Tax-Efficient Sequencing of Accounts to Tap in Retirement

THE OPTIMAL RETIREMENT WITHDRAWAL STRATEGY

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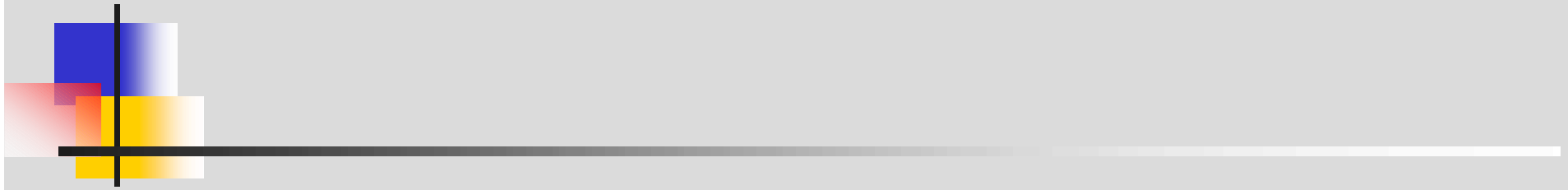
Outline:

1. Dollar in TDA is like (1-tn) dollar in Roth
2. Effective tax rates on bonds and stocks held in Roth, TDA, and taxable account
3. Optimal withdrawal sequence in retirement

- TDA denotes tax-deferred account such as 401(k), 403(b), Keogh.
- Roth denotes tax-exempt account such as Roth IRA.



1. Dollar in TDA is like (1-tn) dollar in Roth

Assumptions

Initially assume

1) Ordinary income tax rate during retirement is flat 25%, $t_n = 0.25$ and

2) Effective tax rate on stocks is 15%, $t_c = 0.15$.*

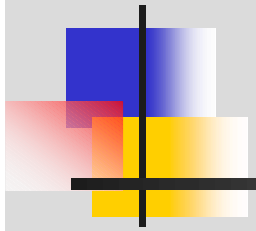
* This active stock investor realizes all gains after one year and one day.

$1 TDA versus $0.75 Roth IRA

- The $1 of *pretax* funds in a TDA will buy the same amount of goods and services in retirement as $0.75 of *after-tax* funds in a Roth when invested in the same asset.
- For example, if cumulative return is 100% then they each buy $1.50 of goods and services.

Implications

- For asset allocation, $1 of *pretax* funds in TDA is considered $0.75 of *after-tax* funds in Roth.
- The $1 in TDA can be separated into $0.75 of investor's *after-tax* funds + $0.25, the government's share of *current principal*.
- Roth grows tax exempt. *After-tax* value of TDA grows tax exempt, too. Effective tax rate is 0% for both.
- You can convert pretax dollars in TDA to after-tax dollars by multiplying by $(1 - t_n)$, where t_n is the tax rate at withdrawal in retirement.



2. Effective tax rates on bonds ands stocks held in Roth, TDA, and taxable account

After-tax Ending Wealth Models for Bonds and Stocks in Roth, TDA, and Taxable Account

Beginning investment value: $1

	Bonds	**Stocks**
Roth	$(1+r)^n$	$(1+r)^n$
TDA	$(1+r)^n$ (1-.25)	$(1+r)^n$ (1-.25)
Taxable Account	$(1+r(1-.25))^n$	*Active Investor*: $(1+r(1-.15))^n$ Passive Investor: $(1+r)^n(1-.15)+.15$ Exempt Investor: $(1+r)^n$

r=pretax return, n = investment horizon in years
For simplicity assume all stock returns are capital gains

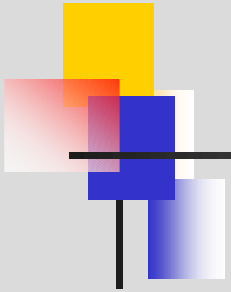
Effective Tax Rates for Bonds and Stocks in Roth, TDA, and Taxable Account

Beginning investment value: $1

	Bonds	**Stocks**
Roth	0%	0%
TDA	0%	0%
Taxable Account	25%	*Active Investor*: 15% Passive Investor: <15% Exempt Investor: 0%

r=pretax return, n = investment horizon in years

For simplicity assume all stock returns are capital gains



3. Optimal withdrawal sequence in retirement

Rule of Thumb

- Recall that the effective tax rate on funds held in Roth and TDA is 0%, while effective tax rates > 0% on funds held in taxable accounts.
- Rule of Thumb: Withdraw funds from taxable accounts before retirement accounts.

Table 1: Retiree's *After-tax* Portfolio

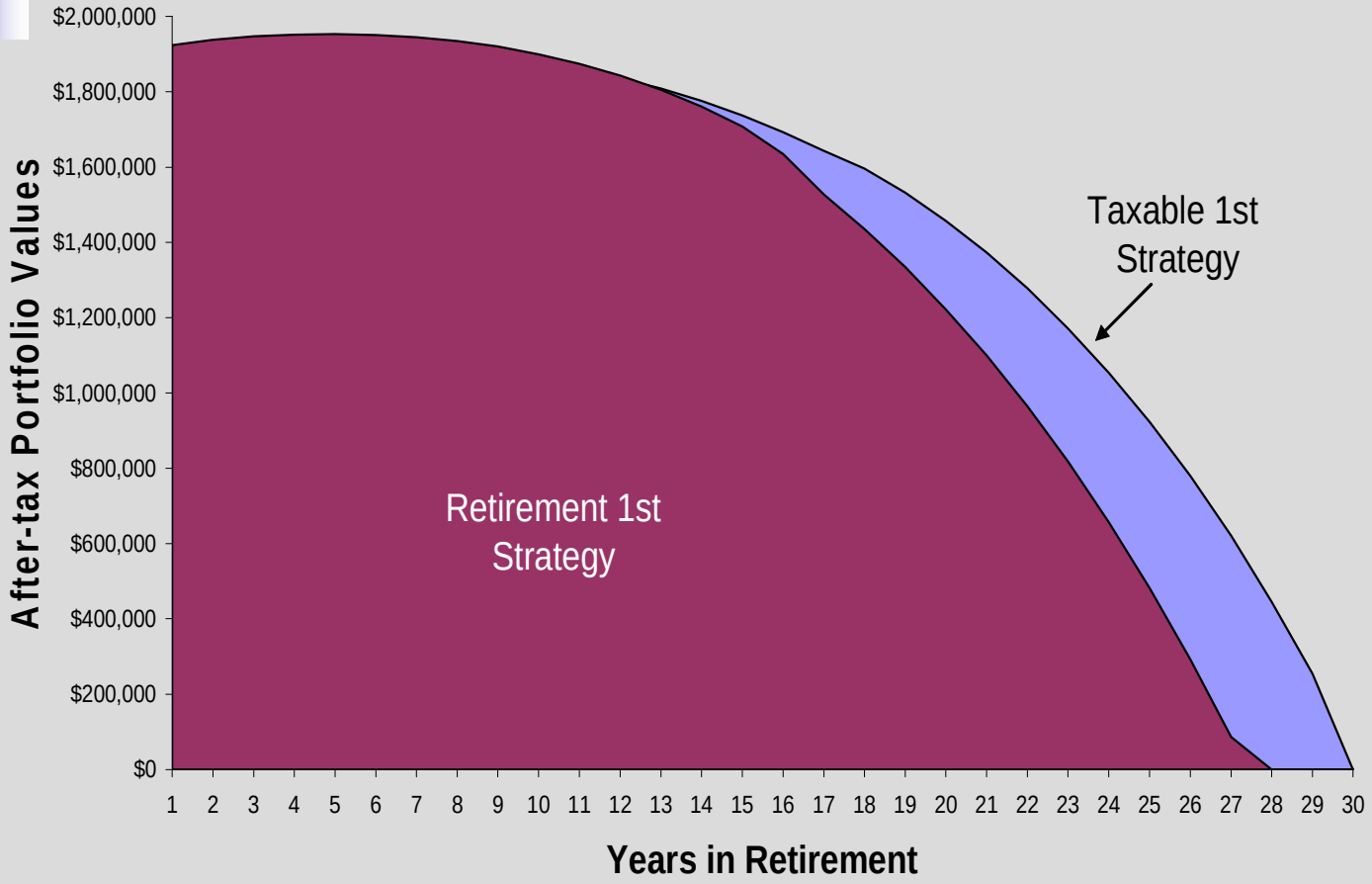
Taxable Accts	**Retirement Accts**
$800,000 after taxes	$1,200,000 after taxes

Estimates of Portfolio Longevity by Withdrawal Strategy

Base Case: $2 million after-tax portfolio

Withdrawal Strategy,	**Longevity (yrs)**
Taxable 1st	30.0
Retirement 1st	27.4
Taxable 1st 10%	30.06
Taxable 1st 15%	30.07

Figure 1. Withdrawal-Location Strategies



Sensitivity Analysis

	Additional Longevity
Base Case	2.6
Portfolio Size	
--$1m after-tax portfolio	0.8
--$5m after-tax portfolio	2.9
Net Rate of Return	
--7% (1% higher than base case)	3.3
Tax Rate	
--25% (10% higher than base case)	3.7
--passive investor (9.6% eff tax rate)	1.9

Exceptions to Rule of Thumb

- *Key idea: The government effectively owns t_n of principal in TDAs, where t_n is the tax rate upon withdrawal. Minimize t_n, the government's share!*
- Before RMDs begin after 70.5, your client's taxable income may be low. If so, withdraw funds from TDAs (or convert funds from traditional IRA to Roth IRA) to use low tax brackets.

Exceptions to Rule of Thumb

- When t_n is low—perhaps due to large contribution or deductible medical expenses—withdraw funds from TDAs.
- Step-up in basis: If your client is terminally ill, don't realize capital gains even if this means dipping into retirement accounts.

Withdraw First from TDA or Roth IRA?

- Your client has funds in TDAs and Roth IRAs and his children are in a lower tax bracket: Withdraw funds from Roth IRAs and save TDAs for children.
- If the children are in a higher tax bracket, the client should withdraw funds from TDAs and save Roth IRAs for children.