The Retirement Security Project

The Potential Effects of Retirement Security Project Proposals on Private and National Saving: Exploratory Calculations

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The Retirement Security Project

RSP

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The paper provides rough, ballpark calculations of how several recent proposals could affect private and national saving. The proposals, aimed at improving retirement security for middle- and low-income households, include automatic 401(k)s, automatic IRAs, an expanded and permanent Saver's Credit, split refund capability, and asset test reforms.

"We estimate that such programs could raise net national saving by about 0.6 percent of GDP, or roughly $75 billion a year given today's levels of GDP."

With the current net national saving rate at about 2.5 percent of GDP, these proposals have the potential to raise net national saving by almost a quarter.

The Retirement Security Project (RSP) has advanced an array of proposals that aim to make retirement saving more accessible and more rewarding for middle- and low-income households. The proposals would:

- promote the adoption of automatic features in 401(k) plans (e.g., enrollment, escalation, investment);
- establish Automatic IRAs;
- expand and improve the Saver's Credit;
- allow taxpayers to split direct deposit of income tax refunds into several accounts; and
- reform the asset eligibility tests for means-tested government programs.

The goal of this paper is to provide rough, ballpark estimates of the potential effects of these proposals on private and national saving. We calculate that the enactment and implementation of the proposals could plausibly, over the long term, raise net national saving by 0.6 percent of GDP. These calculations are summarized in Table 1 and discussed below.

Several important caveats apply to the estimates.

First, most of the proposed policies have not yet been enacted or adopted (and those that have been are just beginning to be implemented). Therefore, with limited exceptions, significant real-world experience with the specific proposals does not exist, which means that the estimates are necessarily speculative. For purposes of these estimates, we assume that each policy is enacted or otherwise put into effect by Congress or the regulators, and we then base the estimated impacts on what we believe to be plausible assumptions about market responses once the policy is fully phased in and the market has adjusted to the policy change. However, we are keenly aware that reasonable and informed observers can readily differ regarding the magnitude and sometimes even the nature of the response to each policy change.

Second, these estimates deliberately disregard interactions among the policies. Although the interactions could have first-order effects relative to the direct effects, they are also highly uncertain. Indeed, it is unclear even in which direction the interactions would, on net, operate. Accordingly, these rough, ballpark calculations avoid the complexity and uncertainty of attempting to estimate the extent and net effect of the interactions.

Third, the estimates focus on the overall effect on saving, but it is important to emphasize that the proposals are designed not only to increase the level of saving but also to improve the effectiveness of federal saving incentives and the distribution of saving among different segments of the population. This paper does not attempt to estimate the distributional effects.

"The net effect on national saving as a result of the Automatic 401(k) alone would be an increase of about 0.34 percent of GDP - almost 42 billion dollars per year."

II. Automatic 401(k)

A. Proposal

In traditional 401(k) plans, workers must make numerous choices, including whether to sign up, how much to contribute, how to allocate investment funds, how often to rebalance their portfolios, what to do with the available funds upon job change, and when and in what form to withdraw the funds for retirement income. These decisions can be difficult, and many workers either make poor choices or simply end up making no choice at all (other than not to sign up). In this system, a worker who is intimidated by the complexity remains outside of the 401(k) system and is thus deprived of the tax-advantaged retirement saving opportunities that 401(k)s provide.

In contrast, with an automatic 401(k)—sometimes called an opt-out plan—the situation is reversed. Workers are automatically enrolled in the plan unless they actively choose not to participate; they are assigned a reasonable contribution level, which rises over time; and a reasonable investment allocation, all of which they can choose to change. That is, each stage of the 401(k) saving process is automatically set at a pro-saving default. Workers can choose to overturn this, but the same forces of inertia that lead them not to make decisions in a traditional 401(k) are also likely to make them stay at the defaults in an automatic 401(k).

B. Effects on Saving

Automatic 401(k)s can be expected to affect *private* saving through several channels:

- Automatic enrollment will raise 401(k) participation and thus generate new 401(k) contributions from those who otherwise would *not* have participated in the 401(k). On the other hand, automatic enrollment will create changes in contribution levels (which could be positive or negative) for participants who *would have* participated in the traditional 401(k) even without automatic enrollment.
- Automatic escalation of contributions will raise contributions to 401(k)s over time.
- Automatic enrollment and escalation will tend to increase employer matching contributions in response to the increase in employee contribution levels.

Another component of the automatic 401(k), the use of default investment funds that will often be asset-allocated funds such as life cycle or balanced funds or managed accounts, will not have a first-order effect on private or national saving. The reason is that portfolio shifts represent a reshuffling or reallocation of assets held in 401(k) plans and other accounts, not a net addition to saving.

The various components of the automatic 401(k) could induce reductions in other private saving and/or increases in borrowing. The effect on *national* saving, the sum of private and public saving, would be the effect on private saving plus any change in tax revenues created by the change in private saving streams and the tax treatment of those streams.

1. Effects of automatic enrollment on participation and contributions

In evaluating the impact of automatic enrollment, we first consider those who would not have participated in a 401(k) under traditional enrollment. For purposes of these calculations, it is assumed that, currently, about 75 percent of employees who are offered a 401(k) enroll in the plan and 25 percent do not. If automatic enrollment were instituted in every 401(k) plan, we assume that 401(k) participation rates would eventually rise to approximately 93 percent. (Thus far, automatic enrollment has been most commonly applied only to new hires, so it would take some years before employee turnover translated the higher participation percentage among new hires to a similar percentage increase in participation among all employees.) This implies that, for employees who are currently eligible for a 401(k) but do not participate, automatic enrollment would eventually increase 401(k) participation by 72 percent [(93-75)/(100-75)].

Employees who are eligible but do not participate earn 12.8 percent of aggregate wages. This means that the new 401(k) participants who would be added through automatic enrollment in all existing 401(k) plans would account for 9.2 percent of aggregate wages (72 percent of 12.8 percent). Automatic enrollment, however, would be voluntary for firms, so not all plan sponsors would necessarily adopt it. If 70 percent of all 401(k)-eligible employees were eventually associated with plans that used auto enrollment, the wages of new 401(k) participants would account for 6.5 percent of total wages.

We assume the average contribution among newly automatically enrolled workers would be 4 percent of wages. Thus, the added 401(k) contributions would be 0.26 percent of aggregate wages (4 percent of 6.5 percent). Aggregate wages are assumed to be 40 percent of GDP, so the additional employee 401(k) contributions due to the effects of automatic enrollment on participation and contributions of workers who would not have participated in a 401(k) using traditional enrollment would come to 0.10 percent of GDP (40 percent of 0.26 percent).

Not all of the added contributions, however, would necessarily represent net additions to the pool of saving. Some people might respond to higher 401(k) contributions by cutting down the amount of other saving they are doing, by purchasing more items on their credit card, or by making smaller down payments on purchases such as cars. Evidence suggests that this effect varies by income level, with larger offsets among higher-income households. Because middle- and low-income workers are the ones who would be most affected by automatic enrollment, a plausible estimate is that one-third of the added 401(k) contributions from automatic enrollment (or 0.03 percent of GDP) would end up coming from funds that would otherwise have been saved or been used to pay down credit card bills. Under that assumption, the net effect of automatic 401(k) enrollment on private saving would be 0.07 percent of GDP (two thirds of 0.10).

To determine the effects on *national* saving, the effects on federal and state revenues must also be included. Contributions to most 401(k) plans are generally deductible (or excludable) from taxes, and the accruing investment income on the balance is also exempt from taxes, but full income taxes are due on amounts withdrawn, and penalties apply to early withdrawals. Most of the added participants under automatic enrollment will be middle- and low-income households, for the simple reason that their participation rates are far lower than participation rates for high-income employees in traditional 401(k)s. We therefore assume that for each dollar contributed to a 401(k) by middle- and low-income households, the net long-term effect on the combined federal and state Treasury is a loss of 10 cents. Under that assumption, federal and state revenues would fall by 0.01 percent of GDP (10 percent of 0.10 percent).

Based on these assumptions, a rough estimate of the overall effect on national saving due to employee contributions resulting from automatic enrollment is 0.06 percent of GDP, the sum of the effect on private saving (0.07 percent of GDP) and the effect on government saving (-0.01 percent of GDP).

We next turn to the effects of automatic enrollment on the contributions of those who would have participated in a 401(k) under traditional enrollment. When automatic enrollment is instituted, workers who would have participated in the 401(k) using traditional enrollment and would have contributed different amounts will tend to cluster their contributions at the default contribution level. We assume that, on average, automatic enrollment (without escalation) will have no measurable net effect on the contribution levels of these employees.

The net result from employee contributions as a result of automatic enrollment as a whole is thus estimated to be an increase in national saving of 0.06 percent of GDP.

2. Effects due to automatic escalation of contributions

Workers currently enrolled in 401(k)s account for 54.1 percent of aggregate wages. As calculated above, those who would be induced by automatic enrollment to participate in a 401(k) account for another 6.5 percent of aggregate wages. Thus, assuming automatic enrollment, workers earning 60.6 percent of aggregate wages would be enrolled in a 401(k).

We assume that most employers using automatic escalation (i.e., increasing contributions over time, for example by one percentage point a year, for employees who do not opt out of such increases) would not apply it across the board to employee contributions regardless of the level of those contributions. Instead, they would automatically escalate only from contribution levels that are roughly average or below average. For example, an employer using an initial default contribution of 4 percent might provide for escalation from 4 percent to 8 or 10 percent rather than escalating employees who are already contributing at a level of, for example, 10 percent.

We also assume that, with respect to automatic escalation, employers will fall into three groups: (i) about half will choose to implement automatic escalation; (ii) about a quarter will choose to implement escalation on a non-automatic basis, i.e., escalation that requires an affirmative election by employees (opt-in); and (iii) the remaining quarter will not use escalation.

Of the employees in the first group (employees of employers that adopt automatic escalation), we assume that about 93 percent will be plan participants and some of those will opt out of escalation entirely, while others might step off the escalator at various levels. Moreover, the degree of automatic escalation will vary among plans: some are likely to provide for automatic escalation from 3 percent to 6 percent (following the nondiscrimination safe harbor under the Pension Protection Act of 2006), while others may escalate from 4 percent to 8, 10, or 12 percent of pay, especially because escalation can improve nondiscrimination testing results. If default escalation provisions increased contributions on average by 5 percent of pay, and if 3 out of 5 participants accepted this while the others opted out of escalation completely, automatic escalation would eventually increase 401(k) contributions by 3 percent of wages.

In the second group (employees of employers that offer escalation without making it the default), if participants' take-up rate is assumed to be 20 percent, with plans offering an average of 5 percentage points of escalation, 401(k) contributions would increase by 1 percent of wages.

Thus, if automatic escalation eventually increased 401(k) contributions by 3 percent of wages among employees in the first group and by 1 percent of wages in the second group, this would represent a total of 1.05 percent of aggregate wages—0.9 percent (3 percent of half of 60.6 percent) plus 0.15 percent (1 percent of one-fourth of 60.6 percent) of aggregate wages. Since aggregate wages are assumed to be 40 percent of GDP, the increase in 401(k) contributions would be 0.42 percent of GDP (40 percent of 1.05 percent).

If 40 percent of those contributions represented shifts in saving that would have occurred anyway, the increase in private saving would be 0.25 percent of GDP (60 percent of 0.42 percent). If the effective tax revenue loss is 15 cents per dollar contributed, the revenue loss would be 0.06 percent of GDP (15 percent of 0.42 percent). The net effect on national saving from automatic escalation would be 0.19 percent of GDP (the difference between 0.25 percent of GDP, the net effect on private saving, and 0.06 percent of GDP, the public revenue loss).

3. Increased employer matching contributions

Roughly four out of five 401(k) plan sponsors provide employer matching contributions. Matching contributions and automatic enrollment are both practices that traditionally have been less common among small employers than medium and large employers. Thus, we believe it is reasonable to assume that roughly 9 out of 10 employees who are automatically enrolled will receive an employer match. The typical 401(k) employer matching contribution is 50 cents on the dollar with respect to employee contributions of up to 6 percent of pay. While a few employers might reduce their matching rate in response to automatic enrollment because of increased cost, the nondiscrimination rules do not allow firms to take such actions only for lower-paid workers and the authors have not seen signs of such reductions on an across-the-board basis. On balance, therefore, since most automatic contributions will be less than 6 percent (without taking into account escalation), it is assumed that matching contributions would be made with respect to 90 percent of the 0.1 percent of GDP of contributions induced by automatic enrollment (without taking into account escalation); this implies that matching would apply to new contributions amounting to 0.09 percent of GDP. At a matching rate of 50 cents, the increase in employer matching contributions is an estimated 0.05 percent of GDP.

It is assumed that about 60 percent of the estimated increase from escalation (0.4 percent of GDP) or 0.25 percent of GDP, would also be matched by employer matching contributions. The employer match typically would not extend to employee contributions above about 6 percent of pay. At a 50 percent matching rate, the result would be additional contributions of 0.12 percent of GDP.

Total additional contributions from this channel would thus be 0.17 percent of GDP (0.05 plus 0.12).

If one-third of those matching contributions represented shifts in saving that would have occurred anyway (as in the automatic enrollment example), the increase in private saving would be 0.12 percent of GDP (2/3 of 0.17). If the effective tax revenue loss is 20 cents per matching dollar contributed, the revenue loss would be 0.03 percent of GDP. The net effect on national saving from employer matching contributions resulting from automatic enrollment and escalation would thus be 0.09 percent of GDP.

4. Total effect of the Automatic 401(k)

Summing the components together, the Automatic 401(k) would raise 401(k) contributions by about 0.7 percent of GDP, reduce other private saving by 0.2 percent of GDP and reduce government revenues by 0.1 percent of GDP. (These figures are rounded to the nearest 0.1 percent of GDP.) The net effect on national saving would be an increase of about 0.3 percent of GDP. The Appendix, which applies a different estimation methodology, provides a somewhat lower set of estimates for the long-term impact of the Automatic 401(k).

Box: An alternative simulation approach to the Automatic 401(k)

To provide further insight into the effects of the Automatic 401(k), we provide an alternative estimation procedure for the aggregate effects of universal adoption of automatic 401(k)s, had such a policy been instituted at the start of 2004. In the simulation, contribution rates are set at 3 percent to begin with and rise to 6 percent in 1-percentage-point-per-year increments. Employers provide a 50 percent match. The simulation implies that by 2014, an additional 8 million workers and retirees would hold 401(k)s as a result of automatic enrollment. Total 401(k) balances would increase by $300 billion. Contributions in 2013 would be $29 billion, or 0.2 percent of GDP, higher as a result of automatic enrollment. After 20 years, automatic enrollment results in an additional 9.7 million workers and retirees having positive 401(k) balances. The increase in total balances exceeds $800 billion. Contributions in 2023 are $35 billion higher (again 0.2 percent of GDP) than they otherwise would have been. (All dollar figures are in 2004 dollars.) Details of the simulation are described in the Appendix.

These figures differ somewhat from the results in the main text. Part of the reason is that the estimation methodology varies; another part is that the time horizon differs. The inclusion of the alternative approach in the Appendix is intended both to provide insight into how the effects of automatic enrollment and the Automatic 401(k) could play out over time, and also simply to provide an alternative estimation to the central estimates in the main text. These results are consistent with the main conclusion from the paper: even though the precise estimates are uncertain, making saving more automatic and increasing the incentive to save will generate a meaningful rise in the nation's net national saving rate.

III. Automatic IRA

A. Proposal

Under the automatic IRA proposal, employees not eligible for an employer-sponsored retirement plan would be entitled to have their employer give them access to its payroll system so that they could contribute a portion of their wages to an IRA via direct payroll deposit. The default enrollment procedure presented to employers would be automatic enrollment. Employees or employers could designate a private sector IRA to receive the funds. Unless employees chose otherwise, balances would be allocated to broad-based investments by default. Employers would use standard enrollment procedures on IRS forms, would make no contributions, and would have no responsibilities beyond channeling the employee's payroll deduction to the account. Workers could choose to opt out of the plan or change the contribution levels or investment allocations. Saving by the self-employed would be facilitated through split refunds and expanded availability of automatic debits.

B. Effects on Saving

Workers not offered a 401(k) plan currently account for 33 percent of aggregate wages. Automatic IRAs would be required to be offered to employees of employers that do not sponsor a retirement plan, that have more than ten employees, and that have been in business for at least two years. If they were offered to 60 percent of these workers (randomly across income groups), then eligible workers would account for about 20 percent of aggregate wages. If about 35 percent of those offered an automatic IRA contributed (randomly across income groups), the contributors would account for about 7 percent of aggregate wages. If new participants contributed an average of 3 percent of their wages initially, and if 2/7 of these new participants eventually increased their contributions over time from 3 to 6 percent, automatic IRA contributions would total 0.3 percent of aggregate wages [(3 percent of 5 percent) plus (six percent of two percent)], or 0.11 percent of GDP.

"Workers not offered a 401(k) plan currently account for 33 percent of aggregate wages."

If one-third of the contributions were offset by reductions in other saving, private saving would rise by 0.07 percent of GDP. If the tax revenue loss were 15 percent per dollar contributed, public revenue would fall by 0.02 percent of GDP. The net effect on national saving would be 0.06 percent of GDP.

IV. Expand & Improve the Saver's Credit

A. Proposal

The Saver's Credit, enacted in 2001, provides a government subsidy, in the form of a nonrefundable tax credit, for voluntary individual contributions to retirement saving arrangements such as 401(k) plans (as well as 403(b), 457, SIMPLE and SEP plans) and IRAs. For households that owe income tax, the effective match rate in the Saver's Credit is higher for those with lower income, making it the first and so far only major federal legislation directly targeted at promoting tax qualified retirement savings for middle- and low-income workers. Originally scheduled to expire at the end of 2006, the credit was made permanent and indexed to inflation under the Pension Protection Act of 2006.

The credit currently represents an implicit government matching contribution for eligible retirement saving contributions. However, the *explicit* credit rate is significantly lower than the *implicit* matching rate, which may depress take-up. Furthermore, the non-refundability of the current credit dramatically reduces the number of people eligible for it and complicates its presentation. Finally, the Saver's Credit contains three discrete declines in the credit rate as income rises, resulting in very high effective marginal tax rates for savers who use the credit. Redesigning the credit as an explicit government match (to be deposited directly into tax-qualified accounts) for individual contributions to retirement saving arrangements could increase the program's effectiveness, provided the match remained higher for those with lower income and gradually phased out as income rises.

B. Effects on Saving

The authors' previous calculations, using the Urban-Brookings Tax Policy Center Microsimulation Model, regarding the potential impact of the proposed improvements to the Saver's Credit suggested that about 12 percent of the 94 million tax units with income below $50,000 (as indexed in the future) would contribute to employer plans or IRAs and claim the credit. This would come to 11.3 million tax units. Other evidence suggests that the overall IRA take-up rate for a 50 percent match would be about 10.4 percent among taxpayers with incomes in the lowest two income quartiles. (This compares to the take-up rate of 2.14 percent for those earning under $50,000 who made deductible IRA contributions in 2000.) A take-up assumption of 12 percent for contributions to both 401(k)s and IRAs may thus be conservative, especially as more than 80 percent of the contributions that were eligible for the Saver's Credit in 2002 were to employer plans as opposed to IRAs. Given that about 5.3 million tax filing units claimed the Saver's Credit in 2004, the improvements in the Saver's Credit might plausibly *increase* the number of tax units contributing to employer plans or IRAs by 11.3 million (the total estimated to benefit) less 5.3 million (those currently benefiting), or 6 million tax units. The average deductible contribution to an IRA for those earning under $50,000 is $1,641; the average contribution to a 401(k) for those earning under $50,000 is higher. Given the dominance of 401(k) contributions in funds eligible for the credit, we assume an average qualifying contribution of $2,000. Furthermore, the individuals contributing can be expected to exceed the number of tax filing units because taxpayers who are married and filing jointly can each receive a separate Saver's Credit for saving. This suggests that contributions would rise by more than $13 billion, or 0.10 percent of GDP.

Because most of the contributions that are entitled to a Saver's Credit have been made to employer plans rather than IRAs, and because roughly 80 percent of employer 401(k) plans have an employer match, we estimate that roughly 65 percent of the contributors would receive an employer match of about 50 percent, or about 32 percent of the contributions (or another 0.03 percent of GDP). If one third of the contributions were offset by reductions in other saving, private saving would rise by 0.09 percent of GDP. If the tax revenue loss were 15 cents per dollar contributed, public revenue would fall by 0.01 percent of GDP. The net effect on national saving would be 0.08 percent of GDP.

The government spending involved in making the 50 percent matching contribution (which would be in addition to any exclusion or deduction otherwise allowable) would be offset by the rise in private savings attributable to households' receipt of that government matching contribution. If there were no private sector responses beyond that, national savings would be unaffected: government saving would fall while private savings would rise by the same amount. This effect is based on the premise that those receiving the match save all of it rather than consuming a portion.

If, instead, it were assumed that one third of the match would not increase savings (because of additional consumption or reduction in other saving), then net national saving attributable to expansion and improvement of the Saver's Credit would be lower. On the other hand, the match should raise contributions significantly [see, for example, Duflo et al (2006)], and for simplicity we treat these two items as offsetting in their effects on saving.

V. Split refunds

A. Proposal

In any given year, most American households receive an income tax refund. Instead of receiving the refund in the form of a check, a taxpayer may instruct the Internal Revenue Service to deposit the refund in a designated account at a financial institution. However, the direct deposit currently can be made to only one account. This all-or-nothing approach may discourage tax filers from saving any of the refund. When some of the refund is needed for immediate expenses (as is often the case), depositing the entire amount in a savings account, such as an IRA, is not a feasible option. Allowing households to split the direct deposit of their refunds between two or three accounts could make saving simpler and thus more likely. The IRS will begin to permit such refund splitting in the 2007 tax filing season.

B. Effects on Saving

In 2004, individual income tax refunds amounted to 2.1 percent of GDP. We assume, extrapolating from data on direct deposit of refunds, that roughly 6 percent of those refunds were devoted to saving accounts. We assume that an additional 10 percentage points of the refunds would be devoted to saving accounts if split refunds were available. (This could occur, for example, if 20 percent of refund recipients (weighted by dollars) who had not previously contributed were to direct deposit half of their refunds in saving accounts.) Under this assumption, the resulting deposits would equal 0.21 percent of GDP.

If one-third of the contributions to saving accounts were offset by reductions in other saving, the net addition to private saving would be 0.14 percent of GDP. And if government revenue fell by 10 percent of the deposits (an average of 20 percent for the assumed half of the deposits that went into tax-preferred accounts and an average of zero percent for the assumed other half of deposits that went into taxable accounts), then government revenue would fall by 0.02 percent of GDP. The net effect on national saving would be 0.12 percent of GDP.

VI. Asset tests in means-tested programs

A. Proposal

Many moderate- and low-income families rely on public benefit programs during times of need. To be eligible for Supplemental Security Income, food stamps, Temporary Assistance for Needy Families (TANF), Medicaid, or low-income subsidies for the new Medicare prescription drug benefit, applicants generally must meet an asset test as well as an income test. Historically, the purpose of the asset tests has been to restrict means-tested benefits to those who have little or no resources to draw upon. The tests imply, however, that a moderate- or low-income family that saved could disqualify itself for means-tested benefits, since the resultant assets may exceed the asset limits. The asset tests thus effectively act as a steep implicit tax on saving. Families with incomes low enough to qualify for a means-tested program under the income test—along with families whose incomes are currently above the threshold but who are concerned that their incomes may fall in the future—may respond to this implicit tax by saving less. The implicit tax imposed on saving by the asset tests may thus reduce saving and impair retirement security among moderate- and low-income households.

"…establishing automatic 401(k)s and IRAs, improving the Saver's Credit, allowing taxpayers to split their refunds and reforming the asset tests will disproportionatzely benefit those working Americans who currently lack sufficient opportunities or incentives to save — and who also are those whose contributions are most likely to represent new savings."

To eliminate this tax on retirement saving, Congress could allow retirement accounts that receive preferential tax treatment (such as 401(k) plans and IRAs) to be disregarded for eligibility and benefit determinations in federal means-tested programs.

B. Effects on Saving

Estimating the effects of asset test reform on private and national saving is extremely complex and speculative for three reasons. First, the effects of the asset tests on private saving are difficult to determine. Studies suggest that the asset tests reduce saving, but the estimates are quite varied. Second, the asset tests vary across programs and states. Third, the change in asset test rules would affect government spending, and hence government saving, by making more people eligible for the programs. Given these problems, we are unable to provide a quantitative estimate of the impact of asset test reform on private and national saving. It is our belief that the effect would be positive. In future work, The Retirement Security Project will be exploring the effects of the asset tests further.

VII. Conclusion

Rough estimates of the potential impacts of these proposals suggest increases of 0.6 percent of GDP in net national saving. An increase of 0.6 percent of GDP in net national saving would raise the nation's saving rate by roughly a quarter compared to current levels. The potential impact on net national saving from these proposals is thus significant. Nonetheless, we must emphasize again that the calculations above are based on rough assumptions and limited information. They also ignore any interactions between the proposed programs.

Finally, these savings proposals should be viewed not only from the perspective of *how much* but also from the perspective of *for whom*. Raising the aggregate saving level is clearly a goal of these proposals, and efforts to quantify the effects are important. However, estimating the magnitudes of the effects should not obscure another important policy objective. Indeed, establishing automatic 401(k)s and IRAs, improving the Saver's Credit, allowing taxpayers to split their refunds and reforming the asset tests will disproportionately benefit those working Americans who currently lack sufficient opportunities or incentives to save—and who also are those whose contributions are most likely to represent new savings. By focusing on these workers, these proposals will both increase the effectiveness of federal tax expenditures designed to induce retirement savings and distribute the tax-favored balances more equitably.

Table 1

Estimated Effects of Retirement Security Project Proposals on Private and National Savings[1]
(percentage of GDP)

	Effect on New Contributions	Effect on Other Private Savings	Net Effect on Private Savings	Effect on Government Revenue	Net Effect on National Savings
	(1)	(2)	(1) + (2)= (3)	(4)	(3) + (4) =(5)
Total Automatic 401(k) (A+B+C+D+E)	0.69	-0.25	0.44	-0.10	0.34
A. Effect of auto enrollment on non-participants in traditional 401(k)s	0.10	-0.03	0.07	-0.01	0.06
B. Effect of auto enrollment on participants in traditional 401(k)s	Assumed 0.0	Assumed 0.0	Assumed 0.0	Assumed 0.0	Assumed 0.0
C. Effect of automatic escalation	0.42	-0.17	0.25	-0.06	0.19
D. Effect of employer matching contributions	0.17	-0.05	0.12	-0.03	0.09
E. Effect of automatic investment	Not estimated	Not estimated	Not estimated	Not estimated	Not estimated
Automatic IRA	0.11	-0.04	0.07	-0.02	0.06
Improved Saver's Credit	0.13	-0.04	0.09	-0.01	0.08
Split Refunds	0.21	-0.07	0.14	-0.02	0.12
Reformed asset tests	Not estimated	Not estimated	Not estimated	Not estimated	Not estimated
Total (without interactions)	1.14	-0.40	0.75	-0.15	0.60

[1]Due to rounding, rows may not sum exactly.

Appendix: An Alternative Estimation Procedure for Automatic 401(k)s

We simulate the aggregate effects of universal adoption of automatic 401(k)s, had such a policy been instituted at the start of 2004. In automatic 401(k)s, all workers are automatically enrolled unless they choose not to participate, their contribution rates are set at 3 percent to begin with and then rise to 6 percent in 1-percentage-point-per-year increments, and their balances are invested in a well-diversified market portfolio. Employers provide a 50 percent match.

For each cohort in the workforce as of 2004, we begin with an estimate of the population in 2004 (from Census) and in future years (adjusted for age-specific mortality, but not immigration). To determine the number of eligible workers in each cohort-year, we multiply the cohort-year-specific population by (a) the share of the population in the workforce and (b) the share of workers who are 401(k)-eligible. For 2004, these estimates are taken from the Survey of Consumer Finances (and smoothed to account for small sample size). For future years, we shift each cohort forward through the 2004 age profile: in 2005 employment rates and eligibility rates for the cohort that is 25 in 2004 rise to the levels observed among 26-year-olds in 2004. We allow cohorts to deviate from this pattern by stipulating that, for each cohort, the employment rate and eligibility rate cannot decrease over time. This was motivated by the expectation that 401(k) eligibility at older ages will rise among younger cohorts.

Under traditional enrollment, participation rates are handled in the same way as employment and eligibility rates: the age-participation rates, given eligibility, are taken from the 2004 SCF and stay constant over time. Within a cohort, participation rates typically rise with age and we do not allow participation rates conditional on eligibility to fall until age 65. We allow average salary and average contribution rates among contributors to rise and then fall with age, consistent with the data. Across cohorts, we allow for 1 percent annual salary growth and hold contributions as a share of salary constant. We allow balances to earn a real return of 5 percent per year.

Automatic enrollment increases participation rates and affects contribution rates. (We assume it does not affect the availability of 401(k) plans or the number of eligible workers.) For each cohort-year, we fix the total number of 401(k) participants at 92 percent of eligible workers. Determining contribution levels for these workers is more complicated. We treat workers who would have enrolled under traditional enrollment the same under both scenarios, which implies that automatic enrollment has no effect on contribution behavior among active participants in our simulation. The additional participants generated by the automatic enrollment policy are assumed to contribute at the midpoint between the traditional enrollment contribution rate and the default rate for the automatic 401(k) plan.

We use population projections from the Census Bureau's 2004 population estimates and death rates from the CDC's annual mortality report. To project these mortality rates forward, we apply mortality improvement projections from the intermediate scenario of the 2004 Social Security Trustees' report. For baseline pension behavior, we use the 2004 Survey of Consumer Finances, which shows that 75.7 percent of the population aged 25 to 64 is employed, 34.7 percent of whom are eligible for 401(k) plans, with 77 percent of eligibles participating. Mean salary income is $49,016 among the employed. The average employee contribution rate is 6.6 percent of salary, with an average employer contribution rate of 4.6 percent.

We run the simulation for twenty years, giving the number of participants and aggregate balances at the beginning of 2014 (10 years) and again at the beginning of 2014 (20 years). Whether and how to count retirees and their assets depends on the purpose of the

calculation, so we use several different approaches. To measure the effect of automatic enrollment on the number of participants, we calculate both the number of active participants below age 65 and the total of participants and surviving retirees. Likewise, we deal with the assets of workers 65 and older in two ways. Freezing account balances at 65 gives a measure of the total increase in retirement assets attributable to the proposal; allowing retirees to spend an equal amount of their assets each year so that they just run out of money after 15 years in retirement gives a sense of the amount of retirement wealth that is left in the system at any point in time. At the ten-year time horizon, there is not much difference between these approaches (about 3 percent).

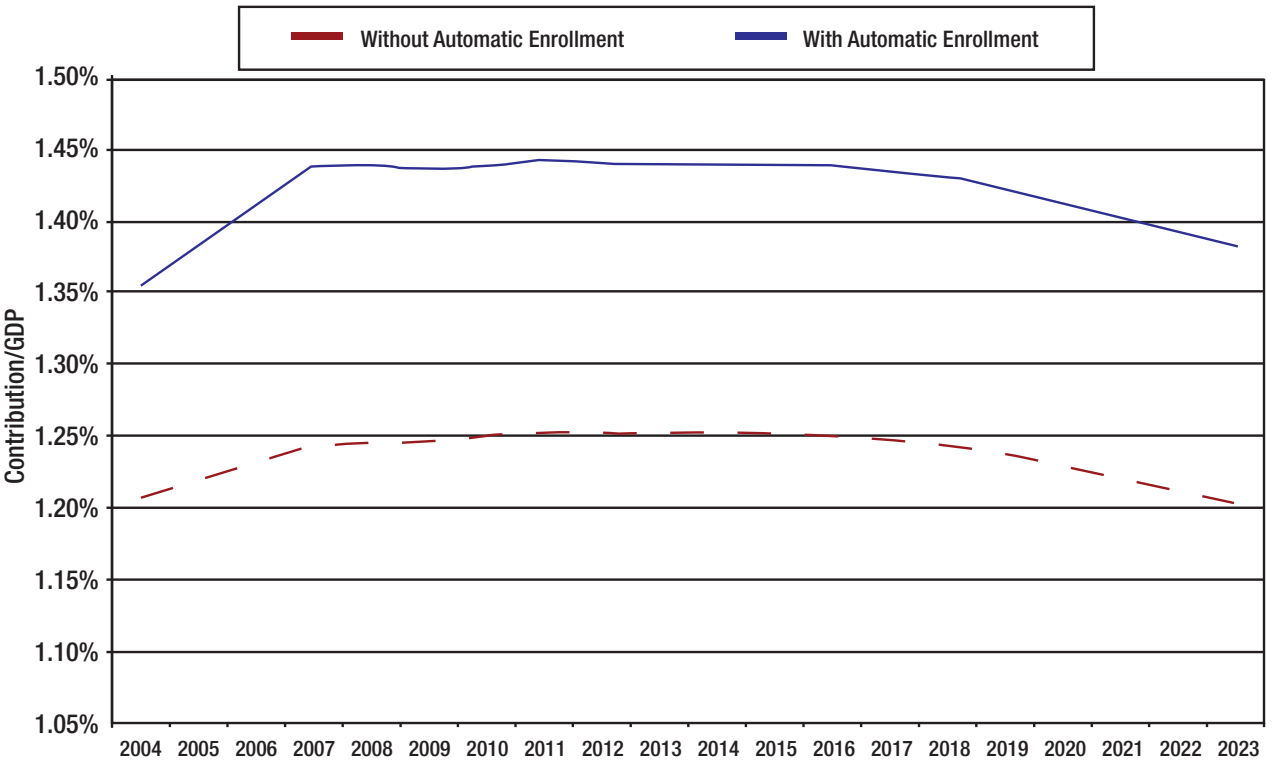
After 10 years (in 2014) an additional 7.93 million workers and retirees hold 401(k)s as a result of automatic enrollment. The increase among those who are still working is 7.28 million. Total 401(k) balances increase by $301.1 billion with drawdown in retirement, or $303.6 billion if balances are frozen at the retirement age. This represents a 5.5 percent increase in 401(k) balances and an 18.9 percent increase in participants (19.0 percent below age 65). Contributions in 2013 (the tenth year) are $28.9 billion, or 15.0 percent, higher as a result of automatic enrollment. There is no inflation in the model, so these figures are in 2004 dollars.

After 20 years (in 2024), automatic enrollment adds 9.70 million workers and retirees to the system. Because more participants are retired at this longer time horizon, the effect on workers is 8.06 million. The increase in total balances is $819.5 billion with drawdown in retirement, or $860.8 billion if frozen at retirement. Total participants increase by 18.0 percent, active participants by 18.9 percent, balances at retirement by 8.3 percent, and balances in 2024 by 9.3 percent. Contributions in 2023 are $35.3 billion higher, representing an increase of 14.9 percent.

The figures below show the estimated evolution of 401(k) contributions, with and without automatic enrollment, as a share of GDP, along with the estimated evolution of 401(k) balances as a share of GDP.

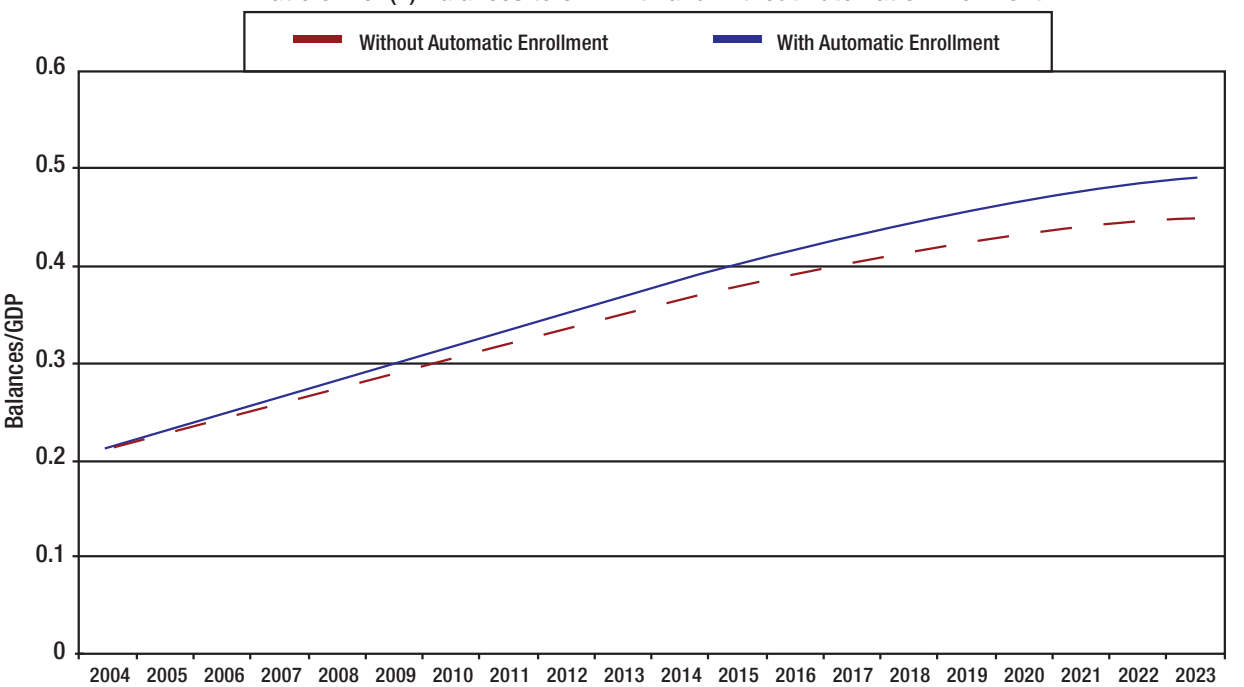
"With the current net national saving rate at about 2.5 percent of GDP, these proposals have the potential to raise net national saving by almost a quarter."

401(k) Contributions as a Share of GDP



Note: Projected values of GDP in 2004 dollars are obtained by applying CBO-projected growth rates for 2005-2016 to the actual level of 2004 GDP. Growth in 2017-2023 is assumed to be flat at 2.5 percent, consistent with BCO's projected growth at the end of their forecast.
Sources: BEA (2004 GDP); CBO, "The Budget and Ecomomic Outlook: An Update, " August 2005 (Apendix Table 1).

Ratio of 401(k) Balances to GDP with and without Automatic Enrollment



Note: We assume that retirees spend their balances in equal increments over the 15 years following retirement. Remaining retiree balances are included in the above totals. Projected values of GDP in 2004 dollars are obtained by applying CBO-projected growth rates for 2005-2016 to the actual level of 2004 GDP. Growth in 2017-2023 is assumed to be flat at 2.5 percent, consistent with CBO's projected growth at the end of their forecast.
Sources: BEA (2004 GDP); CBO, "The Budget and Economic Outlook: An Update," August 2006 (Appendix Table 1).

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Mission Statement

The Retirement Security Project is dedicated to promoting common sense solutions to improve the retirement income prospects of millions of American workers.

The goal of The Retirement Security Project is to work on a nonpartisan basis to make it easier and increase incentives for middle- and lower-income Americans to save for a financially secure retirement.

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