



FBE 435 Applied Finance in Fixed Income Securities—Subject to Revision

Spring 2025

Meeting Times: JFF 316 T/Th 12:00-1:50

Units: 4.0

Professor: Stephen G. Moyer

Office: None

Office Phone: 213-740-6515 (email contact preferred)

Office Hours: T/Th 2-3PM (Appointment required) and Friday Zoom 11AM

E-mail: smoyer@usc.edu or if you do not hear from me and/or it's urgent you may text me.

Course Description

BONDS RULE THE WORLD! This course develops the concepts and tools necessary to understand the forces driving the valuation, risk and return of fixed income securities. Fixed income securities were once associated with bonds having deterministic streams of "fixed" income payments, such as coupons on US Treasury debt. As the sophistication of markets have evolved, however, most fixed income instruments now have cash flow streams that are, in fact, variable and which depend on a myriad of factors.

Besides the traditional fixed coupon bond, the study of fixed-income securities now includes such instruments as floaters, inverse floaters, callable bonds, pass-thrus, leveraged loans, collateralized debt obligations, mortgage-backed securities and treasury inflation protected securities. Hedging the risks relating to such securities has caused the creation of many new derivative instruments such as forwards, futures, options, caps/floors, interest rate swaps, and credit default swaps.

The course will introduce students to a set of analytical tools used in the valuation and management of fixed income securities. We will also look at the intersection of the capital demands/needs financed with fixed income securities and the investment needs of institutional investors. The approach of the course is designed to meet the needs of students with differing learning objectives. For those interested in investment banking, private equity or private debt, the course will cover how different transactions are financed and the most common instruments. For those interested in asset management, the course will cover the full array of fixed income securities and considerations in constructing fixed income portfolios. For students primarily interested in business management, the course will cover firm capital structures and the needs of investors who finance enterprises. In particular, we'll explore how securitization technology has created a new vehicle for intermediation that rivals the scale of the banking sector. Finally, we will also study the broader macro-economic variables that impact these markets and securities.

To aid in understanding how these securities operate (and also to hopefully have a little fun), students will participate in a bond portfolio management simulation. Students will make portfolio investment decisions on a weekly basis based on a hypothetical economic scenario and the simulation tool will track performance. Results will not be graded but an appropriate prize will be given to the winner. Each student is required to pay a \$XX fee to participate in the simulation.

Learning Objectives

Global Objectives

- Understand the critical role played by bonds and other debt instruments in financial markets
- Understand the impact of macro-economic developments on fixed income portfolios
- Develop critical thinking and communication skills in a financial context

Detailed Objectives

- Demonstrate a command of the analytical framework used in the valuation of fixed income securities.
- Develop insight on fixed income portfolio management strategies to manage various risks and react to anticipated changes in the macro environment
- Learn the basic structural features of government and corporate bonds, securitizations and related derivative instruments
- Demonstrate the ability to analyze the basic risk and return parameters of various securities
- Develop Excel modeling skills related to bond cash flows and corporate credit analysis.
- Develop basic skills on Bloomberg for fixed income related analysis.

Reading Materials

1. Optional: *Fixed Income Analysis* by Petit, Pinto and Pirie
2. Optional: *The Strategic Bond Investor* by Anthony Crescenzi
3. Required readings will be posted on Brightspace or be available in a course pack on the Harvard Business School Publishing website.
4. Wall Street Journal

Prerequisites and/or Recommended Preparation:

1. Students should be conversant with basic financial accounting and Excel modeling

Course Notes: Lecture slides and other case information will be available on Brightspace.

Office Hours/Contacting Me:

I will generally be available for meetings in the JFF Food Court from 2-3PM on class days. To schedule a meeting, email me to request an appointment with a brief agenda, preferably by 9AM the day of the requested meeting. I will also hold Zoom office hours every Friday from 11-12.

If you email me (for any reason) please use my smoyer@marshall.usc.edu e-address. I intend to be very responsive to emails sent during normal business hours (4-hour response unless teaching) but don't monitor my email closely in the evenings or on weekends (24-hours).

Grading Policies:

Grading is done on a 4.0 scale although the final grade will be translated to an alphabetic equivalent (A, A-, B+, etc.)

There will be a one-hour Midterm I Exam, a full-class Midterm II Exam and a Final Exam. The content of the Midterm I & II and Final exams will be drawn primarily from the lectures.

Participation in a portfolio management simulation exercise, which costs an incremental \$XX payable to the simulation vendor, is required. Performance in the simulation will be graded High Pass (4.0); Pass (2.0) Fail (0.0), and a "journal" detailing your analysis of economic data and thought process/strategy for how the portfolio should be managed will be graded on a 4.0 scale. The Journal should be submitted to Brightspace by the date and time required with a hardcopy (no binding other than staple) submitted in class. Journals are limited to a word count of 1,200 (the actual word count must be posted of the first page). If the assignment is late or no hardcopy is submitted you will receive 1.0 grade reduction.

Six (6) excel modeling projects will be assigned. Four of these will be individual exercises; two will be completed in teams. These will be graded high pass (4.0)/pass (2.0)/fail (0.0). The purpose of these is to ingrain the cash flow oriented nature of fixed income securities valuation. The models

are of varying difficulty which will be reflected in the assignment’s grading weight. Project excel spreadsheets should be turned into Brightspace by midnight the evening before the date discussed in class. In addition, you must hand in a well-formatted printout of the exercises in class. If the assignment is late or no hardcopy is submitted you will receive 1.0 grade reduction.

In the real world, Fixed Income trading and analysis is primarily accomplished on Bloomberg. To acquaint you with Bloomberg’s capabilities and allow you to learn some functional expertise, there will be four (4) short exercises that will require use of Bloomberg. These will be graded pass (4.0)/Fail (0.0). Extra credit will be awarded to any student completing Bloomberg Certification (approx. 8-hour time commitment) during the semester.

A credit analysis memorandum will be completed on a team basis. To adequately complete the memo, a financial projection model with relevant credit oriented analysis must be developed. The memorandum can be no longer than two single-spaced pages in 12-pt font with 1” margins. In addition, there can be up to six pages of tabular or graphical exhibits (including the financial model) with brief textual discussions of the significance or interpretation of the exhibit. In general, all members of the team will receive the grade awarded to the memo. Each team member will complete a Team Internal Assessment.

Grading	
Class Contribution	6%
Excel Exercises	12%
Bloomberg Exercises	4%
Portfolio Journal	10%
Credit Memo	15%
Mid-Term I	8%
Mid-Term II	15%
Final Exam	<u>30%</u>
Total	100%

All assignments must be completed to receive credit for the course. Final grades represent how you perform in the class relative to other students. Your grade will not be based on a mandated target, but on your performance. I would expect the average grade for this class to be about a 3.5. Three items are considered when assigning final grades:

1. Your average weighted grade for all assignments.
2. The overall average grade within the class.
3. Your ranking among all students in the class.

Guest Speakers

The course will be enhanced by the participation of several outstanding guest speakers from leading fixed income asset managers in the L.A. area (e.g. Oaktree, Doubleline, WAMCO, Ares). This will not only allow for the course to cover several specialized topics, but will also allow students the opportunity to build a network of professionals at leading firms.

Attendance

Because the lectures are not directly supported by a text, attendance is important. Fixed income security analysis is a highly technical field and it will be challenging to master the subject solely from the lecture slides.

MARSHALL GUIDELINES

Add/Drop Process

The class will remain open enrollment (R-clearance) for the first three weeks of the semester. If there is an open seat in an FBE Undergraduate class, students will be freely able to add a class using Web Registration throughout the first three weeks of the term. If the class is full, students will need to continue checking Web Registration to see if a seat becomes available. There are no wait lists for these courses, and professors cannot add students. If you do not attend the first two class sessions or ask for an excused absence, I may drop you from the course without any notification.

Technology Policy

Laptop and Internet usage is not permitted during academic or professional sessions unless otherwise stated by the respective professor and/or staff. Use of other personal communication devices, such as cell phones, is considered unprofessional and is not permitted during academic or professional sessions. ANY e-devices (cell phones, PDAs, I-Phones, Blackberries, other texting devices, laptops, I-pads) must be completely turned off during class time. Upon request, you must comply and put your device on the table in off mode and FACE DOWN. You might also be asked to deposit your devices in a designated area in the classroom. Videotaping faculty lectures is not permitted due to copyright infringement regulations. Audiotaping may be permitted if approved by the professor. Use of any recorded or distributed material is reserved exclusively for the USC students registered in this class.

Open Expression and Respect for All

An important goal of the educational experience at USC Marshall is to be exposed to and discuss diverse, thought-provoking, and sometimes controversial ideas that challenge one's beliefs. In this course we will support the values articulated in the USC Marshall "Open Expression Statement." "Open Expression Statement" (<https://www.marshall.usc.edu/open-expression-statement>).

Statement for Students with Disabilities

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me (or to your TA) as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776. For more information visit www.usc.edu/disability

Emergency Preparedness/Course Continuity In case of a declared emergency if travel to campus is not feasible, USC executive leadership will announce an electronic way for instructors to teach students in their residence halls or homes using a combination of Brightspace, teleconferencing, and other technologies.

Academic Integrity

The University of Southern California is foremost a learning community committed to fostering successful scholars and researchers dedicated to the pursuit of knowledge and the transmission of ideas. Academic misconduct is in contrast to the university's mission to educate students through a broad array of first-rank academic, professional, and extracurricular programs and includes any act of dishonesty in the submission of academic work (either in draft or final form).

This course will follow the expectations for academic integrity as stated in the [USC Student Handbook](#). All students are expected to submit assignments that are original work and prepared specifically for the course/section in this academic term. You may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s). Students suspected of engaging in academic misconduct will be reported to the Office of Academic Integrity.

Other violations of academic misconduct include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

Academic dishonesty has a far-reaching impact and is considered a serious offense against the university. Violations will result in a grade penalty, such as a failing grade on the assignment or in the course, and disciplinary action from the university itself, such as suspension or even expulsion.

For more information about academic integrity see the [student handbook](#) or the [Office of Academic Integrity's website](#), and university policies on [Research and Scholarship Misconduct](#).

Please ask your instructor if you are unsure what constitutes unauthorized assistance on an exam or assignment or what information requires citation and/or attribution.

Statement on University Academic and Support Systems

Students and Disability Accommodations:

USC welcomes students with disabilities into all of the University's educational programs. [The Office of Student Accessibility Services](#) (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at osas.usc.edu. You may contact OSAS at (213) 740-0776 or via email at osasfrontdesk@usc.edu.

Student Financial Aid and Satisfactory Academic Progress:

To be eligible for certain kinds of financial aid, students are required to maintain Satisfactory Academic Progress (SAP) toward their degree objectives. Visit the [Financial Aid Office webpage](#) for [undergraduate-](#) and [graduate-level](#) SAP eligibility requirements and the appeals process.

Support Systems:

[Counseling and Mental Health](#) - (213) 740-9355 – 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

[988 Suicide and Crisis Lifeline](#) - 988 for both calls and text messages – 24/7 on call

The 988 Suicide and Crisis Lifeline (formerly known as the National Suicide Prevention Lifeline) provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week, across the United States. The Lifeline consists of a national network of over 200 local crisis centers, combining custom local care and resources with national standards and best practices. The new, shorter phone number makes it easier for people to remember and access mental health crisis services (though the previous 1 (800) 273-8255 number will continue to function indefinitely) and represents a continued commitment to those in crisis.

[Relationship and Sexual Violence Prevention Services \(RSVP\)](#) - (213) 740-9355(WELL) – 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender- and power-based harm (including sexual assault, intimate partner violence, and stalking).

[Office for Equity, Equal Opportunity, and Title IX \(EEO-TIX\)](#) - (213) 740-5086

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

[Reporting Incidents of Bias or Harassment](#) - (213) 740-2500

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title for appropriate investigation, supportive measures, and response.

[The Office of Student Accessibility Services \(OSAS\)](#) - (213) 740-0776

OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

[USC Campus Support and Intervention](#) - (213) 740-0411

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

[Diversity, Equity and Inclusion](#) - (213) 740-2101

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

[USC Emergency](#) - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

[USC Department of Public Safety](#) - UPC: (213) 740-6000, HSC: (323) 442-1200 – 24/7 on call

Non-emergency assistance or information.

[Office of the Ombuds](#) - (213) 821-9556 (UPC) / (323-442-0382 (HSC)

A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

[Occupational Therapy Faculty Practice](#) - (323) 442-2850 or otfp@med.usc.edu

Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.

No recording and copyright notice. It is a violation of USC's Academic Integrity Policies to share course materials with others without permission from the instructor. No student may record any lecture, class discussion or meeting with me without my prior express written permission. The word "record" or the act of recording includes, but is not limited to, any and all means by which sound or visual images can be stored, duplicated or retransmitted whether by an electro-mechanical, analog, digital, wire, electronic or other device or any other means of signal encoding. I reserve all rights, including copyright, to my lectures, course syllabi and related materials, including summaries, PowerPoints, prior exams, answer keys, and all supplementary course materials available to the students enrolled in my class whether posted on Blackboard or otherwise. They may not be reproduced, distributed, copied, or disseminated in any media or in any form, including but not limited to all course note-sharing websites. Exceptions are made for students who have made prior arrangements with DSP and me.

COURSE CALENDAR/READINGS/CLASS SESSIONS

Course Outline for FBE 435			
Applied Finance in Fixed Income Securities			
Class	Topic/Activity*	Readings	Deliverable
14-Jan	Course Overview		
16-Jan	Bond basics; Interest rate risk/Duration/Convexity	Note on Bond Valuation and Returns	
21-Jan	Default/Reinvestment/Event Risk		
23-Jan	Risks in Specific Bonds/Strategies		
28-Jan	Measures of Return		
30-Jan	Relative Value Analysis		Yield & Px Chg Mdl
4-Feb	Hedging--Guest Speaker TBD		
6-Feb	MT-I; Review Bond Sim/Credit Rpt		
11-Feb	Resla & 3S models/Bloomberg		
13-Feb	Credit Analysis--FA & Basic Metrics	DDA Chap 5&6	
18-Feb	Credit Analysis--Structure & Cov	Note on Lev Loan Mkt	
20-Feb	Credit Analysis Guest Speaker--TBD	Jaguar Land Rover	3S & Credit Metrics Mdl
25-Feb	CLO Market	Western Asset Arbitrage	
27-Feb	CLO Guest Speaker--TBD		CLO Mdl**
4-Mar	Credit Default Swaps	Note on Credit Derivatives	
6-Mar	CDS Guest Speaker--TBD	Delphi CDS Case	Credit Memo**
11-Mar	Credit Presentations		
13-Mar	Mid-Term II		
18-Mar	Spring Break		
20-Mar	Spring Break		
25-Mar	Valuing Bonds with Options	Corning 0% Cvt Case	
27-Mar	Convertible Bonds		
1-Apr	Intro Mortgages		Cvt Valuation Mdl
3-Apr	MBS-REMICS/CMO	Subprime Mtg Case	
8-Apr	ABS Markets		
10-Apr	CMBS Market Guest Speaker --TBD		Seq Pay CMO Model**
15-Apr	Emerging Markets Guest Speaker--TBD		
17-Apr			
22-Apr	Money Markets--Guest Speaker		
24-Apr	Global Macro Strategies--Guest Speaker		
29-Apr	Distressed Analysis-i	Hawker Case	
1-May	Distressed Analysis-II		Waterfall Model
5/7-14	Final Exam		
*The scheduling of classes is subject to change depending on the availability of guest speakers			
**Assignments completed on team basis.			