

# Outline

## Optimize your Financial Life

- FI/RE
- Tools
- Resources

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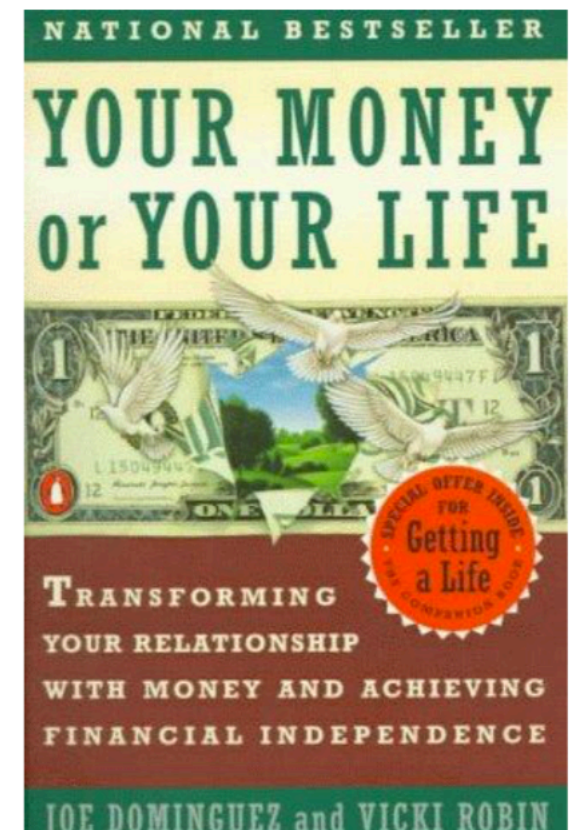
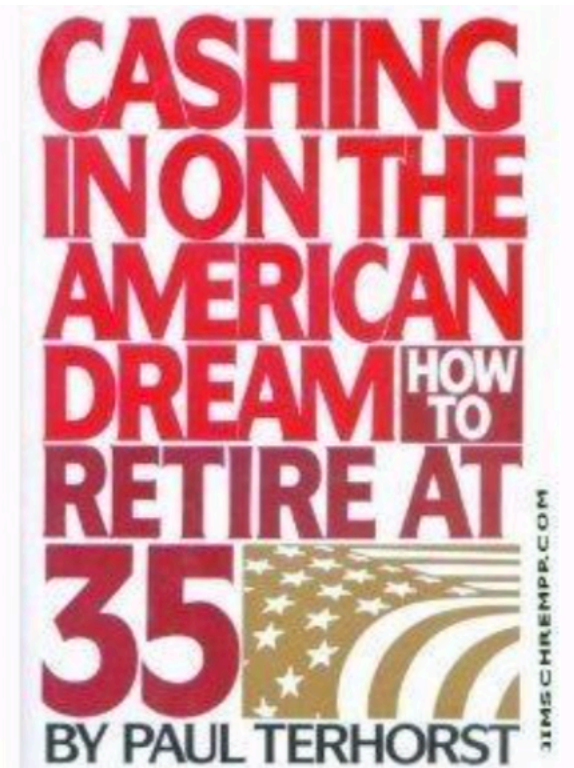
# Financial Independence (FI)

Passive income  $\geq$  expenses

Forms of passive income:

- Rents
- Royalties
- Dividends
- Capital Appreciation

FI aka *FU money*\*



\*...screw-you money. Enough to say screw you to anybody or anything.”—James Clavell, *Noble House*

# Why Financial Independence?

## Options/Freedom!

- Work because you want to, not because you have to
- Work part time
- Take extended time off
- Spend time with your kids while they're young
- Work for a startup/non-profit/Peace Corps/small science & engineering private college

# Financial Independence (FI)

For a mostly-stock portfolio, how much can you withdraw per year for 30 years? Use Safe Withdrawal Rate (SFR)

What is Safe Withdrawal Rate? about 4%/year (adjusted for inflation annually). (See Trinity study)

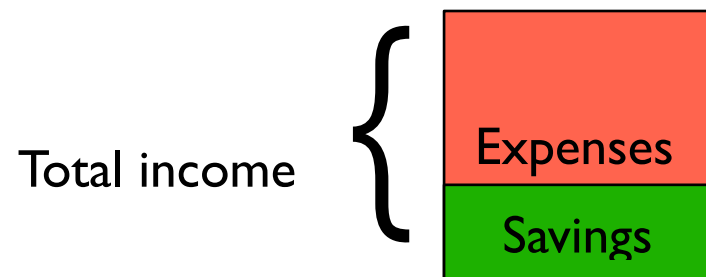
So, \$1M yields \$40K/year in income (increases by inflation each year)

Alternative formulation:

needed assets = 25 x desired annual income

# Shockingly Simple Math

FI is *independent* of income!



What is it dependent on? *Savings rate*



Assets

X Safe withdrawal rate =

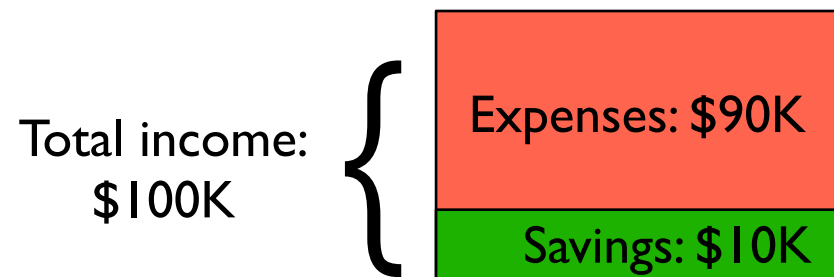


Investment  
income

<?  
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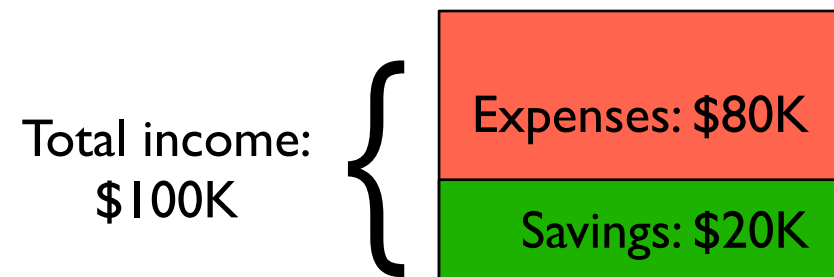
# 10% Savings Rate



Needed Assets: \$2.25M

Time needed (8% investment return): **39 years**

# Increase to 20% Savings Rate



Needed Assets: \$2M

Time needed (8% investment return): **29 years**

# Other Savings Rates

| <b>Savings Rate</b> | <b># of years for FI<br/>(asume 8% return)</b> |
|---------------------|--|
| 10%                 | 39   |
| 20%                 | 29   |
| 30%                 | 23   |
| 40%                 | 19   |
| 50%                 | 15   |
| 60%                 | 12   |
| 70%                 | 9  |
| 80%                 | 6  |
| 90%                 | 3  |



# Negotiate Your Job Offer!

Don't accept the first offer

Negotiate on:

- Annual salary
- Signing bonus
- Stock/Option grants
- Moving expenses

Best negotiating position: having multiple offers

# Don't Increase your Lifestyle

Don't buy/lease a new car

Continue to have roommates

Increase your spending by only X% of increased income

- For example, if you get a raise of \$500/month, increase your spending budget by only \$100/month

Be (a)ware of *hedonic adaptation*

# The Rule of 72

How long to double your money? *Calculate  $n$*

Depends on annual interest rate. *Given  $i$*

$$n = \frac{72}{i}$$

| Interest rate | Number of years              |
|---------------|------------------------------|
| 2%            | $\frac{72}{2} = \mathbf{36}$ |
| 6%            | $\frac{72}{6} = \mathbf{12}$ |
| 9%            | $\frac{72}{9} = \mathbf{8}$  |
| 12%           | $\frac{72}{12} = \mathbf{6}$ |

# Budgeting (YNAB)

YNAB: Great budgeting software



Free for students!

## Four rules:

- Give every dollar a job
- Save for a rainy day
- Roll with the punches
- Live on last month's income

## Comparison:

- Quicken/Mint — Capture historical record
- YNAB — Plan the future

# Best Checking Account



## Features

- ATM Fee Rebates (domestic and international)
- No-fee, no-minimum
- Mobile deposits
- Bill-pay
- 2FA (with hardware token or mobile app)
- Debit card: no foreign transaction fees

*Absolutely free ATM!*

# Best Cash-back Credit Card



## Features:

- 2% cash-back each month (deposited into a Fidelity brokerage account)

# Cash Reserves (aka *Emergency Fund*)

Maintain 3-6 months of (bare-bones) living expenses

- CDs
- Money Market
- Savings Account
- I-Bonds
- Roth IRA

Not good enough to rely on:

- Credit cards
- HELOC (Home Equity Line of Credit)
- Investments

This money is insurance; not an investment

# Use Tax-advantaged Accounts

Per year:

\$61,000: 401K (includes \$20.5K pre-tax +  
company match +  
remainder after-tax\*)

\$ 3,650: HSA (\$7,300 for family)

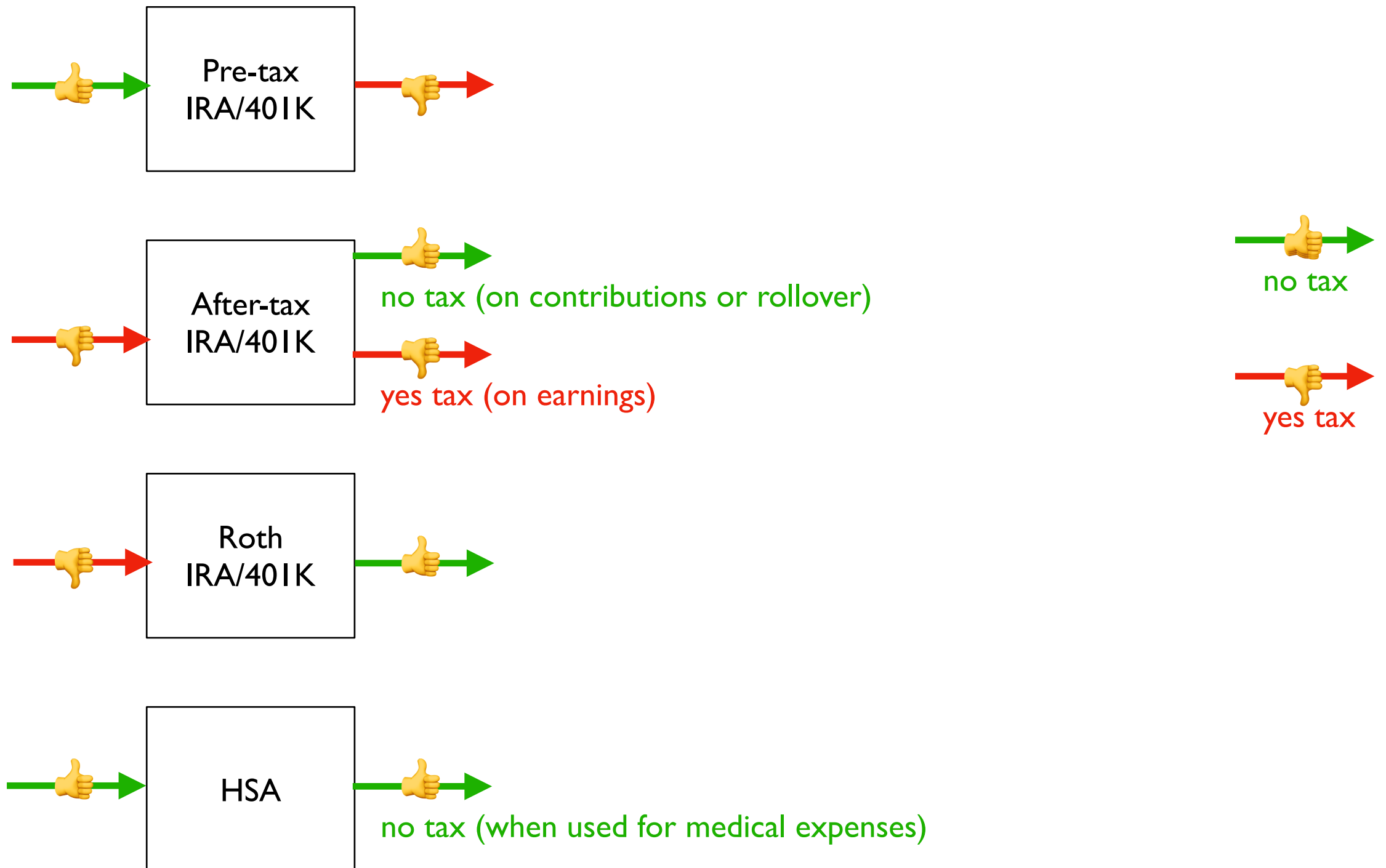
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**\$64,650: Total tax-advantaged savings**

\* Can rollover after-tax 401K to Roth IRA on separation



# Tax-Advantaged Accounts



# Getting Money Out (Without Penalty)

## After leave your company

- Rollover pre-tax 401K to traditional IRA
- Rollover Roth 401K/after-tax 401K to Roth IRA

## Three ways to get money out of traditional IRA $\leq 59\frac{1}{2}$ without penalty:

- Exceptions: Medical expenses  $\geq 10\%$  of income, college expenses (even if paid from 529!), first time homebuyer ( $\leq 10K$  lifetime, therefore useless)
- Substantially Equal Periodic Payments (SEPP aka 72t)
- Conversions to Roth IRA

# Getting Money Out (SEPP)

Withdraw money over your lifetime (substantially equal periodic payments):

- Amortized (like a mortgage): one-time calculation using IRA balance and life expectancy, and Fed mid-term interest rate

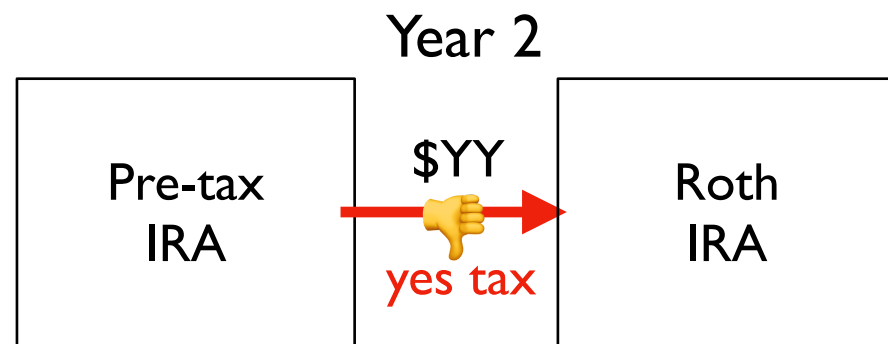
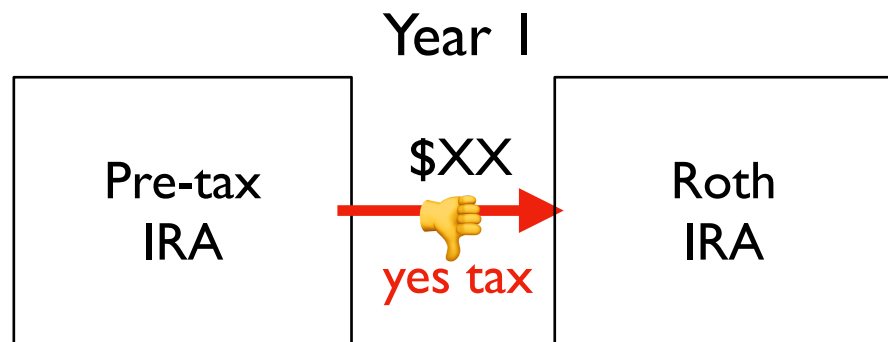
SEPP can operate on a subset of IRA accounts

SEPP must continue until age 59½ or 5 years, whichever is *longer*

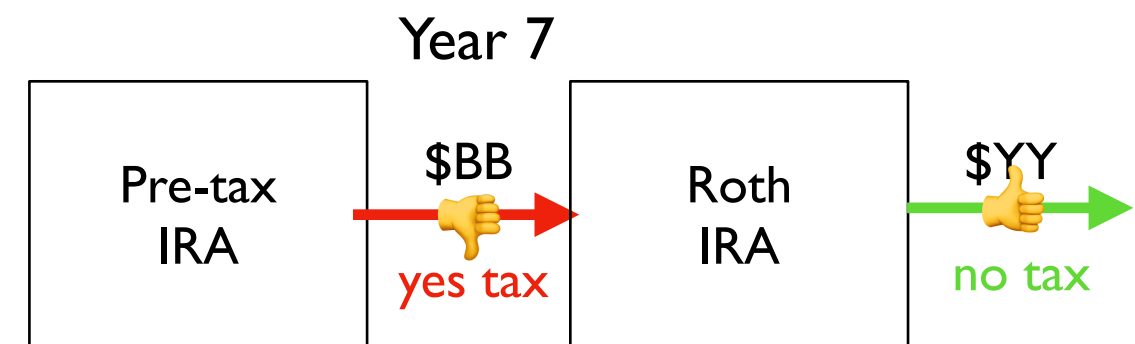
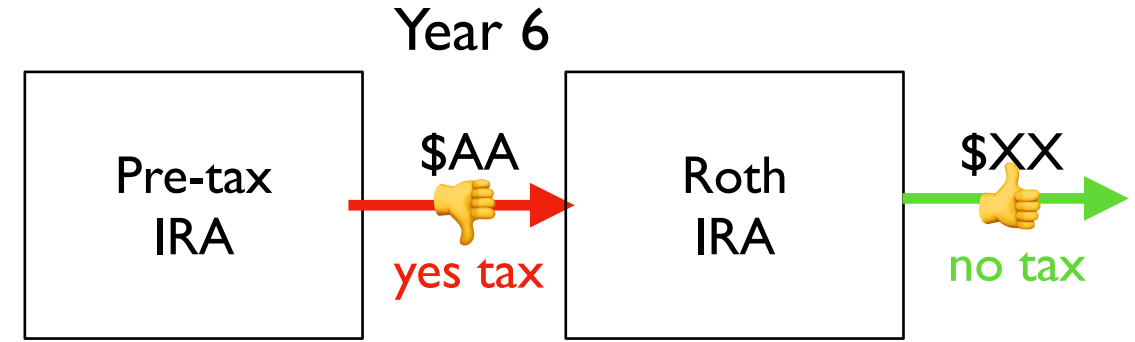
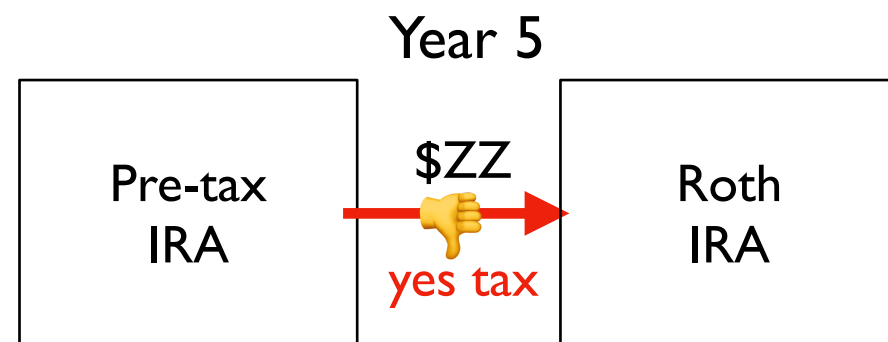
# Getting Money Out (Conversion to Roth)



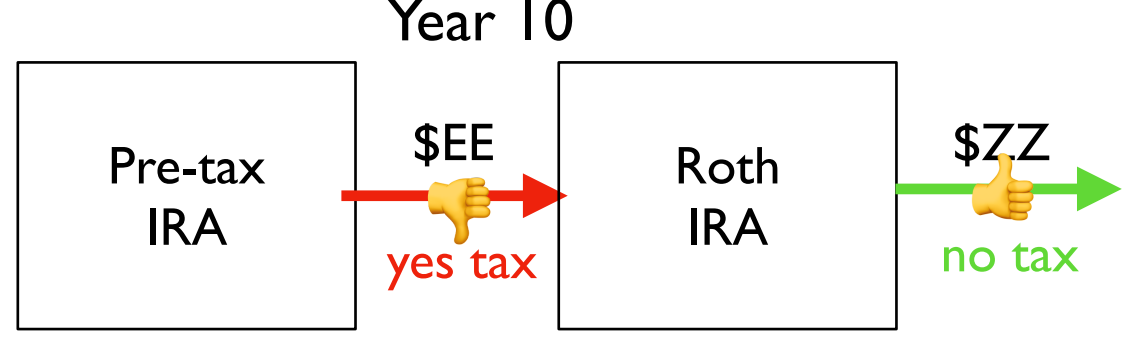
Idea: conversions to Roth can be withdrawn tax-free after 5 years



⋮



⋮



# Hacking an HSA Account

HSA: tax-deductible contributions

tax-free withdrawals (if used for medical expenses)

Hack: can pay for *past* medical expenses, not just current

- Contribute max to HSA (\$3,650)
- Pay this year's medical expenses (\$XX) out of pocket
  - But, save your receipts!
- Let HSA grow in value (tax-free!) for 27 years
  - \$3,500 has now become \$28,000
  - Withdraw \$XX tax free

# Vested Stock

If you have a month with:

\$X pay

\$Y vested stock

From IRS standpoint, identical to:

\$X + Y pay

You purchase \$Y company stock

Is \$Y company stock the exact right amount for you to hold?

Treat income as \$X + Y and decide separately how to invest

# Holding Company Stock Considered Harmful

Diversify!

Future vesting income already dependent on company future

Future employment may be dependent on company future

Don't put all your eggs in one basket (perhaps even diversify away from tech stocks)

# Resources

## Blogs

- [Mr. Money Mustache](#)
- [Early Retirement Extreme](#)
- [Mad Fientist](#)

## Podcasts

- [Radical Personal Finance](#)

## Website

- [72tnet.com](#) (SEPP)

