Many would be likely to spend at least a portion of the reduction in taxes and some, who might not ever plan to retire might spend all of it. Unless the contributions were made mandatory, the net effect of a switch in the direction of a defined contribution plan could reduce the national saving rate.
There could also be some indirect effects on saving. For example, there might be some increase in the risk associated with retirement savings with a switch to a defined contribution plan which could encourage additional precautionary saving.

**Investing the trust fund in private securities.** Another reform proposal that has been advanced is that some of the Social Security trust fund, which currently consists exclusively of Treasury securities, be invested in private securities. Such a change would have no effect on national saving.\(^{20}\)

If the trust fund were to invest in private securities, corporate stock for example, it would have to either sell some of the Treasury securities it now holds or it would buy stocks out of current tax receipts, and the Treasury would have to find another market for any securities it would otherwise issue to the trust fund. In any case, the supply of Treasury securities would increase, their prices would tend to go down, and their yields would tend to go up. At the same time the demand for corporate stock would increase, and the yield on those stocks would tend to fall. Ultimately the public sector would own some private assets, and the private sector would hold a larger proportion of public sector debt. The only change would be in how the public and private sectors invested their money. There is no evidence indicating that households would increase, or reduce, their saving simply as a result of a shift in relative rates of return on selected financial assets.

If trust fund assets were invested in private sector securities, which yielded a higher rate of return, the trust fund might be made better off. But the improvement in the trust fund would come at the expense of the rest of the federal government budget and those private investors that would otherwise have purchased those assets. The borrowing costs of the federal government would rise because of the increased supply of government securities. The income from capital of other private investors would fall because the increase in demand for private sector securities would be likely to reduce their rate of return.\(^{21}\)

If individual accounts were created out of trust fund assets and those accounts were invested in private securities the situation would be similar. If Social Security funds were held in personal accounts and invested in private securities, their yield would likely be higher than if they were invested in government securities. But,

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\(^{20}\)Under current rules, if the trust fund purchased private sector securities, those expenditures would be counted as outlays in the unified budget. The increase in measured outlays would reduce the unified budget surplus. But, federal government saving would not change. The Congressional Budget Office is considering changing they way they count purchases of private securities in the budget to eliminate this inconsistency. Whether or not budget policy depends in any way on particular accounting practices is an issue beyond the scope of this paper. For a discussion, see: Congressional Budget Office. Cost Estimate H.R. 4844, Railroad Retirement and Survivors’ Improvement Act of 2000.

\(^{21}\)That is, unless the yields on government bonds had to rise so much, and the yields on the private securities purchased by the trust fund had to fall so much to allow the markets to clear that the shift resulted in no change in capital income to either the private sector or the trust fund.
someone would have to buy the assets that would otherwise have been purchased by the trust fund. And those who did would experience a drop in income from capital.

None of this is to say that investing the trust fund in private securities is undesirable, or would have no effect. Rather, it is to say that such a change would be unlikely to affect the national saving rate.

Social Security will never function exactly like a collective retirement plan where each individual sets aside a given amount in order to provide for his own retirement. Even with a fully funded plan, there will be income transfers among participants. For example, those who live longer than average will gain at the expense of those who die prematurely. As long as the plan is less than fully funded, there will be an ongoing transfer from the working population to those who are already retired.

In the case of individuals, how much they set aside during their working years will determine how well they live in retirement. Similarly, for the Nation as a whole, how much we save now will play a role in the size of the economy in the future. The collective saving of households, business, and the public sector will determine how much we invest. The more we invest, the larger a stock of capital we will have and the more productive the labor force will be. A more productive labor force means higher standards of living in the future.

By saving more now, the economy in the future will be larger than it otherwise would be. The larger the economy is, and the higher incomes are will make it easier to afford paying retirement benefits no matter how they are financed.