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Issue Brief

Social Security Rates of Return with “Progressive Indexation”

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May 2005

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Executive Summary

In his State of the Union address, President Bush raised concern about the low rate of return that many beneficiaries will receive on money paid into the system. It is worth examining how his most recent proposal to adopt a “progressive indexation” formula would affect rates of return for Social Security.

This paper calculates rates of return for wage earners corresponding to the Social Security Administration’s definition of “low earners,” “medium earners,” “high earners,” and “maximum earners.” (This paper considers only retirement benefits and does not take into account disability and survivor benefits, which would certainly increase the baseline rate of return of the program.) It shows how the rates of return for workers retiring at age 65 in 2025, 2045, 2065, and 2085 would be affected by progressive indexation. It also shows the impact that opting for a private account has on the projected rate of return.

The calculations in the paper show that:

- As intended, the rates of return for low earners ($16,400 in 2005) are not affected by progressive indexation;
- Progressive indexation leads to a steady decline in the rate of return for middle earners ($36,500 in 2005). The rate of return for a middle earner retiring in 2045 falls from 2.5 percent under current law to 1.9 percent with progressive indexation. By 2085, the gap would be 1.2 percentage points, with the rate of return dropping from 2.7 percent to 1.5 percent.
- The decline in returns for high earners ($58,400 in 2005) and maximum earners ($90,000 in 2005) is sharper. For high earners retiring in 2045, the rate of return falls from 1.9 percent under current law to 0.9 percent with progressive indexation. For higher earners retiring in 2085, the return falls from 2.0 percent to 0.0 percent with progressive indexation. For maximum earners retiring in 2045, the return falls from 1.0 percent to -0.2 percent. For maximum earners retiring in 2085, the rate of return falls from 1.3 percent to -1.4 percent.
- For most workers, the rate of return is not affected by taking a private account, since the returns on these accounts, net of administrative expenses, will be very close to the 3.0 percent real interest rate charged against workers’ defined Social Security benefit under President Bush’s plan.
- Maximum wage earners will be able to increase their returns by opting for private accounts. Under progressive indexation, maximum earners’ Social Security benefit will not be large enough to allow Social Security to recoup all the money they will owe, if they were to place the maximum allowable amount in private accounts. In other words, if a maximum earner placed $3,000 annually into a private account, instead of $2,500, she would face no further cut in Social Security benefits, since her benefit would already be zero. If no mechanism is put in place to close this loophole, then the highest paid workers will be able to raise their rates of return by opting for private accounts.

In short, for most workers, progressive indexation will lead to a reduction in rates of return from the levels projected under current law. It is important to note that, according to the projections from the Congressional Budget Office, these benefits will not be payable in full after 2052 without some additional source of revenue. If this additional revenue comes through tax increases, then it would lower the rate of return below the levels projected under current benefit formulas. However, since President Bush has argued that the rates of return projected under current benefit formulas are too low, it is appropriate to use the current benefit schedule as a benchmark against which to assess his plan.

Social Security Rates of Return with "Progressive Indexation"

When President Bush first laid out his intention to overhaul the Social Security system in his State of the Union address, one of the problems he identified with the current system is the low rate of return that many workers are projected to receive on the money paid into the system. Many analyses have shown that current and future generations of workers will receive considerably lower rates of return on their payments than did prior generations of workers.[2] The progressivity of the Social Security payback system also leads higher wage earners to get considerably lower rates of return than lower end workers. In some cases, this leads to returns that are negative, where workers can expect to get less back in their retirement benefits than the money they paid into the Social Security system.

Given President Bush's concern for rates of return, it is reasonable to assess how his recent proposal to adopt a "progressive indexation" formula would affect the rate of return for workers at different levels of income. Under this proposal, the benefits for workers in the bottom 30 percent of the wage distribution (with annual incomes under $22,500 a year) would continue to be indexed to wages, as is the case with current law. The Congressional Budget Office (CBO) projects that wages will grow at an annual rate that is 1.3 percentage points more rapid than the growth in prices. This means that the real value of benefits for this bottom 30 percent of wage earners will rise at a 1.3 percent annual rate.

This progressive indexation formula is set so that the benefits of a maximum wage earner only keep pace with prices, leaving the real value of benefits unchanged through time.[3] Workers with average annual earnings between $22,500 and $90,000 will see their benefits indexed to a mixture of wage growth and price growth. This will lead to progressively larger benefit cuts through time for these workers, with the cuts being biggest for those workers earning near the maximum taxable wage.

Table 1 shows projected rates of returns for workers retiring at age 65 in 2025, 2045, 2065, and 2085, under both current law and under the progressive indexation formula described by Richard Pozen and endorsed by President Bush.[4] Table 1 also shows returns for workers who opt to put their money in private accounts along the lines outlined by President Bush. Returns are shown for the workers with average career earnings equal to the Social Security Administration's low wage earner, medium wage earner, high wage

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[2] See Steuerle, G. and J. Bakija, 1994. *Retooling Social Security for the 21Century: Right and Wrong Approaches*, Urban Institute. For an analysis that assesses rates of return by estimating the insurance value of Social Security benefits, see Baker, D., 1994. "The Full Returns From Social Security," The Century Foundation http://www.tcf.org/Publications/RetirementSecurity/Baker-FullReturns.pdf .

[3] See http://ssa.gov/OACT/solvency/RPozen_20050210.pdf for a fuller explanation of this indexation formula.

[4] These projections only refer to the returns on the retirement portion of the Social Security program. They ignore the disability portion and assume that individuals are single, thereby ignoring benefits to spouses or survivors benefits to young children to workers who die at an early age. The calculations assume average life expectancies. Since women have longer life expectancies, the rates of return are higher for women than for men with the same earnings history.

earner, and maximum wage earner, although the earnings path is a stylized life-cycle path that has workers' wages rising relative to the average wage as they gain experience in the labor force.[5]

Table 1

Returns Under Current Social Security and Under "Progressive Indexation" Proposal
(workers retiring at age 65)

Earnings in 2005	Current Law	No Account	Full Account
	2025		
Low Earner $16,400	3.3	3.3	3.3
Middle Earner $36,500	2.4	2.1	2.1
High Earner $58,400	1.7	1.4	1.4
Maximum Earner $90,000	0.9	0.5	0.5
	2045		
Low Earner $16,400	3.4	3.4	3.4
Middle Earner $36,500	2.5	1.9	1.9
High Earner $58,400	1.9	0.9	0.9
Maximum Earner $90,000	1	-0.2	-0.2
	2065		
Low Earner $16,400	3.6	3.6	3.6
Middle Earner $36,500	2.6	1.7	1.8
High Earner $58,400	2	0.5	0.6
Maximum Earner $90,000	1.2	-0.8	-0.2
	2085		
Low Earner $16,400	3.6	3.6	3.7
Middle Earner $36,500	2.7	1.5	1.6
High Earner $58,400	2	0.0	0.2
Maximum Earner $90,000	1.3	-1.4	0.3

Source: Authors' calculations, see notes.

[5] For a full description of the lifecycle path see http://www.cepr.net/calculator/sscalculator_tech_notes.pdf. This section also contains a full explanation of the derivations of the returns from private accounts.

As can be seen, the President's plan will lead to a reduction in the rate of returns for all workers except low earners. The reduction gets larger through time. For example, the return for a middle earner retiring at age 65 in 2025 falls from 2.4 percent to 2.1 percent under the President's indexation formula. The falloff for a middle earner retiring in 2045 is from 2.5 percent to 1.9 percent.[6] By 2085, the reduction in rates of return for a middle earner would be 1.2 percentage points, from 2.7 percent to 1.5 percent.

As intended, the reduction in rates of return for higher earners is sharper. The rate of return for a high-wage earner retiring in 2045 falls from 1.9 percent 0.9 percent. By 2085, the falloff would be two full percentage points, from 2.0 percent under the current benefit schedule to 0 with progressive indexation. The falloff for a maximum-wage earner is comparable, the return for a maximum-wage earner retiring in 2065 falls from 1.2 percent under the current system to 0.8 percent with progressive indexation.

In most cases, the decision to put money in an individual account does not affect the rate of return. This is due to the fact that when returns on stock are derived in a way that is consistent with profit growth projections, there is very little difference between the net rate of return (net of administrative costs) and the 3.0 percent real interest rate that workers will be assessed on the money placed in these accounts.

The only instances in which the accounts make a noticeable difference in the rate of return are for maximum wage earners retiring in 2065 and 2085. The reason why the accounts raise the rate of return for these workers is that the amount of money they would owe the Social Security system is larger than the size of their benefit under the progressive indexation formula. The Bush administration has not described a mechanism for reclaiming this money. If no mechanism is put in place, then these workers will be able to benefit from putting their Social Security money in private accounts, since there will be no offsetting cut in benefits to a portion of this money. In other words, if these workers put $3,000 a year in a private account, their defined benefit will be reduced by no more than if they had only placed $2,500 a year in a private account. It is not clear if President Bush intends to allow this sort of evasion, but unless a mechanism is put in place to prevent it, then it is reasonable to assume that high-wage workers will take advantage of this loophole.

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[6] These calculations assume that full scheduled benefits are paid under the current system. According to the CBO projections, this would be possible until 2052 with no changes on either the tax or benefit side. This means that workers retiring in 2025 would probably not be affected by the program's projected shortfall. However, if these projections prove correct, then a worker retiring in 2045 likely would be affected by either tax increases or benefit cuts necessary to maintain solvency.

Conclusion

Under the progressive indexation formula endorsed by President Bush, most workers would see a reduction in the rate of returns they receive from Social Security, compared to the benefits that they are scheduled to receive under current law. This would be true whether or not they opted to take a private account.

Some reduction in rates of return would result from any combination of tax increases and benefit cuts put in place to maintain the solvency of the system after 2052 (when the CBO projects that the trust fund will be depleted). However, if a purpose of reform is to increase workers' rates of return relative to what they would receive under current law, the progressive indexation formula clearly fails this test. Most workers will receive lower rates of return under President Bush’s proposal than if the current tax and benefit schedule were left in place.