Can We Afford Social Security and Medicare in the Long Term?

By Eric Klieber

The two largest social insurance programs in the United States, Social Security and Medicare, currently comprise 4.3 percent and 3.2 percent, respectively, of the Gross Domestic Product (GDP). In other words, together these programs fund 7.5 percent of all spending on goods and services produced in the country. By 2082, these percentages are projected to grow to 5.8 percent and 10.8 percent, respectively. Thus, in combination the projected share of GDP represented by these programs will increase to 2.2 times the current level over the next 75 years. Viewed from another perspective, Social Security and Medicare expenditures are expected to grow to about 90 percent of federal revenues if revenues remain in their historical range between 18 and 20 percent of GDP.

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Many people question whether the nation can continue to afford the promised benefits under these programs over the long term. This is a complex issue, involving both economic limits on transfers of income from workers to non-workers and what might best be called the nation's "values." There is no definitive answer to this question, but it is possible to put the issues into perspective, so that the decisions the nation must collectively make in the future are more clearly defined.

Background

Social Security and Medicare, the two largest social insurance programs in the United States, currently comprise 4.3 percent and 3.2 percent, respectively, of the Gross Domestic Product (GDP). In other words, together these programs fund 7.5 percent of all spending on goods and services produced in the country. Under the Trustees' intermediate, or best estimate, assumptions, by 2082, these percentages are projected to grow to 5.8 percent and 10.8 percent, respectively. Thus, in combination, the share of GDP represented by these programs is expected to increase to 2.2 times the current level over the next 75 years. While there is considerable uncertainty attached to any economic projection 75 years into the future, Social Security and Medicare together can be expected to grow significantly as a percentage of GDP even under best-case scenarios. Many people question whether these two programs are sustainable in the long run, *i.e.*, whether the nation can continue to afford the scheduled benefits.

There are really two parts to this question. First, can the standard of living of all citizens, working and non-working alike, continue improving if an increasing share of economic resources is diverted from workers to non-workers? History shows that the economy can accommodate large changes in the allocation of resources if these changes are the result of a series of small incremental changes over time rather than one or a few sudden dislocations. For example, the economy was twice thrown into recession by upward spikes in the price of oil in the 1970s, but has, as of this writing, continued growing in the face of a gradual increase in the price of oil over the past several years. Nevertheless, no matter how gradual the trend, there may be a limit to the amount of income workers can

transfer to non-workers through social insurance programs without affecting current economic efficiency and future economic growth. For example, some economists have suggested that, in total, the proportion of income transferred from workers to non-workers—through social insurance and welfare programs, employer sponsored pensions, income from personal savings, *etc.*—should not exceed the proportion of non-workers in the economy; otherwise, the non-workers would become economically better off than the workers. As long as the economy continues growing more rapidly than the population, this theoretical cap on income transfers should accommodate expected growth in Social Security and Medicare.

When Social Security started paying benefits in 1940 and Medicare in 1966, each program represented much less than one percent of GDP. Most people at the time would have said it was impossible these programs could grow to their current sizes as a percentage of GDP, and yet they have, without apparently impairing the capacity of the economy to provide an unprecedented standard of living to the great majority of the population. If there is any lesson to be learned, it is to view with suspicion any claims about specific limits on how much we can afford to pay for Social Security and Medicare in the future.

Aside from purely economic factors, there is the further question of how much workers are willing to be taxed to pay for social insurance programs. As the following will show, this is the more important question. And here, too, the answer is far from clear.

Social Insurance in the United States

Insurance involves the sharing, or pooling, of financial risk. In commercial insurance, this is accomplished through a contract between the insurer and the insured—the insured agrees to pay a premium to the insurer in return for receiving a benefit from the insurer to cover part or all of the financial loss due to the occurrence of the insured event. The premium, benefit, and insured event are all defined in the contract. Because many insureds agree to be covered under similar contracts, their collective premiums fund a pool of assets from which the insurer can pay benefits if and when the insured event occurs to a particular insured. For this arrangement to work, the premium must be sufficient to pay the expected benefits and administrative expenses associated with each contract with an allowance for adverse experience and, in some cases, profits for the insurer. However, the premium cannot exceed the expected benefits and administrative expenses to a degree that makes the potential insureds unwilling to enter into the contract. Thus, as in all commercial transactions, the terms of the insurance contract are subject to market forces.

Social insurance, like commercial insurance, involves the pooling of financial risk. Social insurance differs from commercial insurance in several ways:

- In social insurance, the funding mechanisms, benefits, and insured events are defined by law rather than by contract, and the program is usually administered either directly by the government or under government supervision. Unlike commercial insurance contracts, the laws governing social insurance can be changed unilaterally by the government, even if the changes reduce benefits or raise contributions.
- In social insurance, coverage is mandatory for the insured population defined by law, which generally includes all, or nearly all, residents.
- In social insurance, while overall funding is intended to cover the cost of benefits, the benefits of individuals may not be closely related to the funding provided by them or on their behalf. In other words, some groups of insureds may subsidize the benefits of other groups. This could not occur to the same degree in commercial insurance, because a contract whose expected benefits are significantly less than the premiums would have difficulty attracting enough policy holders to be commercially viable.

It is important to distinguish social insurance programs from welfare programs. Welfare programs do not involve the pooling of financial risk. Rather, welfare programs cover only those who already experience financial need, as defined under the particular program, and money is appropriated as necessary to pay benefits. However, this distinction is not always clear cut: some programs may have characteristics of both social insurance and welfare. For example, in the United States medical care for the poor is provided through Medicaid, which is set up as a welfare program; whereas in most other developed countries, medical care for the poor is provided through the same social insurance program that covers all residents.

Around the world, social insurance programs have been developed to cover a wide variety of financial risks, including: retirement; premature death and disability; health care; unemployment; work-related sickness and disability; child care; and, more recently,

elder care. The United States has two primary national social insurance programs:

1. Old Age, Survivors, and Disability Insurance, commonly known as Social Security, provides benefits for retirement, premature death, and disability.
2. Medicare provides health care benefits, specifically hospitalization (Part A), physician care (Part B), and prescription drug benefits (Part D). The optional Medicare Advantage program (Part C) combines the benefits in Parts A and B. Benefits under Part C and, at the participant's option, Part D can be provided through commercial insurance contracts financed by premiums whose amount is both set and paid by Medicare.

The United States has other social insurance programs, including Unemployment Insurance and Workmen's Compensation, but these programs are much smaller measured both by the amount of benefits currently paid out and by expected future growth and are not discussed in this paper. Except for child and elder care, the United States provides a full range of social insurance programs, although some of these programs are not as comprehensive or generous as their counterparts in other developed countries.

Financing Social Insurance Programs

Financing refers to the sources of revenue used to pay benefits under a social insurance program. Many different sources of revenue are commonly used, as follows:

- Premiums paid by program beneficiaries: While some social insurance programs charge premiums to participants receiving benefits, usually these premiums are intended to cover only a portion of the total cost of the insurance. Medicare Parts B and D require premiums from participants while the insurance is in effect which cover about a quarter of the cost of benefits. Generally, the premiums are the same for all insureds, although Medicare charges higher premiums for participants who delay coverage beyond initial eligibility. Also, high-income beneficiaries pay higher premiums under Part B, and low-income beneficiaries receive premium subsidies under Part D.
- Dedicated payroll tax paid by participants before receiving benefits: Such taxes are among the most common financing mechanisms for social insurance programs. The tax is usually a level percent of wages, often with an upper limit and sometimes with a lower limit as well. Graduated taxes are rarely used for this purpose; progressivity, when desired, is generally built into the benefits rather than the revenue side of the program. In programs that pay cash benefits, the wages to which the payroll tax applies typically become the basis for calculating program benefits as well. Social Security and Medicare Part A are both financed in part by a payroll tax paid by workers.
- Dedicated payroll tax paid by employers: In most programs funded by a payroll tax, the tax is shared between the participant and his or her employer. The shares are usually equal, as is the case with Social Security and Medicare Part A, although sometimes the employer pays a greater share, due to a higher tax rate, a larger tax base, or both.
- Dedicated non-payroll tax: This financing mechanism is not commonly used. Some resource-rich countries have used a dedicated tax on resource extraction to fund social insurance programs. The suggestion has been made that the United States impose a value added tax (VAT), whose revenue would be used to bolster Social Security and Medicare.
- General revenues: General revenue is another common source of financing. In some programs, general revenue financing comes in the form of a third share paid by the government, co-equal with the payroll taxes paid by participants and employers. In other programs, such as Medicare Parts B and D, general revenue financing supplements participant-paid premiums. Because general revenue is usually generated in large part by a progressive income tax, the use of general revenue introduces progressivity into the revenue side of social insurance financing.
- Borrowing: Nearly all developed countries finance a portion of their government expenditures by selling bonds to the public. Since it is not possible to distinguish which government expenditures are financed by taxes and which by debt, any general revenue financing of social insurance programs must be considered as coming from borrowing as well as taxes. To most economists, the distinction is unimportant anyway—they view borrowing to finance government expenditures as deferred taxation unless the government can find a way to reduce its future spending to compensate.

Based on the financing mechanisms described above, it would seem that there are three sources of

revenue for social insurance programs: participants, employers, and government. This is not really the case. With two exceptions, the ultimate source of revenue for social insurance programs is the participants. Dedicated taxes paid by employers are primarily borne by participants through some combination of lower wages for workers, higher prices for consumers, and lower dividends and stock prices for shareholders. General revenue financing from the government is primarily paid for by participants through their taxes, including taxes nominally paid by corporations and other entities, and through their purchases of government bonds. The two exceptions are: revenue from bonds purchased by non-participants, particularly foreign citizens and governments; and revenue from taxes paid by non-participants, particularly taxes on exported natural resources paid by consuming countries. Outside of Australia and Norway, the latter source is not significant for developed countries.

Funding Social Insurance Programs

Funding refers to the timing of revenue relative to the payment of benefits. There are three options:

1. Unfunded programs, also known as "pay-as-you-go": If a program is unfunded, the timing of revenue receipt approximates the timing of benefit payments. For programs such as Social Security and Medicare, which provide benefits primarily to the aged, this means that revenue attributable to each generation of participants pays the benefits of a past generation, and each generation's benefits will in turn be paid by the revenue attributable to a future generation. If the program is financed by a dedicated revenue stream, it usually maintains a small fund, typically less than a year's expected benefit payments, as a cushion against unforeseen fluctuations in revenue and benefits. There is no need for such a fund if a program is financed from general revenues, because program revenues adjust automatically to changes in benefits. Medicare parts B and D are both unfunded.
2. Fully funded programs: If a program is fully funded, the revenue necessary to pay each participant's benefits is received before the participant begins receiving benefits. In a defined benefit program, such as Social Security, funding is on an aggregate basis, so full funding would mean that the pooled revenues accumulated for each cohort of participants would fund the total benefits for that cohort, but the revenue for any individual might not fund the benefits payable to that individual. Social Security, however, is not fully funded. Some have suggested that Social Security be converted, in whole or in part, to an individual account system, under which the revenue attributable to each participant accumulates in a separate account dedicated to paying the benefits of that participant and his or her dependents. An individual account is fully funded at all times, because a participant's benefit is based on his or her account balance, and the account always contains accumulated assets whose value equals the account balance.
3. Partially funded programs: Theoretically, a partially funded program can fall anywhere on the continuum between unfunded and fully funded. Partial funding usually arises when revenue from a level dedicated tax is used to finance increasing benefit payments. Such is the case now with Social Security. The current tax rate, 12.4 percent of covered payroll shared equally by employees and employers, has not changed since 1990 and is not scheduled to increase, even though benefit payments are expected to increase dramatically as the baby boom generation enters its retirement years. The inevitable result is that the system has been building up a sizable pool of assets, and will continue adding to the pool for many more years. Currently, about 90 percent of Social Security's tax income goes to pay benefits, while the rest accumulates in the trust funds. The 2007 trustees' report projects that the trust funds, now containing $2.2 trillion, will reach a peak of over $6 trillion in 2027. As large as these numbers may seem, these accumulated assets will not come close to fully funding all scheduled benefits of current participants, and the trust funds are expected to be drawn down to zero in 2041. Medicare Part A is also partially funded, and its trust fund is expected to be exhausted in 2019.

Social Security and Medicare trust fund assets are invested almost entirely in non-marketable special-issue U.S. government securities that represent loans to the U.S. Treasury's general fund. These securities carry defined interest rates and have scheduled maturity dates like the securities the Treasury sells to the public. The money the Treasury raises by borrowing from the trust funds is spent immediately for other government purposes. Thus, one result of the trust fund build-up has been that these programs are financing a portion of the deficit spending from the

general fund. Until recently, the Treasury has routinely redeemed the securities held in the trust funds upon maturity by issuing new securities to the trust funds. Since 2005, payroll tax revenue to the Medicare trust fund has not been sufficient to pay benefits, and the Treasury has begun net annual redemptions of securities held in the trust fund. This situation is projected to occur in 2017 for Social Security. The money to finance these redemptions comes from general tax revenue and/or borrowing. Therefore, in spite of partial funding, all the money to pay benefits, whether from payroll taxes or from the trust funds, comes from sources which would otherwise be available for other spending purposes at the time the benefits are paid. In this sense, there is no real pre-funding of Social Security and Medicare benefits.

This does not mean, as some say, that the trust funds are meaningless. The trust funds represent an obligation of the Treasury to make funds available as needed for benefit payments until the trust funds are exhausted. Similarly, a bank account does not represent money stored at the bank, but an obligation of the bank to make funds available to the account holder up to the balance in the account, subject to any restrictions on the timing of withdrawals that depend on the type of account. Banks keep a small portion of their aggregate deposits in a cash reserve to meet immediate demands for withdrawals, and loan out the rest. The ability of a bank to meet its obligations to account holders depends on the great majority of its borrowers' fulfilling their loan obligations. In the same manner, Social Security and Medicare can meet their benefit obligations until the trust funds are exhausted as long as the Treasury does not default on its bonds. The Treasury has never in the past defaulted on its obligations.

The 1994–1996 Advisory Council on Social Security suggested that up to 40 percent of Social Security's trust fund assets be invested in marketable securities, including corporate stocks and bonds. One rationale for this proposal is to offset some of the payroll taxes needed to support the program by higher expected investment earnings from corporate stocks and bonds; but another is to enforce greater discipline on government fiscal policy by removing payroll tax income in excess of benefit requirements as an easy source of deficit financing. If this suggestion were implemented, when it came time to sell the securities held in the trust funds to pay benefits, the money to purchase those securities would come from sources which would otherwise be available for other spending purposes, the same as for the money to redeem the special-issue government bonds currently held in the trust funds. Thus, there would be no real pre-funding of Social Security benefits even if part of the trust funds were invested in corporate stocks and bonds. Regardless of the degree of advance funding, the money to pay benefits from social insurance programs comes from reducing the money available for other current spending in the economy.

This holds true even for securities held in individual accounts. In an individual account system, at any given time working participants are adding to their accounts through payroll taxes, and retired participants are drawing down their accounts. From an economic standpoint, the working participants are using their payroll taxes to purchase securities from the retired participants. To the extent payroll tax income matches withdrawals, payroll taxes are funding the withdrawals. Any excess of payroll taxes over withdrawals is recycled back into the economy through net purchases of securities, while any excess of withdrawals over payroll taxes absorbs money from the economy through net sales of securities.

This does not necessarily mean investing trust fund assets in corporate securities would be economically neutral. If those investments increased the nation's total amount of private investment, any resulting increase in productivity could cause the economy to grow faster than otherwise, making it easier to finance social insurance programs in the future. This scenario is controversial among economists. Some say investing trust fund assets in corporate securities would be offset by more purchases of government securities by the private sector, so that the end result would be merely a reallocation of investments among economic sectors.

Sustaining Social Insurance Programs

The preceding discussion demonstrates that nearly all of the cost of Social Security and Medicare is borne by program participants at the time benefits are provided. There is little, if anything, the nation can do in advance to mitigate the burden of financing these programs. Is it possible to identify any economic limit on how much the nation can afford to pay for these programs?

One common misperception is that money diverted to Social Security and Medicare reduces the size of the economy. Actually, diverting money to Social Security and Medicare does not directly reduce the size of the economy, since almost all of this money is spent

immediately and, therefore, recycled back into the economy.

Although diverting money to Social Security and Medicare does not immediately affect the size of the economy, some argue it would reduce economic growth by reallocating resources from more to less productive economic sectors. A high proportion of Social Security cash benefits is spent on economic basics, such as food and housing. All Medicare benefits are provided in the health care sector. These sectors are not experiencing the rapid advances in productivity seen in business and manufacturing. If in the future a greater share of economic resources is allocated to less productive sectors of the economy at the expense of more productive sectors, this trend will most likely be due to the aging of the population and the general shift in the focus of economic growth from manufacturing to the service sectors, particularly health care. The growth of Social Security and Medicare will be a part of this trend, but not a cause. Further, this same trend will likely occur in other developed countries, all of which face the problem of maintaining historical rates of economic growth in the face of aging populations. One result has been a gradual loss of competitiveness *vis à vis* developing countries in manufacturing and low-level services. However, the demand for diverting economic resources to the elderly and disabled and for improved health care will eventually overtake developing countries as well, so any loss of competitiveness would be temporary, and would be part of the larger process of the developing countries' improving their economic standing in the world.

A similar argument holds that diverting money to Social Security and Medicare would lower returns on investment, thereby reducing incentives for capital investment in the economy. As above, any resulting loss of competitiveness would likely be relative to developing countries, whose social insurance programs are less costly. As living standards and longevity improve in those countries, their costs for social insurance will increase, eventually eliminating any competitive advantage from that source.

Money diverted to Social Security and Medicare could reduce economic growth by reducing the incentives for workers to work hard and be productive. In evaluating this possibility, it is worth noting that, using the Social Security trustees' intermediate assumption, real wages, that is, wages adjusted for changes in the cost of living, will grow 1.1 percent per year on average to 2.3 times the current level over the next 75 years, by coincidence nearly the same as the growth in Social Security and Medicare as a percentage of GDP. This means that, although Social Security and Medicare will represent a greater proportion of the economy 75 years from now, real wages available for spending outside Social Security and Medicare will still approximately double in that time. While any increase in the portion of earnings diverted to Social Security and Medicare can be expected to reduce the incentive to work when compared to the *status quo ante*, the portion of earnings remaining for the workers should continue to provide ample incentive for hard work and increased productivity.

Social Security and Medicare could hurt the economy by boosting government borrowing to unsustainable levels, particularly borrowing from foreign sources. While high levels of government debt are certainly a worry, social insurance programs by themselves do not cause government borrowing to increase, because the programs can always be financed by taxes.

Conclusion

While there is certainly some economic limit to how much we as a nation can afford to pay to finance Social Security and Medicare, there is no good evidence that limit would prevent the United States from financing Social Security and Medicare in the future at the benefit levels promised under current law. Ultimately, whether we continue these programs as currently defined depends on the willingness of the nation to provide the needed financing.

Some politicians and pundits have tried, with some success, to spook the public with threats of onerous tax burdens and out-of-control borrowing into believing that the benefits promised by Social Security and Medicare must be reined in before these programs do irreparable damage to the economy. There is simply no evidence to support this view. First, spending on Social Security and Medicare cannot be isolated from other government spending as being solely responsible for this need for increased taxation or borrowing. The need for taxation and borrowing can be mitigated as well by reining in spending in other areas. But more important, the needs addressed by Social Security and Medicare—income maintenance and health care for retired and disabled workers and their dependents—will remain regardless of whether and how these programs change in the future, and meeting these needs will involve a transfer of income from workers. If Social Security and Medicare are not the mechanism for this transfer, there will be some other mechanism that will have a roughly equivalent economic effect.

Maintaining Social Security and Medicare in their current form would require significant increases in the Social Security and Medicare payroll taxes, although, given the inherent uncertainty of long-term projections, the exact amount of the required increases cannot be known at this time. Any such increases must be much slower than the growth in real wages to allow for adequate growth in workers' spendable income. Stagnation in workers' spendable income, even if offset by increased income for retirees, risks economic dislocation, which could send the nation into recession. Raising taxes slowly while also ensuring long-term system solvency would require the increases be initiated sooner rather than later. For example, increasing the combined Social Security and Medicare payroll taxes by two tenths of a percent of covered payroll per year—a tenth of a percent each for the employees and employers—would absorb less than 20 percent of the growth in real wages at the assumed rate of 1.1 percent per year, and would almost double the combined payroll tax rate over 75 years. For an economy in which motor vehicles outnumber licensed drivers, and in which the average new house boasts 2,500 square feet of living space, this does not seem an undue hardship.

Nevertheless, the nation may decide, through the political process, that it cannot, or does not want to, provide the necessary financing to maintain Social Security and Medicare in their current form. The alternative is to reduce benefits so that program costs remain within the bounds of what the nation is willing to finance. This would be a political decision, not one based on economic necessity. ■

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