Converting to a Roth IRA: Beyond the Basics

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Summary. Roth conversions can increase wealth. Converting a million dollars at age 65 might increase the after-tax value of the investment portfolio at death by four hundred thousand inflation-adjusted dollars.

If the estate is large, conversion may also save estate tax.

If the beneficiary chooses to stretch-out the inherited IRA over his or her lifetime, the total benefit over the beneficiary's lifetime could be very large.

Roth conversions are not without risk. If markets disappoint for an extended period, benefits will be less than anticipated; conversion might even reduce what is received by the heirs. The risk of having less after conversion is higher for those who spend all of their potential income. The risk of having less after conversion is low for those with surplus resources.

There is also policy risk. Our legislators might repeal the Roth IRA's exemption from the required distribution rules, require rapid distribution of inherited IRAs or make other changes which reduce conversion benefits.

Conversion benefits measured at death are no larger than what can be achieved by modest increases in investment return and, perhaps, by life insurance. Benefits can be wasted by outdated trusts and beneficiary designations. The priority should be these other lower risk avenues to financial security.

Analyzing a Roth conversion is complex. Most simulators include approximations which preclude reliable forecasts.

Introduction. There are four types of tax advantaged savings vehicles. The first, which I will refer to as the "traditional IRA," is funded with pre-tax dollars. The tax on interest, dividends and gains is deferred until the IRA is distributed. The distributions are taxed as ordinary income. (Taxation is discussed later in this article.)

Since most pensions can be rolled over to a traditional IRA after separation from service[1], references to traditional IRAs should generally be construed as including pensions which have been funded with pre-tax dollars.

The second category is the "Roth IRA." The Roth IRA is funded with after-tax dollars, the tax on interest, dividends and gains is deferred and distributions are generally tax-free.

Life insurance and employer pensions which allow for designated Roth accounts follow similar rules. However there are sufficient differences. References to Roth IRAs in this article do not include life insurance and designated Roth accounts.

The third category of tax advantaged saving vehicles is a taxable investment account which is not actively traded. Contributions are with after-tax dollars, the tax on gains is deferred and qualified dividends and gains are taxed at preferential rates.

The final category includes deferred annuities and nondeductible contributions to traditional IRAs. These savings vehicles are funded with after-tax dollars, the tax on interest, dividends and gains is deferred and distributions in excess of basis are taxed as ordinary income. Deferred annuities and nondeductible IRAs are inferior to traditional and Roth IRAs and buy and hold investing can provide higher returns in many circumstances[2].

There is no fundamental difference in after-tax investment performance of traditional and Roth IRAs prior to the onset of required distributions.

A traditional IRA can be thought of as an investment partnership. The government's share equals the nominal value of the account times the effective tax rate when the IRA will be distributed and the participant's share is the remainder[3]. Interest, dividends and gains are apportioned between the participant's share and the governments' share. **The participant's share of the interest, dividends and gains are tax-free.**

The governments' share of a traditional IRA might be thirty percent. Seventy percent of the interest, dividends and gains accrue to the participant tax-free.

Conversion can be thought of as the dissolution of the investment partnership. The participant can dissolve the partnership by buying-out the governments'

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[1] 457 plans maintained by tax-exempt organizations cannot be rolled over to an IRA and cannot be converted to a Roth IRA.

[2] Integrating Investment & the Tax Code by William Reichenstein and William Jennings, John Wiley & Sons, Inc., 2003.

[3] See, for example, footnote 4 in "Optimal Asset Location and Allocation With Taxable and Tax-Deferred Investing" by Robert M. Dammon, Chester S. Spatt and Harold H. Zhang, *Journal of Finance*, June 2004.

Wealth accumulation is mortality weighted in the model used by these authors.

share. A buy-out is achieved by using non IRA assets to pay the taxes and other conversion costs.

The participant is entitled to the earnings on a million dollars, determined as seventy percent of the earnings from a million dollar traditional IRA and all of the earnings from $300,000 of non IRA assets. The earnings from the IRA are tax-free; the earnings from the non IRA assets are taxed.

After conversion, the participant still receives earnings on a million dollars but now all of the earnings are from an IRA and all of the earnings are tax-free.

A buy-out decreases the tax on future investment earnings.

Alternatively, the participant can dissolve the partnership by partitioning the traditional IRA. A partition is achieved by using IRA assets to pay the taxes and other conversion costs.

Before conversion, the participant is entitled to tax-free earnings on seven hundred dollars (seventy percent of the nominal value of the traditional IRA); after-conversion, the participant is entitled to tax-free earnings on seven hundred dollars (one hundred percent of the Roth IRA).

A partition does not reduce the tax on future investment earnings.

Consequently, it is better to pay the conversion costs from non IRA assets.

There can be other conversion benefits. Roth IRAs, but not Roth designated pension accounts, are exempt from required minimum distributions (RMD) before death. This means that the Roth IRA can provide more time to accrue tax-free earnings and it also means that the residual IRA can be a larger fraction of the after-tax value which passes to the heirs.

The exemption from the RMD rules is largely irrelevant if distributions are needed to support cash flow. At least some assets must be surplus to the participant's needs in order to benefit from the RMD exemption.

The Roth IRA can reduce estate tax since this tax is based on the nominal value of the estate rather than on the after-tax value of the estate. The Roth IRA is better than a traditional IRA for funding a bypass trust.

The Roth IRA can protect against future tax increases.

Protection from creditors should be considered before rolling an employer pension to an IRA: pensions have federal protection whereas IRAs are protected under state law. The protection provided by state law can be inferior.

Conversion generally involves a premium. The costs to convert an IRA are generally more than the costs if the IRA were gradually distributed over the lives of the participant and of the beneficiary[4].

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[4] Include Medicare premium surcharges and any other costs triggered by conversion such as unrealized gains on non IRA assets sold. Conversion could be reduced by favorable tax attributes. It is equally

It may be possible to reduce the conversion premium by converting smaller amounts over several years, by converting less than the entire IRA and by converting in years of low income or high deductions.

A strategy which reduces the premium by converting less can reduce the conversion benefits.

> *Converting a million dollars might involve a twenty percent potential gain while converting a hundred thousand dollars might involve a forty percent potential gain. The potential gain on converting a million dollars is $200,000 while the potential gain on converting the smaller amount is only $40,000.*

There are likely to be extra conversion costs when the traditional IRA includes real estate or business interests[5].

The net conversion benefit is a tradeoff between the potential savings and the potential premium. It is relatively straightforward to estimate the net benefit if there are no distributions during over the analysis period. This is typically the situation with a traditional IRA converted at a young age with thirty or forty until retirement.

The net benefit in this circumstance is the future after-tax value of the Roth IRA less the future after-tax values of the traditional IRA and of the conversion costs. The after-tax value of the Roth IRA is $(1 + R) \wedge N$ where R is the annual investment return and N is the number of years after conversion. The nominal value of the traditional IRA grows in the same fashion and the after-tax value is the nominal value reduced by the taxes and other costs in retirement. The conversion costs grow in a similar manner but the annual return is reduced by the annual tax liability.

Slide 11 illustrates the result of such an analysis. The investment return is 6%[6]. This return assumes a relatively aggressive portfolio since the participant has many years until retirement. Substitute your own judgment if you consider this return too aggressive or not aggressive enough.

Like all returns discussed in this article, this return is net of inflation and investment expense.

The qualitative picture illustrated in this slide is typical of many conversions. The conversion premium means that the benefit is initially negative but the benefit increases as savings accrue. In this example, breakeven occurs at about eight or nine years. The net benefit after twenty years is about ten

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important to be comprehensive when estimating the costs associated with distributing the IRA in retirement. Medicare premiums may be higher in retirement absent conversion for example.

[5] Michael J. Jones, *Trusts & Estates*, March 2010

[6] This is the average twelve-month, inflation-adjusted return, less 1% investment expense, for a portfolio of 70% large capitalization US stocks and 30% intermediate government bonds from January 1926 through December 2008 (Ibbotson Associates, *Stocks, Bonds, Bills and Inflation*, 2009.) Historical performance does not guarantee future performance.

percent of the amount converted. The net benefit after thirty years is about thirty-five four percent of the amount converted.

Converting a hundred thousand dollar traditional IRA at age thirty-five might provide an extra thirty-five thousand inflation-adjusted, after-tax dollars at retirement. Conversion at age forty-five is likely to provide substantially less.

Do not leap from this example to the conclusion that it is better to convert well in advance of retirement. Other issues need to be considered.

Modeling Conversion Benefits
No Distributions from Traditional or Roth IRA

Illustration:

- 6% return net of inflation & expenses

- 32% Conversion Costs

- 29% Tax in Retirement

- 4.8% after-tax return on Conversion Costs
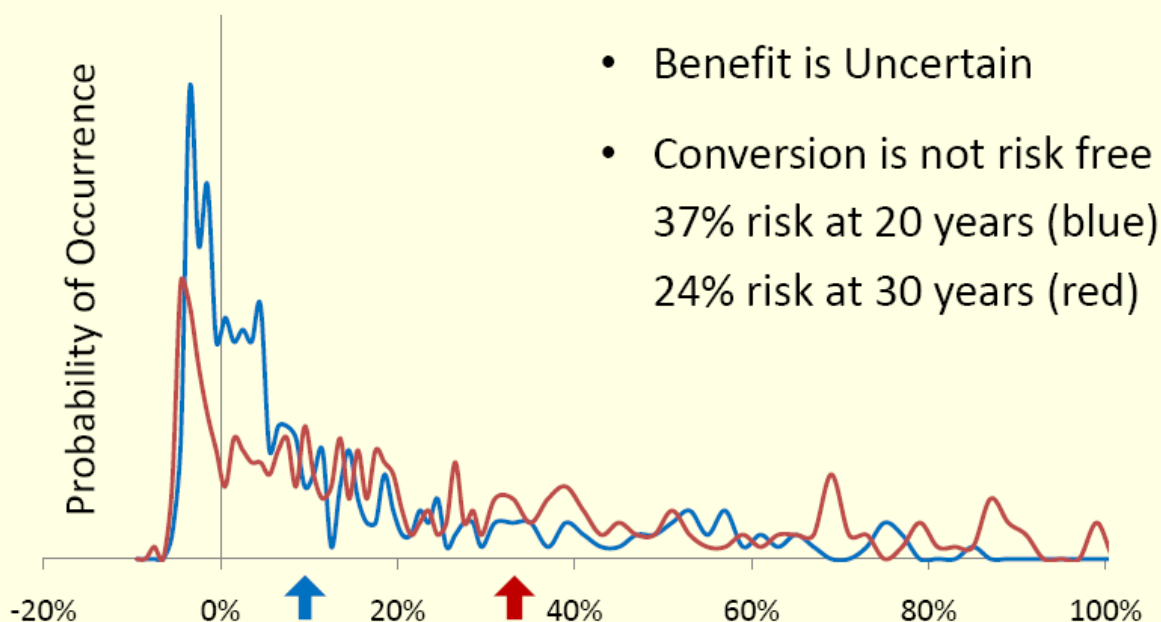
- Benefit is inflation-adjusted and after-tax
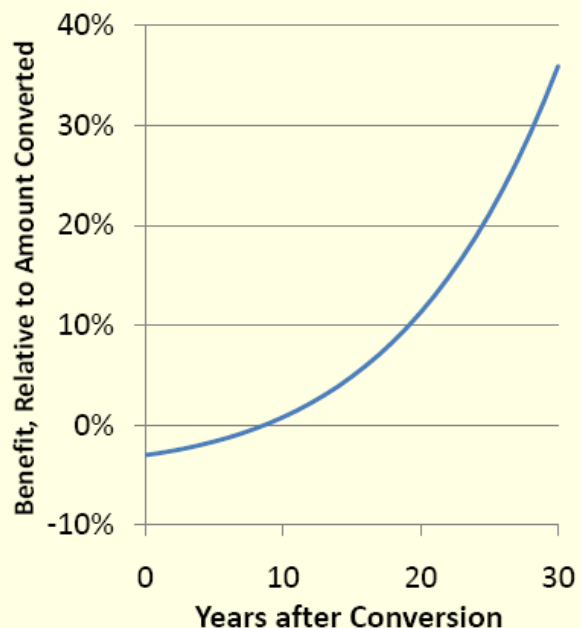
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Return Variation. The future investment return may average 6% but the annual returns will likely exhibit large deviations from the average. The standard deviation of this portfolio over all historical 12-month intervals has been about 16% a year. If this variation continues in the future, the actual return could be worse than a ten percent loss or better than a twenty-two percent gain about one third of the time.

Return variation is simulated by replacing the annual (constant) returns with returns drawn from a distribution, in this case a normal distribution with 6% mean and 16% standard deviation. Considering return variation means that the benefit at a given age is not a single value but a range of values. Slide 12

illustrates the benefits at twenty and at thirty years and demonstrates that the range of potential benefits is very broad.

Modeling Conversion Benefits
No Distributions, 6% return, 16% standard deviation

- Benefit is Uncertain
- Conversion is not risk free
  37% risk at 20 years (blue)
  24% risk at 30 years (red)

The small arrows reference the net benefit obtained previously when neglecting return variation. It turns out that about one fourth of the potential benefits are larger than the deterministic benefit[7]. If yours is a glass half full philosophy, you might conclude that a deterministic analysis neglects the possibility of the significant upside to the conversion benefits.

An alternative and more pessimistic view focuses on the substantial risk of negative benefits. Converting could mean having less at retirement.

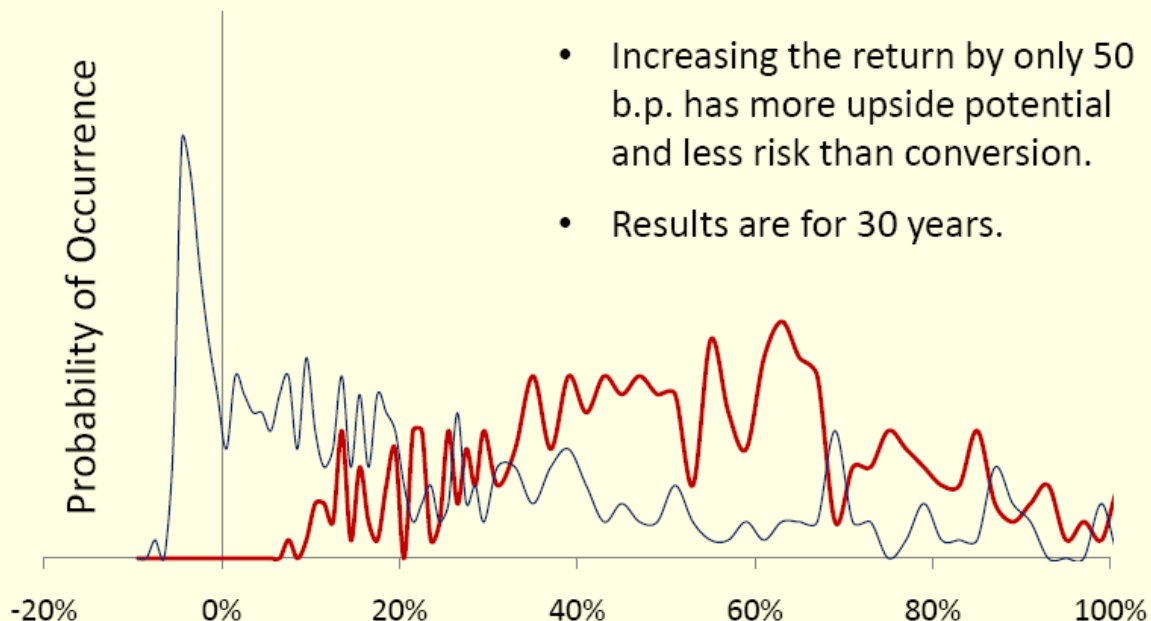Which is the stronger motivator, the potential for a substantial gain on the risk of a modest loss?

There is a one in four risk of negative benefits at thirty years and a one in three risk of negative benefits at twenty years.

Enhanced Return. Slide 13 illustrates that a modest increase in the average investment return is likely to increase the inflation-adjusted, after-tax value at retirement more than conversion. The heavy line is the benefit distribution assuming a fifty basis point increase in the mean return while the lighter line is the conversion benefit distribution at thirty years from slide 12.

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[7] Deterministic means the absence of random effects. I use this term in this article to mean that I am neglecting return variation.

Modeling Conversion Benefits
No Distributions, Enhanced Return

- Increasing the return by only 50 b.p. has more upside potential and less risk than conversion.

- Results are for 30 years.

Thee is about a one in four chance that an increased return might increase after-tax inflation-adjusted retirement savings by more than one hundred percent and essentially no risk that an increased return might reduce retirement savings.

The priority for the younger investor should be to enhance the investment return by rooting out unnecessary expenses and optimizing asset allocation. An enhanced return does not preclude conversion; indeed, an enhanced return tends to increase conversion benefits and to reduce the risk of having less.

Other Considerations for Young Investors. Conversion before retirement has considerable upside potential and some downside risk. Enhancing investment return should have priority over conversion but, of course, one can do both!

A younger participant may lack the funds to buyout the governments' share or may prefer to use these funds for other purposes (opportunity cost.) The younger participant should probably not consider conversion unless there are resources to address event risk; unemployment, triplets or death for example.

Taxation will probably be unrecognizable by the time a younger participant retires. Conversion would be prescient if tax rates increase or a disaster if income taxes are replaced with a value added tax.

My advice to younger participants is generally to save as much as they can afford in traditional pensions and IRAs and to delay conversion to a point in time nearer to retirement when their financial resources are larger and better defined and other obligations are reduced.

Let us now address the modeling benefits during the distribution phase.

I begin with the ubiquitous annuity model. I will illustrate that it is necessary to incorporate mortality risk and to estimate taxes and Medicare surcharges from the income forecast calculations. Annuity models are fundamentally limited since they cannot address situations in which spending is less than it might be.

Modeling Distributions as Annuities. The concept is to estimate the conversion benefit by annuitizing the traditional and Roth IRAs and the conversion costs in retirement. The benefit is usually measured as the change in after-tax cash flow[8]. There is no need to model required minimum distributions since a life annuity purchased with a traditional IRA satisfies the RMD requirement.

The annuity payout is calculated based on assuming a (constant) investment return and the date of death. If the periodic payments are to be inflation-adjusted, it is necessary to assume the inflation rate.

I prefer to base the payout on a life annuity quotation from a well considered, lower cost insurance provider. This transfers the investment risk to the insurance company and guarantees payments for life. Life annuities are available for fixed and inflation adjusted payouts[9].

For Example 1,

- $400,000 traditional IRA
- $128,000 conversion costs (32%)
- 28.75% tax on distributions
- 65 year old female (7% fixed annual payout for life)

The after-tax payout from the Roth annuity is $28,000 annually and this payout is not inflation-adjusted. The after-tax payouts from the traditional and conversion cost annuities are marginally higher, $28,129 in the first year.

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[8] For a good nuts and bolts discussion of how annuity calculations are performed, see "Roth IRA Conversion" by Wayne A. Thorp, Spreadsheet Corner, *AAII Computerized Investing*, First Quarter 2010.

[9] Quotations for fixed annuities were obtained on-line in January 2010 from BRKDirect, acting on behalf of Berkshire Hathaway Life Insurance Company of Nebraska, and from Vanguard, acting on behalf of AIG Life Insurance Company. Payouts are a bit lower in states, like California, which assess special fees.

Inflation-adjusted life annuities are available from Fidelity, Vanguard and probably others.

A portion of each payout is treated as return of principal when the annuity is purchased with after-tax dollars[10]. After basis is recovered at about twenty years, the entire payout from the conversion cost annuity is taxable. The after-tax cash flow, absent conversion, declines to $26,334.

If the participant spends $28,000 a year and does not convert, she would be able to save $129 annually for twenty years but she would have to dip into other assets thereafter.

In she converts, the after-tax value of her investments will decline for twenty years and increase thereafter. As was seen in slide 11, the conversion benefit is negative initially but eventually turns positive and increases thereafter.

Wealth Benefit at Death

Sum of the change in wealth at each age weighted by the risk of death.
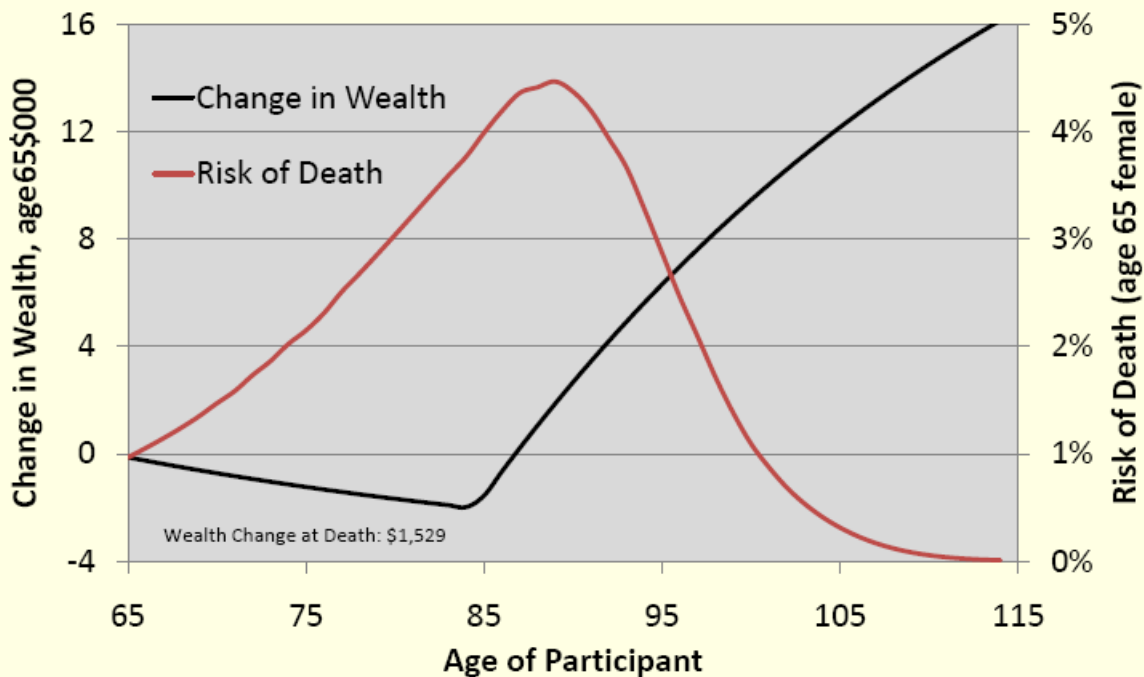
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Inflation Discounting and Mortality Weighting. The goal is to measure the benefit at death. This is unknowable for a specific individual but an estimate

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[10] This factor is 69.7% for an aged sixty-five female and is determined as discussed in IRS Publication 939. An aged sixty five female recovers her entire basis within 20.5 years.

can be made by weighting the benefit at each age by the risk of death at that age[11]. The technique is illustrated in slide 20.

> *The cumulative change in after-tax wealth, discounted at 3% for inflation, is a negative $1,500 at age eighty-four and the risk of death is 4.0%. The mortality weighted wealth is negative $60.*

> *At age ninety-five, the cumulative change in after tax, inflation-adjusted wealth is $6,300, the risk of death is 2.9% and the mortality weighted wealth is a positive.*

> *The sum of the morality weighted wealths at all ages is $1,529.*

The usual approach is to measure the benefit at an advanced age. This can produce ludicrous results. Slide 22 is based on a free web-based calculator. The calculated benefit is an eye-popping $3.7 million on converting a million dollar IRA at age sixty-five[12]. If this benefit were discounted for 3% inflation, the benefit is reduced $1.2 million. If the conversion benefit were measured at death, the benefit is a more realistic $50,000.

Failure to discount and mortality weight the benefit forecasts provides a huge and in my view unacceptable psychological bias towards conversion.

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[11] More precisely, the risk of death conditioned on being alive at age 65. Latter calculations will employ the survival risk, the conditional probability of being alive at a future age. See Chapter 3 in *The Calculus of Retirement Income* by Moshe A. Milevsky, Cambridge University Press, 2006.
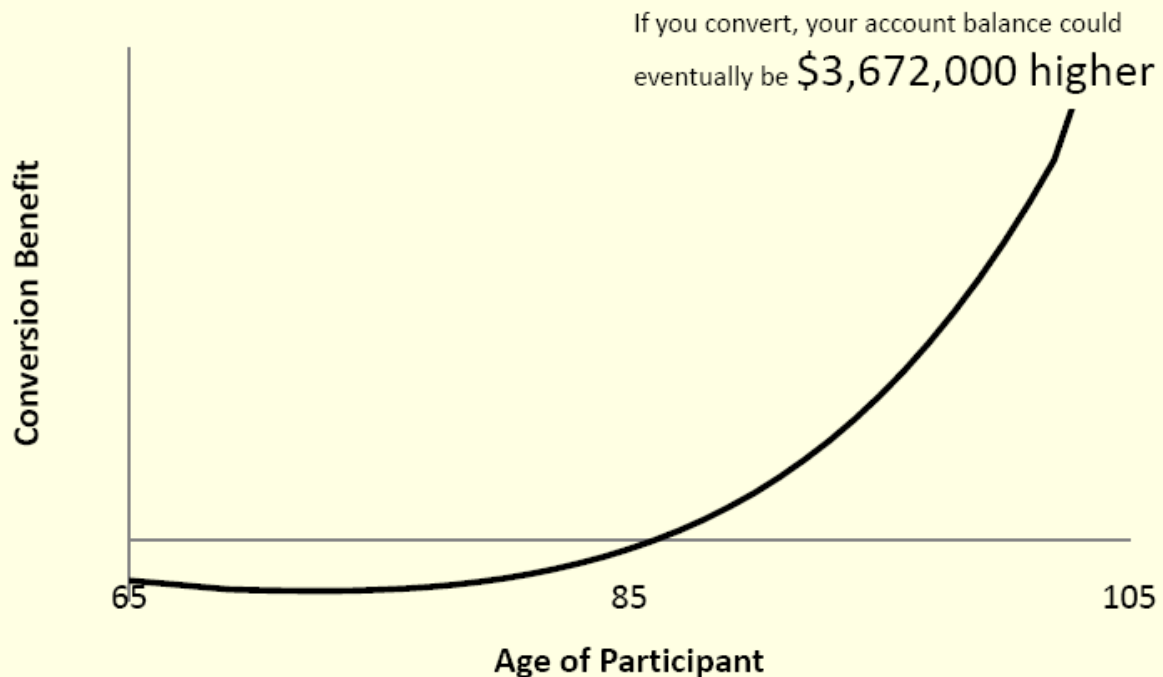
The mortality data are from "Updated RP2000 static annuitant tables for determining pension liabilities for other than disabled participants," IRS TD9310, February 2, 2007. These tables assume good health.

Mortality weighting can be easily extended to couples if there is no correlation between the timing of the first and second deaths.

[12] The assumed tax rate in retirement is 30%. The calculated conversion costs are $338,000 filing singly in 2010 assuming $75,000 taxable income absent conversion. This implies a 4% conversion premium which is paid from non IRA assets. Federal tax brackets are escalated at 3%. Investment return is 7% nominal or about 4% if adjusted for inflation. $5,000 monthly is withdrawn from the retirement accounts beginning at age 81; withdrawals are not increased for inflation. RMDs are determined according to Table III in IRS Publication 590. Account balances are not adjusted for inflation and no tax is assessed against the residual IRA at death. Calculator was accessed May 28, 2010.

Brokerage Firm Calculator 5/28/2010
Benefit at age 103

If you convert, your account balance could eventually be **$3,672,000 higher**

(y-axis: Conversion Benefit; x-axis: Age of Participant, marked 65, 85, 105)

Modeling Tax Rates. I assumed a 28.75% tax rate for Example 1. This is the marginal tax rate that is calculated assuming a 25% marginal federal tax rate, a 5% state income tax rate which reduces federal taxable income and no Medicare premium surcharge. Marginal tax rates are usually a poor approximation to the actual tax rates. This is especially true for larger IRAs.

The better approach is to estimate taxes and Medicare surcharges from the income forecast[13]. The federal and state income tax absent conversion is $6,613 and AGI is too low to trigger a Medicare surcharge. This calculation assumes a $20,000 Social Security benefit, $5,000 in other COLA income[14].

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[13] All tax parameters are inflation-adjusted. This is true of most parameters under current law but Social Security taxation thresholds and Medicare premium thresholds are not adjusted under current law.

Alternate minimum tax is not considered even though, for some ranges of income, AMT reduces conversion costs. See "Roth 2010 Conversion Strategies: Using the AMT to Lock In Tax Savings" by Paul V. Hamilton, *Journal of Financial Planning Between the Issues*, March 2010.

[14] Federal deductions are $12,000 plus state income tax. (For 2010, the sum of the standard deduction and personal exemption for Single filers aged 65 and older is $11,250. This includes the $500 deduction

Since distributions from Roth IRAs do not affect the taxation of Social Security benefits under current law, state and federal AGI is $5,000 after conversion. Taxable income and tax are both zero. Thus the change in tax is $6,613.

The marginal tax rate is 28.75% as previously assumed but the effective tax rate on the annuity income, the change in tax divided by the $30,715 change in taxable annuity income, is 22%.

Taxable income declines in inflation-adjusted terms but the tax brackets, standard deduction and personal exemption are constant in inflation-adjusted terms under current law. Consequently, the effective tax rate gradually declines. The average effective tax rate[15] is 17%.

We had calculated a $1,529 benefit using the marginal tax rate approximation. Estimating the tax from the income forecast suggests that the effective tax rate is actually about 17% and that the actual benefit is a $56,000 loss.

The assumptions concerning the amount of the Social Security benefit and other income are not unique. I could have assumed $20,000 of Social Security benefit and $50,000 of other income, for example, without violating the 28.75% marginal tax rate assumption. The effect of the other income assumption on the effective tax rate and conversion benefit is illustrated in slide 27.

If other income is $40,000, the effective tax rate about equals the marginal tax rates and the benefit is similar to what was previously calculated.

If other income exceeds $40,000, the effective tax rate increases because of Medicare premium surcharges absent conversion.

The sweet spot is other income in the $20,000 - $30,000 range; the conversion premium is slightly negative and the benefit is on the order of $25,000 or 6% of the amount converted.

Marginal tax rates are generally not appropriate for modeling income taxes and Medicare premium surcharges.
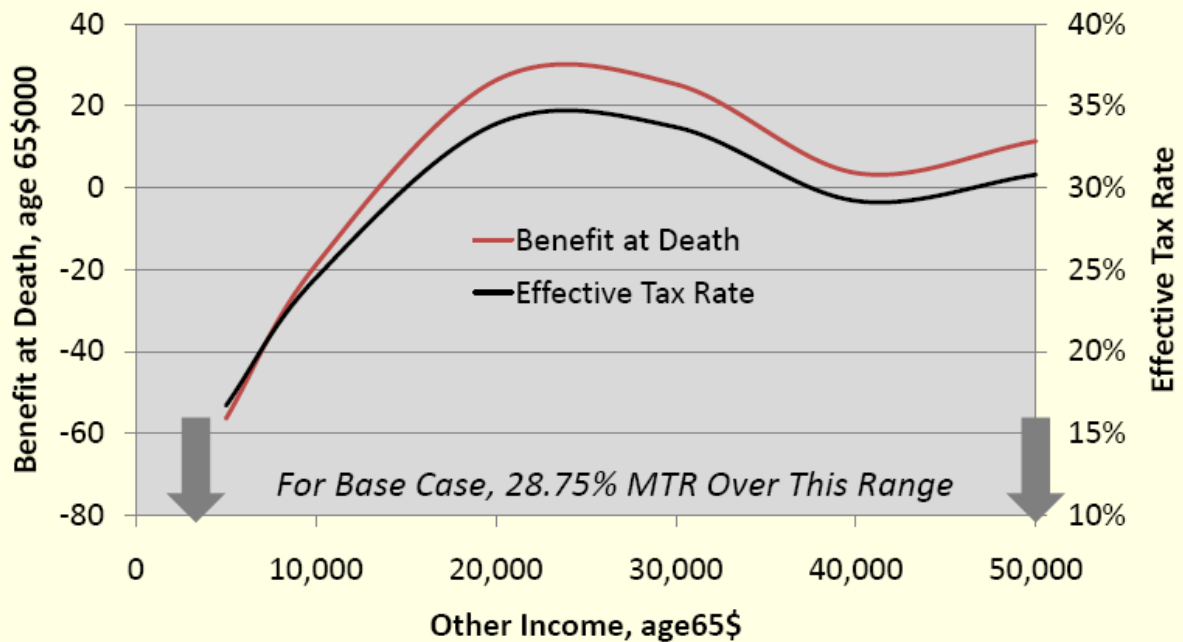
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for real estate taxes.) State income tax is 5% of state taxable income; state taxable income is federal AGI less the taxable Social Security benefit less $12,000.

2010 federal tax rates, Single filing status, are escalated with inflation. A Medicare premium surcharge applies if federal AGI exceeds $85,000. See the SSA website for details.

[15] The average effective tax rate is measured as the sum of the income taxes and Medicare surcharges on each annual payout, weighted by the risk of surviving long enough to receive the payout.

Taxes Estimated from Income Forecast
Example 1, $20,000 Social Security plus Other Income

Chart showing "Benefit at Death" (red line) and "Effective Tax Rate" (black line) plotted against "Other Income, age65$" on the x-axis (0 to 50,000). Left y-axis "Benefit at Death, age 65$000" ranges from -80 to 40. Right y-axis "Effective Tax Rate" ranges from 10% to 40%. Annotation: "For Base Case, 28.75% MTR Over This Range"

Effect of Spending. When there are surplus resources, it is usually wise to spend the taxable monies before the IRAs, to spend traditional IRAs before Roth IRAs and to delay required distributions as long as possible.

Annuity models lack the flexibility to prioritize cash flows in this manner.

My solution is to measure conversion benefits as the mortality weighted difference between two scenarios in inflation-adjusted, after-tax wealth, a conversion scenario and a base scenario without conversion. Spending, net of income taxes and Medicare premium surcharges, is the same in both scenarios. (Controlling income is not fundamental; one could also control wealth at death and measure the impact on spending.)

Let's call this Example 1a to distinguish it from the annuity model. The assumptions are designed to hew closely to those of the annuity model.

- Age 65 female.
- $20,000 Social Security benefit and $30,000 of other income.
- Income and spending are cost of living adjusted.

- Taxes and Medicare surcharges are estimated from income[16].
- 4% return, net of inflation and expenses[17]. This is a more conservative return than previously and reflects the fact that the participant is retired.
- $400,000 traditional IRA and $400,000 non IRA.
- $80,000 is converted annually at ages 65 through 69. This result in a 32% conversion cost.
- RMD rules apply to the traditional IRA from age 70.
- Cash flow deficits and surpluses are balanced by transfers to or from the non IRA assets, from the traditional IRA and, lastly, from the Roth IRA.

Slide 31 illustrates that spending strongly influences the amount of the conversion benefit. If spending is $90,000 annually, the participant runs out of money in about twenty years. This is the median lifetime of the annuity model. The benefit is $36,000 which is similar to the benefit in Slide 27 for the same income assumption.

As spending decreases, the conversion benefit increases. (Of course, it is not spending *per se* that is important but spending relative to income and resources.) The benefit eventually approaches $160,000 or nearly forty percent of the amount converted.

The benefit could be higher if estate and stretch-out benefits had been considered.

The increased benefit is not associated with a decrease in the conversion premium[18]. Rather the benefit is related to the increase in taxable assets, and hence taxable income, in the base case as spending is decreased.

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[16] This done as described in footnote 14 except that the deductions from AGI are $11,250, or $11,250 plus state tax, and there is an extra 5% tax on federal taxable incomes in excess of $190,650 (Single) beginning in 2011.

[17] These statistics are characteristic of the portfolio returns over all 12-monthly intervals from January 1926 through December 2008 less one percent investment expense. Twelve-month inflation-adjusted returns were calculated from monthly returns of a portfolio of 40% large capitalization US stocks and 60% intermediate government bonds (Ibbotson Associates, *Stocks, Bonds, Bills and Inflation*, 2009.) Historical performance does not guarantee future performance.

[18] Estimating the conversion costs is relatively straightforward; estimating the taxes paid on the IRA in retirement and beyond is a challenge. The average tax rate on the IRA distributions decreases as spending decreases from $90,000 to $70,000 a year because the IRA is distributed more slowly as spending decreases and because there is an increased likelihood of a residual IRA at death. (Lower tax rates tend to be assessed against the residual IRA.) The decrease in tax paid on IRA distributions in the reason that the premium initially increases as spending declines. The tax rate on IRA distributions increases as spending decreases further, causing the premium to decline, because investment income pushes the IRA income into higher brackets.

# Benefit Increase is NOT Associated with a Lower Conversion Premium
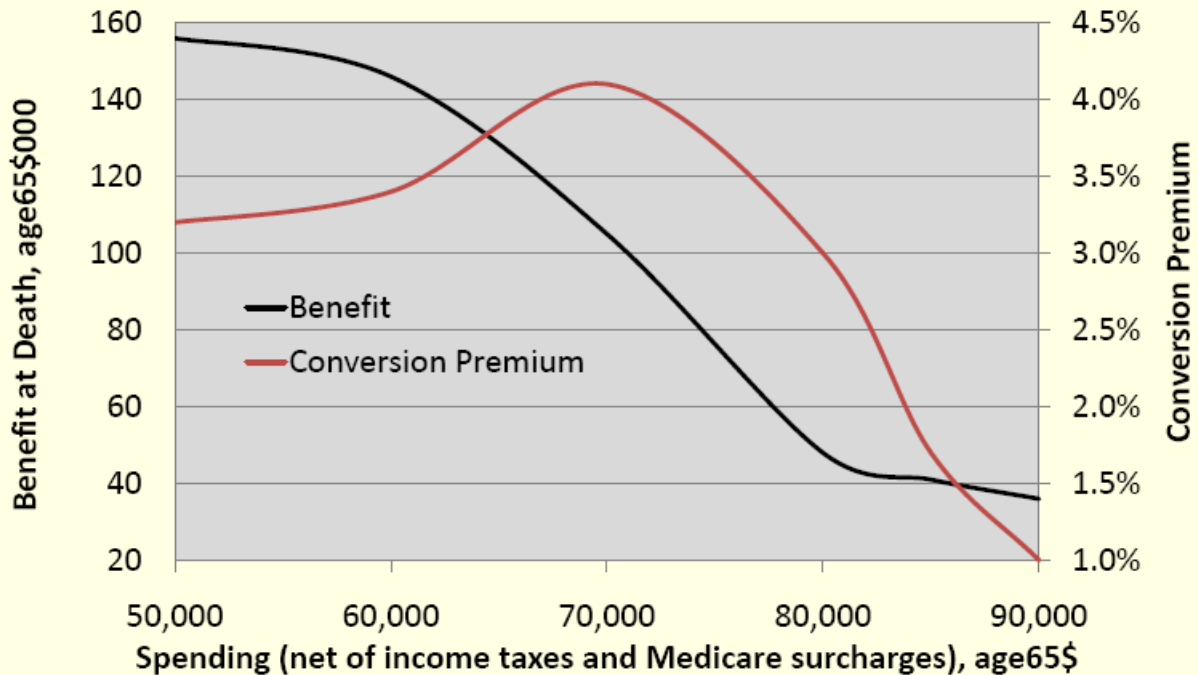
Slide 32 compares the taxable assets before and after conversion. The taxable assets initially decline because they are being spent preferentially to the IRAs; the decline is especially rapid in the conversion scenario because the conversion costs are being paid from the taxable assets.

The decline of taxable assets is arrested in the base scenario when required distributions begin from the traditional IRA. By about age eighty, required distributions exceed what is needed, the surplus is added to the taxable account and the taxable account grows.

The decline of taxable assets continues unchecked in the conversion case since the Roth IRA is exempt from the RMD rules. Taxable assets are consumed by about age eighty. Necessary cash flow is taken from the Roth IRA thereafter.

Taxable Assets (Taxable Income)
### Example 1, Spending $65,000
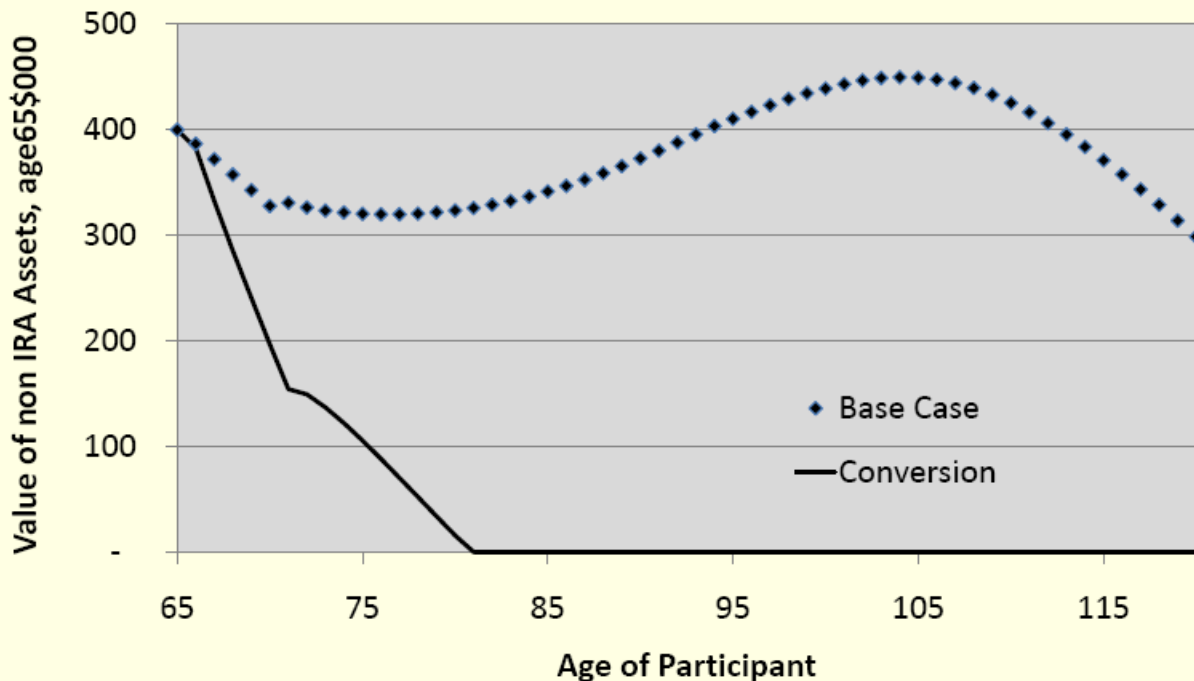
Taxable assets are a surrogate for taxable income. Taxable income and thus income tax paid is much lower in the conversion scenario. Lower income tax is the primary source of the conversion benefits.

RMD Policy Change. The lower income taxes are largely the direct result of our legislators' decision to exempt the Roth IRA from the RMD rules. I cannot suggest a public policy reason why the traditional and Roth IRAs should be treated differently with respect to required minimum distributions. I cannot provide a reason why distributions from traditional IRAs affect the taxation of Social Security benefits and Medicare premium surcharges while distributions from Roth IRAs do not. I conclude that there is a significant risk that future policy will treat traditional and Roth IRAs by the same rules in these areas.

If these three policies were to change, there would be substantial taxable assets after conversion and income tax savings and conversion benefits would be substantially reduced. This is shown in Slide 35. The effect of these policy changes is so large that a Roth conversion is only marginally profitable when spending $70,000 a year and unprofitable when spending more than this.

What is at Risk if RMD Policy Changes?

Example 1. $20,000 Social Security, $30,000 pension
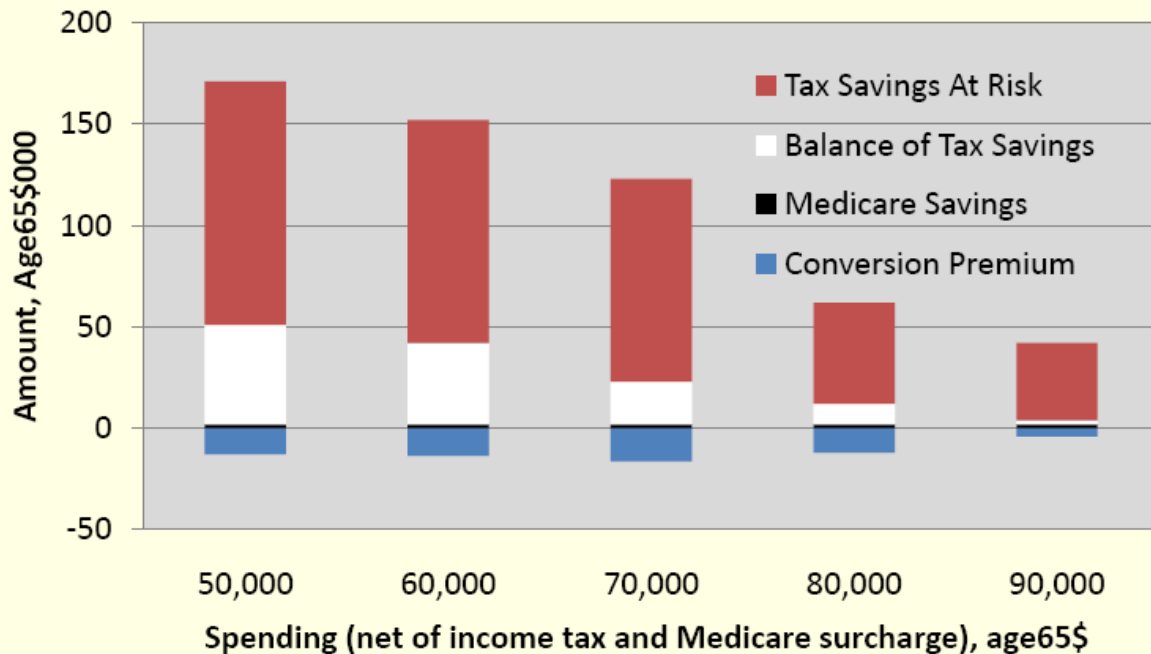
Return Variation and Conclusions. The discussion of Example 1 has assumed a constant 4% return. If the returns are drawn from a normal distribution with a 10% standard deviation, we find that spending $80,000 annually is associated with a 26% risk of running out of money before death and that spending $90,000 annually is associated with a 64% risk[19]. Conversion has little effect on these risks. Reducing the risk of penury (by reducing spending or buying an immediate life annuity) should take priority over a Roth conversion.

On the other hand, the risk of running out of money before death is low, on the order of 2%, if spending $70,000 a year and no risk is measured if spending is $60,000. It is difficult to assess the magnitude of the conversion benefit because the range of potential benefits is broad but it is almost certain that conversion would produce some benefit even if RMD policy changes.

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[19] These risks depend on the assumed mean and standard deviation of the return distribution; these risks are presented for illustration only and you should substitute your own view of the future. The numerical estimates should be taken with a big grain of salt. Nonetheless, I suspect that most readers would find these risks unacceptable even if they were overstated.

Conversion is indicated if spending $70,000 or less.

Other Policy Changes[20]. Might policy be changed to require the distribution of inherited IRAs, both traditional and Roth, within five years of death? Might earnings remain tax-free of regular tax but be treated as preference income for AMT purposes? Might the excess accumulation tax be reinstated to limit the growth of large IRAs? Might Social Security and Medicare benefits become even more strongly means tested? Might there be other changes?

The point is that it is important to test the impact of what you fear might happen and adjust the conversion decision appropriately.

Calculator Capabilities. I have shown the importance of discounting and mortality weighting calculated benefits, of estimating income taxes and Medicare premium surcharges from income and of considering return and policy risks. I know of no calculator which includes these capabilities.

CCH's IRA Conversion Evaluator ($595) and some free calculators consider spending in relation to income; Brentmark's Retirement Plan Analyzer ($595) does not.

David Loeper considers return variation[21].

Example 2. The assumptions underlying all of the vignettes discussed in this article are summarized below.

	Example 1a	Example 2	Example 3	Example 4
IRA	$0.4 million	$1.0 million	$1.8 million	$1.0 million
Non IRA	$0.4 million	$1.0 million	$0.1 million	$1.0 million
Social Security	$20,000	$20,000	$20,000	$20,000
Other Income	$30,000	$30,000	$30,000	$30,000
Spending	Variable	$90,000	$90,000	$90,000
Residual IRA	Taxable	Taxable	Taxable	Exempt
Conversion Strategy	$80,000 for five years.	$1 million at age 65	$75,000 for five years.	$1 million at age 65
Conversion Premium	About 4%	5%	Negative 5%	20%

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[20] "Is a Roth IRA Safe From Taxes?" by Laura Saunders, *The Wall Street Journal*, June 19, 2010. I agree that changes which discourage Roth conversions are unlikely in the near term because conversions accelerate tax revenue.

[21] Roth or Not to Roth, That is the Question by David B. Loeper, December 2009 at www.advisorperspectives.com. An apparent and probably small difference between our approaches is that I use the same random return sequence for each pair of scenarios in order to estimate the risk that conversion might lead to a worse outcome.

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In addition,

- Age 65 female.
- Income and spending are cost of living adjusted.
- Taxes and Medicare surcharges are estimated from income.
- 4% return, 10% standard deviation.
- RMD rules apply to traditional IRA from age 70.
- Any cash flow deficit or surplus is balanced by transfers to or from the non IRA assets, from the traditional IRA and, lastly, from the Roth IRA.

Adjusted Gross Income, absent conversion, is $119,000 initially for Example 2. This woman would have been unable to convert to a Roth IRA prior to 2010.

Neglecting return variation, the after-tax value of the investment portfolio at death is about $1.7 million. Converting the entire IRA in 2010 increases the after-tax value at death to $2.1million; that is, the conversion benefit is about $400,000 or forty percent of the amount converted.

If the investment return were increased by fifty basis points, the after-tax value of the investment portfolio at death would be $1.9 million without conversion.

Considering the personal residence and other assets, the value of the taxable estate might exceed the applicable exclusion. Conversion could provide estate tax savings by decreasing the nominal value of the estate.

Conversion increases the after-tax value of the residual IRA three fold, from $659,000 in the base case to $2.1 million after conversion. This increase would confer additional wealth on younger heirs who elect to take gradual distributions from the inherited IRA. This "stretch-out" benefit would disappear if policy changes to require the distribution of inherited IRAs soon after death.

Return and policy risks are illustrated in slide 40. Instead of the deterministic $1.7 million value, the investment portfolio could be worth a few hundred thousand dollars at death if returns disappoint or $4 million if returns delight. There is no measured risk of running out of money before death. Return and RMD policy risks do not threaten the participant's personal financial security.

The conversion benefit is likely to be several hundred thousand dollars but it could exceed $2 million. The more important point is that no negative benefits are measured; the risk that conversion might reduce the value that passes to the heirs is apparently very low.

A change to RMD policy substantially reduces the conversion benefits and negative benefits are measured in a few of the realizations. The risk that conversion might reduce the value that passes to the heirs is low even if RMD policy changes.

Example 2. Return and Policy Risks
The Benefit is Uncertain but the Risks are Low.

After-tax Estate or Benefit, age65$000
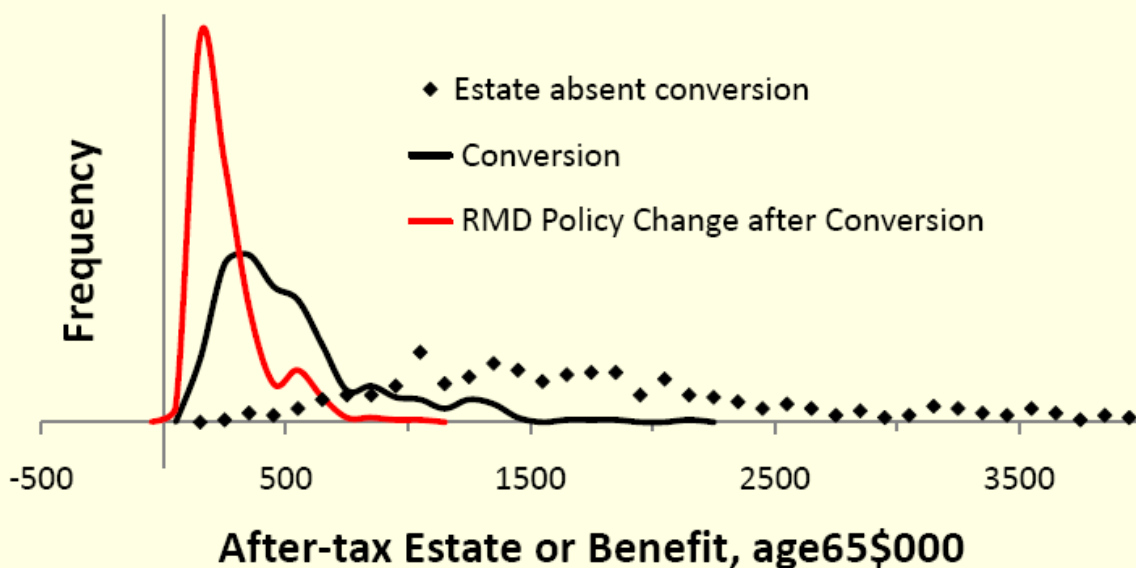
40

Although it is impossible to forecast the benefit with certainty, conversion is attractive because it is likely that the after-tax assets passing to the heirs will be increased, even if RMD policy changes and stretch-out is repealed.

Example 3. This example considers a participant with surplus resources who lacks the non IRA assets needed to pay the conversion costs. The assumptions were listed previously.

AGI, absent conversion, is $50,000 initially and AGI increases rapidly with age.

The deterministic value of the investment portfolio is $1.4 million at death. If investment return were increased by fifty basis points, the after-tax value of the investment portfolio at death would be $1.6 million.

Considering return variation, the risk of running out of money is very low and remains low with conversion. Conversion does not threaten the participant's personal financial security.

Converting the entire IRA has essentially no effect on the deterministic value at death but there could be estate and stretch benefits. However, there is a fifty

percent risk that conversion of the entire IRA in a single year might mean less for the heirs. The risk is 78% if the possibility of RMD change is considered.

Converting the entire IRA in a single year is not attractive because of the high risk of passing less to the heirs with little upside for the heirs.

Converting $75,000 a year from ages 65 through 69 provides a $130,000 deterministic benefit, about one third of the amount converted. There might also be estate and stretch-out benefits.

The weighted average conversion costs are 33% with a partial conversion. The conversion premium for a partial conversion compares the conversion costs to the incremental taxes and Medicare surcharges that would have applied to the piece of the IRA which is no longer there. These costs are 38% of the IRA removed by conversion. The conversion premium is a favorable (negative) 5%.

Considering return variation, the benefit could be a half million dollars, plus estate and stretch-out benefits, but there is a one in six risk that conversion will worsen the financial situation and reduce the value that passes to the heirs. A change in RMD policy halves the potential benefits but has little effect on the risk of worsening the financial situation.

The conversion decision comes down to the importance that the participant attaches to maximizing value for the heirs and of protecting against future tax increases. Enhancing return should be given priority over conversion.

Example 4 illustrates that conversion can be beneficial even if the residual IRA passes to charity. The conditions are the same as Example 2. The deterministic value of the portfolio is again $2.1 million after conversion.

Since no tax is assessed on the residual IRA, the after-tax value of the portfolio is nearly $2.0 million in the base case. This is higher than for Example 2 and the deterministic benefit is less.

The conversion premium is twenty percent. Nonetheless, the deterministic conversion benefit is $99,000 (10% of the amount converted).

If the plan is to leave the IRA to charity and the non IRA assets to noncharitable beneficiaries, the IRA beneficiary designation must be revised following conversion lest the noncharitable beneficiaries be disinherited.

Sub-par returns do not risk the participant's personal financial security but there is a one in five risk of the charity receiving less. The charity always receives less if tax policy changes to require distributions from Roth IRAs.

The recommendation is unclear. Perhaps, rather than conversion, the charitably inclined participant should address investment return. Enhancing return always provides more for charity, potentially hundreds of thousands of dollars more, with no investment or policy risks.

Life Insurance. I generally take a dim view of life insurance as an investment and it is therefore with some chagrin that I must report that the benefit from second to die life insurance is comparable to conversion.

Second to die life insurance is free of mortality, investment and RMD policy risks and there is no estate tax (under current policy!) if the insurance is owned inside an ILIT.

It is worthwhile to discuss second to die life insurance with a knowledgeable adviser.

Priorities. I'm not convinced that everyone's goal should be to leave a large estate. I encourage my customers to confirm that they are not sacrificing their personal lifestyle to make their children rich or their alma mater proud. I also encourage them to consider whether heirs or charity might benefit more if they were to gift some of their surplus assets before death.

Modest improvements in investment return can increase the after-tax value of an estate by about as much as a Roth conversion. The following results assume a constant 4% or 4.5% investment return.

	Example 2	Example 3	Example 4
Conversion Benefit	$390,000	$130,000	$100,000
Risk of having less	3%	17%	100%
Improved Return	$220,000	$200,000	$260,000
Conversion Benefit with Improved Return	$700,000	$360,000	$410,000
Risk of having less	2%	12%	100%

Surely the priorities should be to root out unnecessary investment expense and optimize asset allocations, especially since improving investment return also increases conversion benefits and might reduce conversion risks.

Increasing the value of your estate is a fool's errand if your estate does not pass as you intend. Ensure that your beneficiary designation and other legal documents are up to date[22].

Conclusions and Recommendations.

1. It is better to pay conversion costs from non IRA assets.
2. It can be advantageous to reduce the conversion premium.
3. Early conversions may be advantageous.

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[22] The U.S. Supreme Court ruled unanimously that the plan administrator must act in accordance with plan documents. The pension went to the ex-wife even though she has given up her right to the pension in the divorce decree because the beneficiary designation was never changed. See Kennedy vs. Plan Administrator for DuPont Savings and Investment Plan, 2009,

4. Estimate taxes from income; discount benefits for inflation and mortality risk.

5. Evaluate policy and investment risks.

6. Benefits can be attractive for those with surplus resources, especially when conversion costs are paid form non IRA assets.

7. Comparable benefits can likely be achieved with lower risk. Prioritize accordingly.

8. Seek competent advice.

The discussion now turns to the practical considerations of a Roth conversion.

2010 is Special. We face massive federal and state deficits. The overwhelming impression is that at least part of the solution will be higher taxes.

The administration has proposed income tax increases from 2011 which would affect single individuals with taxable incomes above about $190,000 and married couples with taxable incomes above about $230,000[23]. The upper tax rates would return to pre-2001 levels and exemptions and deductions for high earners would be limited.

Sections 9015 and 10906 of the Patient Protection and Affordable Care Act, signed by the President on March 22, impose an additional 0.9 percentage point Hospital Insurance tax on that portion of wages and other earned income exceeding $200,000 for singles and $250,000 for married couples filing jointly. This tax begins after December 2012. This new tax is assessed on the employee, although the employer is required to collect it in some circumstances, and the tax is not deductible by the employee.

Section 1402 of H.R. 4872, the Health Care and Education Reconciliation Act of 2010 which was signed by the President on March 30, would impose a 3.8% tax on the smaller of net investment income or modified adjusted gross income in excess of a threshold amount ($250,000 for married filing joint and qualified widow(er), $125,000 for married filing single and $200,000 for other taxpayers.) Net investment income is interest, dividends, annuities, royalties, and rents, other than income which is derived in the course of a trade or business, plus net gain (to the extent taken into account in computing taxable income) attributable to the disposition of property other than property held in a trade or business. Distributions from a plan or arrangement described in section 401(a), 403(a), 403(b), 408, 408A, or 457(b) – that is most pension plans and IRAs - are not subject to this tax. There are nuances so read the fine print. This tax would be effective after December 2012. The additional hospital insurance tax on investment income might raise $210 billion over the seven years ending in 2019. (Table 2. Estimate of Changes in Direct Spending and

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[23] "Analytical Perspectives, Budget of the U.S. Government, Fiscal Year 2011," February 2010, pp. 182, 187-188.

Revenue Effects of the Reconciliation Proposal Combined with H.R. 3590 as Passed by the Senate, Congressional Budget Office, March 20, 2010.)

The effect of these changes on the tax rates of IRAs and investment income would be as follows.

	2010	2011	2013 (IRA)	2013 (non IRA)
Ordinary	33%	36%	36%	39.8%
Ordinary	35%	39.6%	39.6%	43.4%
LTCG & QD	15%	20%		23.8%
Deductions		Limited	Limited	Limited

In view of these likely tax increases, conversion in 2010 might cost less.

The law assumes that 2010 conversion income will be reported equally in 2011 and 2012 but taxpayers are allowed to report the total on their 2010 returns. If tax rates rise as anticipated, most taxpayers will be better off not deferring the conversion income. Consult with your tax preparer to determine which is better in your situation.

This decision can be delayed until the deadline for filing an extended 2010 return (October 2011).

The deferral option is only available for conversion during 2010.

Recharacterization. A Roth conversion can be undone for any reason. The recharacterization deadline is October 15 of the year after conversion, assuming a "timely filed" return[24]. Delaying the tax return until the recharacterization deadline avoids a potential requirement to amend the return.

Earnings must be recharacterized. It simplifies the earnings calculation if the converted account is not combined with other Roth IRAs until after the recharacterization deadline has passed.

It is possible to recharacterize part of a Roth account so long as individual assets are recharacterized *pro rata*. If you wish to preserve the option to recharacterize specific assets each asset class should be converted into a separate Roth IRA.

An executor can recharacterize a Roth conversion. Leave the traditional IRA account open so that there is an account to which the Roth IRA can be recharacterized.

In order to reconvert a traditional IRA which was recharacterized, it is necessary to wait the longer of thirty days after recharacterization or the

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[24] A timely filed return is a return filed by April 15th or a return filed by October 15th with a valid extension. An extension request must include a bona fide and reasonable estimate of the tax liability based on all information available at the time of the request. My sense is that that the extension request should assume the conversion will not be recharacterized.

beginning of the year after the initial conversion[25]. This rule does not affect a different traditional IRA which was never converted.

Timing of Tax Payments. Government expects us to pay our tax liabilities as the income is received and there are generally underpayment "penalties" if we deviate too far from this standard[26]. Penalties can be avoided by paying an amount equal to the prior year's tax liability in withholding and equal quarterly estimates. (The requirement is 110% if the prior year's AGI exceeds $150,000.) This is probably the best approach to paying estimated taxes in the first conversion year.

A different approach is probably best in the year after conversion. Ninety percent of the anticipated federal tax liability is paid in equal quarterly installments. If your income is variable, a variation on the ninety percent method allows the calculation to be updated quarterly.

The full tax liability is due April 15th; this is true even if the filing deadline is extended. Interest is assessed on any tax not paid by the unextended filing deadline and there is a penalty of 0.5% per month if less than ninety percent of the tax is paid by the unextended filing deadline.

California has similar rules.

These rules create a dilemma for the taxpayer who I considering conversion. Should the taxpayer make a large payment in April and receive a refund if the conversion is recharacterized or should the taxpayer make a smaller payment in April and pay interest and penalties if the conversion is not recharacterized? Since interest and penalties are about five percent over the six months, it may be better to pay ninety percent of the total tax liability in April.

Inherited Traditional and Roth IRAs[27]. A surviving spouse who is the sole beneficiary can elect to be treated as the owner of an inherited IRA. The following rules do not apply to a surviving spouse who makes this election.

The beneficiary of an inherited IRA must generally distribute the IRA by the end of the fifth calendar year after death. No distribution is required before the end of the fifth year.

> *If death occurs in February 2010, distribution would have to be completed by December 31, 2015.*

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[25] Reg §1.408A-5, Q&A-9.

[26] See the instructions to IRS Form 2210.

[27] For a complete discussion of the federal taxation of IRAs, see IRS Publication 590, *Individual Retirement Arrangements* and Natalie Choate's *Life and Death Planning for Retirement Benefits.* The IRS publication is available for free at www.irs.gov and Ms. Choate's book is available for purchase at www.ataxplan.com.

Alternatively, a beneficiary who is an individual and not an estate, trust, charity or business entity, can distribute an inherited IRA over a lifetime. Distributions must begin by the end of the first calendar year after death.

> *If death occurs in February 2010, the first distribution would have to be completed by December 31, 2011.*

The minimum amount of each distribution is the account balance at the end of the prior year divided by a factor. The factor depends on the age of the decedent, the age of the oldest beneficiary and on whether the inherited IRA is a traditional or Roth IRA. If there is only one beneficiary and if this beneficiary is younger than the decedent, the factor is the single life expectancy of the beneficiary determined from IRS tables.

A beneficiary cannot consolidate an inherited IRA with his or her own IRA or with an IRA inherited from a different decedent.

A beneficiary cannot convert an inherited traditional IRA to an inherited Roth IRA. However, a beneficiary can convert an inherited pension to an inherited Roth IRA before the pension is rolled over to an inherited IRA.

Taxation of IRA Distributions. Traditional and Roth IRAs and pensions differ in how basis is recovered. Basis in a traditional IRA (more precisely, basis in all traditional IRAs) is recovered *pro rata*.

> *The value of IRA 1 is $100,000 and the basis is $15,000. The value of IRA 2 is $50,000 and the basis is zero. Ten percent, ($15,000 + $0)/($100,000 + $50,000), of any distributions from either IRA is basis.*

> *The basis recovery calculation is updated annually on IRS Form 8606.*

Basis for state purposes may be different from basis for federal purposes. In California, basis can be higher because of lower California contribution limits in some years. The excess California basis is recovered first and the remaining California basis is recovered pro rata.

The taxation of traditional pensions is complex and different rules apply federal and other pensions. The rules are also different for pensions with starting dates before 1986 and before 1996[28]. In general, basis is recovered using the simplified general rule. This is the same approach as the annuity method discussed previously with an easier way for determining the recovery period. Pensions are not aggregated for basis recovery purposes.

The portion of the distribution from a traditional IRA in excess of basis is taxed as ordinary income[29].

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[28] *Pension and Annuity Income*, IRS Publication 575. An income averaging technique may apply and employer securities may be treated in a special manner.

[29] The exception is a qualified charitable distribution. The distribution must be made directly to a qualified 501(b)(3) organization. Private foundations, donor advised funds, charitable remainder trusts pooled

Distributions from Roth IRAs are taken first from the amounts contributed, then the amounts converted and lastly from earnings. Since tax has already been paid on the amounts contributed and converted, these amounts are recovered tax-free.

Earnings are tax-free after age 59½ (or upon death, disability or other exception) and five years after a contribution to <u>any</u> Roth IRA.

> *The participant makes his or her first Roth IRA contribution or conversion in December, 1998. Earnings distributed after December 31, 2002 would be tax free if the participated is aged 59½ or older.*

Earnings from a Roth designated pension account are tax-free after age 59½ (or exception) and five years after the first contribution to that <u>specific</u> pension.

> *The participant makes his or her first Roth IRA contribution or conversion in December, 1998 and his or first contribution to a Roth designated pension account in December 2008. Earnings distributed from the Roth designated account after December 31, 2012 would be tax free if the participated is aged 59½ or older.*

Earnings distributed from an inherited Roth IRA are tax-free after the five year test is satisfied; the age 59½ test does not apply because of the death exception.

Rolling a qualified pension or tax sheltered annuity to a traditional IRA, or the reverse, is not a taxable event. Basis moves from the pension to the IRA pro rata but basis cannot move from an IRA to a pension. These basis transfer rules mean that it is possible to convert basis in a traditional IRA by rolling all traditional IRAs to a pension; the residual IRAs are now entirely basis and an immediate conversion would be tax-free.

Premature Distribution Penalties. The IRS levies a 10% percent penalty on the taxable portion of IRAs and pensions distributed before age 59½. California levies an additional 2½% penalty. Death, disability and other factors may provide an exception to this penalty.

Distributions which are converted to a Roth IRA or recharacterized or rolled among pensions and IRAs are not subjected to this penalty. However, a distribution which is used to pay conversion costs could be penalized.

There is a special 25% tax if a SIMPLE IRA is distributed within two years of beginning participation. This tax applies even if the distribution in rolled to a traditional IRA or converted to a Roth IRA.

As applied to distributions from Roth IRAs,

- Amounts contributed are penalty-free.
- Amounts converted are penalty-free after the earlier of

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income funds and charitable gift annuities do not qualify. This exception is in limbo; statutory authority has expired but there are legislative proposals to reinstate this authority retroactively.

Age 59½ (or exception); or

Five years after the <u>specific</u> conversion.

- Earnings are penalized if distributed before age 59½ (or exception).

Mechanics of Conversion.

- Converting from a traditional IRA to a Roth IRA with the same custodian has the least risk of problems.

- Transferring a traditional IRA from one custodian to a Roth IRA with a new custodian should be satisfactory.

- Taking a distribution from a traditional IRA and planning to roll the entire amount over to a Roth IRA within 60 days is not recommended; what if you were injured and unable to complete the transaction?

- Do not consolidate accounts and do not close the traditional IRA until after the recharacterization deadline.

- Consider separate conversion of each asset class.

Addendum.

Life Insurance as an Alternative to Roth Conversion

The parents withdraw the IRA assets they intend to go to their children, and then use them to fund a charitable remainder annuity trust that would make payments to the parents for 10 years. The parents then use those payments to fund permanent, second-to-die life insurance in an irrevocable trust that would go to their children.

Suppose the parents want to convert a $500,000 IRA. Normally, that would generate about a $200,000 tax bill. But they could chop that bill to $105,000 by investing the $500,000 in a charitable remainder annuity trust.

If the trust paid the parents $32,500 a year, they could buy $1.6 million in life insurance that would ultimately go to their children. That is more than three times the value of the $500,000 IRA. Meanwhile, the trust would ultimately leave $600,000 to the charity, assuming 5% returns … ." - Giving More to Both Kids and Charities by Kelly Greene, The Wall Street Journal, March 20, 2010.

Assumptions. A married couple aged sixty with a $500,000 traditional IRA and $200,000 in non IRA assets which are surplus to their needs; 40% effective income tax rate; second to die life insurance costs about $120,000 per million dollars face value[30], fully guaranteed.

Option 1. Withdraw the entire IRA, pay the income tax and purchase a $4.2 million life insurance policy inside an ILIT with the children as beneficiaries. To reduce gift tax, smaller policies could be purchased over several years.

Option 2. Convert the entire IRA to a $500,000 Roth IRA with the children as beneficiaries; pay the income tax using the non IRA assets.

Option 3. Withdraw the entire IRA and contribute $650,000 to a CRT paying $32,500 a year for ten years. The value of the charitable deduction is $375,000[31] and the income tax liability is about $50,000. The charity receives $650,000 in ten years assuming a 5% nominal return.

Use the after-tax value of the ten CRT payouts to purchase a $1.6 million life insurance policy inside an ILIT with the children as beneficiaries.

Option 4. Contribute $400,000 from the IRA to charity. ($400,000 is the present value of a $650,000 charitable gift ten years hence discounted at 5%.) Assume that the taxable income is offset by the charitable deduction.

Convert the remaining $100,000 IRA to a $60,000 Roth IRA with the children as beneficiaries, paying the tax from the IRA itself. Use the remaining

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[30] www.SurvivorshipLife.com, March 24, 2010.
[31] http://pcalc.ptec.com, based on the February 2010 applicable federal rate of 3.4%.

$200,000 in non IRA assets to purchase $1.6 million of life insurance inside an ILIT with the children as beneficiaries.

The value received by the children in Options 2 and 4 depends on the age of the second death and it is disingenuous to value these options as if death occurs immediately. Mortality risk is incorporated by weighting the value of the Roth IRA at each age by the risk of the second death at that age.

The values received by the children at death, and by charity, are as follows.

	Children (5%)	Children (8%)	Charity
Option 1, Life Insurance	$4.2 million	$4.2 million	
Option 2, Roth Conversion	$2.2 million	$5.3 million	
Option 3, CRT + Life Insurance	$1.6 million	$1.6 million	$400,000
Option 4, Charitable Gift + Life Insurance + Roth Conversion	$1.8 million	$2.2 million	$400,000

Addendum Conclusions and Caveats.

- Charitable contributions reduce the amount received by the children. The CRT option reduces the amount received more than a charitable gift.

- The amount received by the children also depends on the investment return. A nominal five percent return is conservative – think long TIPS plus three percent inflation - while an eight percent return involves significant uncertainty.

- A Roth conversion has mortality risk and might trigger estate tax. Stretch-out benefits could considerably increase the values shown.

- CRT administrative costs were not considered in Option 3; these could significantly reduce the value that passes to the charity.

- The cost of life insurance increases about 5% per year of age. Since this is about the same as the appreciation within the Roth IRA, the relative performance of Options 2 and 3 is not strongly age dependent. The value ordering is the same for a couple aged seventy.

- Not converting might be more attractive than Options 2 or 4 if effective tax rates are substantially less than 40% in retirement.

- Amounts received by the children have not been adjusted for inflation.