ECON 4360: Empirical Finance

Wrap Up and Review

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Empirics Lecture #12

What (else) are we doing today?

- Review of What We've Learned (Big Picture)

Models

- We've used (broadly) three approaches for developing and testing asset pricing models
  - Consumption-based Model with Specific Utility Functions
  - Linear Factor Models, where Factors are Excess Returns
  - Cross-Sectional Factor Models, where Factors are Macro or Financial Variables
- How are utility functions and factors selected?
  - Size of Pricing Errors
  - Connection to Economic Theory

Estimation

- How do we estimate our models?
  - For Factor Models: OLS plus GMM to correct standard errors
  - Explicit Discount Factor Models: Nonlinear Model-GMM
- What do we learn from the parameters?

Testing our Models

- Always the same question: Are pricing errors large?
  - Step 1: Find model parameters that minimize pricing errors
  - Step 2: Are the resulting pricing errors statistically significant?
  - Issues of in-sample v. out-of-sample fit

Interpreting Model Rejections

- Statistical
  - Did we correctly model the time-series process for the residuals / pricing errors?
  - What are the small-sample properties of our test?
- Economic
  - Did we omit relevant factors?
  - Can we theorize a new view of consumer utility?
- Rationalizing a Failure
  - Does the model at least do well for most portfolios?
  - Does our model respect at least some limitations of theory?

Questions

- Questions?

Admin Issues

- Course Evaluations on Collab
- Final Exam Procedures
    - Monday, the 6th of May from 2:00-5:00PM

- Suppose you think up a new factor that you believe should help price stocks (in the context of a linear time series factor pricing model).
- We'll call this new factor Momentum, where momentum is the difference in return on last periods high return portfolio minus the return on last periods low return portfolio.
- Describe the empirical tests you would run to convince yourself (and me) that this factor is in fact a factor that is priced in portfolios of stock returns.

End of Today's Lecture.

- That's all folks!