Seeking Tax Alpha in Retirement Income

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March 1, 2022

Financial Experts Network Webinar

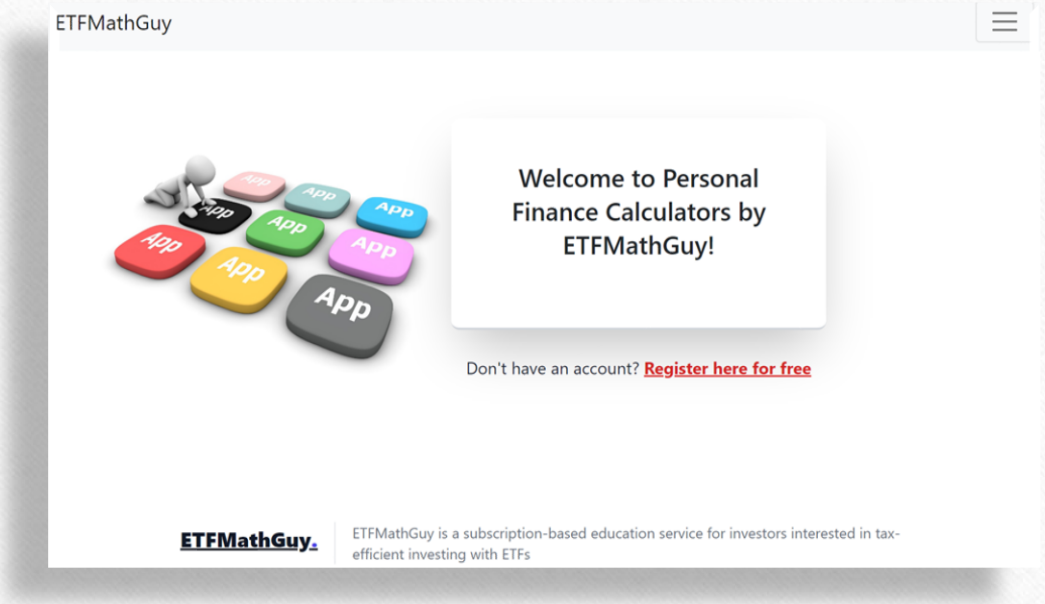
About the Presenter

- Dr. James A. DiLellio, is an associate professor of decision sciences in the Graziadio Business School at Pepperdine University.*
- He holds a PhD in Applied Mathematics from Northwestern University and an MBA from Pepperdine.
- His current research interests focus on tax-efficient algorithms for retirement income.
- He founded ETFMathGuy as a subscription education service for tax efficient investing with Exchange Traded Funds.

* The views presented here a solely mine and do not represent those of Pepperdine University.

Additional Resources

- This presentation link.
- My latest whitepaper.
- My online calculators
  - Common rule drawdown calculations are free to all, and can be expedited by registering a free account and updating your profile. Optimal rule drawdown calculations are available for annual subscription.
  - Additional calculators to pre-retirement forecasting and Monte Carlo simulation are forthcoming.
  - Reports for Case Study #1 and Case Study #2
- My email: ETFMathGuy@gmail.com



Summary

- This webinar provides a framework to find an optimal decision for tax-efficient retirement income.
- By developing a model for income and capital gains tax with stock and bond investments in tax-deferred, tax-exempt, and taxable accounts, we identify three categories of retirees based on their income needs and net worth.
- We propose and evaluate a simple heuristic to determine what retirement income strategy is optimal, quantifying a 0.5% - 0.8% annual return benefit.
- We call this benefit "tax alpha", which is due to paying taxes early, contrary to common wisdom advocated by most accounting experts.
- We illustrate that seeking an optimal decision for retirement income withdrawals requires different strategies.

Learning Objectives

- Review the common rule for retirement account drawdowns
- Identify where the common rule can be tax-inefficient with knowledge the heir's marginal tax rate.
- Understand a simple heuristic to categorize a retiree's assets into insufficient, sufficient and excess based upon their income needs and retirement horizon.
- Learn why there is a strategic benefit to paying taxes earlier, particularly for a retiree and spouse with a large age difference.

Polling Question #1

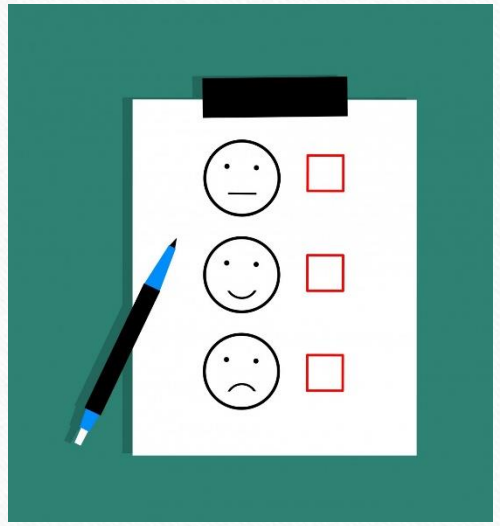
One of the learning objectives of this webinar is:

a. Review the common rule for retirement account drawdowns.

b. Survey all optimal account drawdown strategies.

c. Analyze how to optimize social security benefits.

d. Discuss proposed legislation that may change future tax law.



What is tax alpha?

We define tax alpha as the **additional annual investment return** necessary for the **common-rule** withdrawal strategy to meet the **same portfolio longevity or bequest as an optimal strategy**.

After-tax value of an estate

- The after-tax value of an estate

$$W = W_{brokerage} + c\left[W_{tax-deferred}(1 - \tau_{heir}) + W_{tax-exempt}\right]$$

- $W_{brokerage}$: value of assets in the retiree's taxable brokerage account
- $W_{tax-deferred}$: value of assets in the retiree's tax-deferred accounts, including traditional and rollover accounts funded with pre-tax funds.
- τ_{heir} is the marginal tax rate of the heir.
- $W_{tax-exempt}$: value of assets in the retiree's tax-exempt account
- $c = 1$ if the accounts are liquidated immediately. $c = 1.14$ if stretched over 10 years. (DiLellio and Kinsman, 2020).

Model for Income and Capital Gains Taxation

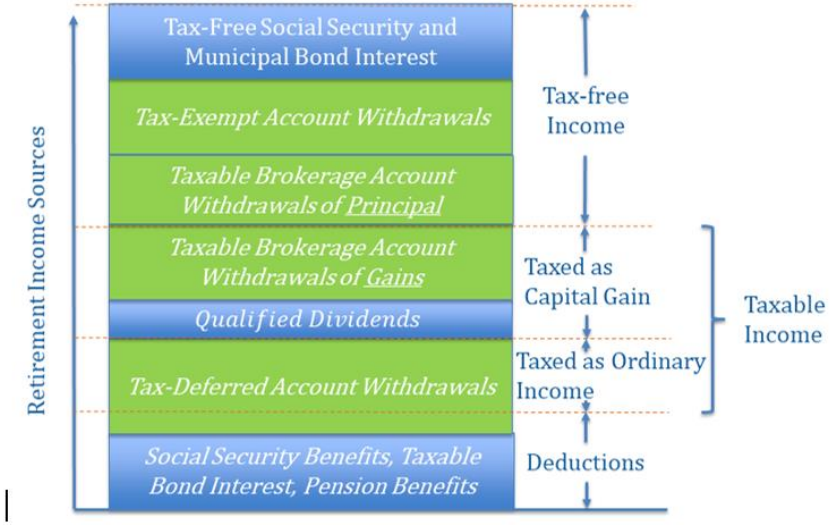


Figure 1: Conceptual model for retirement income sources and taxation. In this illustration, the retiree's deductions exceed their income from social security, pension, and taxable bond interest.

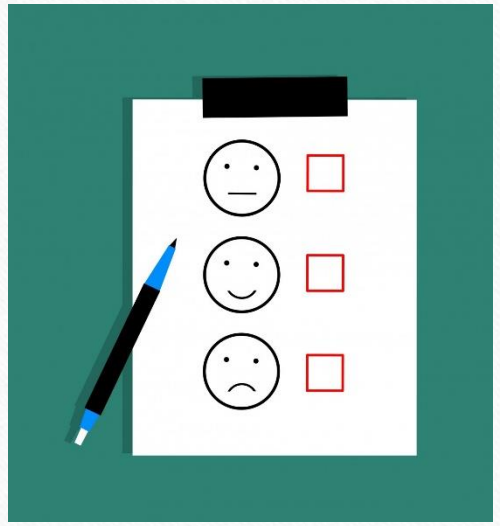
Based on a withdrawal strategy

Other income available for retirement

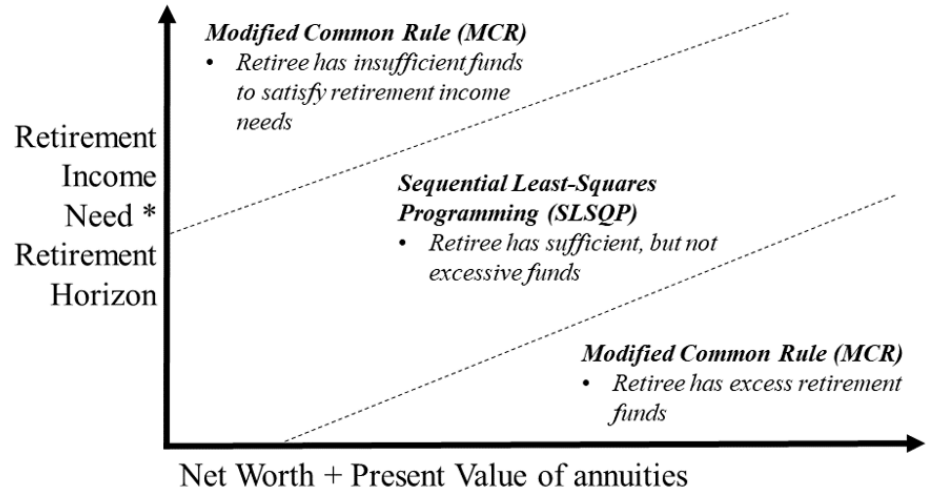
Polling Question #2

In the model for income and capital gains taxes, how are qualified dividends taxed?

a. They are not taxed.
b. They are taxed as ordinary income.
c. They are taxed at long-term capital gains tax rates.
d. They are taxed only when AGI exceeds $200,000.00



Choice of Optimal Withdrawal Strategy



Note: Annuities are assumed to be guaranteed fixed payments, like those from a pension or social security.

Figure 2: The optimal withdrawal strategy depends on the relationship between the retirees net worth + present value of annuities and their retirement income needs * their retirement horizon

Common Rule Sequence

Withdraw RMDs from Tax-Deferred Account → Withdraw from Taxable Account until it is depleted. → Withdraw from Tax-Deferred Account until it is depleted. → Withdraw from Tax-Exempt

Our optimal withdrawal strategies are NOT sequential, but mixes account drawdowns to maximize either

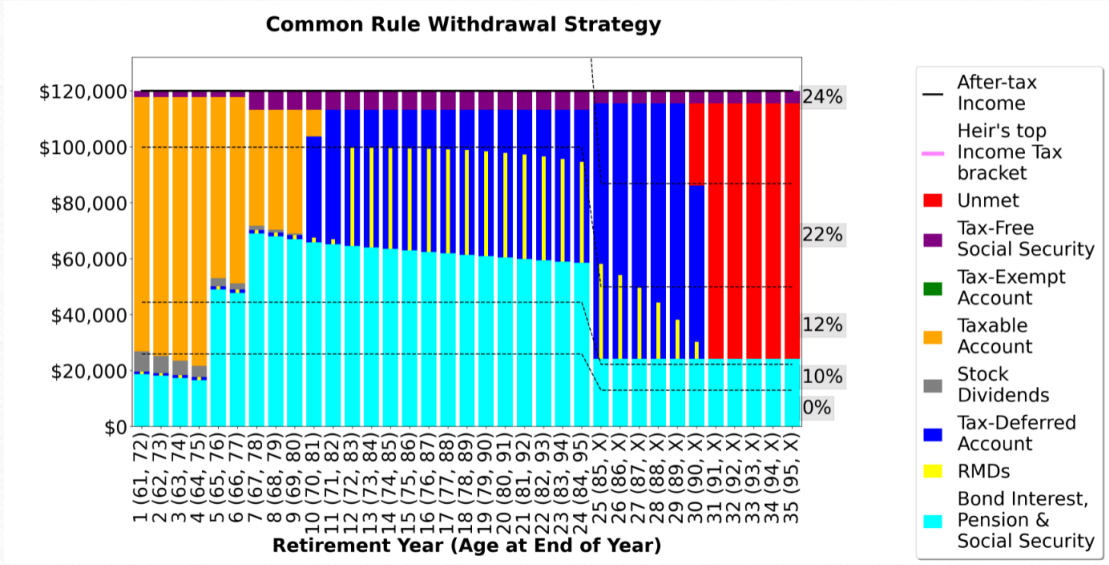
1. Portfolio Longevity
2. Bequest to an heir with knowledge of their marginal tax rate.

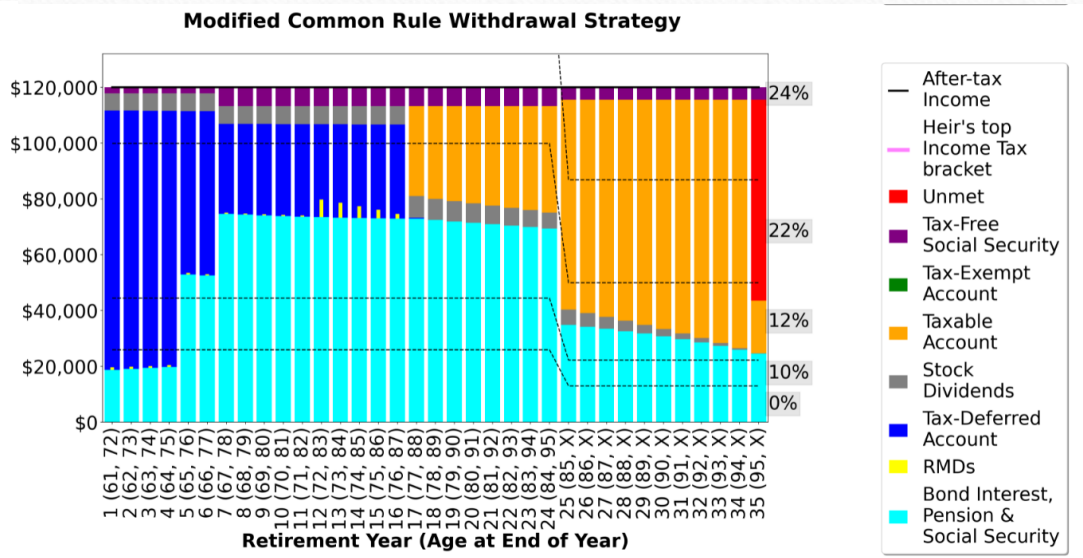
Case Study #1: Steve and Alice Jones can increase their portfolio's longevity and reduce the "widow's penalty"

- Steve and Alice retired this year in a community property state.
- Steve is 60 and has a life expectancy of 95. Alice is 71 and has a life expectancy of 95.
- Their after-tax retirement income needs are $120,000 per year while together and for the surviving spouse. (Today's dollars)
- Both have RMDs starting at age 72.
- Their heir's marginal income tax rate is 25%.
- Steve and Alice both have retirement assets tax-deferred accounts ($800k and $25k). Neither has tax-exempt account. Steve owns a taxable account valued at $600k, with a cost basis for stocks at $180k and bonds at $163,200.
- Their asset allocation is 60%/40% stock/bonds in all accounts, and they increase bond allocation by 1% each year.
- Steve has a $36k annual pension income starting at age 65 and a $30k annual social security income starting at age 67. Alice has a $15k annual social security benefit started at age 70.

Portfolio longevity increased from 30 to 35 years

See for yourself at https://apps.etfmathguy.com





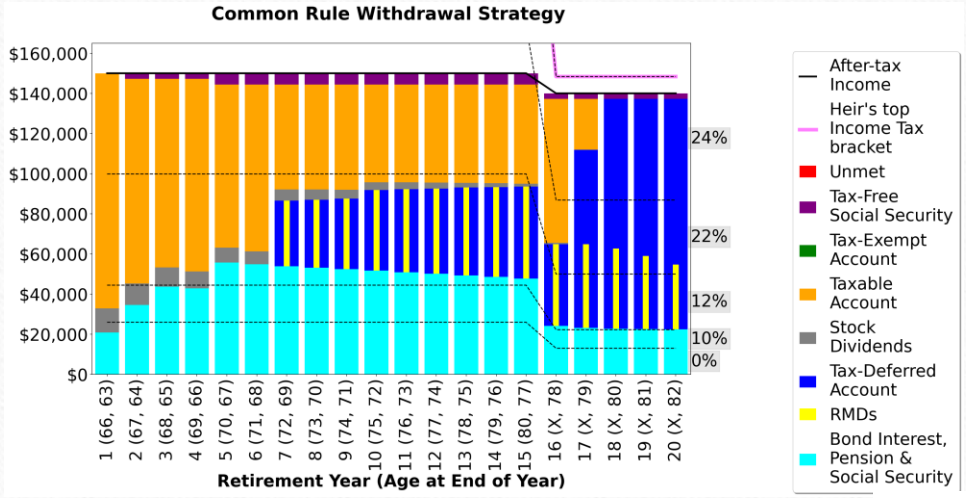
Increased Portfolio Longevity	Tax Alpha
+4.64 years	+0.89% per year

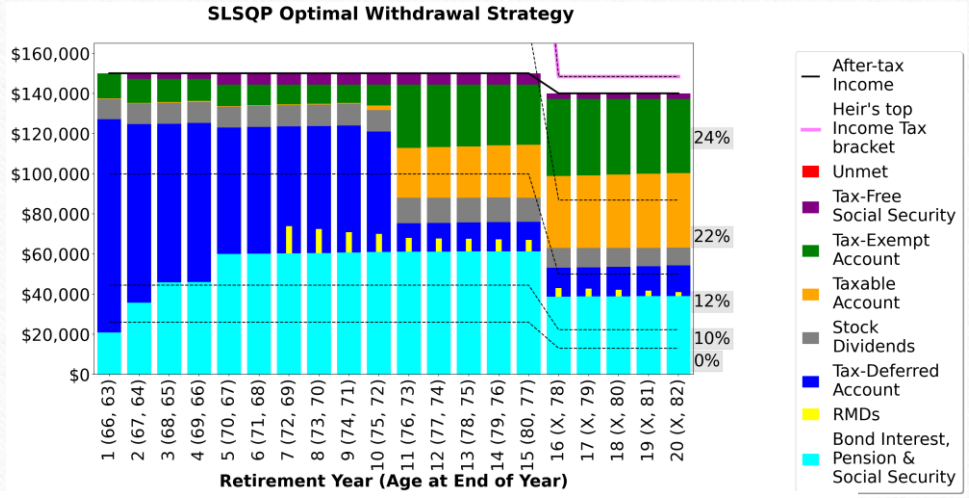
Case Study #2: John and Jane Smith can increase their heir's inheritance

- John and Jane retired this year in a community property state.
- John is 65 and has a life expectancy of 80. Jane is 62 and has a life expectancy of 82.
- Their after-tax retirement income needs are $150,000 per year, reducing to $140,000 per year for the surviving spouse. (Today's dollars)
- Both have RMDs starting at age 72.
- Their heir's marginal income tax rate is 25%.
- John and Jane both have retirement assets tax-deferred ($800k, $100k) and tax-exempt accounts ($400k, $50k). John owns a taxable account valued at $1M with a cost basis of $300k in stocks and $272k in bonds.
- Their asset allocation is 60%/40% stock/bonds in all accounts, and they increase bond allocation by 1% each year.
- John and Jane have annual pension income starting at age 65 of $18,500 each, and social security income starting at age 67 of $11,000 each.

John and Jane leave their heir's over $250,000 more using our Optimal Withdrawal Strategy instead of the Common Rule

See for yourself at https://apps.etfmathguy.com





Increased Inheritance	Tax Alpha
+$284,792.07 (after-tax, current year dollars)	+0.55% per year

Polling Question #3

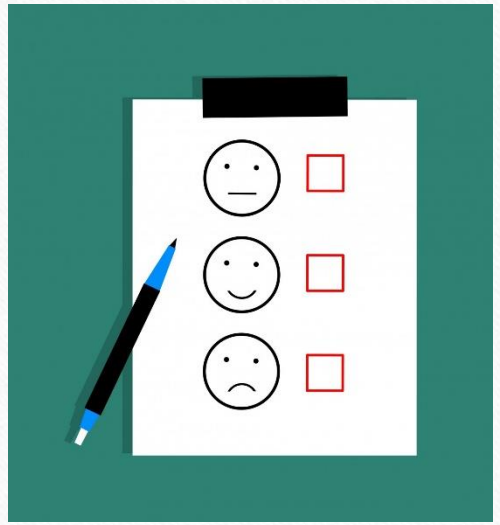
The "Widow's penalty" refers to

a. the surviving spouse no longer receiving a spouse's pension benefit.

b. the surviving spouse no longer receiving a spouse's social security benefit.

c. the surviving spouse living in a community property state.

d. the surviving spouse filing taxes as a single, instead of married filing jointly.



Current and future feature list for the Retirement Income Calculator

Current Feature List

- Optimal decisions maximize an heir's inheritance or portfolio longevity
- Optimal decisions meet after-tax income needs.
- Taxable account inputs include stock/bond mix and cost basis information.
- Tax-deferred accounts and RMDs for retiree and spouse based on The Secure Act.
- The effect of 10-year stretch IRA on inherited wealth.
- **The effect of increases or decreases in future tax rates.**
- Step up in cost basis for heirs of taxable account assets. Step un in cost basis for surviving spouse in community property vs. non-community property states.
- Federal income and capital gains tax rates as of 2022.
- Social Security benefits adjusted for inflation. Pension benefits fixed in current year dollars.
- Social Security and pension benefits initiate at a selected age.
- Graphical display of expected future income, taxes, and account balances.

More details are available at our FAQ page.

Please complete this survey to help us prioritize adding new features and/or request an individualized demonstration.

Thank you for your time!

Questions?