Reforming Social Security with Progressive Personal Accounts

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Over the last year, the nation has been engaged in a heated debate about whether to replace part of the current, defined benefit Social Security system with a system of defined contribution personal accounts. President Bush has given speeches in numerous cities and towns advocating a reform that includes these individual accounts. Both proponents and opponents of individual accounts have emphasized the stark differences between the current defined benefit system and one with individual accounts. The mechanics and outcomes of the two systems would seem to be quite different, and their goals are usually presented as diametrically opposed.

Advocates for retaining the current system argue that (1) social security should redistribute wealth from those who have earned more over their whole working lives to those who have earned less, and (2) different generations should share in the risks and benefits of macroeconomic growth. Advocates for personal accounts, on the other hand, support (3) ownership by individuals of tangible assets that cannot be revoked by a future government and (4) market valuations of those assets as they are accrued so that rational planning for retirement can take place outside of Social Security.

Our purpose in this study is to find a common ground between these two approaches which preserves the core goals of each. We show that in fact it is perfectly possible to convert social security into a system of personal accounts with irrevocable ownership of market priced assets, while at the same time redistributing benefits based on lifetime income and sharing risks across generations. We call these progressive personal accounts.

Redistribution based on lifetime income is accomplished via a variable government match (or tax) on contributions. High lifetime earners receive lower matches (or a tax) on contributions to their personal account, while low lifetime earners receive a higher government match. Risk sharing across generations is accomplished through the creation of a new kind of derivative security whose payoffs depend on the average earnings of those working at a specific point in time. We call this security a Personal Annuitized Average Wage security, or PAAW.

A PAAW pays its owner one inflation corrected dollar for every year of his life after a fixed date t (near retirement age), multiplied by the economy wide average wage at that date. Because the security is partly an annuity, it provides insurance for long life, paying every year until death. Furthermore, because the payment depends on the average wage at retirement, it creates risk sharing across generations. If young workers are doing well and receiving high wages, the old will get higher payoffs from their PAAWs, and conversely. The PAAW could be priced in financial markets like any other derivative security.

Conceptually, progressive personal accounts could be required to hold all their wealth in PAAWs, without any opportunity to trade them in financial markets. In our study, we show that by choosing a
particular variable match, and restricting accounts to hold PAAWs, it is possible to create a system of progressive personal accounts that exactly mimics the promised taxes and payouts of the current Social Security system. Such a system would preserve the core goals of the current system, but would also improve upon it due to the increased transparency, enhanced property rights, and lower political risk (of legislation removing benefits) that naturally come with individual accounts.

While some of the benefits of PAAWs might be achieved without a public market for the PAAW security, our study suggests added value in creating an active financial market for PAAWs with a market-defined market-clearing price. This might be accomplished by allowing (and possibly requiring) 10 percent of PAAWs contributed to a personal account to be sold on the open market. The market price for PAAWs would provide useful information in valuing each person’s personal account, helping households in planning for their future retirement. The price would also give a market guide to expected longevity; and would give economists and program administrators a reliable guide to the present value of liabilities accrued in the social security system. With such a price in hand, it might also be possible to design a social security policy rule that adjusts social security benefits (i.e. the transformation of contributions into PAAWs) and taxes in such a way that the system automatically balances. The study also considers benefits from PAAWs in enhancing annuity markets and reverse mortgage markets.

Finally, in a very exploratory way, the study estimates the price of a PAAW, under risk neutrality, and computes the variable match rate (i.e. the difference in value between contributions and PAAWs awarded) that is implied in the current Social Security system. In continuing research, we are exploring ways to further improve the risk-sharing and redistributive features of progressive personal accounts, self-balancing mechanisms that might be adopted in conjunction with progressive personal accounts, and the pricing of PAAW securities under risk aversion.

The full working paper is available on our website, www.nber.org/programs/ag/rrc/books&papers.html as paper NB05-07.

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