1994

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Discussion of Robert L. Brown's "Tax Assistance to Qualified Retirement Savings Plans: Deferral or Waiver"*

Mark W. Campbell†

Abstract

In the paper entitled "Tax Assistance to Qualified Retirement Savings Plans: Deferral or Waiver," Robert L. Brown concludes that "the nontaxation of investment income on qualified funds until taken is a tax waiver or tax subsidy from the government to participants of qualified plans". I believe, however, that this conclusion is based on flawed assumptions pertaining to:

• The behavioral responses of taxpayers to the withdrawal of such tax assistance;

• The definition of an appropriate benchmark tax system against which to measure the cost of such tax assistance; and

• The appropriate basis of comparison of alternative government tax revenue streams.

Using alternative and reasonable assumptions, I conclude instead that the nontaxation of investment income on qualified plans until taken provides gains to government and taxpayers alike.

Key words and phrases: behavioral response, benchmark tax system


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1 Introduction

In Section 2 of his paper entitled “Tax Assistance to Qualified Retirement Savings Plans: Deferral or Waiver,” Robert L. Brown states that certain assumptions have been made to “simplify the presentation”. Professor Brown then concludes, at the end of his paper, that “the non-taxation of investment income on qualified funds until taken is a tax waiver or tax subsidy from the government to participants of qualified plans”. In fact, these assumptions are the only reason that the stated conclusion is reached. Using other reasonable assumptions, completely different conclusions are possible.

My discussion of Professor Brown’s paper considers several mitigating factors and does the following:

- Highlights selected assumptions made by the author;
- Presents alternative assumptions; and
- Reaches different conclusions based on the alternative assumptions.

Unless otherwise specified, when an alternative assumption is used below, it is the only aspect of the author's analysis that has been changed. At the end of this discussion, however, the combined effect of changing several assumptions at once is considered.

Some, but not all, of the ideas contained in this discussion are borrowed from Section 5 and Appendix B of the document “Troubled Tomorrows—The Report of the Canadian Institute of Actuaries’ Task Force on Retirement Savings”. This document was published in January 1995 and provides a more thorough treatment of the main topic addressed by the author (as well as other interesting and related matters).¹

2 Alternative Assumptions

2.1 Lack of Behavioral Response—Save or Spend?

The author assumes that if tax assistance were not provided, taxpayers would save just as much outside the retirement savings system as they now save within it. Another possible response, albeit extreme,

¹To obtain a copy of “Troubled Tomorrows…”, write to: Canadian Institute of Actuaries, Constitution Square, 360 Albert, Suite 820, Ottawa ON K1R 7X7, CANADA.
is that taxpayers would spend the money they now devote to retirement savings. In this case, there would appear to be no tax subsidy associated with the present system, as shown below.

The amount of taxes received at time $t = 30$ by the government if the taxpayer saves in a qualified vehicle is:

$$
\text{Tax} = \text{\$2,000.00} \times (1.07)^{30} \times 0.40 \\
= \text{\$6,089.80. (1)}
$$

If, during the past thirty years, the taxpayer spends the amount that would have been his or her retirement savings, the accumulated value of the taxes received by government is exactly the same as is given in equation (1), \$6,089.80. The calculations are identical.

### 2.2 Lack of Behavioral Response—How to Invest?

The author further assumes that if tax assistance were not provided, taxpayers would invest their nonsheltered savings in a manner that exposes them to the full brunt of the current tax system. In reality, taxpayers are likely to make investments with advantageous tax characteristics.

In Canada, a good example is paying down a home mortgage. Because mortgage interest is not tax deductible and resale gains are not taxable, this is tantamount to earning a tax-free rate of return on the extra mortgage payment(s). If all retirement savings could be so redirected, the only tax revenue that government would receive is with respect to the initial contribution of \$2,000. Thus, we would again have no apparent subsidy in the current tax system.

### 2.3 Definition of Benchmark Tax System

The author assumes that the cost of tax assistance should be measured by assuming that the benchmark tax system is the current tax system minus the existing qualified plan exemptions. Unfortunately, the current tax system treats any savings other than qualified retirement savings punitively. Specifically, most investment income, whether real or not, is fully taxed.

This is proof of the adage that we should never let government forget whose income it is in the first place. Although the retirement savings system allows us to keep some of our investment income, this does not mean that the amount so kept is a gift from a beneficent government.
Consider instead a benchmark tax system where only real investment income is taxed. Repeating the author's arithmetic, but with this modification, we get the following (an inflation rate of 4 percent has been assumed for illustrative purposes, i.e., real rate of return is 3 percent).

**Qualified Vehicle:** The amount of taxes received by government at time \( t = 30 \) if the taxpayer saves in a qualified vehicle is $6,089.80.

**Non-Qualified Vehicle:** The accumulated value to time \( t = 30 \) of the amount of taxes received by the government if the taxpayer saves what would have been his or her retirement savings, but outside a qualified vehicle, is:

\[
\text{Tax} = \$2,000.00 \times 0.40 \times (1.07)^{30} \\
+ \$2,000.00 \times (1 - 0.40) \times 0.40 \times 0.03 \\
\times \sum_{k=0}^{29} (1.07 - 0.03 \times 0.40)^k (1.07)^{29-k} \\
= \$6,089.80 + \$2,622.16 \\
= \$8,711.96. \tag{2}
\]

The apparent tax subsidy is still substantial, but much less than the amount calculated by the author.

### 2.4 Basis of Comparison of Tax Revenue Streams

The author has assumed that government's different tax revenue streams should be accumulated at the same interest rate as the taxpayer can invest. No rationale is offered for this choice, but as with the foregoing assumptions, it is crucial.

The rationale likely is connected somehow to the government's cost of borrowing. That is, the underlying presumption is that if government defers the collection of tax, then it must borrow the foregone amount until the tax eventually is collected. Governments, however, need not borrow the amount of taxes they defer. A more prudent approach would be to defer spending until such time as the tax to warrant the spending is collected.

It is well-known that governments in both Canada and the U.S. are highly indebted. The high cost of servicing this debt should not necessarily be attributed to the retirement savings system. Imagine for a moment that no government debt or deficits existed. Then the real choice easily would be seen to be:
Tax now, spend now
OR
Tax later, spend later.

The fact that past governments have chosen to spend now and tax later should not influence unduly a theoretical paper such as that of the author unduly. Thus, I suggest that a better approach would be to compare tax revenue streams using an inflation-adjusted approach rather than an interest-adjusted approach.

Applying this logic to the author’s original analysis yields the following (again, a 4 percent inflation assumption has been used):

- The amount of taxes received by government at time \( t = 30 \) if the taxpayer saves in a qualified vehicle again is given by equation (1), $6,089.80.

- The accumulated value of taxes received by government to time \( t = 30 \) if the taxpayer continues to invest what would have been his or her retirement savings, but outside a qualified vehicle, is:

\[
\text{Tax} = 2,000.00 \times 0.40 \times 1.0430 \\
+ 2,000.00 \times (1 - 0.40) \times 0.40 \times 0.07 \\
\times \sum_{k=0}^{29} (1.07 - 0.07 \times 0.40)^k (1.04)^{29-k} \\
= $2,594.72 + $3,232.85 \\
= $5,827.57. \quad (3)
\]

Now the tables are turned. If the government patiently can defer taxation, it will receive more tax dollars later.

### 3 Redrawing the Picture

Reality is messy. Perhaps the right answer involves a compromise between the author’s assumptions and those presented in this discussion. Even a modest amount of such blending would temper the author’s conclusion. If the inflation-adjusted approach to comparing tax revenue streams is accepted, then the author’s conclusion is reversed. I conclude, however, that the nontaxation of investment income on qualified plans until taken provides gains to government and taxpayers alike.