Silicon Valley Chapter
American Association of Individual Investors

Financial Planning Workshops
Investing … Part 2

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- Chapter website: www.siliconvalleyaaii.org
- Meetups: www.meetup.com/AAII-Silicon-Valley-Meetup
- Facebook: www.facebook.com/sv.aa
- Slides and Recordings

  www.siliconvalleyaaii.org/financialplanning/
- AAII National website: www.aaii.com
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Our Next Event and Special Interest Group Webcasts

- **November Main Event: Tax Changes for Investors and Year End Planning**

  Russell Barnett, EA, CTS, CRETS
  - Saturday November 16th at 9:00am; webcast only
- **Financial Planning Discussion Group**
  - Debra Stikes: Second Wednesday of each month at 6:30pm except First Wednesday June 2024
- **Investing Discussion Group**
  - Lynn Gillette: Fourth Monday of each month except December at 6:30pm
- **Computerized Investing Group**
  - Bill Paseman, Don Mauer: First Thursday of each month at 6:30pm

Financial Planning Workshops

We cover a full range of topics in the cycle:

- Financial Planning … The Big Picture
- Investing 1: Modern Portfolio Theory, Building a diversified portfolio
- Investing 2: Efficient Market Hypothesis; Can you beat the market?
- Taxes: TRJA, SECURE Act, Tax diversification, Asset location, QCDs
- Retirement Planning 1: Tax-advantaged plans, RMDs
- Retirement Planning 2: Safe withdrawal rates, Bengen's 4% rule
- Risk Management/Insurance: Annuities, Long-term care, Litigation
- Social Security and Medicare: Claiming strategies, Medicare traps
- Estate Planning: Probate, Executor/trustee duties, Philanthropy
- Wrap-up: Case study reviewing previous material

Overview for Today's Workshop

- Recap of Investing Part 1 last month
- The Efficient Market Hypothesis
- The Capital Asset Pricing Model
- Active versus passive investment strategies
- Deciding which strategy is appropriate for you

Recap of Investing Part 1

- The 5-step investing process
  - PIP, IPS, Portfolio design, execution, review
- Asset class characteristics
  - Cash and equivalents, fixed income, equities
- Modern Portfolio Theory
  - Risk, return, correlation coefficient
- Building simple multi-asset portfolios
  - 90% bond index / 10% stock index
  - 30% bond index / 70% stock index
  - Lazy portfolios, Life Strategy funds, Target date funds

Portfolio Visualizer

- The information for the following slides is generated using free access to Portfolio Visualizer
- US Stock Market
- Total US Bond Market
- Not Inflation Adjusted
- Vanguard evaluation limited by availability of data

Simple 2-Asset Portfolio

Total US Bond Market / Total US Stock Market

1986 – 10/2023	CAGR	Standard Deviation	Best Year	Worst Year	Sharpe Ratio
80% Bonds 20% Stocks	6.40%	6.4%	21.7%	-14.52%	0.67
60% Bonds 40% Stocks	7.65%	7.07%	25.22%	-15.79%	0.65
40% Bonds 60% Stocks	8.80%	9.70%	28.74%	-20.20%	0.61
20% Bonds 80% Stocks	9.83%	12.53%	32.26%	-28.62%	0.57

Vanguard Life Strategy Funds

Jan 2015 – Oct 2024	CAGR	Standard Deviation	Best Year	Worst Year	Sharpe Ratio
Income, VASIX 80% Bnds / 20% Stks	3.21%	5.69%	12.05%	-13.93%	0.29
Conserv Growth, VSCGX 60% Bnds / 40% Stks	4.88%	7.63%	15.68%	-14.99%	0.44
Mod Growth, VSMGX 40% Bnds / 60% Stks	6.47%	9.97%	19.37%	-16.00%	0.51
Growth, VASGX 20% Bnds / 80% Stks	8.01%	12.47%	23.13%	-17.09%	0.55

The Efficient Market Hypothesis, EMH

- Popularized by Eugene Fama
  - Ph.D dissertation in 1960s
- Security prices fully reflect all available information
- Stocks always trade at their "fair value"
- Consistent alpha generation is impossible

Three Forms of the EMH

- Weak form
  - All information in past trading history
  - Technical analysis cannot provide excess returns
- Semi-strong form
  - Prices adjust rapidly to release of new information
  - Fundamental analysis cannot provide excess returns
- Strong form
  - All information including insider information
  - Impossible to achieve excess returns consistently.

Implications of the EM Hypothesis

- If the Efficient Market Hypothesis is valid .....
  - Impossible to beat the market thru expert stock selection or market timing
  - Research is a waste of time and resources
  - Attempts to outperform the market are a game of chance and not skill
  - A broad portfolio picked by trained monkeys is likely to perform as well as expert selections
- Only path to higher returns is thru higher risk
- Investors benefit from low cost passive portfolios

But… but… but… but … but…

- What about …Warren Buffet?

  19.2% CAGR for 40+ years (Mar 1980 - Oct 2020)

- Peter Lynch (Fidelity Magellan)?

  29.2% CAGR for 17 years (1977 - 1990)

- Bill Miller (Legg Mason Value Trust)?

  Beat the S&P 500 for 15 straight years (1991 – 2005)

- What about October 29, 1987?

  DJIA fell by over 20% in a single day

- What about 1999 internet bubble?   2008 crash?

Warren Buffet's Record
Berkshire Hathaway BRK.A

- Let's look at the decades

	1980s	1990s	2000s	2010s
10 year CAGR	42.0%	20.5%	5.9%	13.1%

- and the 20 year returns

20 year CAGR 2000 - 2019	9.4%
20 year CAGR 1980 – 1999	30.8%

- Buffet now advocates a passive approach for most investors

How about Peter Lynch and Bill Miller?

- That was then; This is now
  - Lynch's record also dates back to pre-internet days
- Very difficult to separate skill from luck
  - The odds of beating the S&P 500 for 15 straight years by luck alone are 1 in 2^15, i.e. 1 in 32,768
  - Question: Where are all the other Bill Millers?
  - Bill Miller: "This was an accident of the calendar; we've been lucky"

Limitations to Our Theories

- MPT and the EMH make assumptions which are not always accurate, e.g. investors are rational beings
  - People feel the pain of loss more deeply than the joy of an equal gain
- They may work most of the time but fail occasionally
- But … if you behave like a believer they still prevent you from making serious errors
- Behavioral Finance
  - Tries to exploit investors' irrational behavior and cognitive errors

The Capital Asset Pricing Model

- The CAPM was developed in the 1950s by Harry Markowitz and Bill Sharpe
- Expected Portfolio Return

  $$= \text{Alpha} + R_{rf} + \text{Beta} \times (R_m - R_{rf})$$

  where R_{rf} and R_m are the risk free and market returns
- Alpha is defined as the excess return above an appropriate risk-adjusted benchmark
  - Used as a performance measure for a fund manager
- Beta represents the volatility of the portfolio relative to the market
  - An asset with Beta = 1.0 has same volatility as the market

Simple Definitions

- Passive Investor
  - Anyone who attempts to replicate the market at minimum cost

    i.e. anyone who is happy to realize the market return

- Active Investor
  - Anyone who is not a Passive Investor
  - Attempts to beat the market

    i.e. anyone who aims to generate excess returns, "alpha", above the market return

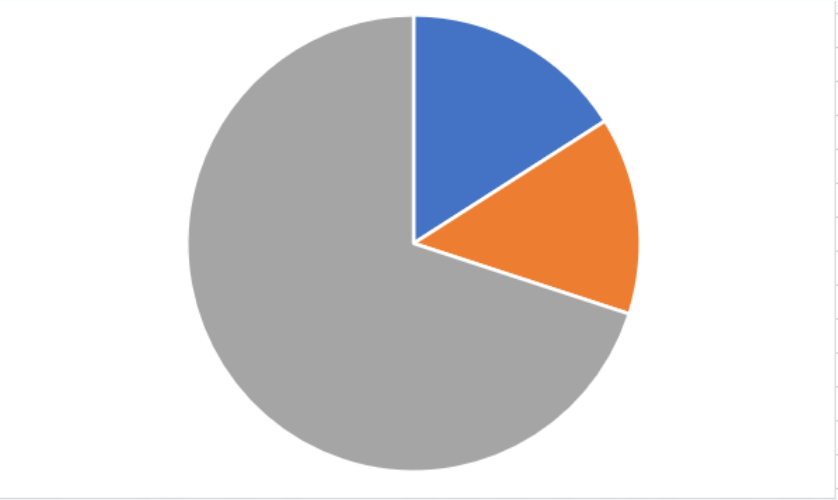
In Practice …..

- Passive investors build a diversified portfolio of low cost index funds and rebalance diligently
  - Do not confuse this with a Buy and Hold strategy
  - Rebalancing is important to control risk
- Active investors
  - Stock pickers: must know something the market doesn't
  - Market timers: try to avoid excessive draw-downs
    - Momentum players: buy rising stocks, hope to sell higher
    - Contrarians: buy out-of-favor stocks, hope to sell on recovery

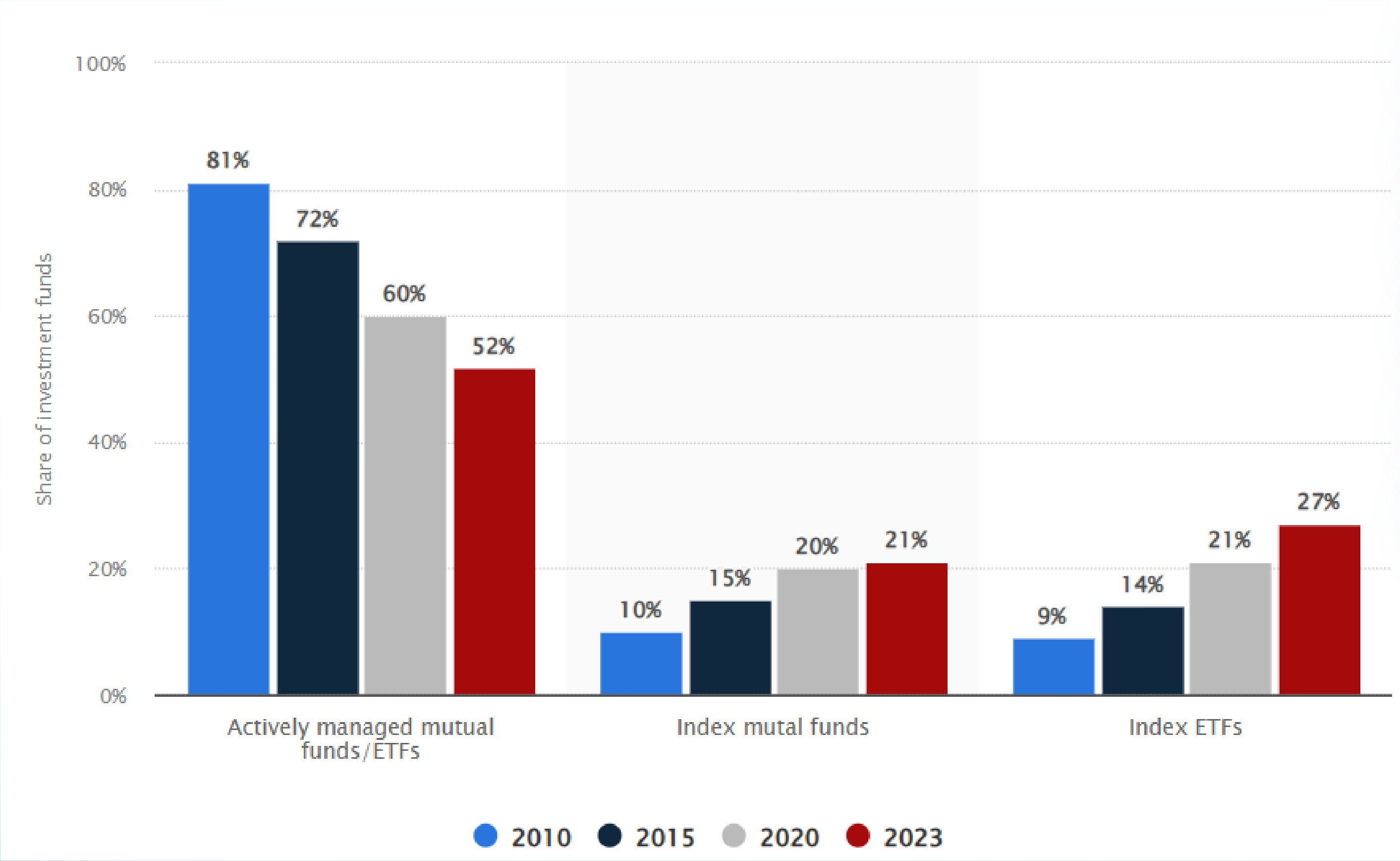
Active + Passive = Total Market

- Passive vehicles' lead in U.S. domestic equity-fund market

  16% Passive Funds 14% Active Funds (6/2022)



Active vs Passive



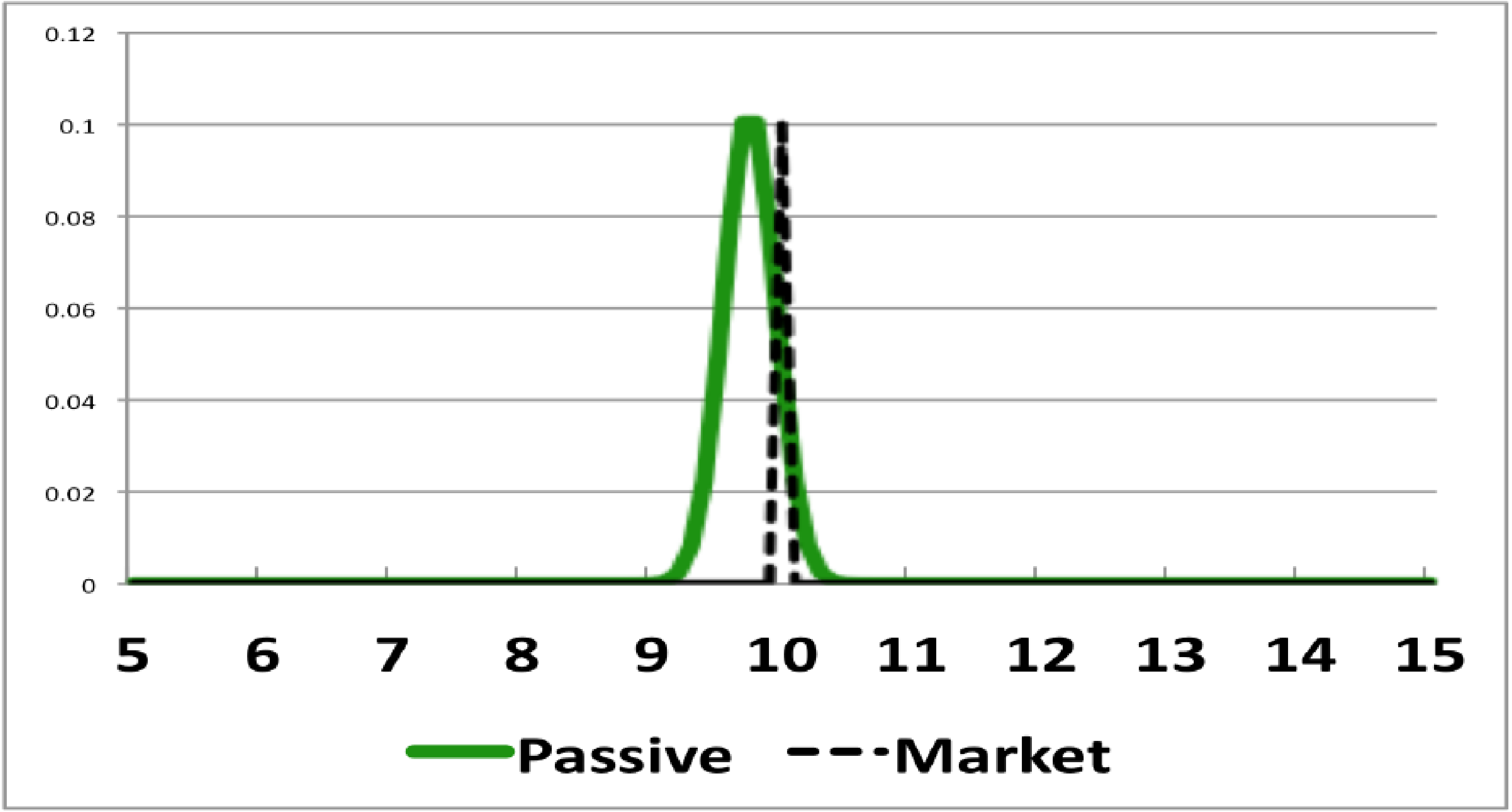
Distribution of active and passive investment funds in the US 2010 to 2023 --- Statista Research Department 6/2024

Passive Investors

- Passive investors, by definition, get the market return (less costs)
- Assume market return = 10% pa
- Assume costs = 0.25%
  - The expense ratio for most passive index funds <0.1%
- All passive investors are aiming for the same target with minimal tracking error
- Therefore distribution is very narrow

  e.g. Some index fund managers may sample the market

Passive Returns form a Tight Distribution around the Market Return



Active Investors

- Since active investors + passive investors = Market

  ….. and passive investors, by definition, get the market return (less costs) …..

  ….. therefore active investors in aggregate must also get the market return (less costs)

- Assume market return = 10% pa

  Same as passive investors

- But … active costs and distributions are very different from passive investors

Higher Costs for Active Investors

- Costs are higher for an active investor
  - Must pay for more research
  - Trades more often (with other active investors)
    - Higher transaction costs
  - Higher bid/ask spreads than index funds
    - Thinner markets than index funds
  - Higher expense ratio than index funds
    - Extreme case for hedge funds; 2.0% pa + 20% of profit
- John Bogle's estimate of the average all-in investment expense for an active fund = 2.27% pa
- Assume 2.0% pa average total cost

Wide Distributions for Active Investors

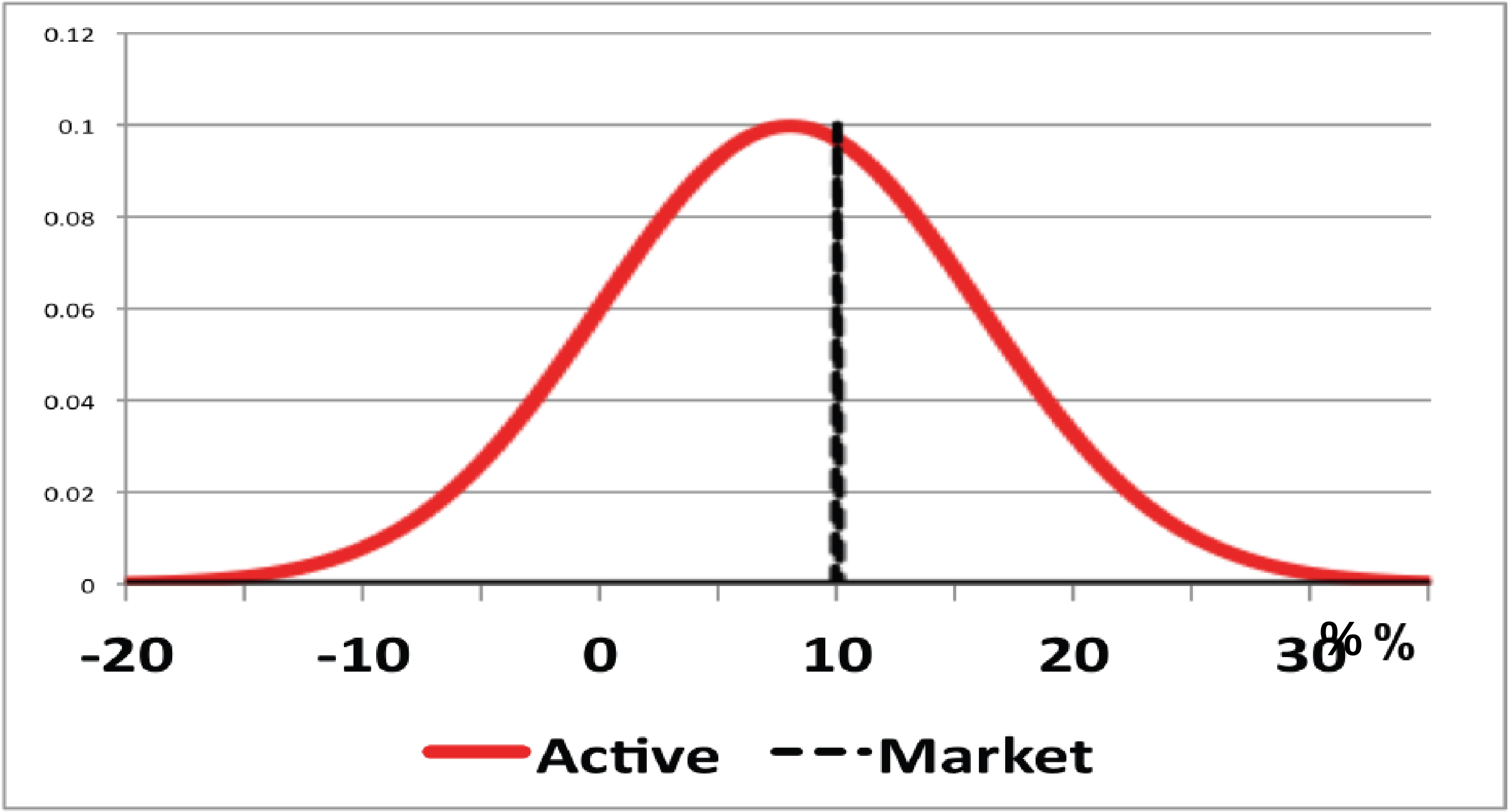
- Distributions are wider for active investors
  - Aiming for diverse targets with broad range of strategies
    - Growth stocks, value stocks
    - Large cap stocks, small cap stocks
    - High dividend stocks, low price/book stocks, etc,
    - Momentum plays, contrarian approaches, etc. etc.
  - Concentrated portfolios, less diversification
    - Want to avoid "closet indexer" slur

Active Returns form a Wide Distribution around the Market Return

- Passive vehicles' lead in the $11.6 trillion US domestic equity-fund market * (3/2021)
- The $6.2 trillion in passive assets still accounts for less than a sixth of the U. S. stock market

*

Let's Compare the Active and Passive Return Distributions



Active Trades

- Since active investors must get the market return on average (before costs)
  - Half the active investors will beat the market
    - and half will do worse than the market
- For every trade an active investor makes
  - Either he will prove to be a winner beating the market,
    - and the guy on the other side of the trade will prove to be a loser .....
  - Or he will be the loser
- Unlike the children in Lake Wobegon, not all active investors can be above average

Questions to Ask Yourself for Every Trade

- Do I have any advantage over the other guy?
- Am I smarter than the other guy?
- Do I have access to better data?
- Do I have better resources for research?
- Am I feeling lucky today?

Consider Both Sides of The Trade

- Who is on the other side of the transaction?

  Pension plans, Endowment plans

  Mutual funds, Exchange traded funds

  Individual investors: Smart

  Not so smart

- Asymmetric information risk
  - Probability that an institutional investor on the other end of a trade knows something you don't know
  - How much would you bet on a tennis match if your opponent was a full time professional? Charlie Ellis
- What is the probability of your trade proving to be a winning one?
  - Are there enough "not so smart" investors to take the other side of your trade?

The Frustrating Law of Active Management

- "For any disciplined investment approach to outperform over the long run, it must experience periods of underperformance in the short run"

  Hoffstein and Siebers, 2017

- In practice:
  - For a strategy to outperform in the long run, it must underperform in the short run causing the weak hands to fold, and pass alpha to those who hold.
  - Even if we do everything right, we still have to underperform from time to time.
  - Applies to all publicly known strategies

A Paradox

- If a passive strategy is low cost and efficient, why would anyone follow an active strategy?

  Why not just accept a free ride?
- But if everyone adopts a passive strategy, and no one does any security analysis, what brings about the efficiency of the market?
- Active investors: Keep up the good work!

  We need you to continue your analysis, and trading amongst yourselves, to maintain an efficient market.

What about History?

- Beware back-test data and data mining
  - Beware of survivor bias in data
- Be aware of mean reversion
- With hindsight its easy to find actively managed funds that have outperformed the market in the past
- The challenge is to identify them going forward and to recognize quickly when they fail to outperform
- “All strategies work until they don’t work”
  - By the time you’ve figured out it’s time to switch to a new strategy it’s too late
- “There are lies, damn lies, and statistics!” Be careful!

Opinions on Predicting the Future

- Past performance is no guide to future returns.
- To beat the market you have to be able to predict the future. (Harry Domash opinion)
- To beat the market you have to predict the future better than everyone else. (Fred Smith opinion)

  If you predict the same future as everyone else you get the same market returns as everyone else.
- We can't predict the future, but we can prepare for it. (Fred Smith opinion)

Fred’s Folly (opinion)

- All successful investing strategies lead to comparable long-term risk adjusted returns.
- Building a diversified portfolio of cheap index funds is a successful long-term strategy giving the market return.
- Therefore all successful long-term strategies lead to the market return, including active strategies.

A Perspective on Pension Funds

- US state and local government funds

  Go anywhere diversified portfolios including hedge funds, private equity, etc.

- Average returns for past 20 years: 7% pa

  Projected future returns: 6%

- CALPERS 6/2022-6/2023 net return 5.85%

- Many pension funds, including CALPERS, are switching significant portions of their portfolios to passive index management.

Who Should Be an Active Investor?

- You should consider being an active investor if …
  - You are smarter than the average investor, including the professionals
  - You have access to better data, better tools, other resources
  - You are prepared for the inevitable periods of underperformance
  - You enjoy the challenge
  - You don’t mind giving up weekends
  - You consider yourself luckier than most

Who should be a Passive Investor?

- You should consider being a passive investor if …
  - You are comfortable earning the market return
  - You are happy knowing that your strategy beats about two-thirds of all other investors
  - You can stay-the-course in spite of occasional major downturns
  - You enjoy spending your weekends fishing rather than sitting in front of a computer
  - You like to know that you can relax on safari for a month without worrying about what the market is doing

Think Boring Is Good

For Those Who Can’t Decide

- How about a “Core and Explore” compromise?
- Core:
  - Use passive index strategy for 80% of portfolio
- Satellite:
  - Use active strategy for remaining 20% of portfolio
  - Important to keep costs down
  - Track the long-term performance of both sections carefully

Listen to What The Wise Men Say

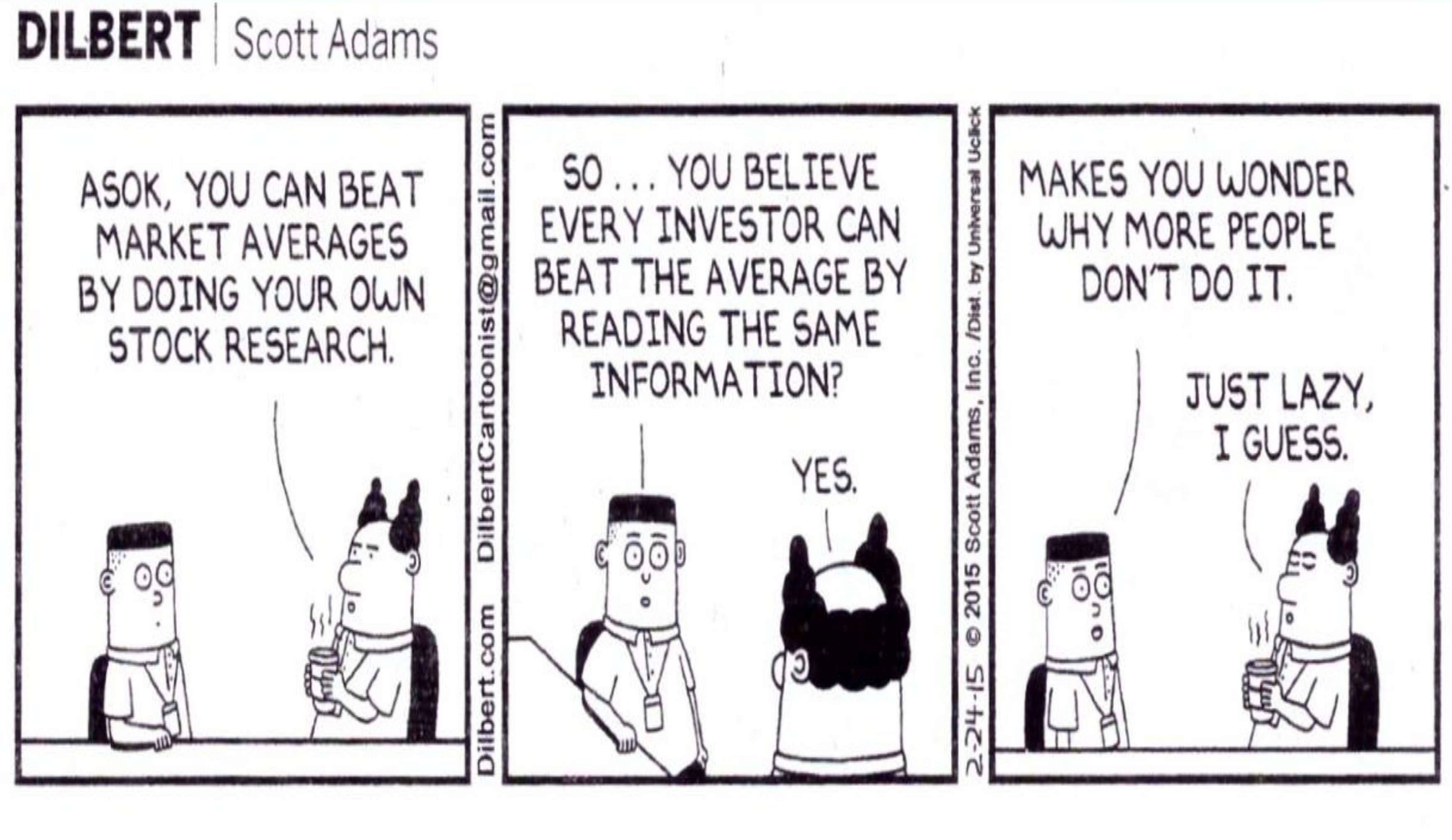
- The stock market can stay irrational longer than you can stay solvent. John Maynard Keynes
- Are you smarter than the average professional investor? Probably not. Bill Sharpe
- If you must play the market to satisfy an emotional itch, recognize that you are gambling on your ability to beat the pros. So limit the amounts you play with to the same amounts you would gamble with the pros at Las Vegas. Charlie Ellis
- The role of stock forecasters is to make fortune tellers look good. Warren Buffet
- Forget the needle, buy the haystack. Jack Bogel

To Probe Further

- Making Sense of Investment Risk, Paul Merriman, AAII Journal, March 2020
- Rebalancing: A Sound Strategy for Limiting Risk, Vanguard, June 2019
- Global Equity Investing, The Benefits of Diversification and Sizing Your Allocation, Vanguard, February 2019
- The Frustrating Law of Active Management, Corey Hoffstein et al., Newfound Research LLC, October 2, 2017
- Portfolio Selection, Harry Markowitz, Journal of Finance, 1952
- A Random Walk Down Wall Street, Burton Malkiel, Norton & Co.
- Winning the Loser’s Game, Charles Ellis, McGraw-Hill
- Investing at Level 3, James Cloonan, AAII

Useful Websites

- http://aaii.com Broad selection of investing material
- http://siliconvalleyaaii.org Previous presentations on various topics
- https://sccld.org/resources/business/ Business & Money
  Morningstar Research Center, S&P's NetAdvantage, Value Line
- https://portfoliovisualizer.com Free access to a wide selection of tools
- https://vanguard.com https://fidelity.com https://schwab.com
- http://scallan.com Callan chart
- http://bogleheads.org Interesting blog
- https://obliviousinvestor.com/index-funds/ Mike Piper blog
- https://rickferri.com/investment-philosophy/ Rick Ferri blog
- https://muscularportfolios.com Brian Livingston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