

# DODGED A BULLET? “ROTHIFICATION” LIKELY TO REDUCE RETIREMENT SAVING

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## Introduction

As part of its tax reform effort, the Congress was considering a proposal to require that employee contributions to 401(k)s above \$2,400 go to a Roth – rather than a traditional – account. While this change is not currently in either the House or Senate bill, the debate over the tax plan is continuing. And opposition to other provisions – such as curtailing deductions for state and local taxes – could lead lawmakers to reconsider the 401(k) changes in order to help offset the overall cost of the tax-cut package.

“Rothification” would help finance proposed tax cuts because it would increase government revenues over the next 10 years – the budget window for evaluating the impact of tax reform – and reduce revenues by a comparable amount thereafter. The increase occurs in the short term because money going to Roths is taxed up front, while taxation of money contributed to traditional plans does not occur until retirement. This effect on the budget is the sole reason that Rothification has been under consideration.

The question is whether a shift to Roth accounts should be viewed as merely a budget gimmick or as a change that could affect how much people save for retirement. That subject is the focus of this *brief*.

The discussion proceeds as follows. The first section describes the differences between Roth and traditional accounts. The second section discusses how switching to Roth accounts would affect the federal

budget. The third section explores how the change may affect saving by different types of individuals. The final section concludes that Rothification is likely to lead to less saving by low- and moderate-earners who cannot afford to pay the taxes up-front. Among higher earners, savings may well remain unchanged, or even increase.

Importantly, this budget-driven exercise is a diversion from real reform that would enhance retirement saving, such as mandatory auto-enrollment in 401(k)s, mandatory auto-escalation in the default contribution rate, automatic draw-down provisions, and an expansion of coverage to the half of private sector workers without a workplace retirement plan.

## Roth vs. Traditional 401(k)s

Since 2006, employers have been able to offer Roth as well as traditional 401(k) plans to their employees. The main difference between traditional and Roth accounts is the timing of taxes. Under the traditional treatment, contributions and earnings are not taxed, while distributions at retirement are treated as taxable income. Under Roth accounts, employee contributions are taxed, but investment earnings and distributions generally are not taxable.

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## Identical in Theory

Although the traditional and Roth options may sound quite different, in fact they offer virtually identical tax benefits. Unfortunately, the easiest way to demonstrate this point is with equations. Assume that  $t$  is the individual's marginal tax rate and  $r$  is the annual return on the assets in the account. If an individual contributes \$1,000 to a traditional account, then after  $n$  years, the account would have grown to  $\$1,000(1+r)^n$ . When the individual withdraws the accumulated funds, both the original contribution and the accumulated earnings are taxable. Thus, the after-tax value of the account in retirement is  $(1-t) \$1,000(1+r)^n$ .

Now consider a Roth. The individual pays tax on the original contribution, so he puts  $(1-t)\$1,000$  into the account. After  $n$  years, these after-tax proceeds would have grown to  $(1+r)^n (1-t) \$1,000$ . Since the proceeds are not subject to any further tax, the after-tax amounts under the Roth and traditional accounts are identical:

$$\begin{array}{cc} \text{Roth} & \text{Traditional} \\ (1+r)^n (1-t) \$1,000 & = (1-t) \$1,000(1+r)^n \end{array}$$

Of course, the preceding exercise assumes that the tax rate people face in retirement is the same as that when they are young. If their tax rates decline after retirement when they withdraw the funds, then they will pay less tax and have more after-tax income with the traditional 401(k) than with the Roth and vice versa.

In terms of future taxes, the tendency is for individuals to think that they will be living on less in retirement so their tax rate will be lower. But the tax system is dynamic, and a future Congress may well raise taxes – particularly in light of growing federal budget deficits. It is not possible simply to assume the current tax system will be the same decades ahead. In short, enormous uncertainty surrounds whether today's workers will face higher or lower tax rates once they stop working.<sup>1</sup>

## A Few Real World Differences

While the arithmetic says the tax treatment is the same, the two plans differ in terms of both perception and legalities.

The most obvious issue of perception is that contributions to traditional 401(k)s immediately cut the participant's taxes. Roth 401(k)s do not provide tax relief today and therefore may not seem as appealing to the typical participant.<sup>2</sup> On the other hand, it is nice to know that the money in your account is the amount you will have available to spend. To the extent that no further taxes are required on a Roth account, the full amount is available for support in retirement. Funds in a traditional account will be taxed upon withdrawal, so the amount available for support is always less than the account balance.

An important wrinkle needs to be noted. Under the Roth arrangement, while the employee's contribution is funded with after-tax income, the matching contributions provided by the employer must be allocated to a pre-tax account, just like a traditional 401(k). This provision ensures that employees do not have to pay tax on income they cannot currently receive. This arrangement means, however, that even in an "all-Roth" world, participants would have to consider both pre-tax and after-tax accumulations (see Table 1).

TABLE 1. IMPOSITION OF TAXES UNDER TRADITIONAL AND ROTH 401(K)S

Account	Contributions	Investment earnings	Withdrawals at retirement
Traditional			
Employee	–	–	✓
Employer	–	–	✓
Roth			
Employee	✓	–	–
Employer	–	–	✓

Source: Internal Revenue Service (2017).

Another issue is the amount of the contribution required to produce an equivalent after-tax amount at retirement. In the example above, under the traditional 401(k), the contribution is \$1,000, while the required Roth contribution is  $(1-t)\$1,000$  – or \$800 with a 20-percent tax rate. The Roth requires a lower contribution because the accumulation will not be taxed in retirement. This detail is important for understanding the effect that switching to a Roth could have on savings, because, as will be discussed

later, maintaining a contribution of \$1,000 in a Roth account means that people are actually saving *more* than they did in a traditional 401(k).

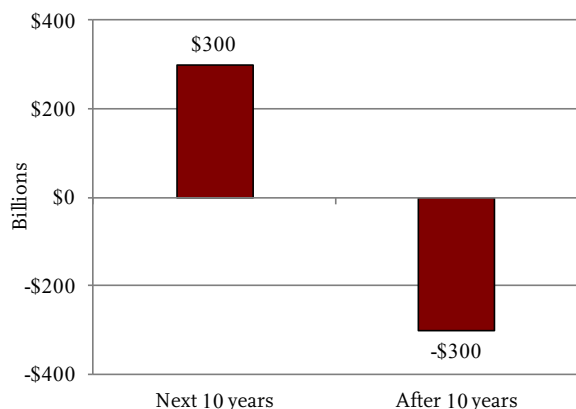
Finally, Roth 401(k)s can be rolled over into Roth IRAs, which have no Required Minimum Distributions at age 70½. As a result, Roth account-holders can accumulate assets tax-free until death.<sup>3</sup>

In short, while traditional and Roth 401(k)s face identical tax liabilities in theory, these plans differ along a number of dimensions.

## The Impact on the Budget

The provisions discussed above mean that with the traditional plans, in which the contributions are deductible, the Treasury takes an up-front hit but recoups the money when accumulations are withdrawn in retirement. With the Roth approach, the Treasury forgoes no revenues in the short run but sees no revenues from withdrawals at retirement. So switching from the traditional to Roth format would boost revenues in the near term and reduce them in the long term (see Figure 1). Since Congress evaluates the effects of changes in the tax code based on revenue projections for the next 10 years, such a shift would free up funds that could be used to finance tax cuts today. The reduction in revenues that would occur outside the 10-year window does not count for budget scoring purposes.<sup>4</sup>

FIGURE 1. ILLUSTRATIVE IMPACT OF SWITCHING TO ROTH ACCOUNTS ON THE FEDERAL BUDGET



Notes: The amount represents the present discounted value. The long-term revenue loss assumes that individuals face the same marginal tax rates over time.

Source: Authors' illustration.

The first proposal for Rothification was included in the House Ways and Means Committee draft Tax Reform Act of 2014. Under that proposal, all plan sponsors would be required to offer Roth 401(k)s. Employees could contribute up to half the maximum annual elective deferral amount (in 2017, \$18,000 for employees under age 50 and \$24,000 for employees 50 and older) into a traditional account, but any contributions in excess of half of these limits (\$9,000 and \$12,000, respectively) would have to go to a Roth account. Employees could contribute up to the entire annual elective deferral amount in a Roth account if they wish. Employer contributions would continue to be made to traditional accounts. In the case of IRAs, the 2014 legislation would require all new contributions to be made to Roth, rather than traditional, IRAs. The Joint Committee on Taxation estimated that this proposal would increase revenues by \$158 billion over a 10-year period.<sup>5</sup> Of course, revenues will be commensurately lower in the period beyond 10 years when withdrawals come out of accounts tax-free.

The 2017 proposal that was discussed, but not included, in the House or Senate tax plan would have reduced the limit in traditional 401(k)s even further than the 2014 proposal, from \$18,000 to \$2,400. Presumably, as in the 2014 proposal, all new IRA contributions would be required to go to Roths. These 401(k) and IRA provisions would increase revenues by several hundred billion dollars over the next 10 years.

While the proposal to switch from traditional to Roth 401(k)s is driven by budget considerations, it could have real-world consequences. The next section shows that, if people maintain either their contribution levels or their after-tax incomes, savings would increase but if they overreact savings would decline.

## The Impact on Saving

The most important fact to emphasize in discussing the impact on saving of “Rothification” is that we simply have very little evidence about how such a change could affect behavior.<sup>6</sup> Therefore, the best that can be done is to speculate about likely outcomes if people:

1) respond in a deliberate fashion; or 2) overreact.

### *If Participants Stay with Their “Anchors,” Savings Will Increase*

In determining how much individuals might save under a Roth system, the two leading anchors are: 1) maintaining the dollar amount of contributions; and 2) maintaining take-home pay by reducing contributions.

To the extent that people do not change their contribution levels, they will have *more* after-tax savings at retirement, because a Roth contribution has already been taxed, while the same dollar contribution to a traditional 401(k) has not.<sup>7</sup> Even if people somewhat reduce their non-qualified saving, they will come out ahead.

Some participants, however, may be more focused on take-home pay and unable to maintain their dollar contribution. If they decrease their contribution by an amount that maintains their take-home pay, they will have *the same* after-tax savings, assuming the same tax rates before and after retirement. Table 2 illustrates this point for someone earning \$60,000 a year, facing a constant tax rate of 20 percent and contributing 6 percent – the median contribution rate – to a traditional 401(k). Once the Roth is introduced, to keep his take-home pay unchanged, the participant reduces his contribution from \$3,600 to \$2,880. This lower contribution, however, will produce the same after-tax wealth at retirement once taxes are levied upon withdrawals in the traditional account.

TABLE 2. THOSE REDUCING DOLLAR CONTRIBUTION TO MAINTAIN TAKE-HOME PAY WILL HAVE SAME AFTER-TAX RETIREMENT SAVING AS UNDER CURRENT SYSTEM

	Traditional	Roth
Income	\$60,000	\$60,000
Saving	\$3,600 (pre-tax)	\$2,880 (post-tax)
Tax paid	\$11,280	\$12,000
Take-home pay	\$45,120	\$45,120

Source: Authors' example.

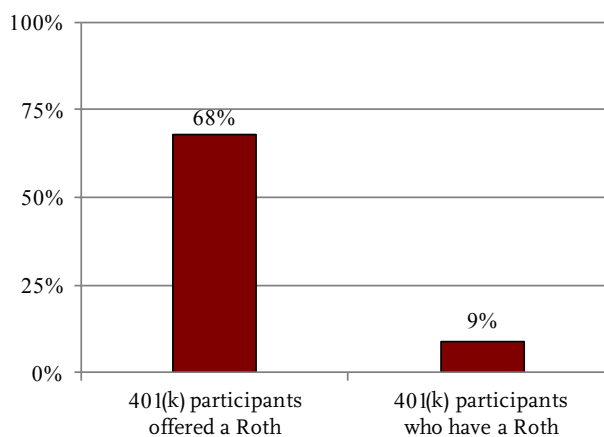
Overall, then, if some people respond by maintaining their dollar contribution and others maintain their after-tax income, savings would increase as a result of a shift from a traditional to a Roth 401(k).<sup>8</sup>

### *The Risk Is that Participants Overreact*

While individuals might feel anchored in a frictionless world where they did not have to re-enroll, they may feel differently when they have to actively “reset” their contributions with their employers. In this situation, they may conclude that a tax deduction today is worth more than a tax deduction tomorrow.<sup>9</sup>

Current patterns of participation certainly suggest that people tend to value the immediate deduction of a traditional 401(k) more than the future deduction from a Roth. For example, nearly 70 percent of 401(k) participants who are in plans managed by Vanguard are offered a Roth, but only 9 percent have one (see Figure 2).<sup>10</sup>

FIGURE 2. PARTICIPATION IN ROTH 401(K)S



Source: Vanguard (2017).

Participants who see no advantage to retirement saving once the immediate deduction disappears – that is, no tax deferral could be mistaken for no tax advantage at all – are likely to cut their contributions dramatically. Recent surveys find that about 80-90 percent of plan sponsors believe that reducing or eliminating the ability to make pre-tax 401(k) contributions would discourage employees from saving.<sup>11</sup> Low-wage and liquidity-constrained households (who are also less likely to be financially literate) are most at risk of overreacting and hence damaging their retirement savings. And these are the households that are the least prepared for retirement. So shifting from traditional to Roth 401(k)s would further skew

the benefits of the system toward middle- and upper-income individuals. Employers could try to overcome this misperception with an educational program, but the risk remains.

Some other considerations that could reinforce this reduction in saving include:

- Participants could interpret a \$2,400 limit for traditional 401(k)s as the government's target for sufficient saving and conclude that it is not worth setting up a Roth account to contribute more than that amount.
- Any reduction in 401(k) employee contributions would be amplified by a loss of employer matches.<sup>12</sup>
- Participants with a Roth account may be more tempted to cash out when they change jobs, since they would not pay income taxes and penalties on their contributions.
- Finally, a few plans sponsored by small business owners seeking immediate deductions may close if traditional accounts are eliminated, based on a recent survey.<sup>13</sup>

In short, a mandatory shift from traditional to Roth 401(k) plans will inevitably create confusion and the potential for disrupting people's savings habits. These habits are hard to establish and disruption could erode retirement security. And the people who are most likely to get hurt are low-wage workers and those with liquidity constraints, because they have less ability to pay taxes on their savings up-front.

## Conclusion

The debate about Rothification is not a debate about Roth 401(k)s. Adding Roths to the menu of saving options offers savers a hedge against the possibility that they will face higher future tax rates, potentially helping to minimize their overall tax burden.

Having an option available is starkly different from forcing people to change the manner in which they are saving. Making the 401(k) landscape more complicated could have a dampening effect on contributions, so that people end up saving less. And while it might be nice to know that all the money in a retirement account is available for spending in retirement, such an outcome is not possible when *all* of the employer's contribution must be allocated to a pre-tax account, just as under a traditional 401(k). In addition, a Rothification requirement would also be costly for employers to administer, including the need to educate employees about the new arrangements. If Rothification could be justified on policy grounds, it might be worth accepting the risks and costs. But such a proposal is driven solely by budget considerations.

Many better options exist if the Congress wants to focus on improving the retirement system. In terms of 401(k)s, make auto-enrollment and auto-escalation of the default contribution rate mandatory. Changes are also required on the draw-down side so that retirees do not either spend their money too quickly and outlive their savings or spend it too slowly and deprive themselves of necessities. And expansion of coverage is needed for the half of private sector workers who have no employer-sponsored retirement plan at work. Fixing these problems should receive much higher priority than tinkering with the tax structure of current retirement savings arrangements.

## Endnotes

- 1 A Vanguard publication (Jaconetti et al. 2016) argues that because future tax rates are uncertain, employees ought to have both a traditional and a Roth 401(k).
- 2 Laibson (1997) analyzes the behavior of such present-biased individuals.
- 3 Traditional 401(k)s are subject to both estate tax upon the death of the account holder and then income tax (with a deduction for the estate tax paid) when the funds are withdrawn by the beneficiary of the bequest. A Roth 401(k) reduces the taxable estate because the income tax is, in essence, prepaid. The individual inheriting the Roth is thus left with a tax-free account that can continue to grow as it is paid out over the beneficiary's life expectancy.
- 4 From a legislative perspective, one counterproductive implication is that while revenues would be accelerated into the 10-year scoring window, they would be subtracted from revenues after that window. For purposes of the reconciliation procedure that the majority is seeking to implement in order to avoid a Senate filibuster, this outcome seems to be poor timing of revenue: reconciliation allows the deficit to be increased in the short term, but not *after* the 10-year scoring window.
- 5 This amount consists of \$143.7 billion for 401(k)s and \$14.8 billion for IRAs.
- 6 The one specific piece of evidence available finds that, when companies introduce a Roth option, contributions generally stay the same (see Beshears et al. 2017). It is important to note, however, that the setting of the study is very different from the current policy proposal. The study considered a Roth *option* in addition to a traditional account, so the response is limited to those who voluntarily chose to contribute to a Roth; the Rothification proposal would affect many people who have previously shown no interest in a Roth.
- 7 Chetty et al. (2014), which studied retirement saving in Denmark, found that about 85 percent of people are passive savers; they do not react to government policy changes by altering their saving patterns.
- 8 Saving could also increase because the annual contribution limit to 401(k) accounts is nominally equal for traditional and Roth options, so that contributing the maximum \$18,000 to a traditional account actually buys less retirement wealth than the same \$18,000 in a Roth, because the latter is already after tax.
- 9 Based on evidence from behavioral economics, Burman and Gale (2017) stress the appeal of up-front deductions. Behavioral principles, though, could also be used to *encourage* participation under Rothification if employers were allowed to automatically divert a participant's contributions in excess of the \$2,400 limit to a Roth.
- 10 Vanguard (2017).
- 11 See Barney (2017) and Plan Sponsor Council of America (2017).
- 12 A related point is that a given employer match is more generous relative to traditional employee contributions than it is relative to Roth contributions. One way to see this effect is that, in the example in Table 1, the employee contributed only \$2,880 to maintain the same level of saving in a Roth as \$3,600 of saving in a traditional account. If this employee also had a 50-percent employer match, he would have lost out on \$360 ( $(\$3,600 - \$2,880) * 50\% = \$360$ ).
- 13 Plan Sponsor Council of America (2017).

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