

Foundations of Financial Markets

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Today's Class:

- Administrative details
 - (Also see the syllabus)
- Overview of class:
 - Outline of topics
 - The axioms underlying finance
 - The main insights of finance
- First topic of the class: financial instruments and financial markets

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Class Time

- May 15 ~ June 21
- Tuesday and Thursday 12:00-2:55pm
- This is a short and intense course
 - Understand as much as you can in class
 - Don't wait till exam week to find out you don't understand something

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Where to get help

- Office hours
Tuesday 3-4 pm and Thursday 3-4 pm, or
send me an e-mail.
(extra office hours before exams)
Office: KMEC 9-175
- E-mail: Put C150002 or “Foundations”
in the subject line

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The Web Page

- The course page is
<http://pages.stern.nyu.edu/~adesouza/teaching>
- The website is the source of all
information:
 - Office hours
 - Lecture notes and handouts
 - Problem sets and solutions
 - Group emails

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Readings

- Bodie, Kane and Marcus
“Essentials of Investments.”
- *“Solutions Manual for Essentials of
Investments.”*
- Ross, Westerfield, and Jordan, *“Essentials
of Corporate Finance,”* Custom Edition.
- Course packet.

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Prerequisites

- Because of the nature of modern practical finance, the course is heavily quantitative:
 - Lots of algebra in class and in problems.
- Use of calculators:
 - Needed for exams and problem sets
 - Financial calculators (e.g. Hewlett-Packard 12C and 10B) an advantage, but not required
 - All problems can be done with standard calculators
- Use of spreadsheets: course project.

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Grades

- **Homework:** 10%
- **Midterm:** 30%
- **Final:** 40%
- **Project:** 15%
- **Class Participation** 5%

Course grades are given on curve.

Grades are not subject to discussion.

Only exception: clear grading errors will be corrected.

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Problems

- Solving problems is crucial to learning
- 5 graded problem sets
 - Given Tuesday, due end of class following Tuesday
 - You may discuss the problems in groups, but turn in your own *handwritten* solutions.
 - Show how you get your result.
 - Full credit if you make good-faith effort to answer **all** questions
 - **Late problem sets are not accepted.**
- Suggested problems from the books
 - See webpage.

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Classroom Behavior

- Class participation is encouraged and makes the class more fun.
- All questions are encouraged – they help many other students
- The class starts on time!
- The class ends on time.
- Please respect your classmates' desire to learn:
 - Do not disrupt the class
 - Being late is disruptive no matter how quiet you are.
 - No side conversations, even in a whisper.
 - Turn off cell phones and other devices

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The Course Outline

- Financial Instruments and Markets
- Principles of security valuation: **Time Value of Money**
- Portfolio Selection: **Risk and Return, Diversification**
- Equilibrium Asset Pricing: **The Capital Asset Pricing Model**
- Efficient Market Hypothesis and Arbitrage
- Equity Valuation
- Fixed Income Securities (Bonds)
- Derivative Securities (Options)

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Finance is Based on Simple Axioms:

- Investors prefer more to less.
- Investors are risk-averse.
- Money paid in the future is worth less than the same amount today.
- Financial markets are competitive.

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The Foundations of Finance: 3 Nobel-Prize-Winning Insights

- Harry Markowitz:
Optimal portfolio selection.
Want higher mean, want lower risk (variance).
- William Sharpe:
Capital Asset Pricing Model (CAPM):
In equilibrium, riskier assets have higher returns
- Robert Merton, Myron Scholes (Fischer Black):
No arbitrage and pricing of derivatives (options)
