

#### **ECON E-1500**

#### The Economics of Financial Markets

January Session 2023

#### **Course Information**

**CRN:** 23271

**Section Number:** 1

Format: Online (live) web conference

Credit Status: Undergraduate, Graduate, Noncredit

**Credit Hours:** 4

Class Meetings: Mondays, Tuesdays, Wednesdays, Thursdays, January 3-21, 12:00pm-

3:00pm

**Course Description:** This intensive January session course studies the money market, the bond market, the foreign exchange market, the stock market, and the derivatives market. It provides the analytical skills necessary to understand forces that determine prices of financial and real assets. It also develops a system of tools to show how interest rates, prices of bonds, international capital flows, and exchange rates are simultaneously determined. Finally, it demonstrates how firms use financial derivatives, such as futures, options, and swaps to hedge against risk.

Prerequisites: ECON E-10a or the equivalent.

### **Instructor Information & Office Hours**

Mark Tomass. Ph.D.

**Preferred Pronouns:** He

Email: tomass@fas.harvard.edu

**Office Hours:** 

30 minutes before every day of class meeting.

# **Course Goals / Learning Outcomes**

Upon completion of this course, you should be able to:

- 1. Understand financial market news and analyses.
- 2. Understand how the collective action of the Central Bank, the Banking System, and the public determine prices of financial and real assets.
- 3. Understand how business cycles influence prices of bonds, stocks, and exchange rates.
- 4. Understand how to determine undervalued assets, especially stocks.
- 5. Use the derivative markets to reduce risks of capital or business losses from uncertainties, or to speculate for profit.

#### **Mode of Attendance**

Class meetings take place over Zoom. Because they involve active participation, discussion, and dialogue, you are expected to attend all class meetings. Please arrive on time. You should attend Zoom meetings with a **functional web-camera and microphone**, prepared with materials needed, to engage thoughtfully, and **with your camera on**. You may turn off your camera for occasional interruptions or momentarily for privacy, but not throughout the class session.

You will also need the most up-to-date Zoom client installed on your computer to join class. Please participate from a safe and appropriate environment with appropriate clothing for class. Participating while traveling or in a car is not permitted. In addition, please do not join class via mobile phone or web browser.

Please refer to the Participation Policy and the Grading sections of this syllabus for additional details.

# **Participation Policy**

Please be sure to review important information on **Student Policies and Conduct**.

**Attendance**: I strongly recommend that you attend classes and participate in class discussion because you will perform well in the class with even few absences. Attendance and class participation are not graded, but you will receive a 5-point deduction for each absence AFTER the first absence.

## **Graduate Credit Requirements**

Graduate students will be given a more demanding midterm and final exams than undergraduates within the same time frame.

## Grading

0% Diagnostic Skills Check

0% Class Participation (5/100 points deduction after the first absence)

20% 4 Homework Assignments / Problem Sets - DUE: January 5, 9, 10, 17, 18 (optional makeup for a missed one).

30% Midterm - DUE: January 11

50% Final Exam - DUE: January 19

# 4 Homework Assignments

Four homework assignments should be submitted online on CANVAS by the due date and before the class meets. The questions in those assignments may not be based on material covered in class. Answering them may require further research. We will answer all the questions during class time on the date the homework is due. Answer keys to the homework assignments will be posted online after the due date so that you can have a record of the ideal answers. Each question is assigned a ½ point for Pass and 0 point for Fail. A Pass grade for each question must demonstrate a serious attempt to answering the question correctly. Late submissions are not accepted. You are permitted to submit Homework 5 on the stock market to make-up for any one missed homework.

Midterm Exam	
	The Mid-term exam is 120 minutes long. It is in short questions
	form. The questions are based on material covered in the text,
	handouts, or lectures. They are based on these materials, but they
	are not identical to them. Exam questions do not ask you to
	reproduce the same information that you find in these materials.
	They ask you to analyze situations with a method based on the
	material that you discussed in class or covered in the text.
	Therefore, do not be surprised if I ask you to respond to a question
	that is not specifically answered during the lectures or in the text.
	Graduate students will be given a more demanding exam than
	undergraduates within the same time frame.
	The final exam is a 160-minute comprehensive (cumulative) one
	that also requires your understanding of material discussed up to
Final Exam	the midterm exam. The questions in this exam are similar in form
	to the questions of the mid-term exam. <b>Graduate students will be</b>
	given a more demanding exam than undergraduates within the
	same time frame.

# **Grade Definitions**

Students registered for undergraduate or graduate credit who complete the requirements of a course may earn one of the following grades:

#### A and A 91 - 100

Earned by work whose superior quality indicates a full mastery of the subject—and in the case of A, work of extraordinary distinction. There is no grade of A+.

### B+, B, and B- 79 - 90.9

Earned by work that indicates a strong comprehension of the course material, a good command of the skills needed to work with the course materials, and the student's full

engagement with the course requirements and activities.

Earned by work that indicates an adequate and satisfactory comprehension of the course material and the skills needed to work with the course materials, and that indicates that the student has met the basic requirements for completing assigned work and participating in class activities.

Earned by work that is unsatisfactory but that indicates some minimal command of the course materials and some minimal participation in class activities that is worthy of course credit.

Earned by work that is unsatisfactory and unworthy of course credit. This grade may also be assigned to students who do not submit required work in courses from which they have not officially withdrawn by the withdrawal deadline. Zero or E grades are assigned to students for missing work. These grades are included in the calculation of the final grade.

# **Required Materials**



### Money, Banking and Financial Markets

**ISBN:** 978-1-264-05869-3

Authors: Kermit Schoenholtz, Stephen Cecchetti
Cecchetti & Schoenholtz's Money, Banking, and Financial
Markets stays relevant and interesting through the text's unique
emphasis on the Five Core Principles, the early introduction of
risk, an integrated global perspective, and the integration of
FRED data in the text and problem material. By focusing on the
big picture via core principles, Cecchetti & Schoenholtz teaches
students the rationale for financial rules and institutional
structure so that even when the financial system evolves,
students' knowledge will not be out of date. Be sure to visit the
author blog at www.moneyandbanking.com for short, informed

discussions on issues in the news, as well as technical points relevant for instructors and students alike. Connect is the only integrated learning system that empowers students by continuously adapting to deliver precisely what they need, when they need it, and how they need it, so that your class time is more engaging and effective.

**Publisher:** McGraw-Hill Education

**Publication Date: 2021** 

**Edition:** Sixth edition, or any earlier one.

#### **Course packet**

**Authors:** Mark Tomass

A summary of my lecture notes and homework assignments. Available on CANVAS to registered students.

Textbook Supporting Materials are available at: http://highered.mheducation.com/sites/007802174x/student\_view0/index.html

# **Academic Integrity Policy**

You are responsible for understanding Harvard Extension School policies on <u>Academic Integrity</u> and how to use sources responsibly. Violations of academic integrity are taken very seriously. Visit <u>Using Sources Effectively and Responsibly</u> and the <u>Harvard Guide to Using Sources</u> to review important information on academic citation rules.

# **Accessibility Services Policy**

The Division of Continuing Education (DCE) is committed to providing an accessible academic community. The <u>Accessibility Services Office (ASO)</u> is responsible for providing accommodations to students with disabilities. Students must request accommodations or adjustments through the ASO. Instructors cannot grant accommodation requests without prior ASO approval. It is imperative to be in touch with the ASO as soon as possible to avoid delays in the provision of accommodation.

DCE takes student privacy seriously. Any medical documentation should be provided directly to the ASO if a substantial accommodation is required. If you miss class due to a

short-term illness, notify your instructor and/or TA but do not include a doctor's note. Course staff will not request, accept, or review doctor's notes or other medical documentation. For more information, email <a href="mailto:accessibility@extension.harvard.edu">accessibility@extension.harvard.edu</a>.

# **Publishing or Distributing Course Materials Policy**

Students may not post, publish, sell, or otherwise publicly distribute course materials without the written permission of the course instructor. Such materials include, but are not limited to, the following: lecture notes, lecture slides, video, or audio recordings, assignments, problem sets, examinations, other students' work, and answer keys. Students who sell, post, publish, or distribute course materials without written permission, whether for the purposes of soliciting answers or otherwise, may be subject to disciplinary action, up to and including requirement to withdraw. Further, students may not make video or audio recordings of class sessions for their own use without written permission of the instructor.

# **Class Meeting Schedule**

Take the diagnostic auto-graded "skills test" posted on CANVAS prior to January 3.

Week 1: Tuesday & Wednesday, January 3 & 4.

### **Part I. The Money Market:**

- 1. What is money?
- 2. What constitutes the supply side of the money market?
- a. How does the Central Bank influence money market conditions?
- 1. Tools for money creation.
- 2. Operating Targets
- 3. Intermediate Targets
- 4. Ultimate Targets
- b. What role do banks play in the creation of money?

- c. What role does the public play in the creation of money?
- d. How can we summarize the supply side of the money market in one formula?
- 3. What constitutes the demand side of the money market?

Reading: Chapters 1, 2, 3, 12, 17, and Lecture notes 1, 2, 3, 4 & 5.

Thursday, January 5: Homework 1 Due – The Money Market

Thursday, January 5

#### Part II. The Bond Market:

- 1. What is the relationship between interest rates and bond prices?
- 2. What is the difference between interest rates and rates of return?
- 3. What is the difference between nominal and real interest rates?
- 4. What is the difference between primary and secondary bond markets?
- 5. What are the economic forces that determine bond prices?

Reading: Chapters 4, 6, and Lecture notes 6.

Monday, January 9: Homework 2 Due – The Central Bank and the Banking System

Week 1 (continued) & Week 2: Thursday & Monday, January 5 & 9

Part III. How are the Credit Market, Foreign Exchange Market, and international flows of capital and commodities related?

1. What is the relationship between interest rates, international capital flows, exchange rates, and the balance of payments?

2. How do business cycles affect prices of interest rates, prices of bonds, and short-term exchange rates?

Reading: Chapter 10 and Lecture notes 7.

Tuesday, January 10: Homework 3 Due – The Bond Market

Tuesday, January 10: Buffer/Q&A/Exchange Rate Regimes

Wednesday, January 11: Midterm Exam (Covers parts I-III)

Week 2 (Continued): Wednesday & Thursday January 11 & 12

### Part IV. Exchange Rate Regimes & the Foreign Exchange Market:

- 1. Fixed Exchange Rates
- 2. Floating Exchange Rates
- 3. Managed Float Exchange Rates
- 4. Pegged Exchange Rates
- 5. How and when do speculative attacks on a currency take place?
- 6. What are the long-run determinants of floating exchange rates?

Reading: Chapters 10, 19, and Lecture notes 7, 8 & 9.

(Monday January 16: US National Holiday – No Class)

### **Tuesday, January 17: Homework 4 Due – The Foreign Exchange Market**

### Week 2 (Continued) & Week 3: Thursday, January 12 & Tuesday January 17

### **Part V. The Stock Market:**

- 1. Initial Public Offerings (IPOs) and the underwriting of securities.
- 2. The secondary stock markets.
- 3. How do portfolio investors evaluate stocks?
- 4. Comparing the performances of a sample of wealth management groups versus indices.

### Reading: Chapter 8 and Lecture notes 10, 11, & 12.

### Week 3: Tuesday, January 17 & Wednesday, January 18

#### **Part VI. The Derivatives Markets:**

- 1. Hedging and speculating with commodities Futures and Option contracts.
- 2. Case Study: How foreign corporations may hedge against a declining dollar.
- 3. Hedging and speculating with Financial Futures.

Case Study: How a bank hedges against an increase in the rate of interest.

4. Hedging and speculating with Financial Swaps.

Case Study: How two corporations may swap fixed with variable interest rate payments.

### Reading: Chapter 9 and Lecture notes 13, 14, 15 & 16.

### Wednesday, January 18: Optional Homework 5 Due – The Stock Market

This is a make-up submission for any missed homework. Do not submit more than 4 assignments.

**Thursday, January 19: Final Exam** 

#### **Final Exam Date**

Thursday, January 19: Final Exam

# **Maximizing your Learning Potential**

Your success in this intensive course depends on your ability to analyze the forces that determine prices of financial assets correctly and on your familiarity with the definitions of the terms used to describe the relevant facts. I suggest that you read the section below to maximize your learning experience:

**First**: Read each assigned chapter and lecture notes before you come to class and highlight the concepts, phrases, and ideas that you had difficulties in comprehending. This is an important part of your preparation for the course because attending class will not substitute for reading the textbook. You need to work on the material independently to become familiar with the logic of economic reasoning.

**Second**: Participate in class discussion. Do not hesitate to ask about the definition of a term that is being used in the presentation. Key definitions are crucial to comprehending the lecture material. Be certain to identify any possible weaknesses you may have towards any topic.

**Third**: Concentrate on my presentation while you are in the class. Referring back and forth to the textbook may be a confusing process. After class, get back to those issues that you highlighted and see if you now have a better understanding of them. If you still have difficulties with them make sure that you ask me to clarify whatever you are unclear about in the next class. If you feel uncomfortable about asking questions in class, please feel free to consult me during my office hours.

**Fourth**: The lectures are interdependent, and they will gradually become more complex. Therefore, if you do not deal with any difficulties promptly, you will fall behind the class and feel confused as the rest of the class progresses. Try to be in the forefront. Do not wait for the last class meeting to ask for help. It may then be too late. Always remember that my cooperation will improve your performance only if you are willing to work hard independently.

# Make-up Exams, Incompletes, Late Homework, Work for Extra Credit

If you miss an exam due to sickness or other impairment, contact the Accessibility Services Office (see policy information above). If the situation warrants it, the ASO will work with me on accommodations for a make-up exam. Otherwise, if you miss an exam, you will receive a zero grade on that exam. For other rare emergencies, you must present a request in writing explaining the reason for an absence. I will review your note and let you know if your excuse is acceptable. Exams are given only once. If you are not satisfied with your performance in the midterm exam, then work harder for the final.

When homework is due, you must submit it online on CANVAS before the deadline. Late homework is not accepted. Don't wait for the last minute to submit your homework.

DO NOT request that I give you work for extra credit and DO NOT ask me to change your grade after grades are submitted unless you find an obvious error.

Contact the Accessibility Office for special needs arrangements. Otherwise, all students are subject to the same exam conditions.