Roth Conversions Revisited

AAII Research Triangle Chapter

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Questions for the Audience

- IRA/401k money that's pre-tax (aka traditional IRA/401k)?
- Who expects there's little or no chance a Roth conversion will work for you?

Roth Conversions Revisited, Agenda

- When do Roth conversions pay off? Conventional wisdom
- Establish some terminology for our discussion
- How do you estimate your 401k/IRA Required Minimum Distribution tax rate? Answer: complex tax law makes this difficult!
- What do McQuarrie/DiLellio say about the validity of conventional wisdom?
- Some updated guidelines for when Roth conversions may pay, and when they may not
- Find out how to model Roth conversions for yourself
- Is this a game changer for any of us? Let’s see. You be the judge!

AAII Journal Roth Conversion Conventional Wisdom

- Dr. William Reichenstein
  - Prominent AAII contributor and very highly respected author on taxes and Roth conversions (who I have avidly followed on AAII for over 2 decades!)
    - According to Professor Edward McQuarrie: *“William Reichenstein, as prominent an author as any in the Roth space…”*
  - I will call this “conventional wisdom” that we have heard for may years:
  - **"the key to whether a Roth conversion makes sense this year is the comparison of this year’s marginal tax rates to the marginal tax rate if the funds are retained in the tax-deferred account and withdrawn in retirement.“**

    from March 2018 “Retirement Planning Strategies Following the 2017 Tax Act”
    https://www.aaii.com/journal/article/retirement-planning-strategies-following-the-2017-tax-act
  - But, is this the *only* key?

AAII Journal Roth Conversion Conventional Wisdom (cont)

- Robert Carlson article, included in a recent AAII email (originally from October 2017)
  - "Strategies for Managing Required Minimum Distributions"
    "Changes in tax rates: A major factor is any difference between the tax rate in the year of conversion and the future rates in the distribution years. ***Conversions often make sense when your tax rate will be the same or higher in the future***. **They are less profitable or *take longer to pay off* when you're likely to pay a lower tax rate in the distribution years.**"
    https://www.aaii.com/journal/article/strategies-for-managing-required-minimum-distributions
    - Is this true? Can a Roth conversion paying a higher tax rate pay off, even if the distribution/RMD tax rate is lower? How can I find out? Carlson doesn't say. Stay tuned!
  - "While most people are aware in general about conversions, there's a lot of misinformation and misunderstanding. *Rule number one about IRA conversions is to ignore rules of thumb and general advice.* Each situation is unique and requires careful analysis."

Terminology Used Here

- 401k/IRA will be used for all retirement accounts (403(b), etc.)
  - 2 types:
    - *Tax-deferred account*, *TDA*, that is, *pre-tax* funds, also known as *traditional* IRA/401k
      - Tax is owed when money is "distributed", that is, removed from the account, at ordinary or marginal tax rate
    - *Roth*, also known as (aka) *tax-exempt account*. No tax is owed on any of the Roth funds
    - After-tax 401k contributions, or non-deductible IRA contributions: not relevant to this presentation. See "backdoor IRA" and "mega-backdoor Roth" 401k.
- Roth conversion: transfer pre-tax funds/money from a traditional 401k/IRA into a Roth, with ordinary income tax paid on the transferred money
  - Assume 100% of the converted money is pre-tax for this presentation
- Required Minimum Distribution (RMD): money must be distributed each year after the Required Begin Date (RBD), per the IRS RMD schedule

RMD Table Example

- See RMD spreadsheet
- Takeaways:
  - RMD hump or waterfall: RMD amount increases each year, until the average annual return is less than the RMD percentage
    - Example: assuming a 7% yearly rate of return, the RMD amount will grow larger until *age 88*, so taxable income grows
    - Not quite as bad is it seems, because inflation raises tax brackets
    - The higher the rate of return, the greater the RMD tax impact as you age, until the RMD percentage is greater than the return percentage
    - This also works in reverse: a series of low annual returns somewhat reduces the impact of RMD taxation

Brief Overview of Relevant Retiree Taxation

- You can't talk about whether Roth conversions pay off without understanding a bit about taxation
- We can do a deeper dive on taxes, especially for retirees, at another time. Some may find that interesting!
- See the most excellent AAII Individual Investor's Guide to Personal Tax Planning
  https://www.aaii.com/journal/article/100228-the-individual-investors-guide-to-personal-tax-planning-2023

Brief Overview of Relevant Retiree Taxation (cont-2)

- Many parallel tax structures
  - Tax bracket rate based on “taxable income” amounts, 10% 12% 22% 24% 32% 35% 37%. These tax rates are based on tax bracket thresholds for “ordinary income”
  - Dividends and capital gains rates, 0%, 15%, 20%
    - Net Investment Income Tax (NIIT), at the $200k/$250k single/MFJ (married filing joint) AGI (see below), adds another 3.8% on top of above capital gains rate
    - Income stacking: $1 of additional ordinary income can add 15% tax on $1 of capital gains
  - Adjusted Gross Income (AGI), and multiple (different!) Modified AGI, aka MAGIs
  - Retiree trickier ones: it can be quite complex to project whether you will be affected by these
    - Social Security “tax torpedo”: parallel bracket where the next $1 of income is taxed at the tax bracket rate, but also taxes up to 85% of an addition $1 of Social Security income
    - Medicare IRMAA: AGI/MAGI “cliff”, where $1 over a threshold can add some thousands of dollars of additional Medicare premiums, two years in the future

Brief Overview of Relevant Retiree Taxation (cont-3)

- Marginal tax rate: it's important!
  - Roth conversion strategies use marginal tax rates to evaluate success cases
  - Marginal tax rate can be higher, even much higher, than tax bracket rate
  - For $1 of additional income (ordinary income, dividends/capital gains, Social Security, etc. etc.), the amount of increased tax, divided by $1
    - *Example: $1 of income in a 12% tax bracket may have a 22% marginal tax rate.*
      $1 of added RMD income, in a 12% tax bracket ($0.12 tax), plus may tax 85% of $1 of social security income at 12% (85% * $1 * 12% tax rate = $.10), so $0.22 in tax, netting a marginal tax rate of 22%!
      Don't sweat the math, I can demonstrate later, time permitting
  - William Reichenstein: "most retirement households face marginal tax rates that are substantially different from their tax bracket, where the marginal tax rate is the tax rate on a dollar of ordinary income adjusted for Social Security and Medicare thresholds.
    https://www.aaii.com/journal/article/83454-the-importance-of-considering-marginal-taxes-when-taking-withdrawals
    - Worse! $1 of say RMD income may add 15% tax on dividends/capital gains, called by Michael Kitces the "capital gains bump zone"

Whew! Head spinning? Let's Summarize Some Things That Matter

- Roth conversion articles use *marginal tax rate* for breakeven/success analysis
- The rules of thumb you have heard ask you to make an assumption on your future tax-deferred account RMD/distribution tax rate
  - Many people will get this wrong
  - If you are like me, and I'd guess many people are, *you had absolutely no idea that when you retired you might have more income than you thought, and you might be paying all kinds of marginal tax amounts above your tax bracket rate*
  - What does that mean? You might have been making sub-optimal (read: bad) pre-tax vs Roth contribution and conversion decisions in the past. Ouch! Is it too late?
  - Question asked of a group of Cisco retirees: Knowing what you know now, what do you wish your younger self had done better before you retired?
    Answer (5 of 5 responders): we would've done more Roths, back when we didn't realize how much it could pay off
  - Problem areas:
    - 12% tax bracket: a lot of confusing and bad things can happen here, especially the SS tax torpedo
    - AGI/MAGI above $194k/$97k MFJ/single (2024): Medicare IRMA and NIIT start happening here

Geek Break: Social Security Tax Torpedo Spreadsheet Example

- Time permitting
- Future deep dive may be interesting

Conventional Wisdom for Roth Conversions: closer look

- Let's start here: Reichenstein "the key to whether a Roth conversion makes sense this year is the comparison of this year's marginal tax rates to the marginal tax rate if the funds are retained in the tax-deferred account and withdrawn in retirement."
  - This is considered true due to the commutative property of multiplication
    - (see McQuarrie's doc for the math explanation).
  - What is the basic assumption here? For example:
    - Roth conversion of $100k tax-deferred account, at a 22% tax rate
    - One distribution in retirement, taxed at the same 22%
    - Conclusion, per conventional wisdom: you break even on the conversion, regardless of the distribution year
    - **But wait…what about yearly RMDs? In the real world, it doesn't work that way. There is no single one-time distribution**

“The Arithmetic of Roth Conversions,” by Edward McQuarrie and James Dilellio

- Available for download here: https://www.financialplanningassociation.org/learning/publications/journal/MAY23-arithmetic-roth-conversions-OPEN
- Background: there were two previous papers on the academic SSRN site for free download (see also next slide)
  - But I’m focusing on the most recent 2023 one above
  - Older 2021 paper: “When and for Whom are Roth Conversions Most Beneficial? A New Set of Guidelines, Cautions and Caveats” https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3860359
- McQuarrie’s spreadsheet here. We will discuss a bit later, and I have my own enhanced version: http://www.edwardfmcquarrie.com/wp-content/uploads/2022/05/Roth-conversion-worksheet-for-financial-experts-webinar.xlsx

“The Arithmetic of Roth Conversions,” Background

- Bogleheads (Vanguard’s John Bogle proteges) have some very long and incredibly detailed and complex threads on McQuarrie topics Bogleheads.org
  - Takes hours to read and digest! I still haven’t finished!
  - Takeaways:
    - Many Bogleheads members are brilliant and had analyzed Roth conversions in great detail, and have tons of tools and their own spreadsheets. Some of these folks are *experts*!
    - In the earlier threads (2021, 2022), some Bogleheads were quite critical, and pointed out some flaws in McQuarries explanations and presentations
    - McQuarrie graciously engaged with them. He incorporated Bogleheads’ comments and corrected his spreadsheet.
    - McQuarrie started creating new posts, explicitly to get awesome Bogleheads feedback, he said much better than would come from an academic site
    - Conclusion: my takeaway is by the end Bogleheads accepted McQuarrie’s conclusions, I believe verified them against Mr. Mustache and other spreadsheets, and McQuarrie was very thankful. I think it’s fair to say that everybody ended very respectful of all contributions.
    - My personal respect, for what it’s worth, for all this work is immense.

McQuarrie Innovation: More Realistic Assumptions for Some Investors

- Note: these assume an affluent enough investor who can afford to leave money invested long enough for these comparisons to play out
- http://www.edwardfmcquarrie.com/wp-content/uploads/2022/05/Roth-conversion-worksheet-for-financial-experts-webinar.xlsx
- Note: no discussion here regarding the sunset of the Tax Cuts and Jobs Act (TCJA) individual tax rates per current tax law (you can account for this or not on your own). A 2026 increase in tax rates would make Roth conversions more successful.
- Real world use case 1: Roth account compounding time
  - If I do a Roth conversion I don't expect to spend that money for a long time
    - Per account type withdrawal "default strategy", draw down taxable accounts first, tax-deferred accounts next, and Roth accounts last (optimizations are out of scope here)
    - Affluent investors may pass some of their Roth to heirs
    - Result: there may be 1,2, 3, or more decades, or more, of Roth compounding time!
  - If I need to spend the TDA money from RMDs every year, I won't bother to convert them to Roth
- Real world use case 2: RMDs happen every year for TDA money not converted to Roth, like it or not

McQuarrie Innovation: More Realistic Assumptions (cont)

- Roth conversion breakeven/success analysis, McQuarrie version
  - Details: for apples-to-apples comparisons, compare two cases, with these assumptions for simplicity
    - Assume the exact same asset allocation for all money across all account types, that is, stock fund with an average annual return of 10% (note: you can use any amount here)
    - Assume 22% tax rate on RMDs
    - Assume 15% capital gains rate on the sale of appreciated stock funds in a taxable account
    - Assume 2% annual dividend on stock funds in a taxable account
    - case 1: converted Roth money stays invested
    - case 2: “counterfactual” If you don’t do the Roth conversion, the TDA money must have the same holding time as the Roth
      - So RMDs are not spent!
      - Distributed RMD cash is reinvested in a taxable account

McQuarrie's BIG IDEA

- Note: don't get too bogged down in the details, for which we don't have adequate time for explanation. *But wait for the conclusion!*
- Unspent RMDs, reinvested in taxable accounts, have yearly tax drag on dividends
- In the final year distribution comparison, all funds, base case of converted Roth, vs counterfactual of unconverted TDA, all accounts are distributed, and any tax owed is paid
    - Counterfactual (not converted TDA funds, with RMDs not spent and reinvested in taxable account), there is 15% capital gains tax when distributed

McQuarrie's BIG IDEA (slide-2)

- Tax drag on unconverted TDA account, with RMDs reinvested in a taxable account, **compounds *exponentially***!!!
  - So, the arithmetic at play is *not the commutative property of multiplication*, but rather the *exponentially compounding tax drag* due to RMDs reinvested in taxable accounts
- McQuarrie conclusion: in theory, with apples-to-apples comparisons, **Roth conversions always pay, given enough time!**
  - But you have to do the math. A 60-year success timeframe is a little late for most retirees, and even their heirs!
- McQuarrie spreadsheet example:
  - A Roth conversion at a 32% marginal tax rate at age 72, with RMDs taxed at 22%, becomes successful in 28 years, at age 97. Not ridiculous for some, for the longest lived spouse, and for heirs with another 10 year compounding time

McQuarrie’s BIG IDEA (slide-3)

- McQuarrie “de minimis” rules
  - Even a potential payoff still may not be worth it.
    - The initial payoff may not be large
    - There are many uncertainties over time with changing tax rates, inflation, stock market returns, etc. etc. So nothing is guaranteed.
      - The longer the time to success, the more things can change

McQuarrie Practical Implications McQuarrie Quotes

- taxCONV: tax on Roth conversion; taxDIST: tax on distribution
- The steeper the future tax hike, the greater the dollar payoff from a conversion.
- But for any given increase in taxDIST, the greatest dollar payoff from a Roth conversion occurs when high return assets are converted, e.g., stocks rather than bonds or balanced funds.
- Longer time horizons magnify the dollar amount of whatever payoff is received.
- The further out the spreadsheet projection runs, the more uncertain the calculation of conversion payoffs must be (Harvey 1993). A conversion whose calculations do not show a large payoff until the client's 90s may not pay off by much at all.

McQuarrie Practical Implications Quotes (slide-2)

- Roth conversions are robust against mistaken assumptions about taxDIST but only over the long run. Tax drag starts very small and mounts slowly over the first decade. Large payoffs will require decades if taxDIST is not higher than taxCONV.
- Many, perhaps most, Roth conversions can be expected to pay off within the joint life expectancy of a married couple, even when taxDIST < taxCONV. The tax on distributions has to come in six percentage points or more below the tax rate paid on the conversion to fail this test.
- The ideal client for a Roth conversion has a time horizon that extends into their mid-90s or beyond. For that client, tax drag should be potent enough to overcome any moderately unfavorable movement in future tax rates. Even for an unchanged taxDIST, their conversion would still produce tens of thousands in real dollar gain at the end of their planning horizon.

How to Model Roth Conversion Payoff Scenarios

- Spreadsheets!
- Deeper dive a topic for another day

Roth Conversions Triggering Medicare IRMAA Penalties

- McQuarrie did some heavy math on some scenarios
  - McQuarrie concluded that converting into the IRMAA ranges is unlikely to pay off
- We’ll come back to this

JW's Unconventional "Wisdom"?

- I'm not convinced that only marginal tax rate must be used
  - Conventional wisdom: break Roth conversion amounts into pieces, until the last dollars drive the marginal tax rate into an area of questionable success
    - Shrink the amount of the Roth conversion for only the last dollars that appear successful
  - I think it could be considered fair to use average tax rate for the entire conversion.
    - This can make the numbers a lot better, particular in Medicare IRMAA levels 1 - 3
- What about a bear market?
  - See Michael Kitces: "When Roth Conversions Go 'On Sale': Discounted Roth Conversions During A Bear Market Decline" https://www.kitces.com/blog/roth-conversion-bear-market-downturn-tax-savings-cost-conversion-averaging-isolate-ira-basis/
  - A 20% reduction in TDA market value allows converting a 20% greater percentage of the TDA, for the same amount of tax dollars
  - My take: I took advantage in the 2020 down market, converting a larger percentage of my total TDA account.
    - Market timing algorithm: I'll leave this to you. I may break out separate conversions for each 10% market drop, or something like that

JW’s Unconventional “Wisdom”? (slide-2)

- Putting it all together:
  - Consider: Investor with a current and future 22% marginal tax rate, 20% or more bear market, for a large conversion into the first, second, or perhaps third IRMAA range
    - Note: for a MFJ investor in a 22% tax bracket range, the second level IRMAA MAGI may trigger Net Investment Income Tax (NIIT), and may also jump to a 24% or higher tax bracket
  - Investor may consider whether the bear market “discount”, doing the conversion when the TDA is “on sale”, may make paying IRMAA worthwhile
  - The numbers look better if you take the entire Roth conversion average tax rate, rather than marginal rate of each block of converted money
  - Plugging this into McQuarrie’s spreadsheet can show an eventual payoff, assuming the converted funds bounce back to their previous value, compounding for free in the Roth
  - An additional boost can come from converting only stock funds in the TDA
    - Say the TDA is 50% stocks, 50% bonds; initial value $100,000
    - Say in the bear market, stocks are down 20% in value, but bonds value is the same; $100,000 TDA becomes $90,000 (bonds $50,000, stocks $40,000).
    - Convert $100k, selling only stock funds to convert. Allocated the additional $100,000 in the Roth to the same stock funds. This can turbo-charge the benefit of the Roth conversion.

Could a Roth Conversion Benefit More Than You Had Thought?

- For me, yes!
- Deeper analysis on how to calculate the scenarios and payoffs is a topic for another time


ANY QUESTIONS?