

Transition Paths and Social Security Reform

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Executive Summary

Over time, the Social Security program has evolved as a pay-as-you-go, or an unfunded system. With the well-known problems plaguing the current system, some have argued for a change-over to a funded system. Funding the system might help participants understand the relation between their taxes and benefits, and it might facilitate further reform that expands the latitude for individual choice.

In this *Issue in Brief*, I describe a procedure in which the U.S. Social Security system could be transformed into a funded system virtually instantaneously through the use of government debt. Surprisingly enough, such a reform would have almost no direct economic consequences. It might, nonetheless, be significant: it might change society's psychology when coping with future demographic trends, it might clarify for voters the full extent of the economy's indebtedness, and it might facilitate additional reforms.

While proposed reforms usually include provisions for new tax revenues, I suggest splitting the task into two parts: funding the system through national debt, and then paying down the national debt. Regardless of the theoretical framework used for understanding these changes, paying down the debt reduces the tax burden on future generations. In some cases, it leads as well to a substantial long-run increase in the economy's stock of physical capital and, hence, potential output. Other models predict more modest changes, perhaps with reductions in the inequality of private wealth holdings.

Transition to a Funded Social Security System

In a funded Social Security system, each generation pays for its own benefits; this is in contrast to the current, unfunded system, in which each generation pays for the previous generation's benefits. This section outlines a procedure for shifting to a funded Social Security system in a way that leaves physical investment, interest rates and wages unchanged. Government's total liabilities, explicit and implicit, would remain the same, but the balance would shift to the "explicit" side. In principle, the economy could engineer such a shift rapidly.

In this funded system, current retirees would continue to receive Social Security benefits. However, current workers would stop paying Social Security tax and, when retired, would not receive Social Security benefits from the government. Instead, at the time of the program's implementation, each worker would receive from the government a one-time payment of government bonds. This payment would be equal in value to the worker's vested Social Security benefits to date. These bonds would be put into a private account in the worker's name from which the worker could not withdraw funds until his retirement. Over the remainder of his working lifetime, the worker would be required to save a government-mandated amount of money each year. These yearly, required savings would be invested in government bonds and put into the same account as the one-time bond payment. The amount of these yearly savings would be set so that, at the end of the worker's working lifetime, the total value of the bonds in this account would be equal to the value of the entirety of the Social Security benefits that the worker would have re-

ceived in retirement under the old program. Once retired, the worker would be able to draw from the account each year an amount equal to the Social Security benefits that he would have received that year under the old program.

The Social Security taxes saved by workers under the funded program are likely to be greater than the mandated private-account saving required of workers. Likewise, the Social Security taxes lost to the government under the funded program are likely to be greater in value than the Social Security benefit payments relieved of the government by the Social Security tax's abolition. To erase these discrepancies, each worker would pay a yearly tax, called a "debt service tax," to the government. With this tax, both people's lifetime incomes and the long-term cost to the government of Social Security are the same under the funded and unfunded programs.

The one-time bond payment would increase the national debt. However, it would also relieve the government of its obligation to pay in the future to the bond payment's recipients the proportion of Social Security benefits accounted for by the bond payment. These Social Security benefits are an equally expensive implicit debt of the government; although they do not show up in the government's accounts, they are, exactly like government debt, an obligation of the government to pay others in the future. Therefore, the government's "true" debt, explicit and implicit, is the same under the funded and unfunded programs; explicit debt merely replaces implicit debt.

Because of the yearly interest payments on the extra debt undertaken by the government to finance the one-time bond pay-

ment, government budget deficits will be higher or, equivalently, government saving will be lower under the funded program. However, because of the yearly mandated saving, personal saving will be higher under the funded program. It can be demonstrated that the amount by which personal saving is higher is equal to the amount by which government saving is lower. As a result, overall saving is the same under the funded program as under the old, unfunded program. Since overall physical investment equals overall physical saving, it, too, is the same. In turn, the stock of physical capital, interest rates, and wage rates will also be the same under the funded program as under the unfunded program.

The analysis so far suggests that one can transform many Social Security problems into analyses of national debt. It also suggests that we can measure the “burden” to an economy of an unfunded Social Security system with the size of the national debt, which one creates in the process of instantaneously funding the system. Quantitatively, the size of the implicit debt from the U.S. Social Security system is very substantial. Geanakoplos et al (1999), for example, use a 1997 figure of \$8.9 trillion.

Funded vs. Unfunded Social Security

What might be the advantages of a funded Social Security system? First, the private accounts in the funded system might ease workers’ worries about the safety of their future benefits. Second, the private accounts in a funded system might make other reforms to Social Security, such as allowing people to invest their Social Security funds into corporate bonds or common stocks, more easily implemented.

Third, a funded system might change participants’ psychology enough to help arrest future growth of the government’s explicit and implicit debt. For example, suppose people are expected to live longer and enjoy longer retirements in the future. Under the unfunded system, a standard course of action would be to wait until the future and raise Social Security taxes to pay for the extra costs to the government of paying Social Security benefits over longer retirements. Since this means the government is obligated to pay more Social Security benefits in the future, the government’s implicit debt increases. In contrast, under the funded system, the young are likely to support an increase in the amount of money they are required to contribute to their private accounts to ensure that funds are available to draw from that account over a longer period of retirement. This does not increase government debt, explicit or implicit. Fourth, funding the Social Security system would simplify information problems for voters. Instead of having to keep track of two types of government debt—explicit and implicit—there would be a single one.

Why Reduce the National Debt?

I now turn to the question of paying down the national debt. Converting the Social Security program to a funded system of personal accounts would, as just explained, enormously increase the explicit national debt. We might then want to raise new tax revenues to reduce that debt. Why pay down the national debt? I consider three possible answers. First, the “morality” answer contends that, when an economy finances current government services, or transfers, with debt, it is, in effect, passing the cost on to

future generations. The second answer, “generosity,” is more subtle. It contends that paying down the national debt now will spare future generations the costs of a higher national debt. These costs include “dead weight loss,” the economic term for the cost of the inefficiencies caused by the distorted work and savings disincentives associated with the higher income and Social Security taxes needed to pay interest and debt principal in the future. The third answer, “necessity,” contends that this dead weight loss may become unbearably great in the future if the national debt continues to grow, to the extent that there is no choice but to contain the national debt. In conclusion, there are several possible reasons an economy might want to reduce, or control the size of its national debt.

Potential Benefits of Reducing National Debt

Economists employ two basic frameworks when analyzing people’s economic behavior: the life-cycle model and the dynastic model. The life-cycle model assumes that people care exclusively about their own lives, not those of their predecessors or descendants. In the dynastic model, people care about their descendants as well.

In the life-cycle model, an increase in the national debt will reduce the stock of capital in the economy. An increase in government debt intensifies the competition among government bonds, corporate bonds, common stocks, and other financial instruments for people’s savings, forcing firms to increase the interest rates they pay on corporate bonds and the rates of return they pay on common stock. Consequently, it becomes more expen-

sive for firms to raise money to finance physical investment. In the long run, this will result in a smaller stock of capital in the economy. A smaller stock of capital will result in lower labor productivity and, consequently, lower wages and GDP in the long run. Consequently, in the life-cycle model, an increase in the national debt should cause higher interest rates, a smaller capital stock, lower wages, and a lower GDP. Similarly, paying down the national debt should result in lower interest rates, a larger capital stock, higher wages, and a higher GDP in the long run.

In the dynastic model, an increase in the national debt does not reduce the stock of capital. People in the dynastic model realize that a larger national debt will result in future generations being taxed more to pay off that debt. As a result, people will save more in order to make larger bequests to future generations to compensate for the greater tax burden. In the simplest dynastic models, the increase in personal savings will equal the increase in government debt, and so the increased abundance of personal savings will neutralize the extra competition for personal savings posed to corporate bonds, common stocks, etc. by the newly issued government bonds. Firms will not have to increase the interest rates they pay on corporate bonds or the rates of return they pay on common stock, so it will be no more expensive to raise money to purchase capital than before. Therefore, firms will not demand any less capital than before, and the stock of capital in the economy stays the same in the long run. Therefore, in the dynastic model, an increase (or, for that sake, a decrease) in the national debt has no long-run effect on interest rates, the capital stock, wages, or GDP.

In a theoretical analysis that uses a hybrid of the two models—one in which saving is driven by a combination of life-cycle and dynastic motives—Laitner (2001) finds that, for policy purposes, the economy is better described by the dynastic model. Consequently, a change in the national debt should not have a sizable effect on interest rates, the capital stock, wages or GDP in the long run. On a side note, Laitner (2001) does expect an increase in the national debt to worsen wealth inequality in the future.

Conclusion

This Issue in Brief summarizes work that suggests that the U.S. Social Security system could be reformed from an unfunded to a funded system virtually instantaneously through the use of government debt. This might have several benefits, which are discussed. I then describe several reasons why we would want to pay down the national debt and end by cataloguing different macroeconomic implications of debt reduction. In all cases, paying down the debt reduces the tax burden on future generations.

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