CASE STUDY:

How Cutting Taxes on Tax-Deferred Retirement Accounts Can Make the Portfolio Last Longer

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RETIREE INCOME

This case study presents an example demonstrating how the strategy recommended by Dr. William Reichenstein, Head of Research for Retiree Inc., in a recent blog for the *Wall Street Journal* (which can be found online at http://blogs.wsj.com/experts/2015/06/05/how-to-cut-taxes-on-tax-deferred-retirement-accounts) may allow a portfolio to last several years longer. In addition, it demonstrates as claimed in the blog that this strategy could allow a single retiree to avoid taking funds out of her tax-deferred account that would be taxed at more than 15% for decades. The result of this recommended strategy is the addition of almost seven more years to the portfolio longevity. In this example, we make two simplifying assumptions so readers can follow the example.

1. We assume that inflation will be 0%. This simplifying assumption is made so the following can be held constant from year to year: annual spending amount, standard deduction, personal exemption amount, and tops of 10% and 15% tax brackets.

2. Because we assumed a 0% inflation rate, we assumed the underlying investments earn a low 2.8% rate of return, which matches the geometric average inflation-adjusted return on long-term Treasury bonds since 1926. The second assumption is that the underlying investment is this all-bond portfolio with a yield of 2.8%. We do not advocate an all-bond portfolio. Rather, we have made this assumption so the example can be more easily followed. If we allowed a more appropriate stocks-bonds balanced portfolio then we would have to adjust for complications associated with taxation of stocks including how quickly gains are realized, the portions of realized gains that are short-term and long-term, and the varying tax rates on qualified dividends and long-term gains for investors by tax bracket. Assuming higher returns on a balanced portfolio generally would strengthen the case for the strategy recommended in the *Wall Street Journal*.

"The result of our recommended strategy is the addition of almost seven more years to the portfolio longevity."

In our example, Sue will turn 65 in July 2015. She began 2015 with $300,000 in taxable accounts and $1,189,687.69 in tax-deferred accounts (TDAs) like a 401(k) or traditional IRA. She plans to spend $60,000 per year. Our case study compares the longevity of her portfolio with two withdrawal strategies. The first is the Conventional Wisdom Strategy. In this strategy, Sue will withdraw all funds from her taxable account until exhausted and then withdraw funds from her more-tax-favored TDA. This portfolio lasts precisely 25 years. In the second strategy, which we call the WSJ Strategy, the portfolio lasts 31.91 years; it provides all funds for 31 years plus 91% of the funds Sue will need for the 32nd year. Thus, the WSJ Strategy allows Sue's portfolio to last almost 7 years longer.

In the Conventional Wisdom Strategy presented in Table 1, Sue will withdraw $60,000 from the taxable account at the beginning of each of the first five years. These withdrawals are tax-free returns of principal. The remaining balance grows tax free at the 2.8% pretax rate of return, because her Adjusted Gross Income would be below $11,850, which is the sum of her personal exemption of $4,000 plus standard deduction of $7,850. In year six, Sue will withdraw the remaining

taxable account balance plus sufficient funds from her TDA to meet her spending target. In years seven through 25, she will withdraw $70,441.67 from her TDA, which will provide her $60,000 spending goal. By design, we have set the beginning TDA balance so it would be exhausted after the withdrawal in year 25.

Table 1. Conventional Wisdom Strategy

	Year	Tax Deferred Account	Taxable Account
65	0	$1,189,688	$300,000
66	1	$1,220,620	$246,240
67	2	$1,252,356	$191,082
68	3	$1,284,917	$134,490
69	4	$1,318,325	$76,427
70	5	$1,352,601	$16,854
71	6	$1,338,392	$0
72	7	$1,267,950	$0
73	8	$1,197,508	$0
74	9	$1,127,067	$0
75	10	$1,056,625	$0
76	11	$986,183	$0
77	12	$915,742	$0
78	13	$845,300	$0
79	14	$774,858	$0
80	15	$704,417	$0
81	16	$633,975	$0
82	17	$563,533	$0
83	18	$493,092	$0
84	19	$422,650	$0
85	20	$352,208	$0
86	21	$2817,67	$0
87	22	$211,325	$0
88	23	$140,883	$0
89	24	$70,442	$0
90	25	$0	$0

The TDA and taxable account columns show year-end balances rounded to the nearest dollar.

In the WSJ Strategy presented in Table 2, Sue converts $49,300 from the TDA to a Roth IRA at the beginning of each of the first four years. Based on 2015 levels of personal exemption, standard deduction, and tax brackets, this $49,300 takes her taxable income precisely to the top of the 15% tax bracket. In addition, Sue will withdraw $60,000 (her spending goal) plus $5,156.25 (for taxes on the Roth conversion) from the taxable account. The remaining taxable account balance grows at the 2.1% after-tax rate of return, [2.8%(1 - .25)]. In year five, Sue will convert $49,300 from her TDA to a Roth IRA. In addition, she will withdraw

the remaining taxable account balance plus $14,643.51 from her TDA to meet the $65,156.25 in spending needs and taxes on Roth conversion. In years six through 25, she will withdraw $49,300 from the TDA plus $15,856.25 from her Roth IRA, which will meet her $60,000 spending need. As shown below, there will be about $249 remaining in the Roth after 25 years. So, for the first 25 years, Sue avoided withdrawing funds from her TDA that would have been taxed at more than 15%. For years 26 through 31, Sue will withdraw $70,441.67 from her TDA, including $21,141.67 which is taxed at 25%, to meet her $60,000 spending goal. In year 33, she will withdraw the remaining TDA funds.

Table 2. WSJ Strategy

	Year	Tax-Exempt Account (Roth)	Tax Deferred Account	Taxable Account
65	0	$0	$1,189,688	$300,000
66	1	$50,582	$1,170,038	$239,423
67	2	$102,479	$1,149,877	$177,665
68	3	$155,725	$1,129,192	$114,703
69	4	$210,356	$1,107,969	$50,513
70	5	$251,382	$1,086,195	$0
71	6	$241,650	$1,063,854	$0
72	7	$231,664	$1,040,932	$0
73	8	$221,419	$1,017,415	$0
74	9	$210,907	$993,286	$0
75	10	$200,122	$968,529	$0
76	11	$189,057	$943,129	$0
77	12	$177,704	$917,069	$0
78	13	$166,056	$890,331	$0
79	14	$154,105	$862,898	$0
80	15	$141,843	$834,751	$0
81	16	$129,262	$805,873	$0
82	17	$116,355	$776,244	$0
83	18	$103,111	$745,844	$0
84	19	$89,524	$714,654	$0
85	20	$75,583	$682,654	$0
86	21	$61,280	$649,821	$0
87	22	$46,604	$616,134	$0
88	23	$31,548	$581,572	$0
89	24	$16,099	$546,111	$0
90	25	$249	$509,728	$0
91	26	$0	$451,049	$0
92	27	$0	$390,503	$0
93	28	$0	$328,383	$0
94	29	$0	$264,648	$0
95	30	$0	$199,256	$0
96	31	$0	$132,163	$0
97	32	$0	$63,326	$0

The TEA, TDA and taxable account columns show year-end balances rounded to the nearest dollar.

The key insight is that TDAs are best viewed as partnerships with the government. As majority partner, Sue makes the investment decisions and withdrawal decisions (subject to the requirement that TDA withdrawals meet required minimum distributions, which are met with both strategies). But the government gets “t” of each dollar distributed, where “t” is the marginal tax rate. In essence, the government owns “t” of the current TDA principal.

One problem with the Conventional Wisdom Strategy is that Sue misses the opportunity to either withdraw funds from the TDA or convert funds from the TDA to a Roth in the first five years that would have been taxed at 0% to 15%. Beginning in year seven, she withdraws $21,141.67 each year, and the amount is taxed at 25%. In contrast, in the WSJ Strategy Sue converts sufficient funds in each of the first five years to take her taxable income to the top of the 15% bracket. Then in years six through 25, she is able to withdraw $49,300 from the TDA plus $15,856.25 from the Roth IRA, which provides her spending needs. Until the Roth IRA is exhausted at the beginning of the 26th year, Sue avoids paying taxes on TDA withdrawals at more than 15%. As demonstrated, the WSJ Strategy allowed her portfolio to last almost 7 years longer than the Conventional Wisdom Strategy, which is already considered a tax-efficient withdrawal strategy.

> **"The key insight is that TDAs are best viewed as partnerships with the government."**

Separately, in the *Wall Street Journal* blog, it was assumed for simplicity that this person did not receive Social Security benefits, while most people will receive benefits by age 70 if not sooner. This assumption was made because the blog is limited to only 500 words and it would take several pages to describe the rules affecting the taxation of Social Security benefits and how they might impact marginal tax rates.

In brief, there is a wide income range wherein every time Sue withdraws an additional $100 from her TDA, it would cause an extra $85 of Social Security benefits to be taxed. So, her taxable income would rise by $185. If she is in the 15% tax bracket then she would pay $27.75 in taxes, [15%($185)], on this $100 withdrawal, which represents a 27.75% marginal tax rate. If she is in the 25% tax bracket then the $100 withdrawal would increase taxes by $46.25, [25%($185)], which represents a 46.25% marginal tax rate. By necessity, complications associated with the taxation of Social Security benefits were avoided. However, since the taxation of Social Security benefits substantially increases marginal tax rates for many taxpayers, incorporating Social Security taxes would increase the importance of and potential benefits of a tax-efficient withdrawal strategy for these taxpayers. For example, if Sue plans to delay taking her Social Security benefits until age 70, the WSJ Strategy that converts TDA funds to a Roth IRA at 15% or lower marginal tax rates before age 70 would be even more attractive if these TDA funds would have otherwise been taxed at 46.25% if withdrawn later in retirement.

About Dr. William Reichenstein, CFA
Dr. William Reichenstein, CFA, is head of research for Retiree Inc. and Social Security Solutions, Inc. He holds the Pat and Thomas R. Powers Chair in Investment Management at Baylor University. His recent work concentrates on the interaction between investments and taxes. He is the author of In the Presence of Taxes: Applications of After-Tax Asset Valuations (FPA Press) and coauthored with William Jennings Integrating Investments & the Tax Code (John Wiley & Sons).

About Retiree Inc.
Retiree Inc. is an advice and technology company that delivers an innovative retirement income planning process to Baby boomers that may revolutionize retirement planning. We leverage both tax-efficient methodology and leading edge technology solutions to extend the spend-down of accumulated assets in retirement.

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