Tax Considerations in a Universal Pension System

By Adam Carasso and Jonathan Barry Forman

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The inadequacy of the current U.S. public and private pension systems along with the escalating costs of healthcare may warrant the establishment of a universal pension system (UPS). Such a pension system could cover all workers — full-time and part-time — and require them to contribute at a level that can help provide them with adequate incomes when they retire. The simplest design for a UPS would be to piggyback a system of individual retirement savings accounts onto the existing Social Security withholding system. Other designs would provide targeted subsidies to supplement the retirement benefits of low- and moderate-income workers. UPS pensions would be fully portable, could boost the stock of private retirement savings, and could ease the burden on Social Security to provide sufficient incomes when people retire. The simplest design for a UPS would be to piggyback a system of individual retirement savings accounts onto the existing Social Security withholding system. Other designs would provide targeted subsidies to supplement the retirement benefits of low- and moderate-income workers. UPS pensions would be fully portable, could boost the stock of private retirement savings, and could ease the burden on Social Security to provide sufficient incomes when people retire.

This paper develops a UPS and estimates its revenue and distributional consequences. More specifically, this paper develops options for a system of individual accounts to which, starting in 2007, each employee or self-employed worker would be required to contribute 3 percent of covered payroll to an individual account. That is, we assumed the UPS would apply to the same wage base as current Social Security payroll taxes. For ease of modeling, we assumed that all workers under age 70 who would normally participate in Social Security — plus all federal, state, local, and nonprofit employees — would contribute to a UPS plan.

Following earlier Urban-Brookings Tax Policy Center work, we conservatively assumed that these individual accounts would earn a 3 percent real rate of return (6 percent nominal rate of return with a 3 percent inflation rate) — about the same as what the Social Security trustees assumed in their 2007 report. We do not explicitly address whether a UPS would be federally or individually administered, although the choice could have a large impact on system costs. We also assumed 1.1 percent annual, real wage growth in the long term, consistent with the Social Security trustees’ report. Also, all amounts contributed, plus all investment returns, must remain in the account until age 65 and then must be annuitized. There is a one-time annuity conversion fee equal to 0.3 percent of accumulated assets.

We used the Urban-Brookings Tax Policy microsimulation model to simulate the revenue and distributional implications of the basic 3-percent-of-earnings UPS system compared with current law, and also to simulate some options that provide targeted subsidies to supplement the retirement benefits of low- and moderate-income workers. Pertinent to this paper is that our method for estimating the tax benefits associated with retirement savings provisions used present-value measures and assumed implicitly that workers and retirees face the same marginal tax rates.

We used a different model, the Steuerle-Bakija-Carasso (SBC) Social Security lifetime benefit calculator, to illustrate how much prototypical workers (for example, a worker who always earned a low wage, the average wage, or a high wage) would accumulate under a UPS system by age 65. The model calculates lifetime tax contributions and benefits for both the current Social Security system (Old Age and Survivors Insurance only, not Disability Insurance) and one with a piggybacked UPS system for cohorts turning 65 in 2005, 2025, 2045, and 2065. Accumulated UPS balances are annuitized, and replacement rates are calculated.

I. Method

For modeling purposes, we assumed a UPS system would begin operation on January 1, 2007. Starting on that date, every employee or self-employed worker would be required to contribute 3 percent of covered payroll to an individual account. That is, we assumed the UPS would apply to the same wage base as current Social Security payroll taxes. For ease of modeling, we assumed that all workers under age 70 who would normally participate in Social Security — plus all federal, state, local, and nonprofit employees — would contribute to a UPS plan.

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¹Note that under this method, a traditional IRA and a Roth IRA would yield identical after-tax benefits for a given worker.

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II. Results

A. Income Adequacy

Using the SBC model, we looked at the retirement income and replacement rates of Social Security and UPS benefits. For example, a single man with average lifetime earnings who turned 65 in 2025 is scheduled to receive a Social Security benefit of $17,476 in his first year of retirement (in 2007 dollars). He could also expect to receive a UPS individual account benefit of $2,527 that year (table 1), for a total retirement income of $20,003.

The rewards of a UPS would be seen over the long term, however. For example, consider what happens to a single man with average earnings who reaches age 65 in 2065, by which point a universal pension system would be mature. He could expect a Social Security benefit of $26,575 (in 2007 dollars) and an individual account benefit of $11,033 (table 1), for a total retirement income of $37,608.

Another way to value retirement benefits is to measure the fraction of workers’ final year wages they would replace. In 2065, for example, that single man’s $26,575 Social Security benefit would replace 34.6 percent of his final wage, and his $11,033 individual account benefit (table 1) would replace 14.4 percent (table 2), for a total replacement rate of 49 percent.

Because women have longer life expectancies than men, a woman who accumulates the exact same individual account balance as a man will have to stretch that balance across more years of retirement, on average, and so will see a lower annual UPS benefit and overall replacement rate. For example, an average-wage single woman retiring at 65 in 2065 would see a smaller annual individual account benefit of just $10,212 per year (table 1) and a smaller replacement rate of just 13.3 percent of final wages (table 2).

B. Tax Consequences

We also estimated the tax savings that result when individual workers divert 3 percent of their covered earnings into individual accounts. Because we assumed those contributions would be deductible both from income and payroll taxes, virtually all workers wound up owing less taxes. The distribution of those tax savings varied depending on the taxpayer’s marginal tax rate, and tax savings rose disproportionately with income as tax rates increased from $0 in earnings to the Social Security earnings cap.

C. Distributional Consequences

Not surprisingly, a 3 percent UPS would cut taxes modestly across all income levels. Similarly, the percentage change in after-tax income would grow from an average of 0.32 percent for those in the lowest quintile up to a maximum cut of 0.93 percent for those in the fourth quintile (table 3). The percentage change in after-tax income would then decline in the top quintile as incomes rise above the Social Security earnings cap, finally approaching zero for those in the top 0.1 percent of cash income (those with more than $1.8 million in income).

All in all, 77 percent of the tax benefits would go to those in the top two quintiles (with incomes above $48,540). Indeed, 27.6 percent of the tax benefits would go...

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2Note that the definitions of low, average, high, and tax max come from the Social Security Administration. In our model, an average-wage worker is someone who is assumed to work every year from age 22 through age 64, retiring on her 65th birthday, and to earn the average wage in the economy every year ($40,462 in 2007). A low-wage worker earns 45 percent of the average wage in every year; a high-wage worker earns 160 percent of the average wage in every year; and a tax max wage worker earns right at the Social Security taxable maximum wage ($97,500 in 2007) in every year. While those are highly idealized wage earning patterns, they are useful for demonstrating the impact of various Social Security and pension reforms.

3More detailed tables appear in the original paper.
just to those taxpayers with incomes in the top 10 percent (those with incomes above $125,263). In short, most of the tax benefits of saving through a UPS would go to workers in the upper middle-class and above, which is similar—but less pronounced—than the skewed distribution of tax benefits under current IRAs, Keoghs, and defined contribution plans.

D. Revenue Consequences

Our proposed UPS options are not cheap. UPS contributions (plus investment earnings on those contributions) are exempt from both income and payroll taxes. Also, some UPS options provide additional subsidies to low-income workers. The basic 3-percent-of-earnings UPS (the Base Option) would have cost $53 billion if implemented in 2007 and about $690 billion over 10 years (table 4).

A second UPS option (the Match Option) would use a refundable version of the current saver’s tax credit to provide matching contributions to low-income workers. This option would cost Treasury $732 billion over 10 years (table 4).

Another UPS option (the Rebate Option) would deliver its tax subsidy in the form of fixed, refundable tax credits to participants for the same 10-year revenue loss as the UPS base option — $690 billion (table 4). First, UPS contributions and investment earnings would be subject to regular income and payroll taxation. However, each year, individual participants would receive a $371 tax rebate ($742 for joint return filers when both spouses work) deposited directly into their UPS accounts. Unlike most current-law tax subsidies for saving that are skewed

\[\text{Table 3. UPS Base Option\textsuperscript{a}}
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<table>
<thead>
<tr>
<th>Cash Income Percentile</th>
<th>Average Tax Benefit in Dollars</th>
<th>Percent Change in After-Tax Income</th>
<th>Share of Total Federal Tax Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest Quintile</td>
<td>25</td>
<td>0.32</td>
<td>1.4</td>
</tr>
<tr>
<td>Second Quintile</td>
<td>113</td>
<td>0.59</td>
<td>6.3</td>
</tr>
<tr>
<td>Middle Quintile</td>
<td>273</td>
<td>0.86</td>
<td>15.2</td>
</tr>
<tr>
<td>Fourth Quintile</td>
<td>490</td>
<td>0.93</td>
<td>27.3</td>
</tr>
<tr>
<td>Top Quintile</td>
<td>892</td>
<td>0.60</td>
<td>49.7</td>
</tr>
<tr>
<td>All</td>
<td>359</td>
<td>0.70</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Addendum</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 10 Percent</td>
<td>990</td>
<td>0.5</td>
<td>27.6</td>
</tr>
<tr>
<td>Top 5 Percent</td>
<td>1,007</td>
<td>0.3</td>
<td>14.0</td>
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<tr>
<td>Top 1 Percent</td>
<td>827</td>
<td>0.1</td>
<td>2.3</td>
</tr>
<tr>
<td>Top 0.5 Percent</td>
<td>845</td>
<td>0.1</td>
<td>1.2</td>
</tr>
<tr>
<td>Top 0.1 Percent</td>
<td>900</td>
<td>0.0</td>
<td>0.3</td>
</tr>
</tbody>
</table>

\textsuperscript{a}UPS Base Option provisions include exempting contributions (3 percent of taxable Social Security base) from payroll and income taxes, exempting accounts from taxation until retirement, and then taxing distributions as ordinary income.

\textsuperscript{b}Shows distribution of the present value of lifetime tax benefits for new contributions made in 2007. Baseline is current law.

\[\text{Table 4. Revenue Effects of Four Options for a Universal Pension System (UPS), 2007-16\textsuperscript{b}}
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<table>
<thead>
<tr>
<th>Option</th>
<th>2007</th>
<th>2016</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPS\textsuperscript{b}</td>
<td>-53.2</td>
<td>-85.4</td>
<td>-689.7</td>
</tr>
<tr>
<td>UPS with Match\textsuperscript{c}</td>
<td>-58.9</td>
<td>-88.4</td>
<td>-732.1</td>
</tr>
<tr>
<td>UPS with Rebate\textsuperscript{d}</td>
<td>-60.0</td>
<td>-78.2</td>
<td>-689.9</td>
</tr>
</tbody>
</table>

\textsuperscript{a}All options are assumed to take effect starting in 2007 and extend through the 10-year window to 2016. Assumes current law, that is, EGTRRA and JGTRRA expire at the end of 2010. All dollar figures specified in option descriptions assumed to be in 2007 levels. A fully refundable saver’s credit is used for the “match” option.

\textsuperscript{b}Provisions include exempting contributions (3 percent of taxable Social Security base) from payroll and income taxes, exempting accounts from taxation until retirement, and then taxing distributions as ordinary income.

\textsuperscript{c}Provisions include exempting contributions (3 percent of taxable Social Security base) from payroll and income taxes, exempting accounts from taxation until retirement, taxing distributions as ordinary income, and matching contributions of low income filers with a refundable credit with the same parameters as the existing saver’s credit.

\textsuperscript{d}Provisions include mandatory contributions (3 percent of taxable Social Security base) that are not exempt from income or payroll taxes, not exempting accounts from taxation until retirement, and taxing distributions as ordinary income, but rebating annually into retirement accounts $371 to individual workers and $742 to two-earner couples.

\[\text{COMMENTARY / REPORTS IN BRIEF}
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toward those in high tax brackets, this $371-per-worker Rebate Option would equalize the subsidy across all UPS participants.

III. Comparisons Across UPS Options
How do the different UPS options treat hypothetical low-wage workers — those who earn 45 percent of the average wage over a career? When the system reaches maturity in 2065, a single male low-income worker would receive $465 more per year under the Match Option than under the Base Option — $5,430 compared with just $4,965 per year (table 5), and he would have a replacement rate from the individual account of 15.7 percent under the Match Option, compared with just 14.4 percent under the Base Option (table 6).

Under the Rebate Option, when the tax benefits are distributed as $371-per-worker refundable tax credits that are deposited into the workers’ UPS accounts, this same worker would receive $9,252 in benefits (table 5) or a 26.8 percent replacement rate (table 6), nearly double what he would receive under the Base Option. For single female workers, the effect is similar: a $5,026 benefit and 14.6 percent replacement rate under the Match Option and an $8,563 benefit and 24.8 percent replacement rate under the Rebate Option (tables 5 and 6).

IV. Conclusion
Our current patchwork of public and private pension arrangements has always left the poor with the short stick, and the looming insolvency in Social Security threatens to extend this insecurity to the middle and upper classes. When one also factors in the looming shortfall in Medicare and impending substantial increases in both health insurance premiums and out-of-pocket medical spending, the retirement picture is gloomy for all. A universal system of 3-percent-of-earnings individual accounts would provide significant, additional retirement resources for American workers — particularly for low-income workers without access to employer pension plans.

The rewards of a UPS would be seen over the long term. Under current law, an average-wage man retiring at age 65 in 2065 will receive Social Security benefits that replace 34.6 percent of his preretirement wages — provided that action is taken to restore solvency to the Social Security program. Otherwise, Social Security will see a shortfall and be able to replace only 25.4 percent of this worker’s final wages. However, we estimate that a 3-percent-of-earnings UPS could replace an additional 14.4 percent of final wages for all men retiring at 65 and 13.3 percent of final wages for all women. In our example, this would raise the total “replacement rate” for average-wage men to 49 percent of final wages — provided Social Security is fixed — or 39.8 percent if it is not. Both outcomes are substantially better than what workers can expect under current law.

UPS options that would steer additional subsidies to low-income workers would produce an even better retirement outcome for this group. All in all, a system of universal add-on individual accounts could help bridge the coming divide between the retirement Americans expect and the retirement our increasingly beleaguered programs can finance.