

## Passive vs. Active Investment Strategies

### **Building a Diversified Portfolio**

- Step 1. Personal Investor Profiler, PIP
- Step 2. Investment Policy Statement, IPS
- Step 3. Design the portfolio by selecting specific securities for each asset class
- Step 4. Implement the portfolio by purchasing the securities
- Step 5. Monitor and rebalance as appropriate

### **Modern Portfolio Theory, MPT**

Developed by Harry Markowitz and Bill Sharpe  
Capitalizes on the lack of correlation between certain asset classes

### **Efficient Market Hypothesis, EMH**

Developed by Eugene Fama in the 1960s  
Asset prices reflect all available information  
Stock prices always trade at their "fair value"  
Implications: Impossible to beat the market by stock picking or market timing  
Research is a waste of time and \$\$\$  
Only path to higher returns is thru higher risk

### **Capital Asset Pricing Model, CAPM**

Developed by Harry Markowitz and Bill Sharpe  
Expected portfolio return = Alpha + Beta times market return  
Alpha is the excess return above an appropriate risk-adjusted benchmark  
Beta is a multiplier for the market return; measures volatility vs. a benchmark

Definitions: **Passive investor** attempts to replicate the market at minimum cost  
i.e. anyone who is happy to realize the market beta by building a diversified portfolio of low cost index funds and rebalancing as needed.  
**Active investor** is anyone who is not a passive investor  
i.e. attempts to beat the market (generate alpha) by superior stock picking and/or market timing.

Since Passive investors + Active investors = Total market  
and Return of passive investors = market return on average, less cost, by definition  
Therefore: Return of active investors = market return on average, less cost

Assume Market return = 10% and passive costs = 0.25%  
then Passive return = 9.75% on average +/- narrow distribution (see Figure 1 overleaf)

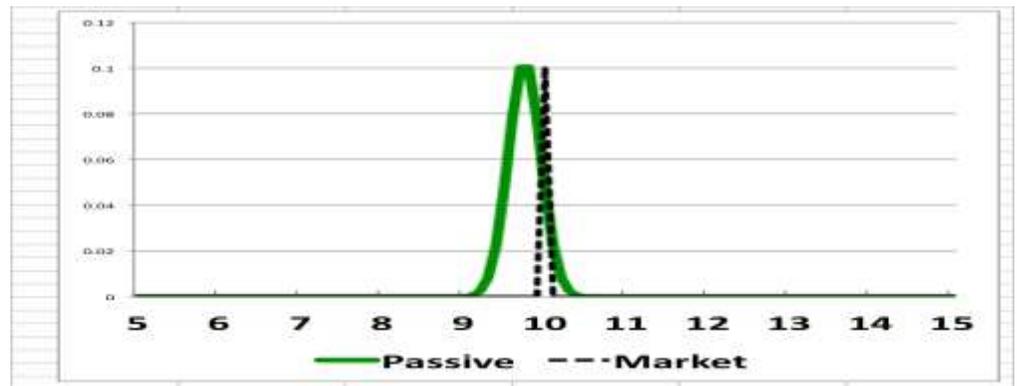
But active investors costs are higher, say 2.0%

Trade more often, higher bid/ask spreads, higher expense ratio, pay for research, etc.  
and distribution is much wider because they have concentrated portfolios aiming at diverse targets  
Then: Active return = 8.0% on average +/- wider distribution (see Figure 2 overleaf)

Now compare the distribution of returns for passive and active investors (see Figure 3 overleaf)  
In practice approximately 70% of all investors who attempt to beat the market fail to do so.  
Those who do beat the market cannot do so consistently, and are unpredictable.  
1 in 1024 dart-throwing monkeys can beat the market for 10 consecutive years by luck alone.

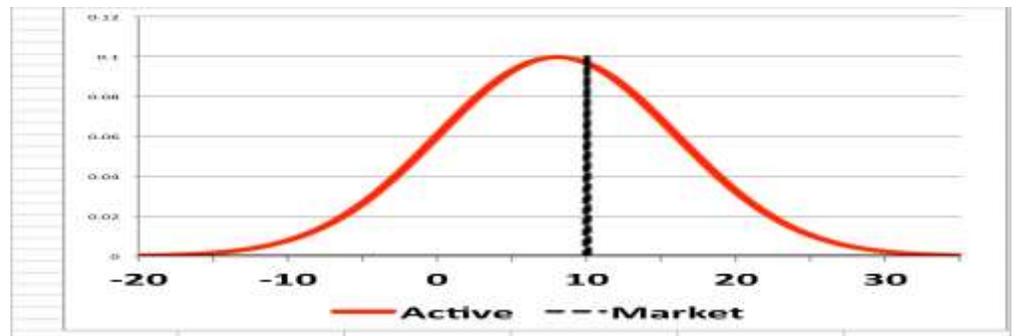
**Figure 1**

Distribution of  
Passive Returns



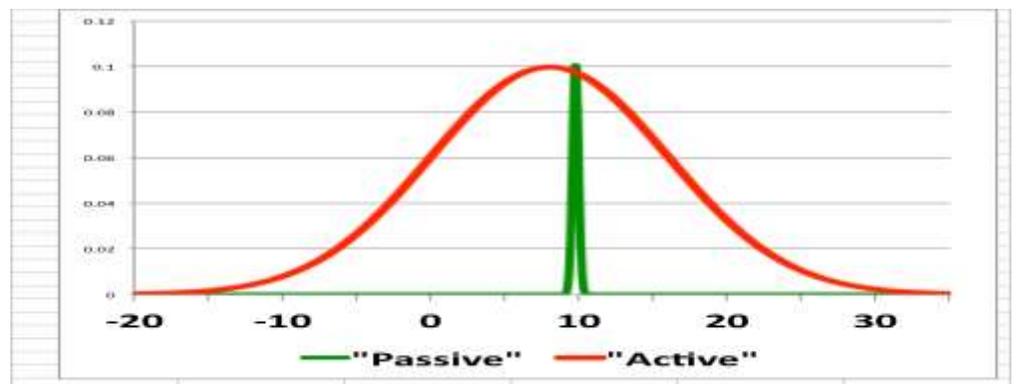
**Figure 2**

Distribution of  
Active Returns



**Figure 3**

Passive versus  
Active Returns



For every winning trade an active investor makes, there's a losing trade

Do you have an advantage over the other guy? Are you smarter? Have access to better data?

Who is on the other side of the transaction?

Pension funds, endowment plans, mutual funds, individual investors (smart / not so smart)

Are there enough "not so smart" individuals to take the other side of your trade?

Most investors trade too often. Trading is detrimental to your financial health.

To beat the market you have to predict the future better than everyone else.

If you predict the same future as everyone else you get the same market returns as everyone else.

Fred Smith opinion: We can't predict the future, but we can prepare for it.

### **The Frustrating Law of Active Management**

For a strategy to outperform in the long run, it must underperform in the short run to force the weak hands to fold. *Corey Hoffstein and Justin Sibears, Newfound Research, October 2, 2017.*

**Next month**, December 13<sup>th</sup>, 2017: Retirement planning

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