ECONOMICS 422
INVESTMENT, CAPITAL, AND FINANCE

INTRODUCTION

Prof. Eric Zivot,
Savery 346, email: ezivot@uw.edu
phone 543-6715
http://faculty.washington.edu/ezivot
OH: TuWF 11-12

Course Material on the Web

- Class Webpage:
  faculty.washington.edu/ezivot/econ422/econ422.htm
- Class email list:
  econ422a_su10@u.washington.edu
  (you will be automatically subscribed)
- I will use the website and class email list to
  post announcements, homework corrections, etc.

COURSE MECHANICS
(see syllabus on webpage)

- Prerequisites: math, stat, micro theory
- Additional Readings on class webpage.
- Exam Pack: Several sets of past exams have been posted on the class web site
- Calculator, Excel, Web
- Exams, homework, investment project
  » HW due every Monday
  » Midterms: Monday, May 3rd
  » Final: Tuesday, June 8, 8:30-10:20 SAV 264
Optional Text: Principle of Finance with Excel

Excel is the standard tool used in the real world for financial modeling.

Text shows how to solve financial analysis problems using Excel.

http://pfe.wharton.upenn.edu/

HOW TO DO WELL

I expect students to master certain key ideas and computational techniques and to develop the ability to think through and solve finance problems.

- Read text and other assigned readings
- Find and work with a study partner
- Work problems!
- Review the old exams

Additional Courses in Finance

- Econ 421 – Money, Credit and the Economy (Fall)
- Econ 423 – Topics in Financial Economics (Spring)
- Econ 424 – Introduction to Computational Finance and Financial Econometrics (Fall)
- Econ 426 – Advanced Financial Economics (Winter)
  - New class on derivatives etc.
- Econ 464 – Financial Crisis (Fall & Winter)
- Math/Stat 492 – Stochastic Calculus
- Math 408 – Nonlinear Optimization
About Me

- Professor of Economics and Gary Waterman Distinguished Scholar
- Adjunct Professor of Finance in Business School
- Adjunct Professor of Statistics
- UC Berkeley undergrad
  - Econ and Stat double major
- Yale Ph.D. with emphasis in Econometrics and Finance
- Co-Director of Graduate Certificate in Computational Finance
- Co-author of *Modeling Financial Time Series with S-PLUS*, Springer-Verlag
- Risk management consultant to BlackRock Alternative Advisors

About Me: Teaching

- Graduate level: econometric theory, analysis of time series data, financial econometrics
- Undergraduate level: Econ 422, and course Econ 424 (computational finance)
- Course will closely follow Econ 422 as taught by Larina Davis.

About Me: Research

- Econometric Theory
  - Development of new statistical methodology for analyzing economic and financial data
- Time Series and Financial Econometrics
  - Model trend and volatility behavior of economic and financial data
  - Statistical analysis of ultra high frequency data (intra-day tick by tick)
- Finance
  - Use of factor models for risk analysis and management
  - Statistical analysis of hedge fund data
- Statistical Software Development
  - S-PLUS and R for statistical analysis of financial data
Finance Theory
Key Ideas and Questions
- Inter-temporal Consumption/Saving Decisions
- Role of financial markets
  » How do they work?
  » Are they efficient?
- Determinants of interest rates and bond prices
  » Effect of time to maturity?
  » Effect of Risk?
- Determinants of Equity prices/returns
  » Stock price valuation
  » Tradeoff between risk and reward
- Valuation and use of derivative securities
  » Options, forwards, futures, swaps
  » Hedging financial risks

Firm’s Financial Decisions
- Investment decisions
  » What projects should the firm undertake?
- How will projects be financed?
- Management structure and incentives
  » CEO compensation
- Dividend Policy
- Financial structure of the firm
  » Debt vs. equity
  » Financial instruments

Econ 422 Investment Project
- Objectives: learn financial institutions and conventions
- Essential features:
  » Create a $100,000 portfolio, describe it in Report 1
  » Value the portfolio at term end, report performance in Report 2
  » Intermediate trading is allowed but not required
- Some helpful hints:
  » Start right away
  » Read the detailed instructions carefully!
  » Reread the instructions, list questions
  » Research investment vehicles on the web -- use finance.yahoo.com and the education resources
  » Work with your study partner (but the portfolio and write up must be your own)
Some Portfolio Assets for Investment Project

- Common Stock
- U.S. Treasury Bills
- Treasury, corporate, and agency bonds
  - Zero coupon bonds (STRIPS)
  - Coupon bonds (T-notes & T-bonds)
  - Inflation protected bonds (e.g. TIPS)
  - Investment grade and junk corporate bonds
- Mutual Funds
- Exchange Traded Funds (ETFs)
- Futures Contracts
- Options (calls and puts)