

**CAPITAL MARKETS**  
FNCE 238/738  
Professor Krista Schwarz  
Spring 2018

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Office: SH-DH 2420B

Office Hours: Thursdays 4:30 – 5:30 pm

**Class Hours** (*unless otherwise noted on Canvas*):

Tuesdays & Thursdays

FNCE 238 01

10:30 am – 11:50 am

FNCE 238 02

12:00 pm – 1:20 pm

FNCE 738 01

1:30 pm – 2:50 pm

**Location** JMHH 270

### Teaching Assistants

The course TAs are available to help you with your questions about the course material, structure and grading, in office hours and by e-mail:

**Julianne Goodman**, [jugo@wharton.upenn.edu](mailto:jugo@wharton.upenn.edu) (10:30am)

**Roberto Gomez**, [gomezr@wharton.upenn.edu](mailto:gomezr@wharton.upenn.edu) (12:00pm)

**Brent Wilson**, [ebrent@wharton.upenn.edu](mailto:ebrent@wharton.upenn.edu) (1:30pm)

*TA Office Hours will be posted on Canvas*

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### Course Objectives

Traditional economic theory gives little attention to the role of frictions, which can affect the actions of market participants and/or features of market instruments. The objective of this course is to introduce you to the broad framework of capital markets, with some historical context to understand the drivers of today's market structure and conventions. In particular, we will look at different asset classes from the perspective of the issuer and the investor, and we will see how market innovation and policy affects market dynamics.

### Application to your post-Wharton career

- **Tools to evaluate future market innovations** (*profit opportunities & associated risks*), given your understanding of problems that capital market participants are seeking to solve, the design, issuance and pricing structure of financial instruments, and potential arbitrage strategies that can keep their prices aligned.

- **Understanding of the potential effect of policy** (the drivers of change in market structure) on the functioning and nature of capital markets, the mechanisms that facilitate their trading and issuance, and the motivations of issuers and investors across different asset classes.
- **Perspective to discuss economic and financial stability issues** (interview/cocktail conversation!), drawing from formative market events that illustrate financing innovations and associated risks.

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## Course Structure and Materials

(1) **LECTURE/CASE STUDY DISCUSSION:** introduce concepts and framework.

- *Lecture slides*, available on Canvas the night prior to each class session, *except* for those related to case material (which may be posted *after* the case is discussed in class).
- *Spreadsheet examples/simulations*, presented in class and posted to Canvas after class.
- *Background Readings*, not required reading, but posted to Canvas for reference.
- *Links*, posted on Canvas to sites/documents providing more detail on course topics and topical news articles published during the semester.

(2) **CASE STUDIES:** put into real-life context with interactive discussion.

- *Case readings*, assigned most weeks (purchase from Study.net via Canvas).
- *HW question sets*, posted to Canvas a few days prior to the due date.
- *Case discussion slides*, posted to Canvas **after** class discussion.

(3) **SHORT QUIZZES:** periodic material review to identify themes and relationships.

- *In-class quizzes*, taken via Canvas (with your laptop or tablet).
- *Quiz dates*, will be announced – occur roughly every other week.

(4) **FEATURED SPEAKER SESSIONS:** unique, first-hand perspective and insight.

- *Speaker sessions* are in lieu of regularly scheduled class sessions.
- *Times and dates* TBA, based on speakers' availability (may be scheduled outside of the regular class time).
- *Attendance will be taken.*

NOTE: If you have another class scheduled at the same time as the session, e-mail the course details to your section TA and your attendance will be excused.

If the speaker allows the session to be recorded, the link will be posted to Canvas.

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## Grading

Your grade for the course will be comprised of **3 components** as follows:

<b>(1) Quizzes (best 5 out of 6)</b>	<b>65%</b>
<b>(2) Case Homework Questions</b>	<b>25%</b>
<b>(3) Class Participation</b>	<b>10%</b>

### 1. Quizzes

- There will be **no make-up quizzes**: your lowest score will be dropped.
- There are 6 quizzes. Dates will be posted on Canvas.
- There is no final exam (or quiz) in the regularly scheduled final exam period.

#### ***What will the quiz cover?***

- Any material that we cover in class may appear on the quiz, including case discussions.
- Quiz questions will be drawn from the material covered *since the previous quiz*.

#### ***What is the best way to prepare?***

- Attend class, take notes (even though you have the slides), and then review the material covered in class.
- If you feel a bit lost with the material, it may be helpful to review the background readings and links posted on Canvas. While quiz questions are not directly drawn from background readings, these may provide helpful context.
- Some students also find it helpful to discuss the material with classmates.
- If you have further questions on the material, ask the TAs in office hours or by e-mail, or schedule an appointment to discuss the material with me.

#### ***Can I use notes during the quiz?***

- Quizzes are closed-book and closed-note. Having a quiz almost every other week means that no single quiz covers an overwhelming amount of material. Staying on top of the material with periodic review also makes it easier to build on topics.
- You may use a spreadsheet or a calculator during a quiz, but not your phone.
- Having scratch paper and a pen/pencil on hand may also be helpful.

#### ***What if I miss a quiz?***

- I will drop your lowest quiz score. This provides for unexpected emergencies, recruiting conflicts, or pre-arranged travel.
- There will be **no make-up quizzes**.

The *only* nature of grade appeal that will be considered is one submitted to me, in writing, within one week after the grade in question is received, describing the nature of the appeal. A ***re-grade may raise or lower your score.***

### 2. Case HW Questions

- There will be **no make-up Case HWs**: your lowest score will be dropped.
- Case HWs are set up as brief on-line Canvas quizzes with 3 - 5 questions (typically multiple choice or T/F), made available a few days prior to the due date.

- To accurately respond to HW questions, you should have a grasp of the events in the case and pertinent facts. The aim is to ensure that you have read the case; questions do not presume full analytical understanding of the material.
- All HW assignments are **due on Canvas at 9am**.

***How long should it take to complete the Case HWs?***

- Some case readings are very short and will only take 10-15 minutes to read. Some cases are considerably longer, and may take an hour or more to digest the material. For longer cases, I **may** assign only a subset of the pages as required reading.
- Read the case **prior** to starting the assignment! Canvas will close the assignment 10 minutes after you begin. Once you have read the case, 10 minutes is enough time to respond to the questions, and reference the case material to check details if needed.
- I will assign some case readings without a set of questions. Even in the absence of HW questions, you will still be responsible for all material discussed in class.

***What if I have technical difficulties; connection disrupted, Canvas malfunction, etc.?***

- Contact the Canvas Helpdesk: [courseware@wharton.upenn.edu](mailto:courseware@wharton.upenn.edu) .
- These folks can diagnose the problem with their detailed log of each students' Canvas activity, and can then provide evidence of exceptional events to the Professor.

***What happens if I accidentally miss the due date/time?***

- Canvas will not accept late submissions. A late or missing HW will result in a zero grade.
- I will drop your lowest HW score. This provides for any unexpected events.
- There will be **no make-up HWs**.

**3. Participation.**

- Participation scores are influenced by the following 3 factors:

***Attendance***

- You have to attend class in order to participate.
- Office visits are welcome, but these do not improve your in-class participation score.
- You are expected to attend and engage in speaker sessions unless you have another course scheduled during that time.

***Preparation/Engagement***

- Prepare for class so that you can engage in productive class discussion (thoughtful comments, questions and responses to questions asked).
- Do not e-mail the instructor with questions that you could easily answer by referring to the syllabus or the course Canvas site.

***Demeanor***

- No phone, tablet or laptop use in class (laptops are allowed during quizzes, but no phones).
- Sit in same seat throughout the semester.
- **Always** display name tents.
- In-class attentiveness and appropriate decorum.

## TENTATIVE Outline of Topics\*

*\*The Modules on the Canvas course site reflect the most up-to-date course information.*

### (1) Bank Lending & Money Market Mutual Funds

- **Money and Banking System, Interbank Markets**
  - Banks, Panics and the Monetary System
  - Pro-cyclical effects of fractional reserve banking
  - Maturity mismatch
  - Solvency vs. Illiquidity
- ◆ **The U.S. Banking Panic of 1933 & FDIC** HBS 9-799-077
  - **Run Risk**
    - Commercial Paper, ABCP and Penn Central
    - Diamond Dybvig Model of Bank Runs
    - Strategies to Deter Runs: Suspend Convertibility, Lender of Last Resort, Insurance, Too Big to Fail
    - Money Market Mutual Funds, NAV, Systemic Risk, and “Breaking the Buck”
- ◆ **Blackrock Money Market Management in Sept’08 (A)** HBS 9-209-101

### (2) Government Debt & Auctions

- **Government Debt**
  - Debt/GDP
  - Treasury Market Supply, Link to Fiscal Policy
- **Auctions and the Primary Market**
  - Auction Strategy, Stop-out Rate
  - Market Manipulation
- ◆ **Salomon and the Treasury Securities Auction** HBS 9-292-114
  - **Secondary Market**
    - Treasury Security Characteristics, Yield-to-Maturity
    - Cash Flows and Portfolio Replication with STRIPS

### (3) Repo & Open Market Operations

- Definition, Mechanics, Collateral and Pricing
- Adverse Feedback
- Regulatory Arbitrage
- Moral Hazard vs. Systemic Risk
- ◆ **The Tip of the Iceberg: JP Morgan Chase and Bear Stearns (A)** HBS 9-309-001
- ◆ **MF Global: Where’s the Money?** HBS 9-312-106
- ◆ **Lehman Brothers and Repo 105** HBS 9-112-050
  - **OMOs**
    - Balance Sheet of the U.S. Monetary System
    - Monetary Policy Implementation and Pinning Down the Short Rate
    - Crisis Policy

### (4) QE & Yield Curve

- **QE and Interest on Reserves**
  - Quantitative Easing and Demand for Treasuries: Effect on Long Rates
  - Monetary Policy Transmission and Challenges: Back to a New Normal
  - Real Rates and Inflation Expectations
- ◆ Janet Yellen and the Bernanke Fed HBS 9-714-030
- ◆ QE in the Great Recession Kellogg KEL782
- **Yield Curve Interpretation**
  - Risk Free Rates: Benchmark to Price Riskier Securities
  - Expectations Hypothesis (expected future path of short rates) & Term Premium
  - Flight-to-Quality vs Flight-to-Liquidity
  - On-the-Run Premium
- ◆ The Yield Curve and Growth Forecast Darden UV5689

## (5) Long/Short Positions & IR Swaps

- **Long/short positions**
  - Specials, Short Selling and Fails
  - Close Link between Financing Rates and Collateral Value
  - Treasury Arbitrage
- **LIBOR as a Benchmark Survey Rate**
- ◆ Barclays and the LIBOR: Anatomy of a Scandal Stanford ETH-03
- **IR Swaps**
  - Payoff and Structure
  - Relative Value Strategy
- ◆ Long-Term Capital Management, L.P. (A, B, C) HBS 9-200-007, 08, 09

## (6) Credit Risk and Structured Products

- **Risk Premia**
  - Components of Credit Spreads
  - Risk Aversion and Risk-Neutral Pricing
- **CDS**
  - Uses, Mechanics, and Pricing
  - Settlement Auction
  - Funding Risk vs Default Risk
- ◆ Lessons Learned? Brooksley Born & OTC Derivatives (A and B) HBS 9-311-044 and 9-311-070
- **Securitization**
  - Cash Flows: Pooling and Tranching
  - Risk Transfer?
  - Correlation and Systemic Risk
  - Synthetic CDOs
  - Risk vs. Ambiguity
- ◆ A Tale of Two Hedge Funds: Magnetar and Peloton Kellogg KEL402
- ◆ AIG- Blame for the Bailout Stanford A-203