American Association of Individual Investors presents Financial Planning Workshop

Active vs. Passive Investment Strategies

Fred Smith
Email: fred@fredsmithfinance.com
Webcast details at www.siliconvalleyaaii.org

Financial Planning Workshops

- Fundamentals of Investing
- Building a Diversified Portfolio
- Introduction to Computerized Investing
- >>> Active versus Passive Investing Strategies
- Retirement Planning
- Managing your Cash Flow in Retirement
- Safe Withdrawal Rates from your Retirement Portfolio
- Social Security and Medicare
- Estate Planning

In Previous Workshops

- Reviewed the fundamental tools of investing
  - Determined how to measure risk and return
  - Evaluated investment vehicles
    Stocks, bonds, mutual funds, ETFs, REITs, etc.
  - Written our Personal Investor Profile, PIP
- Learned to build a diversified portfolio
  - Modern Portfolio Theory and the role of correlation
  - Reviewed the major asset classes
  - Written our Investor Policy Statement, IPS
- Evaluated computerized investing techniques
  - Reviewed tools available for active investing
- Slides and webcast recordings available at
  www.siliconvalleyaaii.org

Today we will cover …

- The Efficient Market Hypothesis, EMH
- The Capital Asset Pricing Model, CAPM
- Active and Passive Investment Strategies
- How to decide where you stand on these controversial issues

The Efficient Market Hypothesis

- Developed by Eugene Fama in 1960s
- Asset prices fully reflect all available information
- Stocks always trade at their “fair value”

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
  - 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

But… but… but… but … but…

- What about …Warren Buffet?

  19.2% pa for 36 years (Nov 1980 – Nov 2016)

- Peter Lynch (Fidelity Magellan)?

  29.2% pa 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?

That Was Then, This Is Now

- Buffet's great record was mostly earned decades ago (pre-internet)
  - 20 years (Nov 1996 – Nov 2016): 10.2% cagr
  - 10 years (Nov 2006 – Nov 2016): 8.1% cagr
- 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 32,768
  - 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
- 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
- Consider an analogy:
  - Did Einstein make Newton's law of gravity obsolete?
- 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

  = Alpha + Beta x Market Return
- Alpha is defined as the excess return above an appropriate risk-adjusted benchmark
  - Used as a performance measure for a fund manager
- Beta is a multiplier for the market return
  - An asset with Beta = 1.0 has same volatility as the market

Definitions

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

    i.e. anyone who is happy to realize the market "beta"

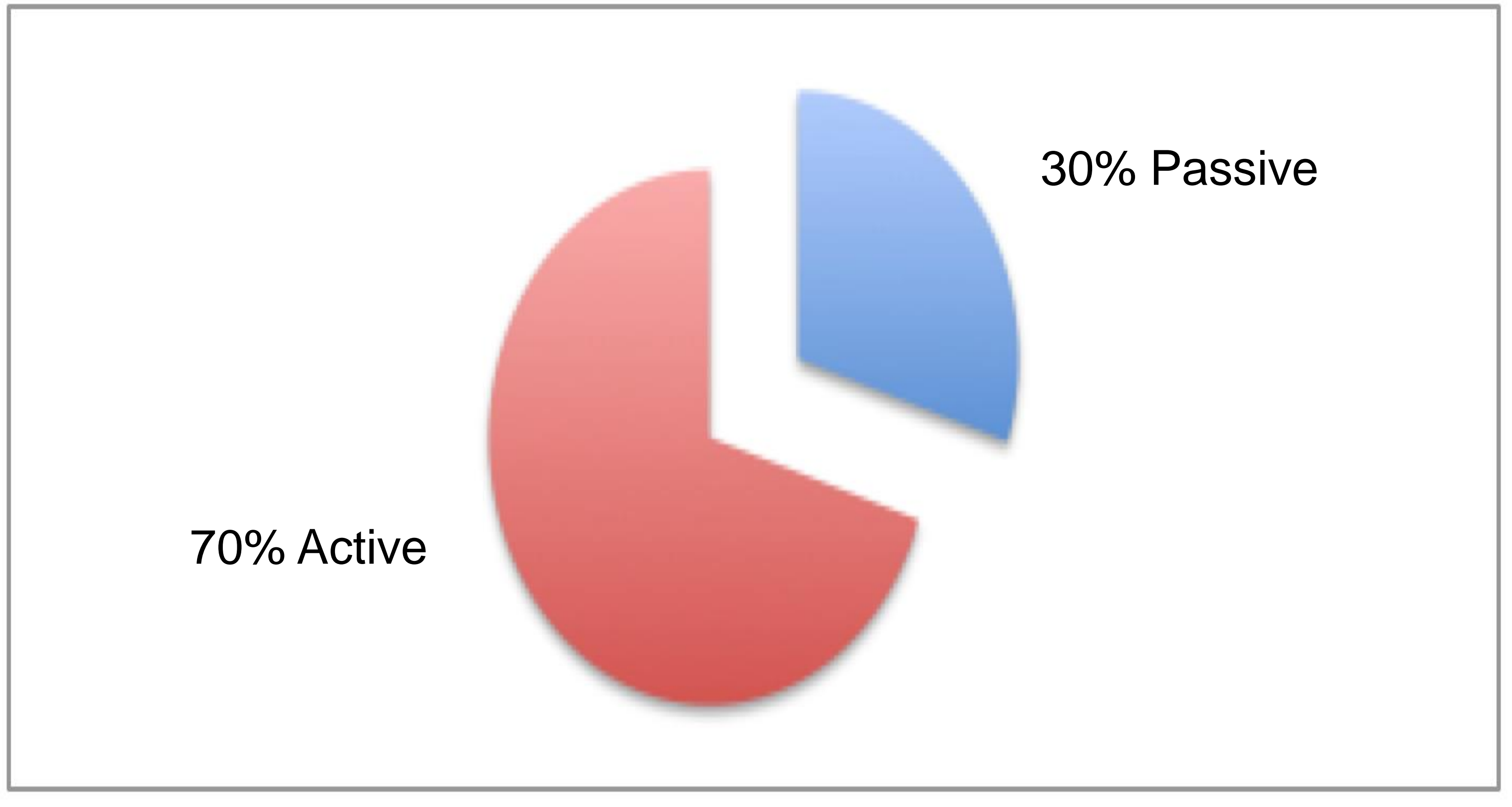
- Active Investor
  - Anyone who is not a Passive Investor
  - Attempts to beat the market

    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

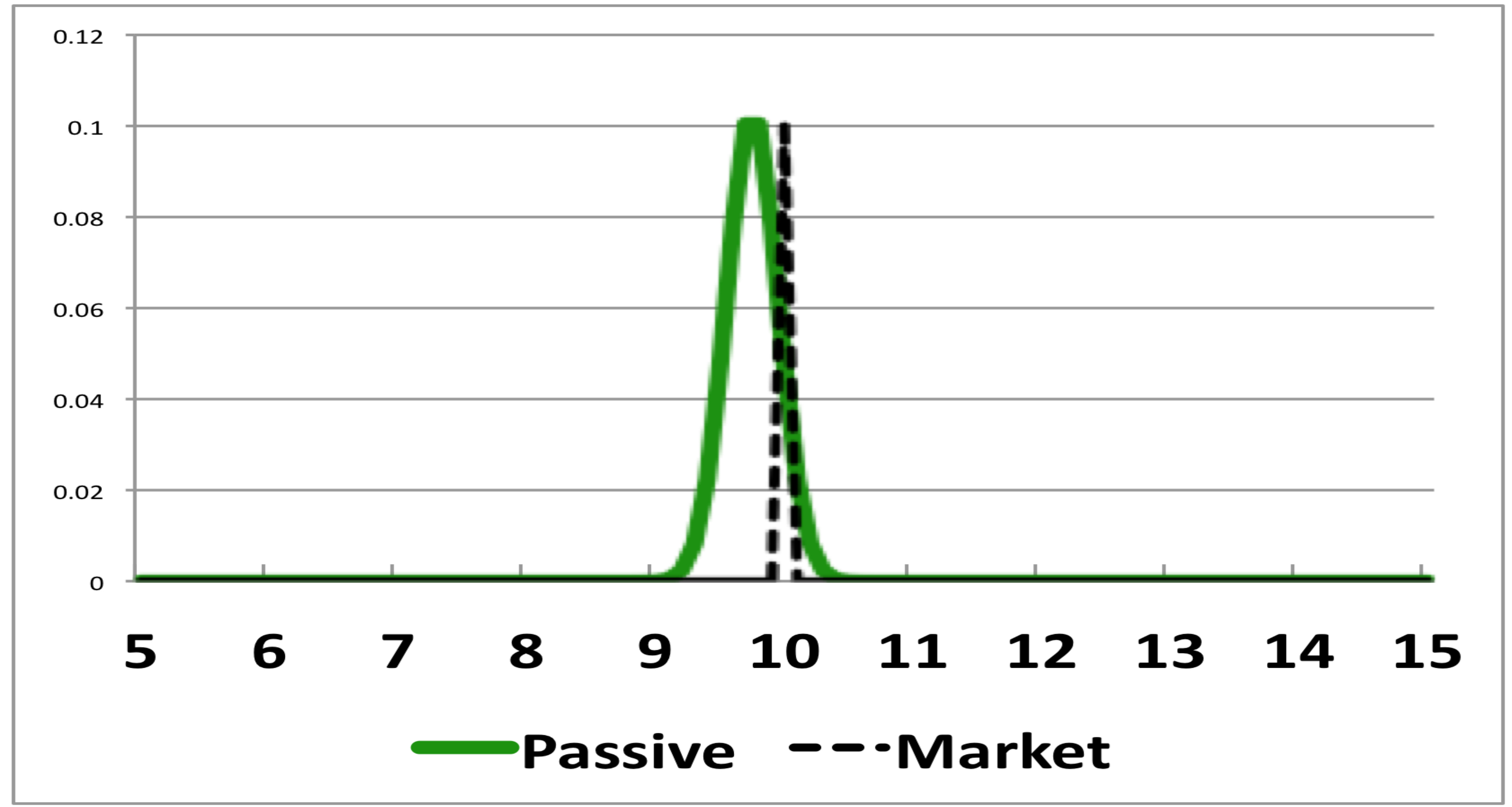


Passive Investors

- Passive investors, by definition, get the market return (less costs)
- Assume market return = 10% pa
- Assume costs = 0.25%
  - The expense ratio for many 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

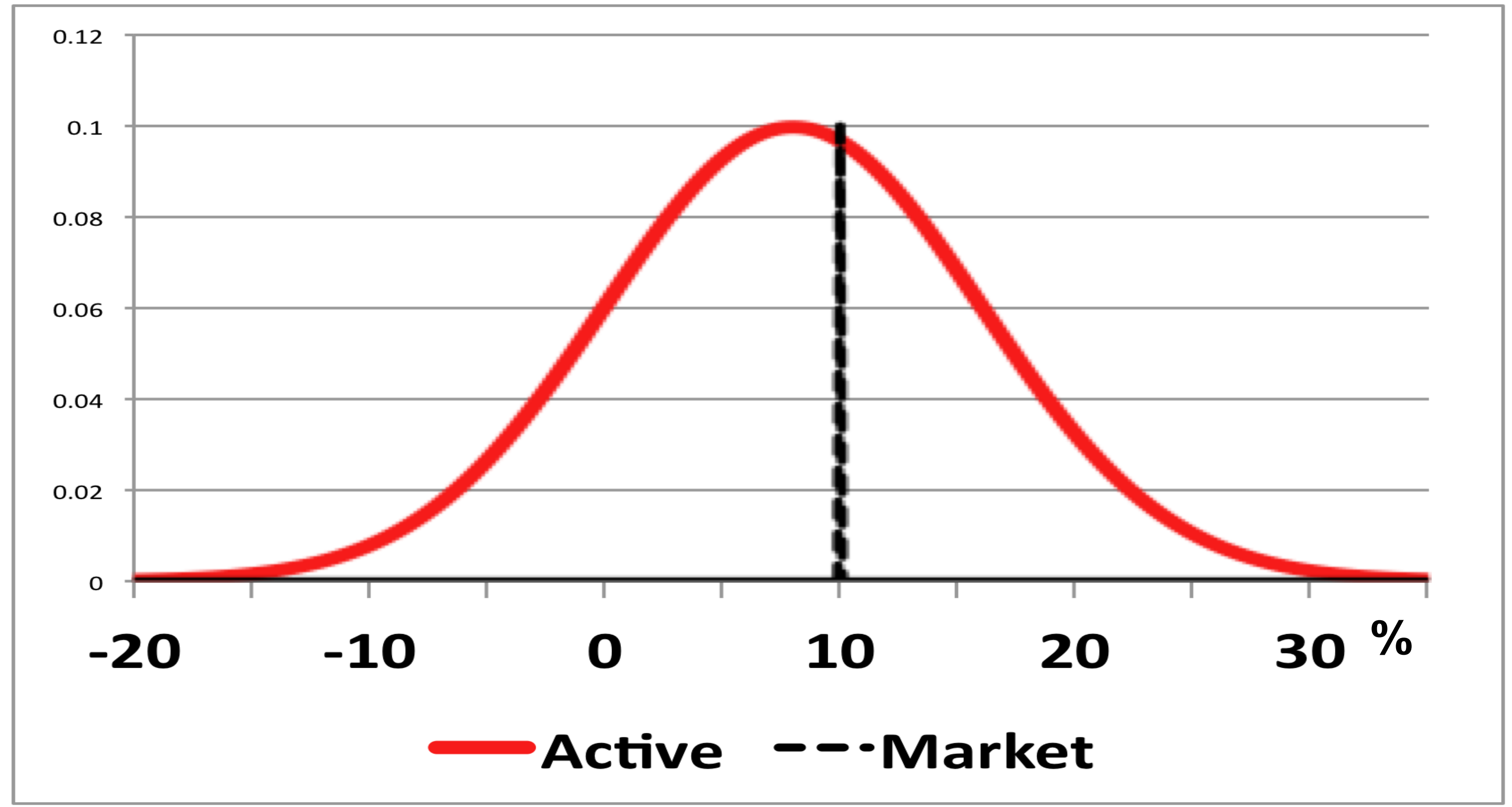
    Thinner markets than index funds
  - Higher expense ratio than index funds

    Extreme case for hedge funds; 2.0% pa + 20% of profit
- Bogle's estimate of the average all-in investment expense for an active fund = 2.27% pa
- Assume 2.0% pa total cost

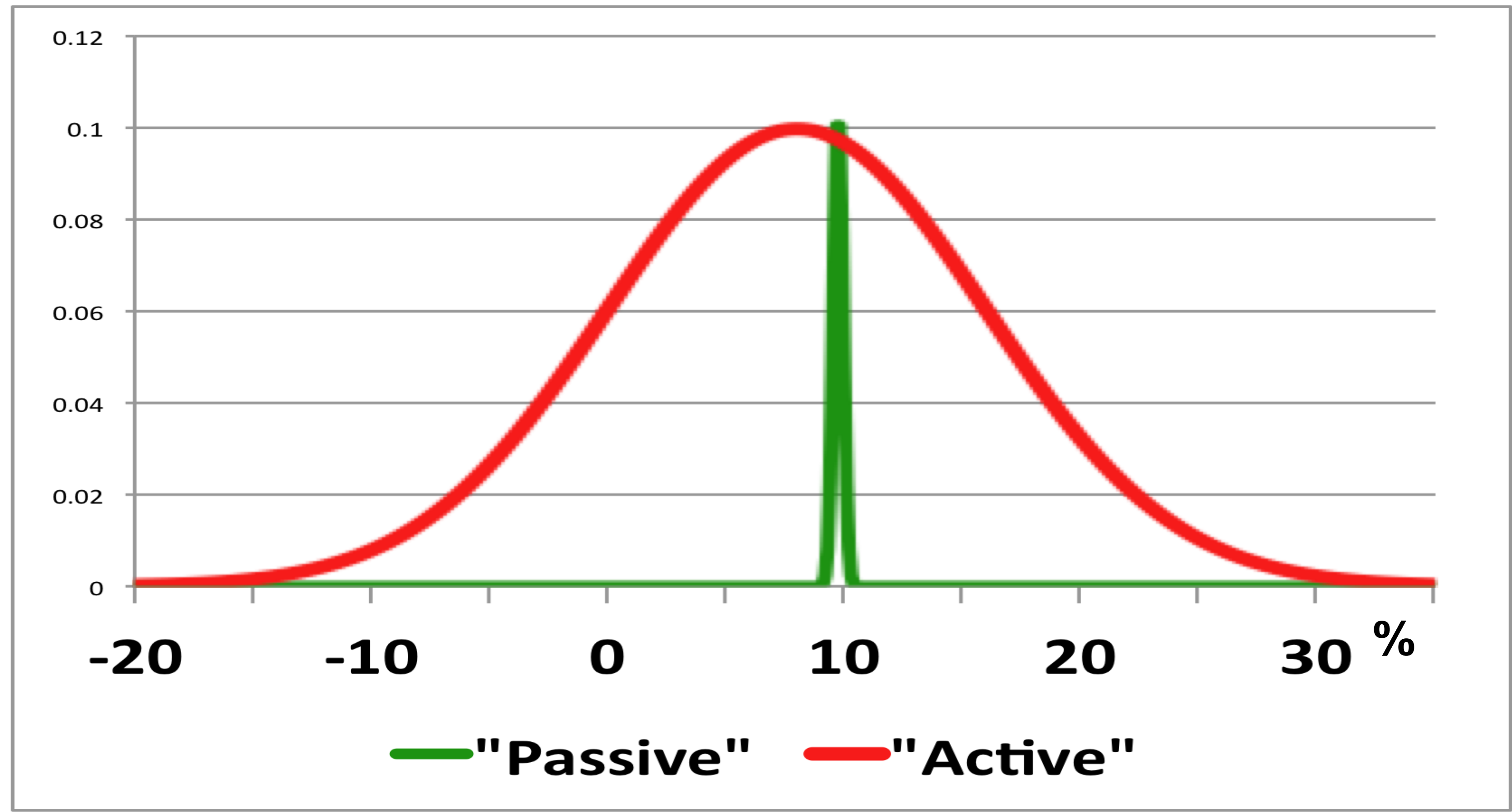
Wide Distributions for Active Investors

- Distributions are wider for active investors
  - Aiming for diverse targets with broad range of strategies
    - Growth stocks, value stocks
    - 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



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 vice-versa**
- **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
- 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?

Trading is Detrimental to your Financial Health!

- **Most investors trade too often**
- **Research study on 78,000 brokerage accounts:**
  - **On average, one year after the trade, the asset sold outperformed the asset bought**
- **Mark Hulbert**
  - **“If you are thinking of calling this number, don’t”**

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.

The Callan Periodic Table of Investment Returns

Annual Returns for Key Indices Ranked in Order of Performance (1996–2015)

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
S&P 500 Growth 23.97%	S&P 500 Growth 36.52%	S&P 500 Growth 42.16%	MSCI Emerging Markets 66.42%	Russell 2000 Value 22.83%	Russell 2000 Value 14.02%	Barclays Agg 10.26%	MSCI Emerging Markets 56.28%	MSCI Emerging Markets 25.95%	MSCI Emerging Markets 34.54%	MSCI Emerging Markets 32.59%	MSCI Emerging Markets 39.78%	Barclays Agg 5.24%	MSCI Emerging Markets 79.02%	Russell 2000 Growth 29.09%	Barclays Agg 7.84%	MSCI Emerging Markets 18.63%	Russell 2000 Growth 43.30%	S&P 500 Growth 14.89%	S&P 500 Growth 5.52%
S&P 500 22.96%	S&P 500 33.36%	S&P 500 28.58%	Russell 2000 Growth 43.09%	Barclays Agg 11.63%	Barclays Agg 8.43%	Barclays Corp High Yield -1.41%	Russell 2000 Growth 48.54%	Russell 2000 Value 22.25%	MSCI EAFE 13.54%	MSCI EAFE 26.34%	MSCI EAFE 11.17%	Barclays Corp High Yield -26.16%	Barclays Corp High Yield 58.21%	Russell 2000 26.85%	Barclays Corp High Yield 4.98%	Russell 2000 Value 18.05%	Russell 2000 38.82%	S&P 500 13.69%	S&P 500 1.38%
S&P 500 Value 22.00%	Russell 2000 Value 31.78%	MSCI EAFE 20.00%	S&P 500 Growth 28.24%	S&P 500 Value 6.08%	Barclays Corp High Yield 5.28%	MSCI Emerging Markets -6.00%	Russell 2000 47.25%	MSCI EAFE 20.25%	S&P 500 Value 5.82%	Russell 2000 Value 23.48%	S&P 500 Growth 9.13%	Russell 2000 Value -28.92%	Russell 2000 Growth 34.47%	Russell 2000 Value 24.50%	S&P 500 Growth 4.65%	S&P 500 Value 17.68%	Russell 2000 Value 34.52%	S&P 500 Value 12.36%	Barclays Agg 0.55%
Russell 2000 Value 21.37%	S&P 500 Value 29.98%	S&P 500 Value 14.69%	MSCI EAFE 26.96%	Russell 2000 -3.02%	Russell 2000 2.49%	Russell 2000 Value -11.43%	Russell 2000 Value 46.03%	Russell 2000 18.33%	S&P 500 4.91%	S&P 500 Value 20.81%	Russell 2000 Growth 7.05%	Russell 2000 -33.79%	MSCI EAFE 31.78%	MSCI Emerging Markets 19.20%	S&P 500 2.11%	MSCI EAFE 17.32%	S&P 500 Growth 32.75%	Barclays Agg 5.97%	MSCI EAFE -0.81%
Russell 2000 16.49%	Russell 2000 22.36%	Barclays Agg 8.70%	Russell 2000 21.26%	Barclays Corp High Yield -5.86%	MSCI Emerging Markets -2.37%	MSCI EAFE -15.94%	MSCI EAFE 38.59%	S&P 500 Value 15.71%	Russell 2000 Value 4.71%	Russell 2000 18.37%	Barclays Agg 6.97%	S&P 500 Growth -34.92%	S&P 500 Growth 31.57%	Barclays Corp High Yield 15.12%	S&P 500 Value -0.48%	Russell 2000 16.35%	S&P 500 32.39%	Russell 2000 Growth 5.60%	Russell 2000 Growth -1.38%
Barclays Corp High Yield 11.35%	Russell 2000 Growth 12.95%	Barclays Corp High Yield 1.87%	S&P 500 21.04%	S&P 500 -9.11%	Russell 2000 Growth -9.23%	Russell 2000 -20.48%	S&P 500 Value 31.79%	Russell 2000 Growth 14.31%	Russell 2000 4.55%	S&P 500 15.79%	S&P 500 5.49%	S&P 500 -37.00%	Russell 2000 27.17%	S&P 500 Value 15.10%	Russell 2000 Growth -2.91%	S&P 500 16.00%	S&P 500 Value 31.99%	Russell 2000 4.89%	S&P 500 Value -3.13%
Russell 2000 Growth 11.26%	Barclays Corp High Yield 12.76%	Russell 2000 Growth 1.23%	S&P 500 Value 12.73%	MSCI EAFE -14.17%	S&P 500 Value -11.71%	S&P 500 Value -20.85%	Barclays Corp High Yield 28.97%	Barclays Corp High Yield 11.13%	Russell 2000 Growth 4.15%	Russell 2000 Growth 13.35%	S&P 500 Value 1.99%	Russell 2000 Growth -38.54%	S&P 500 26.47%	S&P 500 15.06%	Russell 2000 -4.18%	Barclays Corp High Yield 15.81%	MSCI EAFE 22.78%	Russell 2000 Value 4.22%	Russell 2000 -4.41%
MSCI EAFE 6.05%	Barclays Agg 9.64%	Russell 2000 -2.55%	Barclays Corp High Yield 2.39%	S&P 500 Growth -22.08%	S&P 500 -11.89%	S&P 500 -22.10%	S&P 500 28.68%	S&P 500 10.88%	S&P 500 Growth 4.00%	Barclays Corp High Yield 11.85%	Barclays Corp High Yield 1.87%	S&P 500 Value -39.22%	S&P 500 Value 21.17%	S&P 500 Growth 15.05%	Russell 2000 Value -5.50%	S&P 500 Growth 14.61%	Barclays Corp High Yield 7.44%	Barclays Corp High Yield 2.45%	Barclays Corp High Yield -4.47%
MSCI Emerging Markets 6.03%	MSCI EAFE 1.78%	Russell 2000 Value -6.45%	Barclays Agg -0.82%	Russell 2000 Growth -22.43%	S&P 500 Growth -12.73%	S&P 500 Growth -23.59%	S&P 500 Growth 25.66%	S&P 500 Growth 6.13%	Barclays Corp High Yield 2.74%	S&P 500 Growth 11.01%	Russell 2000 -1.57%	MSCI EAFE -43.38%	Russell 2000 Value 20.58%	MSCI EAFE 7.75%	MSCI EAFE -12.14%	Russell 2000 Growth 14.59%	Barclays Agg -2.02%	MSCI Emerging Markets -1.82%	Russell 2000 Value -7.47%
Barclays Agg 3.64%	MSCI Emerging Markets -11.59%	MSCI Emerging Markets -25.34%	Russell 2000 Value -1.49%	MSCI Emerging Markets -30.61%	MSCI EAFE -21.44%	Russell 2000 Growth -30.26%	Barclays Agg 4.10%	Barclays Agg 4.34%	Barclays Agg 2.43%	Barclays Agg 4.33%	Russell 2000 Value -9.78%	MSCI Emerging Markets -53.18%	Barclays Agg 5.93%	Barclays Agg 6.54%	MSCI Emerging Markets -18.17%	Barclays Agg 4.21%	MSCI Emerging Markets -2.27%	MSCI EAFE -4.90%	MSCI Emerging Markets -14.60%

What about History?

- Beware back-test data and data mining
- 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

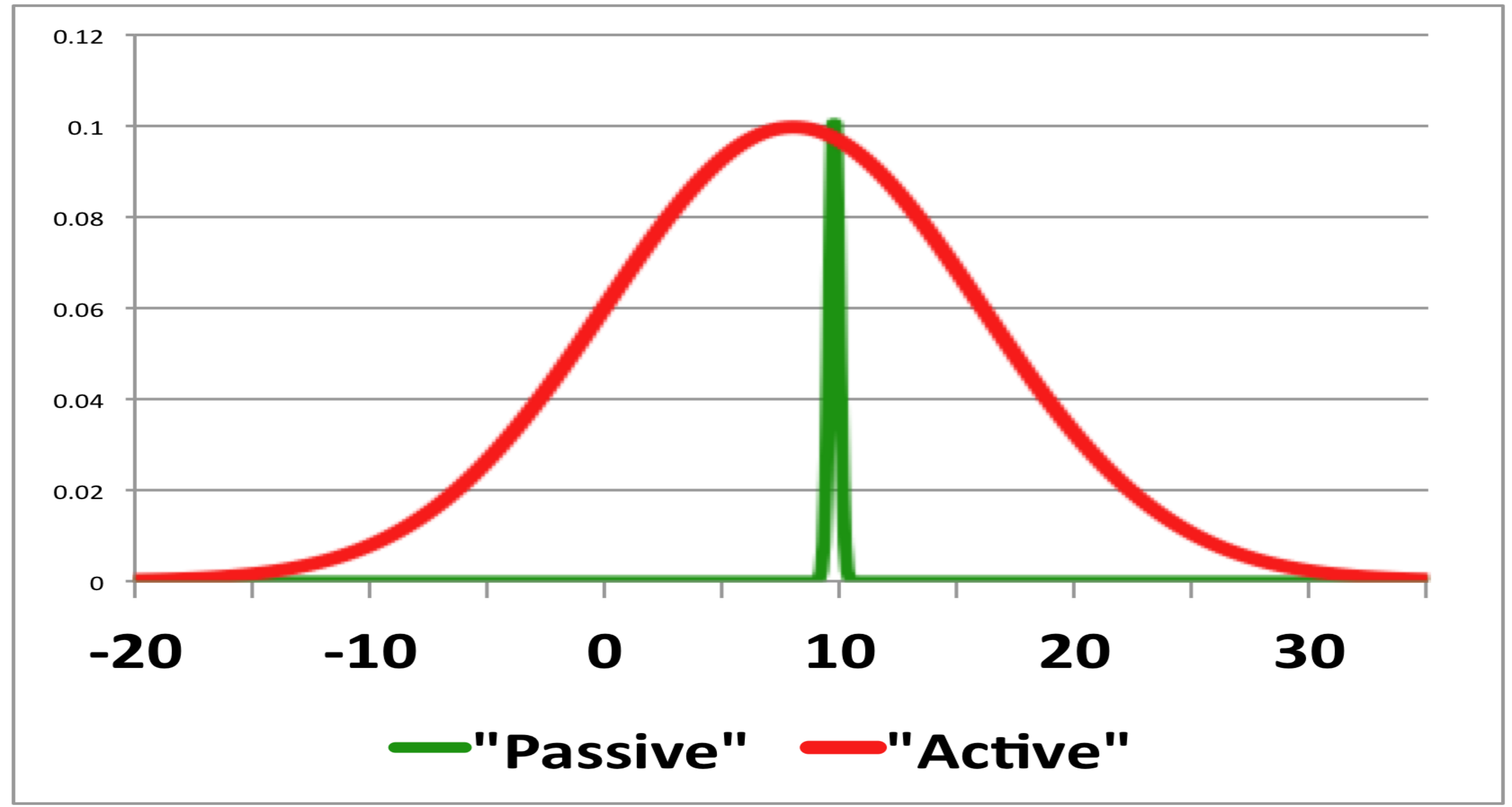
- **Past performance is no guide to future returns.**
- **To beat the market you have to be able to predict the future.** (Harry Domash opinion)
- **To beat the market you have to predict the future better than everyone else.** (Fred Smith opinion)

  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.**

Very Few Investors Can Beat The Market Consistently



A Challenge To Active Investors

- Previously we reviewed various passive portfolios
  - Number of funds = 1 to 4
  - Rebalance annually
  - In 20 years $10k becomes $36 to $63k
  - Compound annual growth rate (20 yrs) = 7% to 10%
  - Sharpe ratio (20 years) = 0.6 to 1.0
- What is the equivalent 20-year data for your active portfolio?
  - How much time do you spend managing it?
  - How long can you survive without internet access?
  - Would you rather be fishing?

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 25 years: 8.5% pa

  Projected future returns: 7.7%

- CALPERS evaluating reduction from 7.5% to 6.2%
- 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
  - You have access to better data, tools, other resources
  - You are prepared to risk losing to the market
  - 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 60-80% 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 three weeks without worrying about what the market is doing

Think **B**oring **I**s **G**ood

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

Recap: The Investment Process

- Step 1: Personal Investor Profile (PIP)
  - Who as I?   Timeframe   Risk tolerance   Tax bracket
- Step 2: Investment Policy Statement (IPS)
  - Asset classes   Asset allocation   Investing strategy etc.
- Step 3: Select specific securities
  - Mutual funds   ETFs   stocks   bonds etc.
- Step 4: Implement the portfolio
  - Purchase the securities
- Step 5: Review as appropriate
  - Passive strategy: Rebalance annually, or per IPS
  - Active strategy: Monitor and trade as defined in IPS

Before Next Month's Workshop …..

- Review your Investment Policy Statement, IPS
  - Do you wish to revise it based on anything you may have learned today?

- Review the 20-year risk and return data for your retirement accounts
  - Are you satisfied with the results?

Next Month We Will Cover …..

- Retirement Planning
  - Accumulation Phase

    Why to start saving early
  - Account attributes

    Traditional IRA, Roth IRA, 401(k), etc.
  - Managing your accounts

- This is the first of 3 workshops on retirement.

To Probe Further

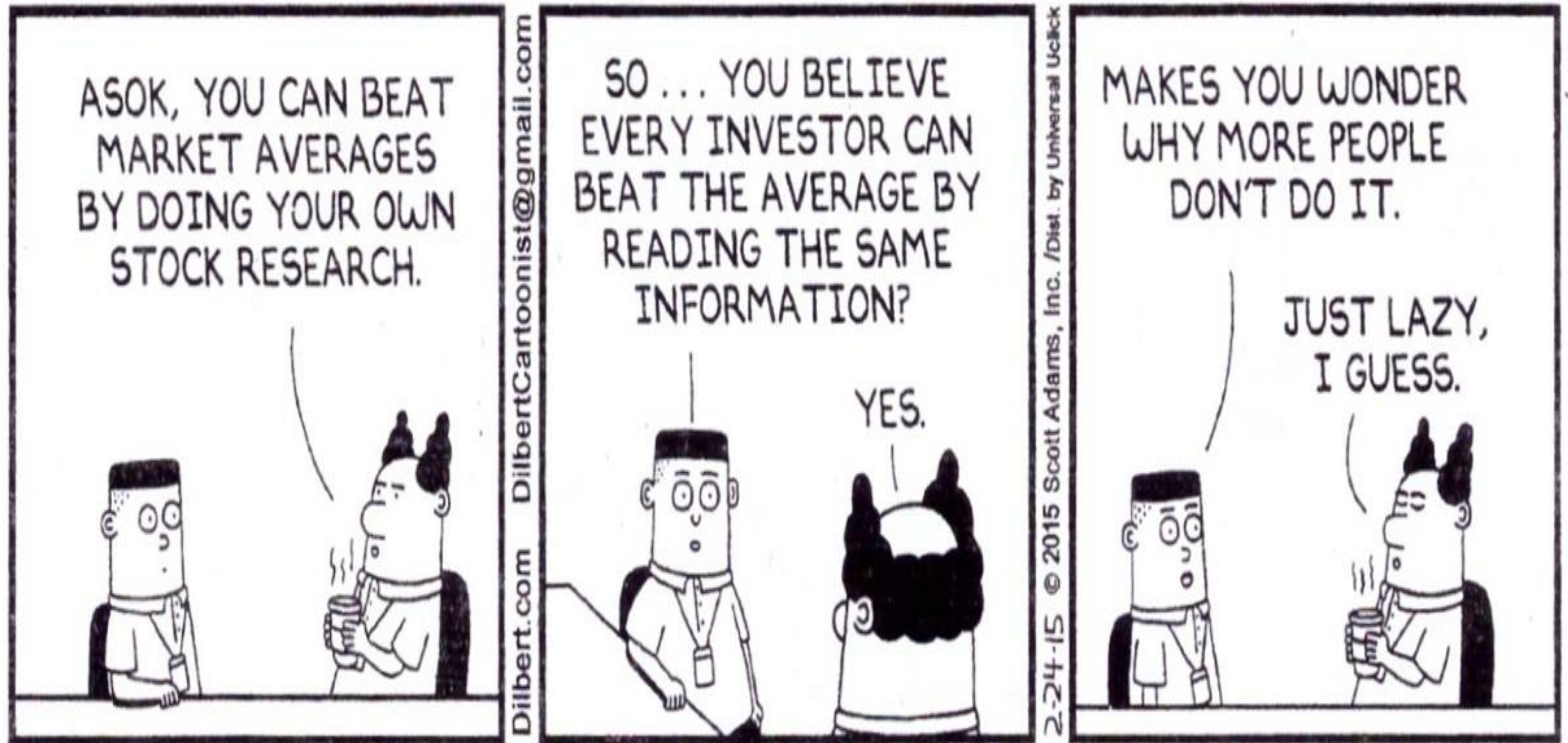
- Achieving Greater Long-Term Wealth Through Index Funds, An Interview with Jack Bogle, AAII Journal, June 2014
- Common Investor Mistakes and Other Investing Insights, An Interview with Jack Bogle, AAII Journal, July 2014
- Is Outperforming the Market Alpha or Beta? Larry Swedroe and Andrew Berkin, AAII Journal. July 2015
- Trading More Frequently Leads to Worse Returns, Terrance Odean, AAII Journal, November 2014
- Portfolio Selection, Harry Markowitz, Journal of Finance, 1952
- The Loser's Game, Charles Ellis, The Financial Analysts' Journal, July 1975
- Winning the Loser's Game, Charles Ellis, McGraw-Hill, 2002
- A Random Walk Down Wall Street, Burton Malkiel, W.W. Norton & Company
- The Efficient Market Hypothesis and Its Critics, Burton Malkiel, CEPS Working Paper No. 91, April 2003

Useful Websites

- www.aaii.com Broad selection of investing material
- www.siliconvalleyaaii.org Previous presentations on various topics
- www.santaclaracountylib.org/Adults/Business & Money
  - Morningstar Investment Research Center
  - Standard & Poors NetAdvantage
  - Value Line
- www.investopedia.com
- www.bogelheads.org
- www.obvliviousinvestor.com/index-funds/ Mike Piper blog
- www.rickferri.com/investment-philosophy/ Rick Ferri blog
- www.callan.com Callan Chart

The Motley Fool's Financial Rules

- Every five to seven years people forget that recessions happen every five to seven years.
- You're twice as biased as you think (four times if you disagree with this statement).
- Read more history and fewer forecasts.
- 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. William Sharpe
- Investors were probably better informed 20 years ago when there was 90% less financial news.


DILBERT | Scott Adams
ASOK, YOU CAN BEAT MARKET AVERAGES BY DOING YOUR OWN STOCK RESEARCH.
SO . . . YOU BELIEVE EVERY INVESTOR CAN BEAT THE AVERAGE BY READING THE SAME INFORMATION?
YES.
MAKES YOU WONDER WHY MORE PEOPLE DON'T DO IT.
JUST LAZY, I GUESS.
Dilbert.com DilbertCartoonist@gmail.com
2-24-15 © 2015 Scott Adams, Inc. /Dist. by Universal Uclick