The Credit Superhighway

Fall 2021- B8473

PROFESSOR

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TEACHING ASSISTANTS

TBD

REQUIRED COURSE MATERIAL

Supplemental Textbook: Investments Bodie, Kane, Marcus (BKM)

REQUIRED PREREQUISITES AND CONNECTION TO THE CORE

Financial Accounting and Capital Markets are required prerequisites for the course.

The learning in this course will utilize, build on and extend concepts covered in the following core courses:

<table>
<thead>
<tr>
<th>Core Course</th>
<th>Connection with Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Finance</td>
<td>1. Opportunity cost of capital</td>
</tr>
<tr>
<td></td>
<td>2. Risk</td>
</tr>
<tr>
<td></td>
<td>3. Firm valuation model</td>
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<tr>
<td>Global Economic Environment I</td>
<td>1. Role of financial markets in the economy</td>
</tr>
<tr>
<td>Decision Models</td>
<td>1. Sensitivity Analysis</td>
</tr>
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<td></td>
<td>2. Decision making under uncertainty and risk</td>
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<tr>
<td></td>
<td>3. Use of analysis in decision making</td>
</tr>
<tr>
<td>Financial Accounting</td>
<td>1. The accounting model</td>
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<tr>
<td></td>
<td>2. Revenue and expense recognition</td>
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<tr>
<td></td>
<td>3. Resources and obligations-measurement and disclosure</td>
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</table>

Enrolled students are expected to have a sound knowledge of these concepts and be able to apply them in the course.
COURSE DESCRIPTION AND OBJECTIVES

The outstanding notional amount of debt instruments in the world is over $120 trillion which makes it larger than the global equity markets. Credit, is actually what makes the world go around, yet it gets much less billing and excitement than other asset classes. If you think credit is just fixed income, I have a few hedge fund managers you should meet... Some of them will be our occasional guest speakers!

The students will get a bird's eye view of the entire credit investing business (excluding treasuries) and will drill down to specific segments of this important asset class. At the end of the course, the students will be able to analyze the fundamental drivers behind investing in debt securities and be able to have an intelligent conversation on prices, yields, markets and the different ways to express an investment bias (long, short, hedged). You will get the chance to articulate an investment thesis both in written and oral forms as you defend your investment decision in front of an Investment Committee. The goal of this course is to allow you, as an investor, to incorporate your knowledge of credit instruments into your investment decisions across the asset class spectrum. Or, at the very least, understand how the top right side of a balance sheet thinks and behaves. Some of the evaluation methods are meant to simulate as close as possible to the life of an analyst at a credit focused (or multi strategy) fund.

This course will provide an overview of the concepts of credit, the structure of the market and its participants as well as analytical skills to participate in it as an investor. The course will cover the major issuers of debt securities including corporate debt, asset backed securities, real estate, municipal and sovereign debt plus more. We will learn how to set up trades on an outright and hedged basis and learn the correct trading terminology to participate in the market. We will cover the decision one makes in security selection, hedging, exchange offers, shorting, credit activism and much more. We will spend time on municipal and sovereign investing as well and understand what distinguishes this asset class from others. We will also dive into the shallow end of bankruptcy and distressed investing world and learn the skills necessary to participate in it. Most of the course will be from the perspective of the investor but will also cover borrower motivations that impact the structure and terms of its borrowings.

COURSE OUTLINE

The course will be a series of modules that cover the basics of most debt investing instruments. The first module will be the Fundamentals of Credit and the other modules will rely on that foundation.

Module 1: Fundamentals of Credit - 1 session

In this module we will cover the basics of fixed income securities and the similarities between them all. We will learn the soul of a debt instruments, what drives their valuation, who issues them and who owns them. We will also learn the lexicon of terms used in pricing, valuing and trading debt securities with Bloomberg outputs. We will cover the various types of yield calculations, risks in credit investing and their mitigants, ratings and the rating agencies. We will learn the differences between fundamental and relative value, public vs private, primary and secondary. We will go through the setup of a long only trade and of a long-short trade.

Module 2: Corporate Debt - 4 sessions

This will be the longest module and will deal with the corporate borrower. We will cover loans, bonds, convertible instruments, credit default swaps and more. We will discuss the basics of valuation (without turning this into a valuation class) and discuss the components of a proper investment memo. Topics in this module will include structural and contractual subordination, comparison of securities across the maturity curve and how to identify possible arbitrage...
opportunities. We will explain how to analyze covenants and use them offensively and defensively. This will lead to a discussion on exchange offers and how to influence them or defend against them. Time permitting, we will discuss credit activism and the Hovnanian case.

Module 3: Structured Products and GFC - 2 sessions

From the corporate borrower we will move on to no borrower. In structured products, creditors only get to look to the value of their underlying collateral for recovery. This is a “no tears” relationship where there is (almost) no recourse to a borrower but only to specific assets. We will learn how to value debt securities based on underlying assets only, without an enterprise behind them. We will cover the alphabet soup that is asset backed securities including corporate obligations, home loans, commercial mortgages, autos, credit card and more. We will follow the securitization process from the single loan through underwriting, packaging, tranching, selling and trading cusip and non cusip obligations. Important drivers of value such as default rate, recovery rate, prepayment rate and forms of credit enhancement will be explained. We will learn to analyze a generic securitization and understand attachment and detachment points of its securities.

In this module we will dive deeper into how the housing market in the United States is structured and financed. We will understand the role of the Agencies and the pass-through certificates they issue to investors. We will cover the role of the rating agencies and tricky ethical issues that face banks, appraisers, rating agencies, brokers, borrowers, short sellers and more. Time permitting, this will lead into a quick summary of the causes and lasting impacts of the GFC and how to identify (and avoid) lending to asset bubbles.

Module 4: Real Estate Debt - 1 sessions

From residential to commercial. We will next spend some time in the commercial real estate world and contrast its metrics to corporate issuers. We will cover basic underwriting and valuing real estate assets for purposes of lending or buying real estate backed debt securities. We will cover the life cycle of the real estate business and how investors lend to this industry. We will cover important metrics of most types of real estate asset classes and their nuances.

Module 5: Bankruptcy and Distressed Investing - 2 sessions

We will not go as deep as other CBS courses that focus on debt at distressed prices but this area of the market is robust and unique enough to warrant that every credit investor understand it. We will cover the basics of bankruptcy and the restructuring process. During the second part of this module, we will be learning about the anatomy of a restructuring and the fundamentals of distressed investing. We will explore why anyone would buy debt from a company that is clearly insolvent and unable to repay it.

Module 6: Other Credit Instruments - 2 session

We will close out the semester learning about other types of credit instruments. We will spend most time on municipal and Sovereign issuers who only offer a promise to pay but cannot really pledge hard assets to creditors. These issuers also have different (and sometimes no) insolvency options to restructure their obligations. We will explore fundamental and relative value investing in this space and the ethical issues that arise in a default (“firefighters v bondholders”). We will cover the ingredients of a credit crisis (liquidity, solvency) and when bank losses threaten the host countries they are in. Finally, we will contrast sovereign debt crises and how they were dealt with in different countries. At the end of this module, we will meet other less common bonds such as catastrophe bonds, Islamic finance, project finance and a few more.
Before the first week of class, I will assign you into your groups of four based on your resumes. My goal is to have the groups be diverse in prior work experiences. You will be in the same groups for the Spotlight, the mini-memo and the final memo/IC. Your group name can be your spotlight topic or feel free to come up with something more creative.

Three things to do before our first meeting:

- Make contact with your group mates
- Watch the Ray Dalio video (How the Economy Machine Works) on YouTube
- Read Pandemic Hangover (posted on Canvas) and email me (individually) what you think the most insightful sentence is in that article.

I will meet privately with each group one time during the semester. This might be on zoom to accommodate different schedules. This is a chance for me to get to know the students in a smaller setting and vice versa. Topics of conversation do not have to be related to the course and can also be career advice, current events, market outlook and more.

Pub night - October 14. Drinks on me. Attendance - optional (for real). I will ask a few colleagues to join as well. (all subject to covid considerations).

**METHOD OF EVALUATION**

Final grades will be based on the breakdown below:

| Attendance and Participation | 10% | Individual |
| Spotlight Series             | 10% | Group      |
| Homework                     | 20% | Individual |
| Mini Memo                    | 20% | Group      |
| Final Project                | 40% | Group      |

**Evaluation**

1. Attendance Preparation and Contribution
   a. Group Size: Individual
   b. Details: You are expected to attend classes and participate in the conversation. You know what that means. In addition, I might post discussion topics on Canvas and hope you participate and contribute (i.e. post your content) as well. Please review the material assigned before class. I recommend you print and bring the Handout documents to class so you can mark them up. There will also be more lengthy publications in the Resource Center on the course page on Canvas. You can just skim them or have them for future reference.
   c. Weight: 10%

2. Spotlight Series
   a. Group size: Four
b. Details: Each week, a different group will make a roughly 15-minute presentation (including Q&A) on a topic relevant to the class (I reserve the right to cut you off after 20 minutes). I will assign the topics to groups before the semester begins. The reaction you are going for from your classmates is “wow, I did not really know that and now I do. Thank you.” Please have a handout that is 2 pages max with a lot of white spaces. Don’t feel obligated to give every group member a speaking role but do make it a group project. You will not be able to go deep into these topics, summary information only.

c. Weight: 10%

3. Homework

a. Group Size - Individual

b. Details: There will be five homework assignments that vary in time commitment and difficulty. In addition to some calculations, I am looking for your thought process on how you would approach these situations and, in some cases, a reasoned buy/sell decision. These are not full-blown cases, don’t kill it.

c. Weight: 20%

4. Mini-Memo

a. Group Size - Four

b. Details: This is a 3sh page investment memo meant for screening an investment (think: a long email to your PM). You should cover the basics but don’t lose the reader. A mini-memo should answer this question: “if everything I know is right, do I want to trade these bonds?” I will share the name of the investment as we get closer and cover the essential contents of the mini-memo in the first few weeks.

c. Weight: 20%

5. Final Memo and Investment Committee Presentation

a. Group Size: Four

b. Details: This is a full-blown credit memo on an investment and should be around 6-10 pages. It is not meant to capture everything you know but it should capture a lot. Teams will choose their investment and use real market prices. The Welcome Packet has important information on selecting your investment for the final as well as important screening dates. We will go over the basics of a credit memo in class in the first few weeks. After your final memos are in, you will face an Investment Committee and present to it. There is no need for a separate document for IC, the credit memo is enough. This is meant to simulate real life on the desk and is not meant to be hostile. This evaluation will be two thirds quality of the memo (research, thoughtful investment recommendation) and one third evaluation of your presentation by the Investment Committee. The IC will evaluate your effectiveness, conviction level and your ability to answer questions. Each group member should have a speaking role in the presentation.

c. Weight: 40%

In order to avoid ambiguity that may lead to unintentional violations of the Honor Code, the description types for assignments have been standardized. They are specified in the table below.

<table>
<thead>
<tr>
<th>Type</th>
<th>Designation</th>
<th>Discussion of concepts</th>
<th>Preparation of submission</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>group / group</td>
<td>Permitted with designated group*</td>
<td>By the group</td>
<td>Same grade for each member of the group</td>
</tr>
</tbody>
</table>
### B

<table>
<thead>
<tr>
<th>Group/Individual</th>
<th>Permitted</th>
<th>Individually (No sharing of any portion of the submission)</th>
<th>Individual</th>
</tr>
</thead>
</table>

### C

<table>
<thead>
<tr>
<th>Individual/Individual</th>
<th>None of any kind</th>
<th>Individually</th>
<th>Individual</th>
</tr>
</thead>
</table>

### D

(An optional category to be defined in detail by the individual faculty member)

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**CLASSROOM NORMS AND EXPECTATIONS**

In class, please demonstrate consideration for your classmates (and your instructors and guest speakers) by leaving laptops and cell phones in bags, posting nameplates, and being on time at the beginning of the class and at break. To ensure that we get to know you quickly, please sit in the same place in each class.