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Funding Social Security: An Introduction
An Introduction

Funding Social Security deserves serious consideration in the debate over Social Security reform that is taking place in many countries around the world. Funding Social Security is not a new proposal. Its debt to other reform plans for all its components will be clearly evident from citations and quotes.

Funding Social Security has two distinct essential components: fund accumulation and portfolio diversification. Fund accumulation requires setting tax and benefit rates to achieve substantial annual surpluses. Portfolio diversification is achieved by having the Social Security Administration contract with private firms to invest the Social Security trust fund. Thus, funded Social Security uses a mix of payroll taxes and portfolio investment income to finance benefits, with an important share contributed by each source; for example, investment income might roughly equal payroll tax revenue in a typical year. In its portfolio choice, funded Social Security avoids excessive reliance on either government bonds (because the yield is lower) or corporate stocks (because the risk is higher).

With funded Social Security, all investment risk is pooled: there are no individual accounts. The Social Security Administration contracts with private investment firms (under competitive bidding) to manage the portfolio of the Social Security trust fund; each investment firm manages a share of the trust fund portfolio. Under the contract, each firm must invest its share of the fund in a conservative diversified portfolio of government bonds, corporate bonds, and corporate stocks. The contract with private managers specifies a maximum share for corporate stocks and a minimum share for government securities; for example, the contract might state that corporate stocks cannot exceed half the portfolio, that all stock investment must be broadly diversified, and that government securities must constitute at least a third of the portfolio. Each investment firm
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manages Social Security’s portfolio the way it manages the portfolio of a conservative risk-averse private client; the investment firm handles stock voting as it does for such a private client.

Funded Social Security is entirely a defined-benefit plan without any individual defined-contribution accounts. Each retiree’s benefit is linked by a legislated formula to the retiree’s own wage history; the benefit is an annuity – an annual benefit that continues for as long as the retiree (or spouse) lives – and is automatically adjusted annually for inflation. If a country (such as the United States) initially has a defined-benefit pay-as-you-go (PAYGO) Social Security system, funded Social Security is achieved by preserving the defined-benefit formula and gradually shifting the financing from payroll taxes to a mix of portfolio investment income and payroll taxes.

Although funding Social Security warrants serious consideration in many countries, this book focuses specifically on the Social Security reform debate in the United States. It is a case study that addresses fundamental issues that are present in most countries considering Social Security reform.

Funding Social Security has two distinct components: fund accumulation and portfolio diversification. To accumulate a large capital fund, taxes and benefits must be set so that Social Security runs annual surpluses: taxes plus fund investment income must exceed benefits. As the capital fund accumulates, its portfolio must be chosen. The funded Social Security plan considered in this book prescribes a diversified portfolio of marketable government securities, corporate bonds, and corporate stocks.

It is crucial to recognize that fund accumulation and portfolio diversification are separate components. It would be possible to have fund accumulation without portfolio diversification: Social Security could accumulate a large fund but invest it solely
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in special nonmarketable low-yield government securities (as it does under the current U.S. Social Security system). Conversely, it would be possible to have portfolio diversification without fund accumulation: Social Security could maintain only a small fund but invest that fund in a mixed portfolio. In this book, the term funded Social Security implies both components: a large capital fund invested in a diversified portfolio.

Fund accumulation is the key to raising the capital accumulation of the economy, whereas portfolio diversification is the key to capturing a larger share of the economy’s capital income for the Social Security system. Suppose an increase in the economy’s capital accumulation would generate a return to the economy of 6% due to the productivity of the additional physical capital. Fund accumulation without portfolio diversification would raise capital accumulation (provided the balance in the rest of the government budget is unaltered) and generate a 6% return to the economy. If Social Security invests its surplus solely in government bonds earning 2%, then the government would sell fewer bonds to the public and the public would channel more of its savings into private firms, financing additional capital accumulation that generates a 6% return. Portfolio diversification without fund accumulation would not raise the capital accumulation of the economy; if Social Security holds more corporate stocks earning 6% and fewer government bonds earning 2%, then the public will hold fewer corporate stocks earning 6% and more government bonds earning 2%. But fund accumulation with portfolio diversification would raise capital accumulation and cause the Social Security system to capture some of the 6% return that is generated by the additional capital accumulation.

There are three important reasons for investing the portfolio in marketable government securities, corporate bonds, and
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corporate stocks rather than in special nonmarketable government securities (as under the current U.S. Social Security system). First, the yield on the portfolio will be higher. Second, it will strengthen the confidence of the public: the status of special nonmarketable government securities is often questioned, but the status of a portfolio of marketable stocks and bonds is easily grasped. Third, a marketable portfolio is less vulnerable to a political raid, because tapping the portfolio involves actual sale of stocks and bonds rather than the canceling of nonmarketable government securities.

In the United States in 1997, the distinguished Advisory Council on Social Security (ACSS) provided an important service by submitting to Congress three fundamental reform plans, each plan supported by a subset of members of the Council. Three points deserve emphasis. First, the three ACSS plans are fundamental reforms and are therefore useful vehicles for discussing the fundamental issues in Social Security; it is for this reason that this book devotes significant space to the three ACSS plans. Second, funded Social Security borrows heavily from all three ACSS plans. Its debt to the authors of these plans will be clearly evident throughout the book. Third, funded Social Security nevertheless differs from each ACSS plan.

There are two middle positions between PAYGO defined-benefit Social Security and privatized defined-contribution Social Security. One is funded Social Security. The other is PAYGO Social Security with supplemental individual defined-contribution accounts. In the U.S. Social Security debate, some who have sought a middle position favor adding supplemental individual defined-contribution accounts to PAYGO defined-benefit Social Security. One purpose of this book is to explain why a second middle position, funded Social Security, deserves serious consideration.
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Under the current U.S. PAYGO Social Security, each retiree receives an annual benefit that is tied to the retiree’s wage history by a legislated formula, continues for as long as the retiree (or spouse) lives, and is adjusted annually for inflation. The retiree’s benefit varies directly with the wage that person earned as a worker: the higher the average annual wage earned over a person’s career, the higher the annual benefit. Benefits are not means-tested, though they are subject to income taxation. Benefits are partially redistributive: If worker $H$ earned three times the annual wage of worker $L$ over his career and paid three times as many dollars in payroll tax, then $H$ receives an annual benefit roughly twice as great as $L$’s. Benefits are an annuity: each retiree is paid annually for as long as the retiree (or spouse) lives. The annual benefit has an automatic inflation adjustment.

Like the current U.S. PAYGO Social Security program, funded Social Security is a defined-benefit annuity plan with inflation protection and partial redistribution (from high-wage to low-wage workers). It differs from PAYGO solely in its financing.

In its first four decades (1940–80), the U.S. Social Security system used pay-as-you-go financing: annual payroll taxes from current workers and employers were approximately equal to annual benefits paid to current retirees. The Social Security trust fund was essentially a petty cash fund – only large enough to handle an unexpected shortfall of payroll tax revenue below benefits obligations (determined by the wage histories of current retirees according to a legislated benefit formula). The trust fund did not accumulate significant reserves. Beginning in the mid-1980s, Congress adjusted payroll taxes and retiree benefits to achieve annual surpluses, so that a genuine fund began to accumulate. However, the objective of Congress was to build a temporary fund that would be drawn down to help finance benefits
of the Baby Boom generation next century. Thus, the surpluses were viewed as a temporary deviation from PAYGO financing, adopted to handle a temporary demographic bulge. Social Security was expected to return to annual balanced budgets – PAYGO financing – in the long run. Thus, despite the temporary deviation, it is still accurate to view the current U.S. Social Security system as committed to PAYGO financing for the long run.

When PAYGO Social Security begins, its start-up yield (rate of return) is very high because retirees immediately receive benefits even though they paid little or no payroll taxes. The yield is a measure of the benefits a person receives as a retiree relative to payroll taxes paid as a worker; the greater the benefits relative to taxes, the higher the yield. The yield on PAYGO Social Security compulsory “saving” (payroll taxes) remains high for several decades because retirees receive benefits over their entire retirement even though they paid taxes over only a fraction of their work career. This high start-up yield is one important reason for the past popularity of PAYGO Social Security. But the longer an individual worker pays taxes over her career, the lower is the yield under PAYGO Social Security.

In the future, most retirees will have paid taxes during their entire work career – the PAYGO system is now mature. Economists have shown that, with steady population and productivity growth and a constant payroll tax rate, the real (inflation-adjusted) yield in a mature PAYGO Social Security program will on average equal the growth rate of real output (approximately the sum of labor force and productivity growth). This is shown in Appendix 2A (of Chapter 2) for a two-period model, and the result holds in a multiyear model (Seidman 1983). According to most long-term forecasts, this growth rate is likely to be about 2% (e.g., 0% for population growth and 2% for productivity growth).
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In order to preserve Social Security as a defined-benefit annuity plan with inflation protection and partial redistribution, it may be necessary to gradually fund Social Security: to gradually change its financing from PAYGO to a mix of payroll taxes and portfolio investment income, so that in the future its yield is comparable to the yield available on low-risk private saving. Thus, funding Social Security is a politically strategic alternative.

With funded Social Security, its diversified portfolio should on average be able to obtain a return that is several percentage points higher than a portfolio limited to government bonds as well as several points higher than PAYGO Social Security. For example, if the inflation-adjusted yield on a portfolio of corporate stocks is 6% and the yield on government bonds is 2%, then a mixed Social Security portfolio of stocks, corporate bonds, and government bonds would probably achieve a return of 4% with low risk. This 4% return would be twice the 2% return likely to be achieved by PAYGO Social Security.

This 2% gap makes an enormous difference over a person’s lifetime. For example, consider a worker of age 45 saving $5,000 that year. Compounded at 2% per year it grows to $7,430 at age 65; compounded at 4% per year it grows to $10,956. Hence, at age 65, the amount is nearly 50% greater ($10,956/$7,430 = 1.47) when the yield is 4% instead of 2%.

Funded Social Security rests on a cautious and realistic view of the stock market. History shows that even a conservative diversified portfolio can perform poorly over a decade. It is important to emphasize two points. First, funded Social Security uses payroll taxes as well as portfolio investment income to finance benefits; it does not put too many benefit eggs in its portfolio basket. Second, the portfolio is conservative: government bonds constitute an important share of the Social Security portfolio,
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as do corporate bonds; corporate stocks are not only diversified but constitute less than half of the Social Security portfolio.

Like the current U.S. Social Security system, funded Social Security is a defined-benefit plan in which each retiree’s benefit is linked to the retiree’s own wage history by a legislative formula; the benefit does not directly depend on the performance of the portfolio. If portfolio earnings fall, then a fraction of the portfolio must be sold to finance legislated benefits. However, if the portfolio performs poorly for several years, then either the legislative formula must be adjusted or payroll taxes increased. Thus, indirectly, benefits are eventually affected by portfolio performance; funded Social Security does not eliminate stock market risk. But it does minimize the risk for the individual retiree by (1) pooling the risk over all retirees, (2) utilizing a conservative diversified portfolio invested in government and corporate bonds as well as corporate stocks, (3) spreading the risk over time by selling fund assets as a first resort and adjusting the legislated benefits formula only as a last resort, and (4) using payroll taxes as well as portfolio investment income.

FUNDING SOCIAL SECURITY VERSUS ALTERNATIVE FUNDAMENTAL REFORMS

The aim of this book is to compare funding Social Security with alternative fundamental reform proposals. Although the United States is the case study of this book, the analysis is relevant to other countries contemplating fundamental Social Security reform. Just as the United States is a useful case study, so are the fundamental reform plans proposed by the Advisory Council on Social Security (1997). The ACSS plans represent major