

Changing to a financially sound retirement system under which each generation pays its own way.



Thomas R. Saving
Executive Director

Private Enterprise Research Center
Texas A&M University

Can Privatizing Social Security Be A Win/Win for All Generations?

Social Security is a bad deal for almost all young workers. That is, they can expect to pay more – and in some cases hundreds of thousands of dollars more – in taxes than they will receive in benefits. This observation is not even controversial.

But if we want to change the system and move to a financially sound retirement system under which each generation pays its own way, we have to answer this question: what kind of offer can we make to young people that involves them continuing to pay some taxes to support current retirees, while at the same time forgoing future benefits for themselves and saving for their own retirement needs instead?

Although scholars and policy wonks have been talking about this prospect for almost two decades and although both Presidents Clinton and Bush developed serious policy proposals, no one has answered that question. Until now.

In an article published in *The Journal of Retirement*, Liqun Liu, Andrew Rettenmaier and Thomas Saving emphasize that any calculation of the value of Social Security must confront three problems:

- *Uncertainty about the future.*

There is a growing gap between expected future revenues and promised benefits, totaling a \$27.7 trillion deficit, if we project into the future indefinitely. How will that gap be dealt with? By higher taxes? By reduced benefits? Or by some combination of the two?

- *Attitudes toward risk.* Not everybody approaches risky decisions in the same way. Some people are very risk averse – especially when it comes to retirement decisions. Others are less so.
- *Income.* The structure of Social Security benefits is highly progressive. As a result, low income workers will come out ahead, almost regardless of what we assume about the future.

Thinking About Uncertainty.

Suppose we offered you a coin flip: for heads you get \$10 and for tails you get nothing. Averaging the two outcomes, the expected value of this gamble is \$5. But before the coin flip we ask if you would accept a certain sum of money instead of the coin flip. If you are risk averse (and when

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thinking about retirement, almost everyone is) you will take an amount less than \$5 rather than accept a fifty/fifty chance of getting nothing.

Now let's turn the bet around. If the coin turns up heads, you pay us \$10. If tails, you pay us nothing. Your expected cost is \$5. But before the coin flip you are given the opportunity to buy out of the gamble. How much would you pay to avoid the coin toss? If you are risk averse, you will pay more than \$5.

“Most young people come out ahead if they could completely opt out of Social Security in return for a life time exit fee of 4.5% of wages.”

These examples show that in a certain sense, the evaluation of costs and benefits is asymmetrical. You would accept less than \$5 rather than participate in a risky bet with an average gain of \$5 but will pay more than \$5 to avoid a risky bet with an average cost of \$5.

Uncertainty and Discount rates.

Now suppose we think about repeating this exercise over and over again—years into the future. We have a stream of uncertain outcomes and we have a stream of amounts of certain

money you would pay or accept to avoid the each of the gambles. What is the present value of those streams? To obtain the value of the certain amounts we would use a “risk free” discount rate – since there isn't any risk. Then, we would like to find an interest rate that makes you indifferent between all of the gambles and the certain alternatives. That would give us the most accurate estimate of the value of a series of gambles that stretch into the future.

Similarly, the right interest rate to use to evaluate the present value of uncertain future Social Security taxes and benefits is the one that makes us indifferent between these risky outcomes and their certainty equivalents.

However, as we have seen from above, people will accept less than \$1 as an alternative to uncertain benefits with an expected payoff of \$1 and they will pay more than \$1 to avoid uncertain costs with an expected burden of \$1. That means that in evaluating Social Security benefits, we must use a discount rate lower than the risk free rate and in evaluating Social Security taxes, we must use an interest rate higher than the risk free rate.

It is this unique insight that allowed us to make the calculations we report here.

The Value of Social Security.

Table I shows a calculation of the value of

Table 1

Value of the Social Security Contract in \$2014

| Earnings | $\alpha = 0$ | $\alpha = 2$ | $\alpha = 4$ | $\alpha = 6$ |
|-----------------|--------------|--------------|--------------|--------------|
| Scaled Very Low | \$20,757 | \$19,611 | \$18,420 | \$17,177 |
| Scaled Low | \$3,011 | \$950 | -\$1,192 | -\$3,427 |
| Scaled Medium | -\$51,494 | -\$56,073 | -\$60,834 | -\$65,803 |
| Scaled High | -\$123,825 | -\$131,158 | -\$138,776 | -\$146,726 |
| Taxable Maximum | -\$308,698 | -\$320,722 | -\$333,252 | -\$346,369 |

Table 2

Maximum Certain Tax Rate Required to Forego Benefits, % Lifetime Earnings

| Earnings | $\alpha = 0$ | $\alpha = 2$ | $\alpha = 4$ | $\alpha = 6$ |
|-----------------|--------------|--------------|--------------|--------------|
| Scaled Very Low | -4.96 | -4.60 | -4.24 | -3.87 |
| Scaled Low | -0.40 | -0.12 | 0.15 | 0.43 |
| Scaled Medium | 3.08 | 3.29 | 3.50 | 3.71 |
| Scaled High | 4.63 | 4.81 | 4.99 | 5.17 |
| Taxable Maximum | 6.78 | 6.91 | 7.05 | 7.18 |

Social Security to 21-year-olds with different incomes and different attitudes toward risk. The risk adjustment variable α is equal to zero if the individual is not risk averse at all and in this case both future costs and future benefits are discounted at the Treasury's borrowing rate. (This is the conventional approach.) At $\alpha = 4$, a moderate amount of risk averseness, almost everyone is worse off. What the Social Security Administration calls a "scaled medium" worker loses \$60,834 and the highest income earners lose \$333,252.

"People will accept less than \$1 as an alternative to uncertain benefits with an expected payoff of \$1."

What Would People Pay To Opt Out?

If on the average the young are worse off, then young people should be willing to pay something to get out. Table 2 shows that 21-year-old workers earning an average income would be at least as well off if they paid between 3% and 4% of payroll for the remainder of their work life to completely opt out of Social Security. Opting out means they do not have to continue pay the tax rate required

to fund Social Security but would forgo all future Social Security benefits.

Table 3 combines retirement benefits with spousal benefits, survivor's benefits and disability benefits for an average 21-year-old. The cost is equivalent to a life time payroll tax between 3.68% and 4.80%. The rates rise for younger people and those not yet born. For an average 9-year-old the tax rate is between 4.52% and 7.13%.

Making Privatization Practical.

There are three requirements for conversion to a successful, privately funded retirement system:

- *Each generation must secure its own benefits.* In return for opting out, we presume that workers would be required to use some of their payroll tax savings to provide for their own retirement and these benefits likely would exceed what Social Security is promising for most workers.
- *The winners must compensate the losers with respect to life time incomes.* At the end of a work life, some will have earned incomes well below the average and others will be way above it. The former paid too much to opt out. They would have been better off under the old system. The latter paid too little to escape. To make sure everyone is better off,

Table 3

Maximum Certain Tax Rate Required to Forego Benefits, % Lifetime Earnings

| | $\alpha = 0$ | $\alpha = 2$ | $\alpha = 4$ | $\alpha = 6$ |
|------------------|--------------|--------------|--------------|--------------|
| Net Benefit | -\$60,649 | -\$66,464 | -\$72,609 | -\$79,157 |
| Certain Tax Rate | 3.68% | 4.03% | 4.40% | 4.80% |

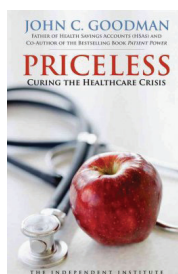
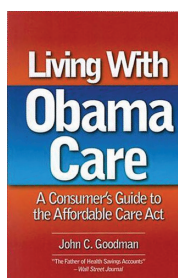
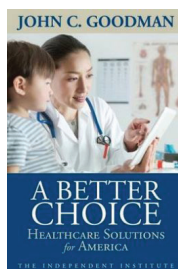
we need some kind of redistribution during the retirement years to make sure people on the bottom rung of the income ladder are taken care of. This will be a form of welfare – but it will be a much smaller welfare program than what we have today.

“Most proposals to reform Social Security are eat-your-spinach reforms that make some people worse off.”

- *Everyone who remains in the current system must get their promised benefits.* We calculate that if all young people and each generation of succeeding workers pays a lifetime payroll tax of about 4.5%, there will be enough revenue to insure that everyone who is paying into Social Security today will get the benefits they have been promised.

Most proposals to reform Security have winners and losers – either seniors lose benefits or workers pay higher taxes or both. These are eat-your-spinach reforms that arouse natural opposition. Fortunately we have found that reform can be win-win: Every generation can be better off.

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**Goodman
Institute**
FOR PUBLIC POLICY RESEARCH

6335 W Northwest Hwy - #2111
Dallas, TX 75225
email: info@goodmaninstitute.org
+1 214 302.0406

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