References: Portfolio Theory

Core Textbooks

Bodie, Kane, Marcus. ***Investments*** (2018)

Intro text to finance, widely used at the masters and advanced undergraduate levels.

Core material:

- Chapters 7-10 cover diversification, mean-variance optimization, and Linear Factor Pricing Models.
- Chapter 5 covers basics of returns and risk.
- Chapter 24 covers performance evaluation.

Extra material:

- Chapters 2-4 are a good introduction to securities, asset classes, and financial institutions.

Hull. ***Options Futures, and Other Derivatives*** (2018)

The standard reference for options, but has a few good pieces for Portfolio. Advanced enough for grad studies, but more practical/applied than most Ph.D. references.

Core material:

- Chapter 22 - Value-at-Risk and tail-risk measures. Good treatment of using Monte Carlo and PCA for VaR, which is also useful intro to using those methods more generally.
- Chapter 23 - Volatility models. EWMA and GARCH are the main features.

Antti Ilmanen. ***Expected Returns.*** (2011)

Lesser-known textbook with unique angle as being extremely applied while discussing serious quant topics.

Core material:

- Part II - A Dozen Case Studies (Chapters 8-19)
  Nice introduction to key (quant-relevant) issues across various asset classes.

Other material:

- Part I (chapters 1-7) have good discussions of how to think about expected returns, whether they are rational vs behavioral, etc. (The discussion of the history of returns is a bit dated, but still a good intro.)
- Chapter 24 has good practical advice on how to build a forecasting model.

Research and Theory

This is useful for understanding research and theoretical foundations. But it is not so applied/practical to be of

- Campbell. ***Financial Decisions and Markets.*** (2018)
  This book is more recent and has a good survey of where research is developing on each issue.
  If you're looking for an entry into research, I'd start here.
- Cochrane. ***Asset Pricing.*** (2005)
  This book is the classic Ph.D. level treatment of the theory, with all the derivations and a strong framing via the Stochastic Discount Factor. If looking for Ph.D. level focus on the theoretical modeling, I'd start here.
- Chinco. **Blog** **(https://www.alexchinco.com/notebook/)** . (Chicago Booth Faculty Member)
  Sure there are many fine blogs out there, but this is a good example of a blog with posts every few months that contain interesting research points---many of which are related to what we cover in class.