FUNDING INVESTMENTS FNCE 238/738

Professor Krista Schwarz Spring 2011

Class Hours: Tuesdays & Thursdays

10:30-11:50 (238) 12:00-1:20 (738) 1:30-2:50 (738)

Office Hours: Fridays, 1:30-3:00 pm in SHDH 2420B, or by appointment

TAs

Sam Edelson Matthew Grant Nimit Jain Andrew Zloto

TA Office Hours: Mondays, noon-1:30 in SH-DH 2305

Wednesdays, 6:30-8:00 pm in SH-DH 3411

Questions?

E-mail the TAs at: FNCE738@gmail.com

Motivation and Overview

In textbook finance, agents simply borrow and lend at the riskfree rate. In practice, it's not quite so straightforward. The main objective of this course is to understand the techniques by which firms (both financial and nonfinancial) go to the market for funds, the structure of these funding markets, and associated economic and financial stability issues. The course will cover the design, issuance, and pricing of securities used to finance investments. Techniques to hedge various types of risks associated with funding strategies will also be covered. The recent financial crisis has provided numerous examples that illustrate financing innovations and associated risks. We will draw from events in the crisis and discuss policy responses to these. We will also discuss future trends in funding markets.

Course Material

The course materials will be available for download via webCafé at http://webcafe.wharton.upenn.edu and www.study.net. The course format is comprised of lectures and case discussions. I will make slides available for each lecture-based class on webCafé. There is no textbook or bulk pack. Case materials, available on www.study.net (and an occasional supplement may be announced and posted on webCafé in the "Case" folder), are the only required readings for the course. You are also responsible for any and

all course content that is discussed *in class*. For those that are interested in *additional* background reading on the subject matter that we cover, I will post supplementary readings on webCafé.

Grading

Your grade for the course will be determined by quizzes, case write-ups, and class participation. There will be a total of 100 points possible, and the points are allocated as follows:

Quizzes (6) 10 points each; 50 points total after lowest score is dropped Case write-ups (7) 5 points each; 30 points total after lowest score is dropped

Class Participation 20 points total

Grades are *non-negotiable*, and the quality of your written work and participation is a matter left to the course instructor's judgment. The only nature of grade appeal that will be considered is one where your points were not added up correctly or a correct answer was overlooked. This type of appeal must be submitted within one week after the grade in question is received.

Quizzes

There will be six in-class quizzes. Your lowest quiz score will be dropped. This provides for any eventuality under which you miss a class when a quiz takes place, for whatever reason. There will be **NO quiz make-ups**.

You are advised to bring a **pen** and a non-programmable **calculator** to all quizzes. Quiz questions will primarily be drawn from the material covered since the previous quiz. However, some of the material builds on concepts learned in earlier sessions.

Participation

Please use **name tent cards** (MBAs and undergraduates)! If you do not have a name card, please make one.

Following the first class, please **stick to the seat that you choose** for the remainder of the semester to help me make your name/face association.

Class participation is part of your grade. There are many ways to participate, including coming to class, joining in class discussions, and responding to questions raised during class. Our collective goal will be to understand the classroom materials and explore a variety of reasonable approaches and solutions. Grades are assigned on the basis of class participation that contributes to this process. Emphasis is not on the duration of your "air time," or on getting the "right" solution (typically, there is no "right" solution). Rather, I will be looking for well reasoned view points, constructive questions, or other relevant insights that enrich the discussion.

We will have guest speakers during the semester. Speaker sessions are a required part of this course, and are scheduled in lieu of the regularly scheduled lectures on the dates that they take place. You are expected to attend. Valid and verifiable conflicts will be excused.

• Tuesday, March 15, 4:00pm (SH-DH, 350)

Mark Zandi, Chief Economist and Co-Founder, Moody's Analytics (author of "Financial Shock: Global Panic and Government Bailouts – How we Got Here and What Can be Done to Fix It" and "Paying the Price")

• Thursday, March 17, 5:00pm (COHN, G17)

Deborah Perelmuter, Senior Vice President of Fixed Income and Foreign Exchange, Federal Reserve Bank of New York

• Thursday, March 31, 4:30pm (TBA)

Michael Henriques, Principal, Magnetar Capital LLC (former MD at Deutsche Bank and Co-Head of Collateralized Debt at Goldman Sachs)

Thursday, April 7, 12 noon (JMHH, F85)

Phil Swagel, AEA scholar (former Assistant Secretary for Economic Policy, U.S. Treasury Dept (2006-2009) and White House Council for Economic Advisors Chief of Staff (2002-2005))

• Tuesday, April 12, 5:00pm (JMHH, F85)

Christopher Ricciardi, President and CEO, Cohen & Company Securities' Broker-Dealer Division (former Global Head of Structured Credit Products for Merrill Lynch and Head of Structured Credit Products at CSFB)

Case Write-Ups

Case write-ups must be handed in at the *beginning* of class on the dates that they are due. Late assignments will not be accepted under *any* circumstances. You may work on the assignments individually, or in groups of up to six students. I encourage you to work in groups on cases; discussing the material with your classmates will enhance your understanding of the material. Your lowest case write-up grade will be dropped. This should accommodate any unforeseen circumstance in which your group is unable to complete or hand in a case write-up, for whatever reason.

Academic integrity is taken seriously. Submitted assignments must be your work only. Failure to comply with this code of ethics will result in a zero for the assignment.

Guidelines for Case Write-ups

Length: Maximum of 2 single-sided pages in length (preferably double-sided printing on **one single page** – no cover page), double spaced, 11-12 font, reasonable margins.

Recommendation: State your argument. Support it. Focus on key points (pick your battles). Don't just summarize the entire case.

Exposition: Address each question in turn. Clear and concise writing is a valuable skill in any profession. You have a limited amount of space, use it efficiently. Be attentive to grammar, spelling, and presentation.

Course Outline

Note: This course outline is **tentative**. Both the topics covered and the dates on which they are covered are subject to change.

| Class Session | Date | Topic | Special Notes/ Deliverables |
|------------------|-----------------------------------------|--------------------------------------------------------------|--------------------------------|
| 1 | Thursday, January 13 | Intro and overview | 2 311 31 31 31 31 |
| | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | Course overview | |
| | | Role of financial markets | |
| | | Intermediation of funds | |
| 2 | Tuesday, January 18 | Banking System Background | |
| | • | Short history of U.S. Monetary System | |
| | | Fractional Reserves and Money Multiplier | |
| | | Fed role and structure | |
| 3 | Thursday, January 20 | Repo markets | |
| | | Mechanics, Collateral and Pricing | |
| | | • Specials | |
| | | Financing long and short positions, Fails | |
| | | Risks in repo transactions | |
| | | Haircuts and adverse feedback | |
| 4 | Tuesday, January 25 | Case 1: Tip of the Iceberg: JP Morgan Chase and Bear Stearns | Case 1 DUE |
| 5 | Thursday, January 27 | QUIZ1 | QUIZ 1 |
| | •• | "Fake Alpha" and hidden tail risk | • |
| | | Portfolio Diversification | |
| 6 | Tuesday, February 1 | Treasury Markets | |
| | | Auctions | |
| | | Cash Flows and bond analysis | |
| | | Portfolio replication | |
| | | On-the-run premium | |
| 7 | Thursday, February 3 | Case 2: Arbitrage in the Government Bond Market? | Case 2 DUE |
| 8 | Tuesday, February 8 | QUIZ 2 | QUIZ 2 |
| - | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | Credit Risk and Corporate Debt | |
| | | Debt vs. Equity | |
| | | Bond contracts and features | |
| | | Components of credit spreads | |
| | | Role of ratings agencies | |
| 9 | Thursday, February 10 | Credit Default Swaps | |
| | , | • Uses | |
| | | Mechanics and pricing | |
| | | Regulatory environment | |
| 10 | Tuesday, February 15 | Case 3: The Weekend that Changed Wall Street | Case 3 DUE |
| 11 | Thursday, February 17 | QUIZ 3 | QUIZ 3 |
| | | Ellsberg Paradox | |
| | | Ambiguity Aversion | |
| 12 | Tuesday, February 22 | Commercial Paper | |
| | - | Unsecured CP and ABCP | |
| | | Intro to Run Risk | |
| 13 | Thursday, February 24 | Bank run risk | |
| | | Risk aversion | |
| | | Diamond Dybvig model | |
| | | Four strategies to deter runs: Suspend convert, LLR, | |
| | | Insurance, Too big to fail | |
| | | Money Market Mutual Funds and "breaking the buck" | |
| 14 | Tuesday, March 1 | Policy channels and the Fed's balance sheet | |
| | •• | Monetary policy transmission channels | |
| | | Challenges to transmission | |
| | | Qualitative vs. quantitative easing | |
| | | Fed balance sheet | |

| 15 | Thursday, March 3 | QUIZ 4 | QUIZ 4 |
|----|--------------------|-----------------------------------------------------------------------|--------------------------|
| | | Case 4: U.S. Subprime Mortgage Crisis: Policy Reactions (B) | (no Case 4 write-up due) |
| | | SPRING BREAK | , |
| 16 | Tuesday, March 15 | GUEST SPEAKER: Mark Zandi | 4:00pm, SH-DH, 350 |
| | •• | Chief Economist and Co-Founder, Moody's Analytics | |
| 17 | Thursday, March 17 | GUEST SPEAKER: Deborah Perelmuter | 5:00pm, COHN, G17 |
| | | SVP, Federal Reserve Bank of New York | • • • |
| 18 | Tuesday, March 22 | Securitization | |
| | •• | Pooling and Tranching | |
| | | Concentration of Risk | |
| | | Risk Transfer and Securitization Pricing | |
| | | • Frictions | |
| 20 | Thursday, March 24 | Case 5: A Tale of Two Hedge Funds: Magnetar and Peloton | Case 5 DUE |
| | marsaay, waren 24 | Principal Agent | cuse 3 DOE |
| | | Correlation and CDOs | |
| | | Relative value trades | |
| | | | |
| | Tuesday March 20 | Ratings agency role QUIZ 5 | QUIZ 5 |
| | Tuesday, March 29 | · | QUIZ 3 |
| | | Liquidity and Market Making • Funding versus Market Liquidity | |
| | | . , | |
| | | Determinants of the Bid-Ask Spread Bala of Asymptotic Left greating. | |
| | The sade Baseli Od | Role of Asymmetric Information CUEST CREAKED, Additional Handings | 4.20 611.511.250 |
| 21 | Thursday, March 31 | GUEST SPEAKER: Michael Henriques | 4:30pm, SH-DH, 350 |
| 22 | T | Principle, Magnetar Capital LLC | Control C DUE |
| 22 | Tuesday, April 5 | Case 6: UBS and Auction Rate Securities | Case 6 DUE |
| 23 | Thursday, April 7 | GUEST SPEAKER: Phil Swagel | 12 noon, JMHH, F85 |
| | | Former Asst Secretary for Economic Policy at U.S. Treasury | |
| | Taraba Arabaha | Dept. | 5.00 · · · · INALUL 505 |
| 24 | Tuesday, April 12 | GUEST SPEAKER: Christopher Ricciardi | 5:00pm, JMHH, F85 |
| | | President and CEO, Cohen and Co. Securities, Broker Dealer | |
| | | Division | |
| 25 | Thursday, April 14 | Case 7: AIG – Blame for the Bailout | Case 7 DUE |
| 26 | Tuesday, April 19 | Case 8: Preparing for the Google IPO: A Revolution in the | (no Case 8 write-up due) |
| | | Making? | 2 |
| 27 | Thursday, April 21 | QUIZ 6 | QUIZ 6 |
| | | Equity | |
| | | Common and Preferred Shares | |
| | | Warrants | |
| | | Convertible Debt | |
| | | Seasoned Issuance | |
| | | Rights Offering | |
| 28 | Tuesday, April 26 | GUEST SPEAKER: Eric Felder | 1:30pm, JMHH, G60 |
| | | Head of Global Credit at Barclays Capital (formerly at Lehman | |
| | | Brothers 1994-2008) | |
| | | | |
| | | (Case 9: The Case of Sovereign Wealth Funds write-up due at | Case 9 DUE |
| | | 1:30 pm speaker session) | |