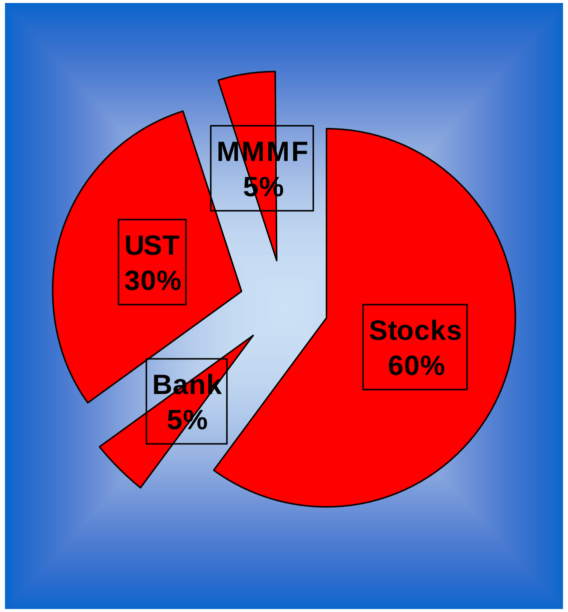
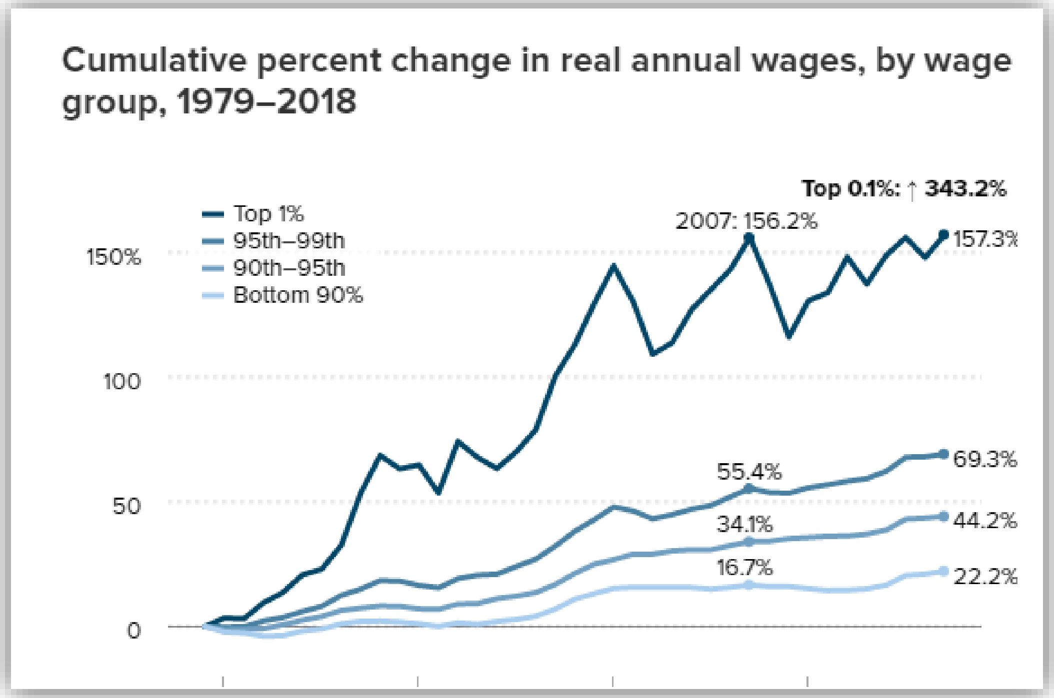


Portfolio and Risk/Diversity Management

... balancing and rebalancing Mutual Fund and ETP portfolios to minimize risk and improve returns

A reminder of the 10%/1% issue with which we started this class ...



2018 Economic Policy Institute

GROUP	EARNING THRESHOLD	% SHARE OF TOTAL WAGES
Top 0.1% of Earners	$2,757,000	5.2%
Top 1% of Earners	$718,766	13.4%
Top 5% of Earners	$299,810	28.0%
Top 10% of Earners	$118,400	39.1%

Winning the portfolio competition:

- The winning portfolio was submitted by Rex Asabor, at $142,169.24. Big winner in that portfolio was Stage Stores (SSI) which was under a dollar at beginning of semester, over $5 today!
- The winner gets Vortex POK3R backlit 60% mech keyboard, black or white case, or a Ducky Shine 7, any Cherry MX key (brown recommended if you don’t know)

Prep for the final exam:

- As the course calendar says, the final exam is given in class on Wednesday, Dec 11, at class time. I have decided this year to not give a take-home component (will explain in lecture).
- This exam will be nearly identical to the 2nd exam, will have the same weight (200 points), and will cover only the material since the last exam (Modules 7 and 8).
- As always the exam review video will be posted this Friday, December 6.
- The instruction letter for ADA students and other students needing special consideration will go out Thursday or Friday.
- [Comments on why the exam can't be given early and must be given under restricted conditions].

Reasonable risk thresholds (passive)

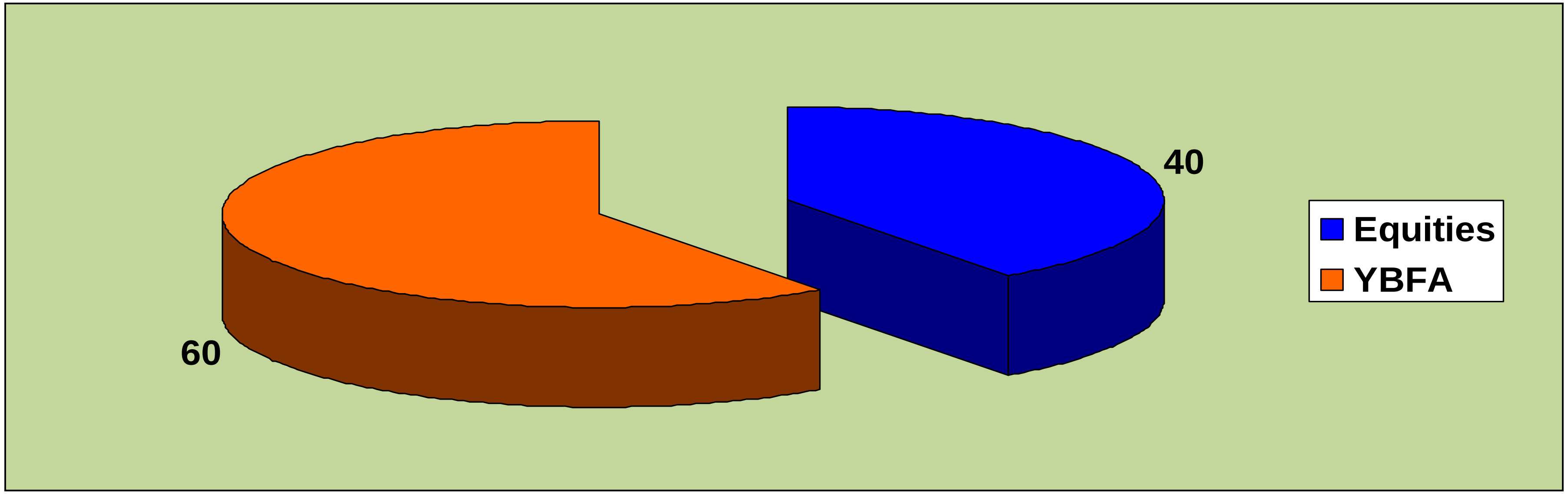
Stocks/bonds ratio

Balance	Risk Level	For whom
80/20	Very high	Young risk takers
70/30	High	Young risk-adverse
60/40	Moderate	Neutral for all, above 50
50/50	Low	Already funded above 60
30/70	Very Low	Above 60 risk-adverse

These components are rough guidelines based mostly on age and proximity to retirement, but will depend also on attitude about risk, financial goals and how close you are to realizing them, the extent to which you want to manage your portfolio (active allows higher thresholds for stocks), and your sense of market cycles (which in your teacher's opinion are not all that hard to figure out.

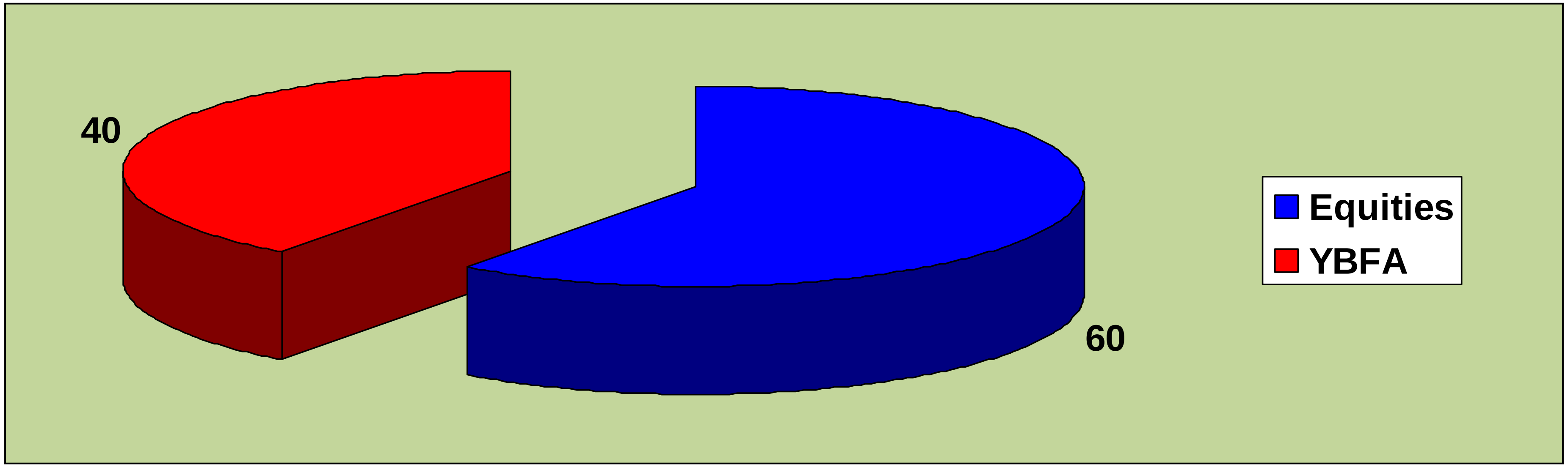
If you target one of these levels then even the passive portfolio will have to rebalance (next few slides).

Low Risk Portfolio



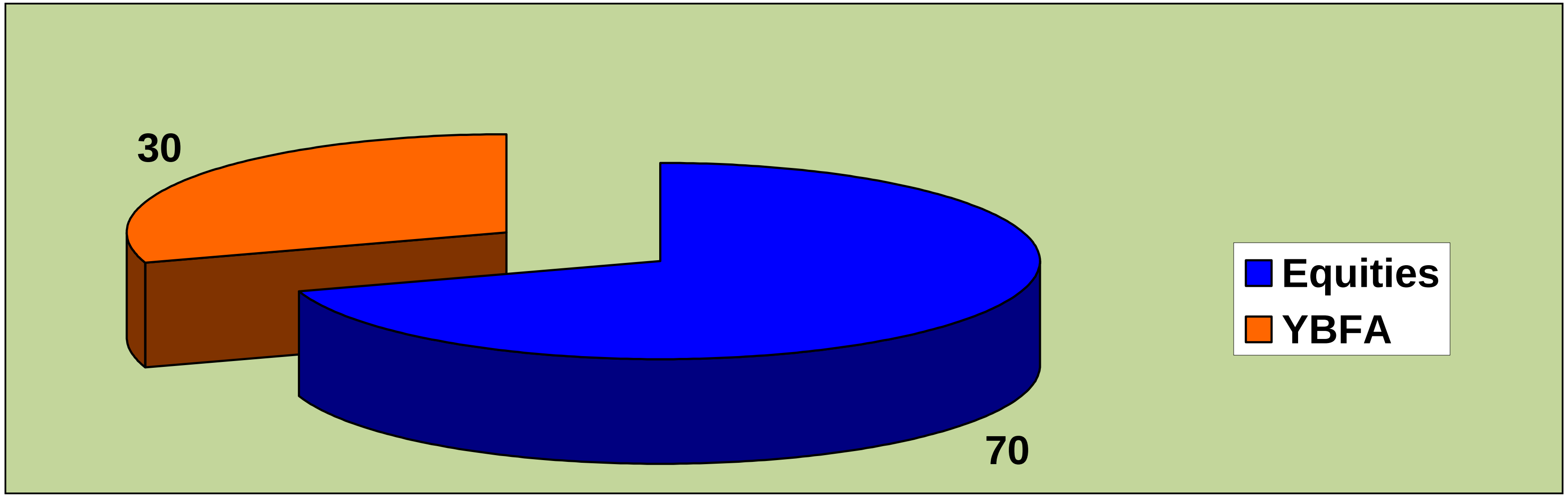
Suitable for someone who is retired or approaching retirement, especially if elderly with adequate wealth and reliant upon this portfolio for covering expenses. **Note:** This is a "healthy-times" low-risk portfolio. True risk aversion may require a 70/30 mix or even 80/20 mix. It also must be stressed that the mix of the YBFA portfolio is critically important at times of interest rate anomolies.

Mid Risk Portfolio



This fairly conservative mix is for someone who is fairly risk adverse, normally suitable for 50+ retirement portfolio, especially if portfolio is already sizeable and likely to be adequate over two to four decades for retirement assuming reasonable growth and returns.

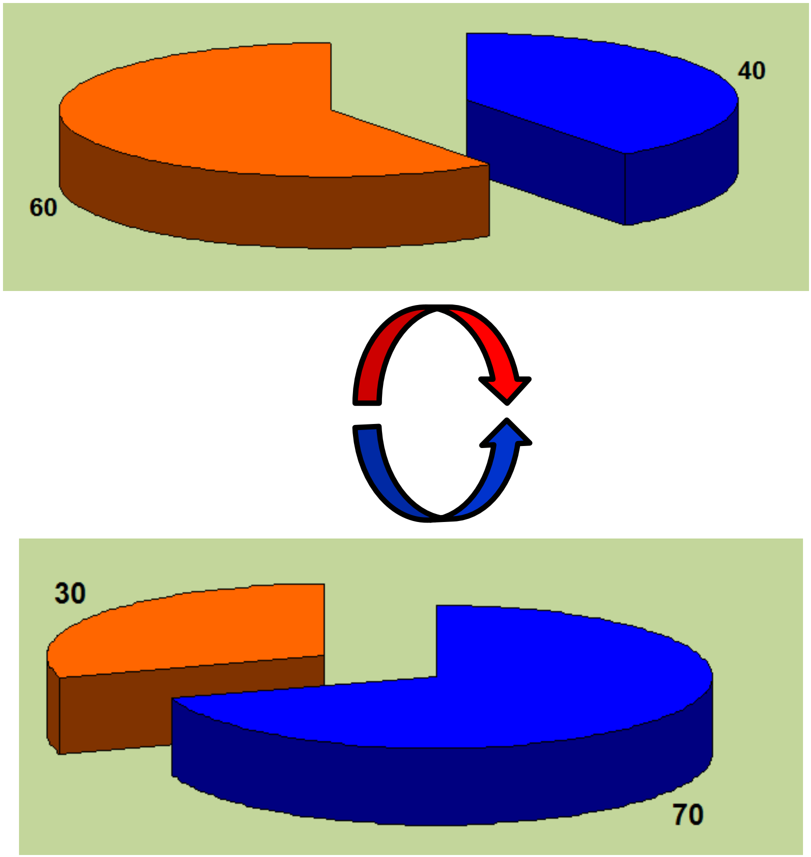
High Risk Portfolio



Suitable for informed, involved, younger investor who has an investment horizon long enough to ride out the cycles. Be prepared, though, to crank the equity component down in times of trouble. Even **80/20** or **90/10** may be acceptable for the smart, involved investor who is willing to manage the portfolio. However, the higher the first number the greater the necessity for the investor to be an **active investor** at a minimum and advisably an **aggressive investor**.

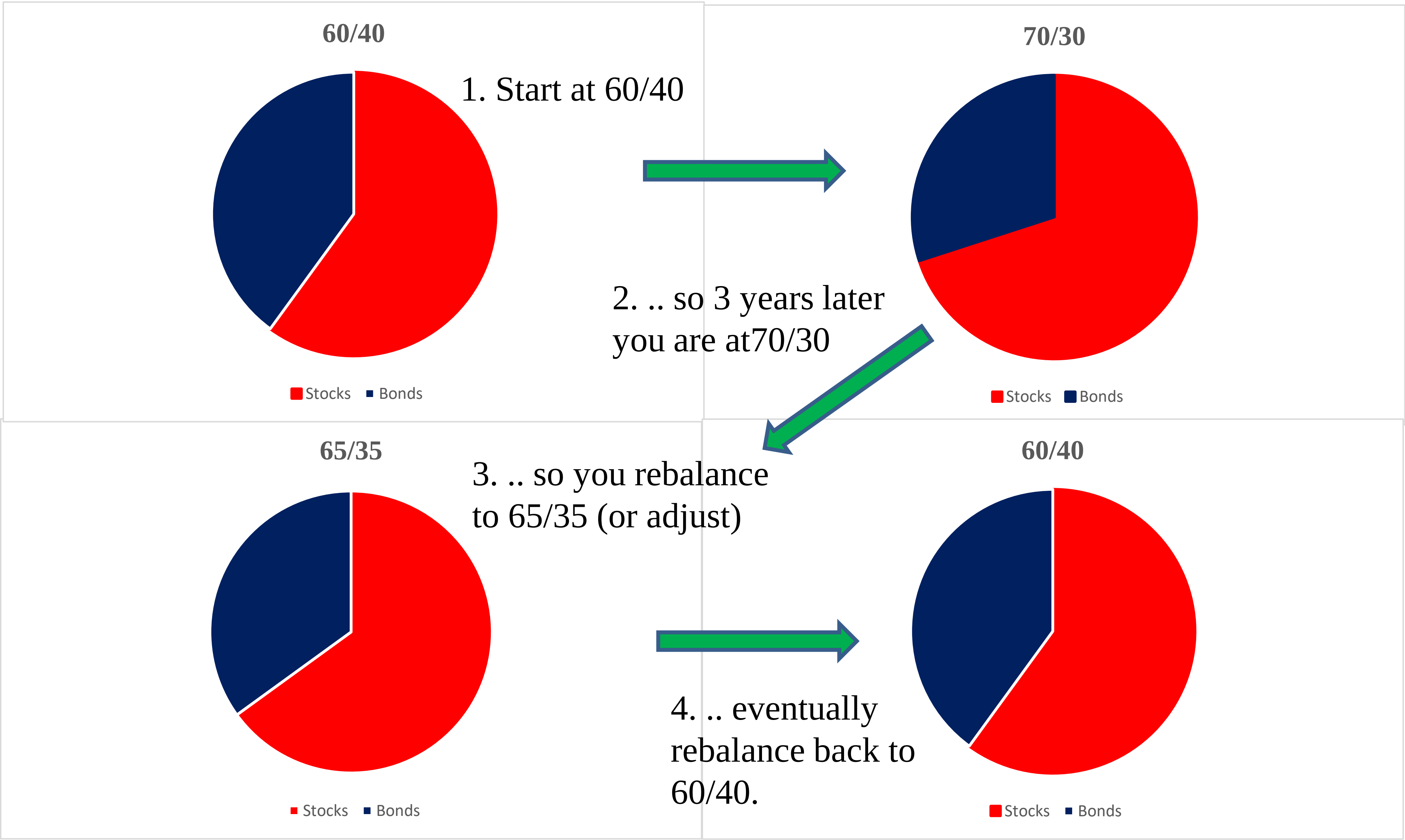
Rebalancing Active/Aggressive Managed Portfolios

- Requires frequent monitoring and adjustment for economic conditions (quarterly minimum, monthly advised).
- Change proportions between Equities and YBFAs at a minimum.
- Leave Index Funds constant (advised) or be the last to change.
- Use MMMF or UST as a buffer
- Move in and out of sectors or fund classes
- As a successful category grows (like gold) balance it back down.

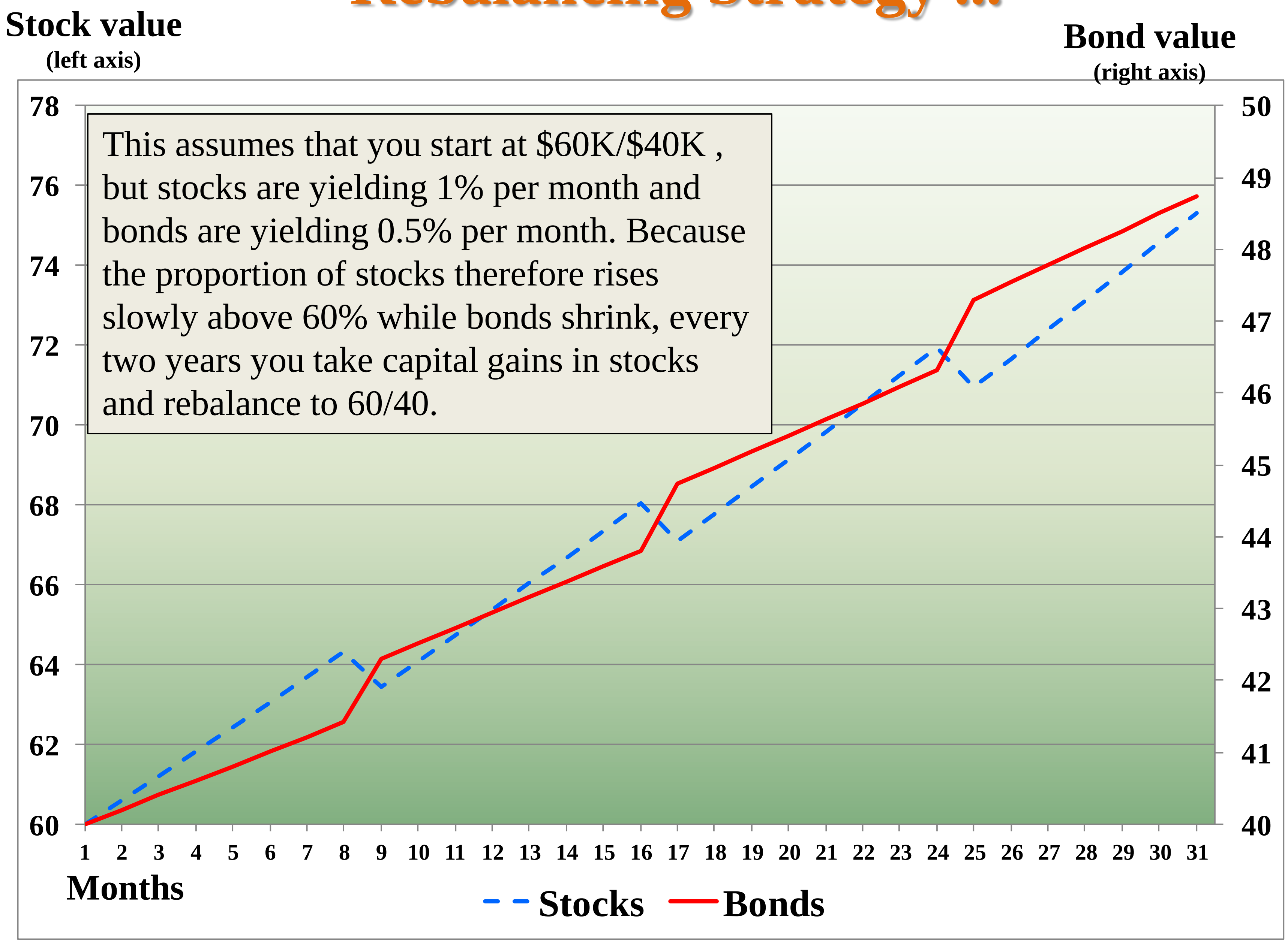


Mudd Finance

Portfolio rebalancing



Rebalancing Strategy ...



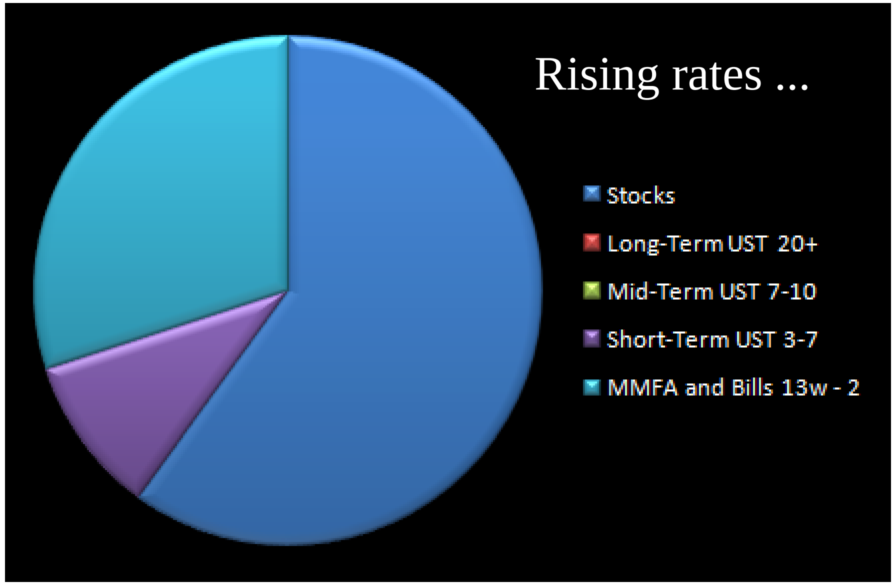
Special Qualification for the YBFA portion ...

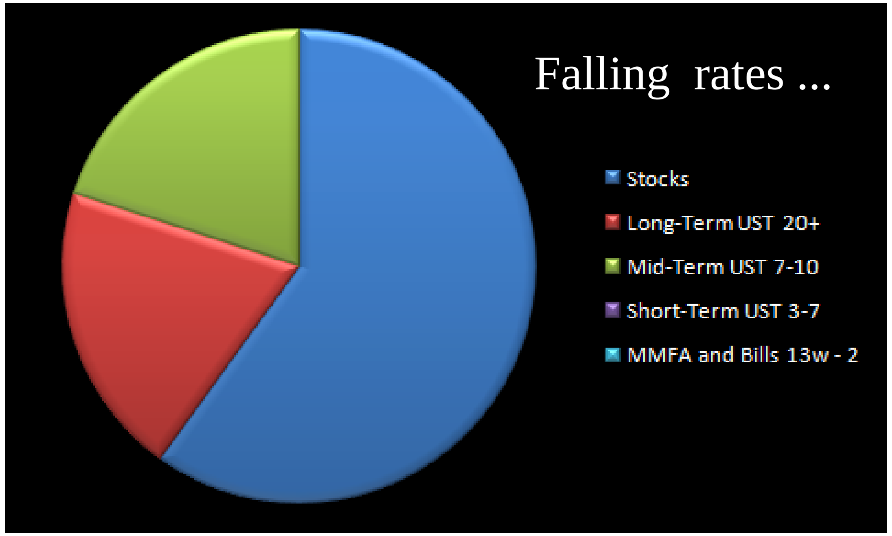
		Normal	Rising rate	Falling rate
Stocks		60	60	60
Long-Term UST	20+	10	0	20
Mid-Term UST	7-10	10	0	20
Short-Term UST	3-7	10	10	0
MMFA and Bills	13w - 2	10	30	0

During normal times you might have the YBFA portion of the portfolio equally split into the categories above, and it might include some investment grade corporate bonds (not shown).

But, if a rise in interest rates is imminent, then you must shift to short-term only to avoid capital losses.

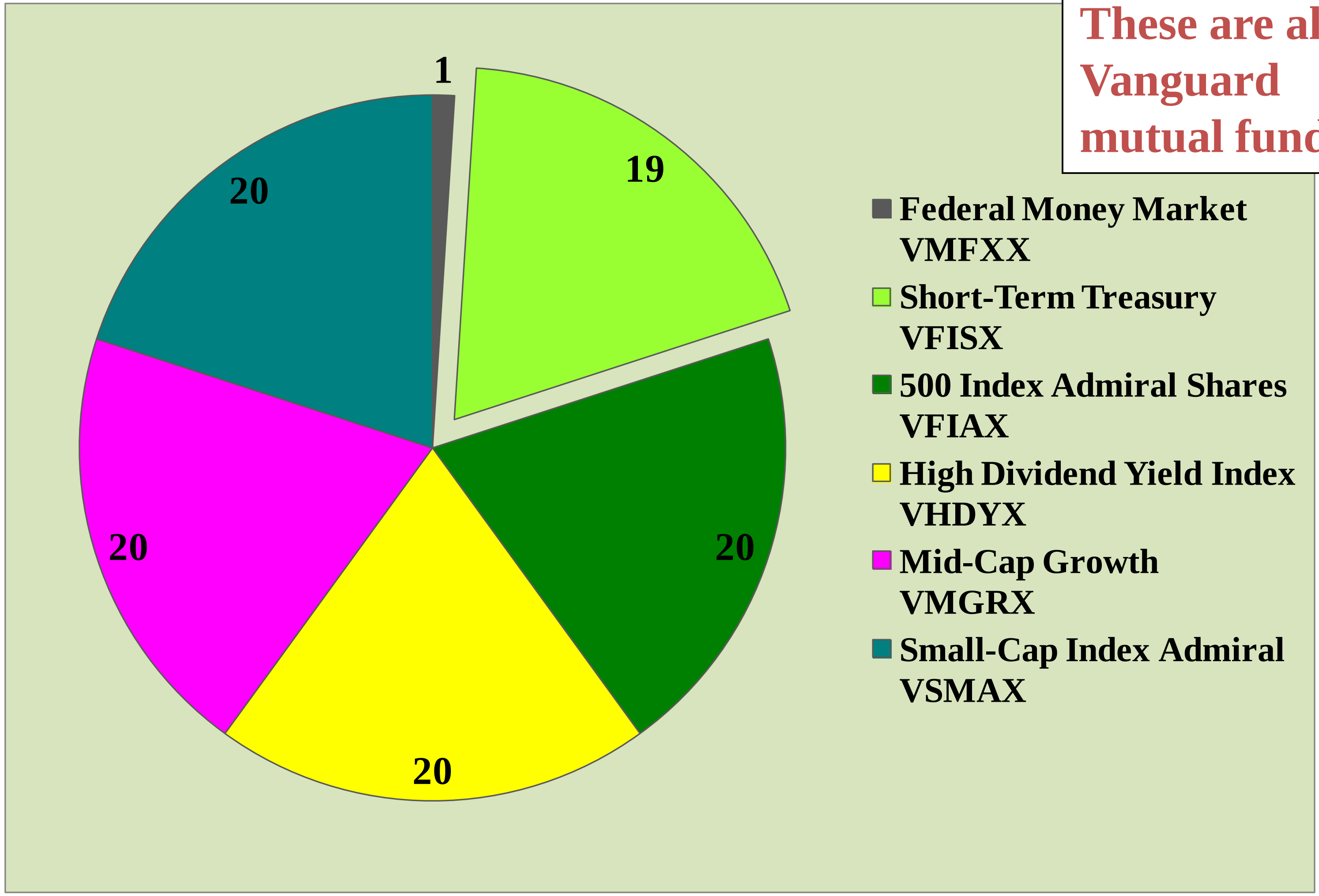
If a policy-induced drop in rates is expected, shift to intermediate to long-term only to take advantage of capital gains!





Example: A fund that I set up for a young, affluent investor in November 2015

These are all Vanguard mutual funds ..



The Rebalancing Issue

Charles Matlack '04 sent me this article, which challenges the rebalancing strategy:

Financial Analysts Journal
Volume 66 • Number 3
©2010 CFA Institute
FAJ

Adaptive Asset Allocation Policies

William F. Sharpe

This article proposes an asset allocation policy that adapts to market movements by taking into account changes in the outstanding market values of major asset classes. Such a policy considers important information, reduces or avoids contrarian behavior, and can be followed by a majority of investors.

DWBH: I have posted this article on the lecture slide page for reference.

He asked for my opinion about this.

The Sharpe article refers to the practice of selling during a rising market as a "contrarian bet," which is a perspective with which I do not agree.

Rebalancing (cont) ..

This is an edited version of my response:

Q2: My advice to rebalance **is** qualified - it is intended for investors who are not confident that they can beat the market, or want a simple formula that will give them some peace of mind. I fundamentally stick by that advice ... my advice is contingent upon my theory that **IT IS ABSOLUTELY IMPOSSIBLE TO PICK TURNING POINTS**, even when given a wide latitude for a date range ... like, "Will there be a major market correction in 2018?" And before you say "of course there will" how would you (or anyone else) answered this question a year ago today: "Will there be a major market correction in 2017?"

But do **I** rebalance? NO. Or not exactly. I often rebalance, but not systematically. But I am an aggressive market player who knows his own strategy, which is very complex. I am content to keep the primary liquid asset portion of my portfolio at 50/50 or even below ... BUT, I have 15% of my portfolio invested in options-based hugely risky and heavily leveraged swing-trade bets. In other words, I squeeze the risk out of my main portfolio and try to get yield out of dedicated leveraged bets (which right now are earnings strangles and deep-in-the-money leveraged calls on DIA and SPY, which are yielding far above 100% for 2017, because this has been a high-momentum low-volatility year, which is very rare. But I am willing to invest the considerable time and now modeling to do this. I am advising young men and women who are not.

The long view: what you should always remember about these major investment categories!

(One slide removed and two corrected from the version of this that was posted on 12/4 .. this is the revised version)

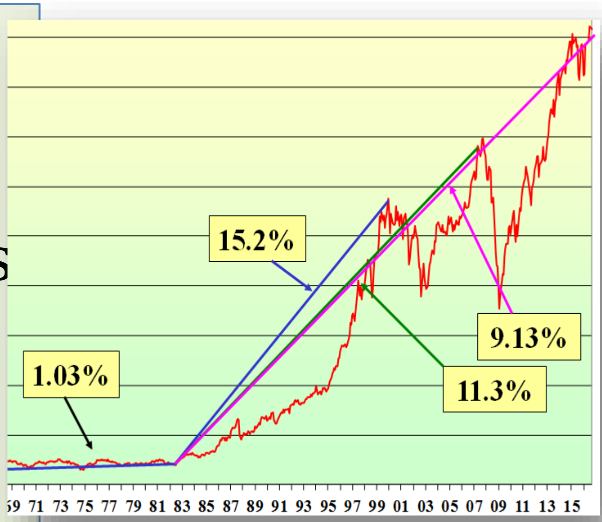
The slides that follow are readable memo slides and the lecture may not complete them.

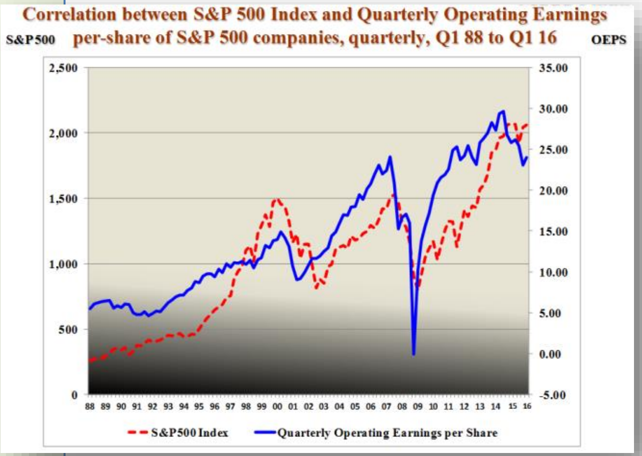
You want to have rainbows in your life ...

... and you want to remember who this is for (not you so much).

What to remember about stocks

- Have historically (with real estate) the highest yields on average in the very long run.
- Considerable volatility and long periods of poor performance.
  - Always the danger of a substantial and lasting crash.
- As goes earnings growth, so goes the market
  - which implies that as goes economic growth, so goes …
- Performs poorly with inflation and rising interest rates.
- For long-term investments, dividends can matter





What to remember about bonds and notes

- Market values move in the opposite direction of interest rates.
  - the longer the maturity, the greater the sensitivity
  - even Treasuries have market risk
- Non-treasuries also reflect default and other risks
  - and therefore should not be a large part of a low-risk portfolio
- The yield you earn in interest is determined at the time you buy the asset.
- A diversified portfolio should include Treasuries but
  - .. buy bonds when interest rates are high, notes or bills when rates are low.
  - inflation will devalue bonds, bills will follow inflation at zero real yield or slightly higher

What to remember about Real Estate

- Real estate is typically leveraged, which compounds yields (both ways).
- The real estate buyer must be a sophisticated, intelligent, informed buyer.
- Real estate is a ***necessary*** hedge against inflation.
- Real estate can be dangerous .. most failures in real estate are due to cashflow failures .. not having sufficient cash to service amortized debt.
- There are times when *not* to buy real estate.
- Real estate offers tremendous tax advantages

What to remember about mutual funds and ETPs

danger!

- Your investment portfolio will likely be here.
- You must do your research and understand investment objectives.
  - fees, fees, fees
  - investment objectives (dividends, index, growth, intl. etc.).
- You should strive for portfolio balance and you should consider rebalancing periodically.
- ETPs **can be** a viable liquid and marketable substitute for mutual funds **BUT**
  - beware futures-based ETNs and know why
  - ETFs have suffered liquidity events (flash crash)

What to remember about derivatives

danger

- If you are good at this, then playing puts, calls, and/or futures can possibly supplement compounded rates of return on your portfolio by a few percentage points.
- This ***requires*** an active, aggressive investment attitude and dedicated attention when you in position.
- Writing covered calls on stock positions can be a good way to supplement yields on a portfolio.
- These investment categories should be done in Roth or traditional IRA or similar accounts
  - because if you hit it big-time it will be here.
- Duh!! These are risky!!