Middlebury Student Investment Committee

Evaluating Success in a Portfolio: Goals and Benchmarks

October 3rd, 2016
Topics

• What is a “Benchmark”
  • Expected Returns
    • Goals of the SIC
      • How to be Successful
What is a Benchmark?

• A benchmark is any financial point of reference based on which you set a goal

• Benchmarks can be:
  • Stock Indexes
  • Correlational/Volatility Measurements
Index Benchmarks (The magic $\alpha$)

Different time periods can tell very different stories.
A beta below 1 can indicate either an investment with lower volatility than the market, or a volatile investment whose price movements are not highly correlated with the market. An example of the first is a treasury bill: the price does not go up or down a lot, so it has a low beta. An example of the second is gold. The price of gold does go up and down a lot, but not in the same direction or at the same time as the market.

Citation: Thanks Wikipedia!
Volatility and Risk Adjusted Returns

Sharpe ratio = (Mean portfolio return – Risk-free rate)/Standard deviation of portfolio return

\[ \frac{\bar{r}_p - r_f}{\sigma_p} \]

Where:
\( \bar{r}_p \) = Expected portfolio return
\( r_f \) = Risk free rate
\( \sigma_p \) = Portfolio standard deviation

The ex-ante Sharpe ratio formula uses expected returns while the ex-post Sharpe ratio uses realized returns.

Citation: Thanks Investopedia!
SIC Investment Goal:
How to Succeed:
(what separates $\alpha$ from $\beta$)

Information!
Basic Valuation Example
Some important information:

- Purchase Price $5
- Top prize $802
- Approximate original odds of winning anything, 4.27
- Approximate original odds of winning by prize:
  - $5 1 in 8
  - $10 1 in 25
  - $20 1 in 38
  - $25 1 in 38
  - $50 1 in 78
  - $100 1 in 1,200
  - $802 1 in 1,650
Questions?