

## The Tax Torpedo: Coordinating Social Security with a Withdrawal Strategy to Minimize Taxes

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Security benefits. In addition, it provides income ranges for both singles and married couples filing jointly within which the tax torpedo will apply. Finally, it illustrates how singles and couples may be able to substantially reduce the adverse effects of the tax torpedo. By combining a Social Security claiming strategy that maximizes projected lifetime benefits with a tax efficient withdrawal strategy that considers the taxation of Social Security, retirees can both raise their retirement standard of living and extend the projected longevity of their financial portfolio.

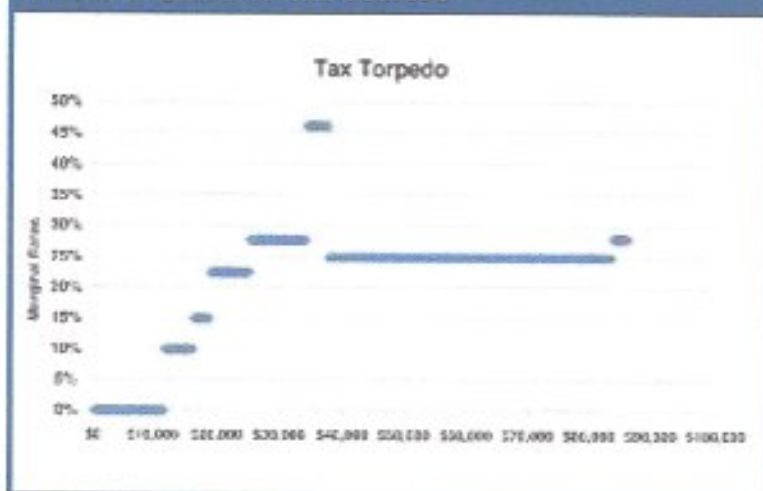
### Background

This section provides the background to help the reader understand where the tax torpedo fits within the authors' long line of research. In prior work, Meyer and Reichenstein (2010, 2012b, 2012c) and Reichenstein and Meyer (2011) provide research to help single individuals decide when to claim Social Security retirement benefits and married couples decide when each partner should claim their retirement benefits and, when applicable, spousal benefits. As Meyer and Reichenstein (2010, 2012b) and Reichenstein and Meyer (2011) show, the Social Security claiming decision can affect the longevity of the financial portfolio. This study is related to the line of research discussed above. It shows that delaying Social Security benefits can reduce the taxable portion of Social Security benefits and thus lengthen the longevity of the financial portfolio.

The longevity of the financial portfolio is affected by two decisions: the Social Security claiming

According to the Social Security Administration (2012), Social Security is the largest contributor of retirement income for Americans over the age of 65. It is difficult to determine when to claim Social Security benefits in order to maximize projected lifetime benefits and minimize taxes on those benefits. The purpose of this paper is to illustrate how coordinating a Social Security claiming strategy with a strategy for how that retiree withdraws funds from the financial portfolio can materially impact the taxation of Social Security benefits. This study examines the tax torpedo, which refers to the substantial rise and then fall in marginal tax rates caused by the taxation of Social

FIGURE 1: GRAPH OF TAX TORPEDO



decision and the strategy for withdrawing money from the financial portfolio during retirement. Meyer and Reichenstein have developed software and methodology ([www.retirementincome.com](http://www.retirementincome.com)) to help households extend the longevity of their financial portfolio by tax-efficiently withdrawing funds from that portfolio. For example, suppose a household has funds in a traditional IRA, Roth IRA, and taxable account. Meyer and Reichenstein (2012a) show that a tax-efficient withdrawal strategy may help this household's financial portfolio last up to six years longer. These authors have developed other tax-efficient withdrawal strategies that have not been revealed in publications and remain proprietary.

#### What is the Tax Torpedo?

The tax torpedo refers to the hump – that is, increase and then decrease – in the marginal tax rate curve as a taxpayer's income increases. This torpedo is due to the taxation of Social Security benefits. A marginal tax rate is the additional taxes paid on each additional dollar of income. Like many countries, the United States has a progressive tax rate structure. The idea behind a progressive tax rate structure is that a taxpayer's marginal tax rate should be low, possibly zero, at low income levels. As income increases, the marginal tax rate should either

stay the same or rise. But the marginal tax rate should not rise and then fall. The tax torpedo refers to the substantial rise and then fall in a taxpayer's marginal tax rate as income rises through a certain income range.

Consider Mary, a single retiree, who receives \$18,000 a year in Social Security benefits. If she has \$16,000 or less of "other income" (technically, modified adjusted gross income, which will be defined later, plus tax-exempt interest income), her Social Security benefits will be tax free. Each dollar of other income between \$16,000 and \$25,000 causes an additional \$0.50 of Social Security benefits to be taxed. Furthermore, each dollar of other income between \$25,000 and \$37,706 causes an additional \$0.85 of benefits to be taxed. Once her other income reaches or exceeds \$37,706, she will owe taxes on 85% of her Social Security benefits, which is the maximum taxable amount. Additional income beyond \$37,706 would not increase the taxable portion of Social Security benefits. In short, Mary's Social Security benefits are tax free if she has other income below \$16,000 and 85% taxable if she has other income at or above \$37,706. In between these two amounts, each dollar of other income causes either an additional \$0.50 or \$0.85 of Social Security benefits to be taxed. Therefore, within the \$16,000 and \$37,706 income range, Mary's marginal tax rate is either 50% or 85% higher than her tax bracket.

Figure 1, above, shows how Mary's marginal tax rate varies by level of other income. It illustrates the tax torpedo. For simplicity and because it is not unusual, assume for now that her "other income" consists entirely of withdrawals from her 401(k) plan. Based on the 2012 tax code, she can withdraw up to \$11,200 from her 401(k) without incurring taxes, because this amount is the sum of personal exemption plus standard deduction assuming Mary is at least 65 years old. Between \$11,200 and \$16,000 of 401(k) withdrawals, her marginal tax

rate is 10%. Between \$16,000 and \$18,600, her marginal tax rate is 15%; each additional \$1 withdrawn from the 401(k) increases the taxable portion of Social Security by \$0.50 and the tax bracket is 10%. So, the \$1 withdrawal increases taxable income by \$1.50 and taxes by \$0.15, [ $\$1.50(10\%)$ ], for a 15% marginal tax rate. Between \$18,600 and \$25,000, her marginal tax rate is 22.5%; each additional \$1 increases the taxable portion of Social Security by \$0.50 and the tax bracket is 15%, [ $\$1.50(15\%) = \$0.225$ ]. Between \$25,000 and \$34,216, her marginal tax rate is 27.75%; each additional \$1 increases the taxable portion of Social Security by \$0.85 and the tax bracket is 15%, [ $\$1.85(15\%) = \$0.2775$ ]. Between \$34,216 and \$37,706, her marginal tax rate is 46.25%; each additional \$1 increases the taxable portion of Social Security by \$0.85 and the tax bracket is 25%, [ $\$1.85(25\%) = \$0.4625$ ]. For 401(k) withdrawals between \$37,706 and \$82,550, her marginal tax rate falls to 25%. Above \$37,706 of other income, 85% of her Social Security benefits are taxed, which is the maximum. So, each additional \$1 withdrawn from the 401(k) raises taxable income by \$1 and taxes by \$0.25, [ $\$1(25\%) = \$0.25$ ].

To consider the implications of the tax torpedo, suppose Mary has other income of \$35,000 plus \$18,000 of Social Security benefits. She wants to withdraw funds to pay for an extra \$750 of spending that year. Since spending requires after-tax funds, she must withdraw sufficient funds from her 401(k), Roth IRA, or taxable account to provide \$750 after taxes. Since she is in the 25% tax bracket, she suspects that this \$1,000 withdrawal of pretax funds from her 401(k) would provide \$750 after taxes, that is, \$1,000 less taxes of \$250 on this income. However, this \$1,000 withdrawal would actually increase her taxes by \$462.50. It would raise her other income by \$1,000, which would cause \$850 more of her Social Security benefits to be taxed, and thus increase her taxable income by

\$1,850. So, this \$1,000 withdrawal would increase her taxes by \$462.50, [25% of \$1,850]. In short, Mary would pay \$462.50 in taxes on the \$1,000 withdrawal from her 401(k) for a 46.25% marginal tax rate. The \$1,000 withdrawal would only provide her \$537.50 after taxes, which would not be sufficient to pay for the extra \$750 in spending. Due to the tax torpedo, her marginal tax rate is 85% higher than her tax bracket, [ $25\%(1.85) = 46.25\%$ ].

If Mary knew she was in the income range affected by the tax torpedo, she might have withdrawn funds from her Roth IRA or taxable account to finance the spending. A withdrawal from her Roth IRA would be tax free, while many withdrawals from a taxable account produce little, if any, taxable income. Alternatively, she may refrain from this spending. Obviously, Mary and other taxpayers would like to know the income range within which they are subject to this tax torpedo. This next section indicates this income range by level of annual Social Security benefits for both single individuals and married couples filing jointly.

#### **Income Ranges Affected by the Tax Torpedo**

Tables 1 and 2, on the next two pages, provide values of the first threshold income level (i.e., the income level where the tax torpedo begins), the second threshold income level (i.e., where the increase in taxable portion of Social Security benefits for each additional dollar of income rises from \$0.50 to \$0.85), and the ending income level where the tax torpedo ends (i.e., where 85% of Social Security benefits are taxable). For clarity, the first threshold level, second threshold level, and ending other income level for Mary are \$16,000, \$25,000 and \$37,706, where "other income" means the sum of Modified Adjusted Gross Income plus tax-exempt interest income.

Table 1, next page, provides values of the first threshold, second threshold, and ending income levels for single retirees, qualifying widow(er)s, and

**TABLE 1: INCOME RANGES WITHIN WHICH TAX TORPEDO APPLIES TO SINGLES**

<b>Single (begin benefits at 62)</b>							
Ann SS Ben	5,400	8,100	10,800	13,500	16,200	18,900	21,600
PIA	\$600	\$900	\$1,200	\$1,500	\$1,800	\$2,100	\$2,400
1st threshold	22,300	20,950	19,600	18,250	16,900	15,550	14,200
2nd threshold	31,300	29,950	28,600	27,250	25,900	24,550	23,200
Ending income	31,406	32,756	34,106	35,456	36,806	38,156	39,506
<b>Single (begin benefits at 66)</b>							
Ann SS Ben	7,200	10,800	14,400	18,000	21,600	25,200	28,800
PIA	\$600	\$900	\$1,200	\$1,500	\$1,800	\$2,100	\$2,400
1st threshold	21,400	19,600	17,800	16,000	14,200	12,400	10,600
2nd threshold	30,400	28,600	26,800	25,000	23,000	21,000	19,600
Ending income	32,306	34,106	35,906	37,706	39,506	41,306	43,106
<b>Single (begin benefits at 70)</b>							
Ann SS Ben	9,504	14,256	19,008	23,760	28,512	33,264	38,016
PIA	\$600	\$900	\$1,200	\$1,500	\$1,800	\$2,100	\$2,400
1st threshold	20,248	17,872	15,496	13,120	10,744	8,368	5,992
2nd threshold	29,248	26,872	24,496	22,120	19,744	17,368	14,992
Ending income	33,458	35,834	38,210	40,586	42,962	45,338	47,714

The first two rows indicate annual Social Security benefits and the retiree's Primary Insurance Amount if benefits begin at 62, 66, or 70. They assume the single retiree has a Full Retirement Age of 66, which applies to individuals born from January 2, 1943 through January 1, 1955. The income ranges refer to the levels of modified adjusted gross income (MAGI) plus tax-exempt interest that correspond to the first threshold income level, second threshold income level, and income level where 85% of Social Security benefits are taxable. MAGI is the sum of wages, dividends, capital gains, taxable portions of distributions from IRAs, 401(k)s, pensions, and annuities, alimony received, business income or loss, and income from rental real estate, royalties, partnerships, S corporations, trusts, etc. For a precise definition, see the items included in lines 3 and 6 of Social Security Benefits Worksheet in Instructions for Form 1040 for 2012.

married couples filing separately who lived apart for the entire year, for a range of levels of annual Social Security benefits. The top panel shows the levels of annual benefits and Primary Insurance Amounts (hereafter, PIA) if the single retiree begins Social Security benefits at age 62<sup>1</sup>. For example, a single retiree with a PIA of \$600 would receive \$450 a month or \$5,400 annually if benefits began at age 62. The first threshold level

occurs when other income reaches \$22,300. The second threshold occurs at income level of \$31,300, while the end of the tax torpedo occurs at income level of \$31,406. The second and third panels present the first threshold, second threshold, and ending income levels for single retirees that begin Social Security benefits at 66 FRA (Full Retirement Age) and 70. For each panel, as the level of Social Security benefits rises, the first and second

**TABLE 2: INCOME RANGES WITHIN WHICH TAX TORPEDO APPLIES TO MARRIED COUPLES FILING JOINTLY**

<b>Couples (high PIA spouse begins at 62)</b>							
Ann SS Ben	9,000	13,500	18,000	22,500	27,000	31,500	36,000
PIA	\$600	\$900	\$1,200	\$1,500	\$1,800	\$2,100	\$2,400
1st threshold	\$27,500	\$25,250	\$23,000	\$20,750	\$68,500	\$16,250	\$14,000
2nd threshold	39,500	37,250	35,000	32,750	80,500	28,250	26,000
Ending income	41,441	43,691	45,941	48,191	50,441	52,691	54,941
<b>Couple (high PIA spouse begins at 66)</b>							
Ann SS Ben	10,800	16,200	21,600	27,000	32,400	37,800	43,200
PIA	\$600	\$900	\$1,200	\$1,500	\$1,800	\$2,100	\$2,400
1st threshold	26,600	23,900	21,200	18,500	15,800	13,100	10,400
2nd threshold	38,600	35,900	33,200	30,500	27,800	25,100	22,400
Ending income	42,341	45,041	47,741	50,441	53,141	55,841	58,541
<b>Couple (high PIA spouse begins at 70)</b>							
Ann SS Ben	13,104	19,656	26,208	32,760	39,312	45,864	52,416
PIA	\$600	\$900	\$1,200	\$1,500	\$1,800	\$2,100	\$2,400
1st threshold	25,448	22,172	18,896	15,620	12,344	9,068	5,792
2nd threshold	37,448	34,172	30,896	27,620	24,344	21,068	17,792
Ending income	43,493	46,769	50,045	53,321	56,597	59,873	63,149

The first row indicates the couple's combined annual Social Security benefits. PIA denotes the higher-PIA spouse's Primary Insurance Amount. The annual Social Security benefit is their combined benefit if the higher-PIA spouse applies for benefits at 62 in the first panel, 66 in the second panel, or 70 in the third panel and the lower-PIA spouse takes spousal benefits of half the higher-PIA spouse's PIA at Full Retirement Age of 66. The income ranges refer to the levels of modified adjusted gross income (MAGI) plus tax exempt interest that correspond to the first threshold income level, second threshold income level, and income level where 85% of Social Security benefits are taxable. MAGI is the sum of wages, dividends, capital gains, taxable portions of distributions from IRAs, 401(k)s, pensions, and annuities, alimony received, business income or loss, and income from rental real estate, royalties, partnerships, S corporations, trusts, etc. For a precise definition, see the items included in lines 3 and 6 of Social Security Benefits Worksheet in Instructions for Form 1040 for 2012.

threshold income levels decrease, but the income level associated with the end of the tax torpedo rises. If a single individual plans to begin Social Security benefits at some age besides 62, FRA, or 70, he or she can find the Annual Social Security Benefits total that best fits his or her situation and use those first threshold, second threshold, and ending income levels.

Table 2, above, provides corresponding values to Table 1 but for married couples filing jointly; married couples filing separately must pay taxes on 85% of Social Security benefits. Table 2 provides values of the first threshold, second threshold, and ending income levels for married couples filing jointly for a range of levels of annual Social Security benefits and Primary Insurance Amounts.

**TABLE 3: DELAYING SOCIAL SECURITY MAY DECREASE TAXABLE PORTION OF SOCIAL SECURITY BENEFITS**

	Begin SS at 62	Begin SS at 70
Annual SS Benefit	\$36,000	\$52,416
Other Income	\$37,986	\$17,782
Provisional Income	\$55,986	\$43,990
Taxable SS	\$16,188	\$5,995
AGI	\$54,174	\$23,776
Taxes	\$3,986	\$198
After-tax Income	\$70,000	\$70,000

The rows are annual Social Security benefits, Other income (i.e., MAGI plus tax-exempt interest income), Provisional Income, taxable portion of Social Security benefits, Adjusted Gross Income, federal income taxes, and after-tax income, which is annual Social Security benefits + Other income - taxes. All amounts are rounded to the nearest dollar.

The first row of each panel presents the level of annual Social Security benefits, while the second presents one way that this level of benefits could occur. For example, the first panel assumes the higher-PIA spouse begins Social Security benefits at 62 and his or her spouse receives spousal benefits beginning at the respective full retirement age equal to half of the higher-earner's Primary Insurance Amount. The second and third panels present corresponding values assuming the higher-PIA spouse begins benefits at 66 (FRA) and 70. As the level of Social Security benefits rises, the first and second threshold income levels decrease, but the income level associated with the end of the tax torpedo rises. If a married couple plans to begin Social Security benefits at other ages besides those assumed in the panels, they can find the Annual Social Security Benefits total that best fits their situation and use those first threshold, second threshold, and ending income levels.

### Rules Affecting Taxation of Social Security Benefits

This section provides a detailed discussion of the rules affecting the taxation of Social Security benefits. The taxation of Social Security benefits depends on the level of Provisional Income (a.k.a., Combined Income). In equation form, Provisional Income = modified adjusted gross income (MAGI) + tax-exempt interest + 50% of Social Security benefits. Previously, we referred to the taxpayer's level of "other income," which is the sum of MAGI plus tax-exempt interest. As shown in Tables 1 and 2, the tax torpedo affects low- and middle-income taxpayers, while high-income taxpayers generally must pay taxes on 85% of Social Security benefits. Since low- and middle-income taxpayers seldom have tax-exempt interest, Provisional Income in the income range pertinent to the tax torpedo is generally the sum of MAGI plus 50% of Social Security benefits. For most taxpayers, MAGI is the sum of wages, dividends, capital gains, taxable portions of distributions from IRAs, 401(k)s, pensions, and annuities, alimony received, business income or loss, and income from rental real estate, royalties, partnerships, S corporations, and trusts with perhaps some reductions. For a precise definition, see the items included in lines 3 and 6 of Social Security Benefits Worksheet in Instructions for Form 1040 for 2012.

The taxable portion of Social Security is the minimum of three equations; 1) 85% of Social Security benefits; 2) 50% of benefits plus 85% of Provisional Income beyond the second threshold amount; and 3) 50% of Provisional Income beyond the first threshold plus 35% of Provisional Income beyond the second threshold amount. The first and second threshold amounts are \$25,000 and \$34,000 for singles, qualifying widow(er)s, and married couples filing separately that lived apart for the entire year. The threshold amounts for couples filing jointly are \$32,000 and \$44,000. Threshold amounts are not indexed for inflation.

### Delaying Social Security May Reduce Taxation of Social Security Benefits

This section illustrates that it may be possible to reduce the taxable portion of Social Security benefits by delaying the start of those benefits. Similar work was done by Mahaney (2012). The key insight is that Provisional Income includes all withdrawals from 401(k)s and other tax-deferred accounts, but it includes only half of Social Security benefits. Therefore, by delaying Social Security benefits, a household may be able to increase Social Security benefits by, say, \$16,000 and decrease withdrawals from tax-deferred accounts by about an equal amount. This substitution would cause Provisional Income to decrease by about \$8,000, which could decrease the taxable portion of Social Security.

Table 3, on the previous page, presents the situation facing a couple where the higher-PIA spouse (for clarity, assumed male) has a Primary Insurance Amount of \$2,400 and his wife has a PIA of less than half this amount. Their retirement lifestyle requires \$70,000 of after-tax funds. Table 3 compares two strategies for attaining their after-tax goal. In the first strategy, the higher-PIA spouse begins his benefits at 62, while his wife collects spousal benefits of \$1,200 a month. Once both partners begin benefits, their combined annual benefit would be \$36,000,  $[0.75(\$2,400)12\text{months} + \$1,200(12\text{ months})]$ . To attain their after-tax income goal, they could withdraw \$37,986 from their tax-deferred accounts (e.g., traditional IRA, 401(k)). This would cause \$16,188 of Social Security benefits to be taxed. Assuming the couple claims the standard deduction for people at least 65 and based on the 2012 tax brackets, they would pay total taxes of \$3,986.

In the alternative strategy, the higher-PIA spouse delays his benefits until 70, while the lower earner gets spousal benefits of \$1,200 a month. Once both partners begin benefits, their combined annual

benefit would be \$52,416,  $[1.32(\$2,400)12\text{ months} + \$1,200(12\text{ months})]$ . To attain their after-tax income goal, they would only need to withdraw \$17,782 from their tax-deferred accounts. This would cause \$5,995 of Social Security benefits to be taxed, and they pay total taxes of \$198.

By delaying Social Security until 70, this couple increased combined Social Security benefits by about \$16,400 a year and decreased traditional IRA withdrawals by about \$20,200. This substitution decreased annual taxes by about \$3,800, which accounts for the difference between the \$16,400 increase in Social Security benefits and the \$20,200 decrease in traditional IRA withdrawals. Delaying benefits until 70 allowed them to reduce Provisional Income by about \$12,000, which decreased the taxable portion of Social Security benefits by about \$10,200.

Consider a couple where both partners were born on or after July 1 in 1941. They turn 70.5 in 2012 and their RMDs for 2012 must be made by April 1, 2013. Their first-year RMD is 1/26.5th of their December 31, 2011 tax-deferred account (TDA) balances, where TDA include traditional IRAs, 401(k)s, etc. From Table 3, assume the higher-earning partner delays Social Security benefits until 70 and their Other Income consists entirely of TDA withdrawals. The \$17,782 withdrawal would be more than their RMD unless they had TDA balances exceeding \$471,223. First, most retired couples have less than \$471,223 in TDAs. Second, even if they had more than this amount when they retired at say 65, by judiciously withdrawing funds from their TDA from age 65 until RMDs begin they may be able to lower their TDA balances to below that amount. Meyer and Reichenstein (2012b), while using a sophisticated tax model, discuss this strategy in more depth.

### Summary

Meyer and Reichenstein (2012a, 2012b) and

Reichenstein and Meyer (2011) show that a retired household may be able to add a decade or more to the longevity to their financial portfolio by judiciously making two decisions. First, when should the single individual or each partner of a retired couple claim Social Security benefits? Second, how can the household tax-efficiently withdraw funds from their financial portfolio to make that portfolio potentially last several years longer? This study builds on this work.

Specifically, it examined the tax torpedo, which refers to the substantial rise and then fall in marginal tax rates that is caused by the taxation of Social Security benefits. This tax torpedo

primarily affects lower- and middle-income households. We explained what the tax torpedo is, and why it is important to single taxpayers and married couples filing jointly. In addition, in Table 1 we provide for singles the income levels associated with the first and second threshold income levels and the income level associated with the end of the tax torpedo for various levels of annual Social Security benefits. Table 2 provides corresponding income levels for married couples filing jointly. We also provided an example that illustrates that many households can substantially reduce the taxable portion of Social Security benefits by delaying the start of those benefits. ■

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#### Endnotes:

1. Primary Insurance Amount is the monthly benefit level if begun at Full Retirement Age.

*We have developed software for practitioners and institutions to leverage our research to create and evaluate Social Security strategies and illustrate the impact of taxes at [www.SSanalyzer.com](http://www.SSanalyzer.com).*