

## Statistics 434: Bullet Points for Day 23

### Comparing Asset Returns in the Context of Risks

Any asset manager, asset class, or investment strategy will be judged on the basis of the historical returns viewed in the context of the risks that were taken — but how? There are oodles of suggestions, yet if we are honest, none of these suggestions is fully satisfactory.

We'll review all the common proposals for the illusive “risk adjusted returns,” and we'll consider some new candidates. I certainly hope that you to use multiple methods of comparison in your final reports. The messy business of comparison is far more subtle than is commonly recognized.

- General Issue: How to Compare?
- Risk Adjusted Returns and Related Measures of Risk
  1. Sharpe Ratio
  2. Beta — or period volatility benchmarking
  3. Information Ratio — relativizing Sharp
  4. Volatility Drag Correction to “Average Returns”
  5. Sortino Ratio (and the “Sortinoized” Information Ratio)
  6. Draw Down — what CTO clients want to know
  7. Relative Draw Down by period (hedge fund presentation)
  8. Max “One Period” Loss — and the relativized version
  9. Modigliani-Modigliani Difference
- The Right Benchmark — Obvious or Not?
  1. The Market Weighted Usual Suspects
  2. A Challenger: The CRB Portfolio (for your asset class)
- Generic Criticisms and Hunt for Wisdom
  1. The Peso Problem — “observed risk is just a fraction of true risk”
  2. The curse of “one-path” of economic history
  3. Which “what-ifs” are feasible?
  4. Post-Mortem Analyses: Crisis by Crisis
- Market Timing Measures — are they special, or not?
- What is the real expense ratio on the “actually managed” assets?
- Benefits of “Total Return” strategies — even with modest returns

#### Quote of the Day:

“No Guts. No Sausage.” — Anonymous