Course Description and Objectives

In this course, we examine risks associated with extension of credit. Examples will include asset-based and cash flow lending, syndicated loans, leveraged loans, bonds, structured financing transactions, mortgages, credit cards, and financial derivatives. While the range of products is broad, we focus on developing a systematic approach for thinking about credit risk wherever it manifests, including factors to consider in order to answer questions like: “How much is owed at any given point in time?”, “What is the likelihood of the borrower defaulting on contractual obligations?”, and “If the borrower defaults, how much value can be collected?”

We will also discuss failures in credit analysis contributing to the 2008 financial crisis, as well as how recent innovations such as stress testing, artificial intelligence and Blockchain are impacting credit risk analysis.

Workload Expectation

Success in this half-semester 2-unit course is based on the expectation that students will spend a minimum of 9 hours of study time per week in preparation for class (readings, papers, preparing for in-class participation, etc.)

Homework will be assigned following each lecture. We will have a final examination.

Students are required to attend all classes. We will have interactive in-class discussions. Lectures will develop content essential to achieving proficiency in this subject matter.

Learning Goals

You will learn fundamental components of credit analysis and develop understanding about how to design and apply credit analysis across a variety of credit-bearing financial instruments.

- Ability to think systematically about credit risk
- Understand value of qualitative and quantitative methods to analyze credit risk
- Define different loan structures and credit-based financial instruments
- Ability to conduct credit analysis and effectively communicate results
- Gain insights about how credit analysis is being influenced by recent innovations in financial technologies

Prerequisites

FIN 212a or equivalent
Course Plan

Reading materials are posted on LATTE. Remaining reading materials are posted within a coursepack on the Harvard Business Online website at this link: https://hbsp.harvard.edu/import/612853

Class 1 – Introduction
This lecture will overview credit products. Topics will include the landscape of risks in commercial lending; loan covenants (affirmative vs negative and covenant-lite); senior vs subordinated debt; syndicated loans, leveraged loans; term vs revolving loans; asset-based lending; recovery rates; risk ratings, etc.

Reading:
Guide to U.S. Loan Market – 48 pages (LATTE)
Primer on Deals for Middle Market Bankers – 9 pages (LATTE)
OPTIONAL – Comptroller’s Handbook: Rating Credit Risk – 67 pages (LATTE)
OPTIONAL – Note on LBO Capital Structure – 13 pages (HBS online)

Class 2 – Commercial Credit – Case Study 1 (Cash Flow)
This lecture will discuss the evaluation of creditworthiness. Topics will include “5 Cs” of credit analysis, due diligence, structuring the credit facility and loan agreement, representations and warranties, etc.

Reading:
Note on Bank Loans – 15 pages (HBS Online)
Hampton Machine Tool Company – 6 pages (HBS Online)
Spreadsheet Supplement (Hampton Machine Tool Company) – (LATTE)

Class 3 – Commercial Credit – Case Study 2 (Growth)
This lecture will discuss competitive forces impactful to developing effective strategies for growth and enhancing long-term profitability.

Reading:
The Five Competitive Forces That Shape Strategy – 24 pages (HBS Online)
Clarkson Lumber Company – 6 pages (HBS Online)
Spreadsheet Supplement (Clarkson Lumber) – (LATTE)

Class 4 – Consumer Credit
This lecture will discuss the landscape of risks in consumer credit. Topics will include, credit scores; home equity and auto lending; credit cards; personal loans; pooled credit analysis, etc. We will also discuss failures in consumer credit analysis that contributed to the 2008 Financial Crisis.

Reading:
An Introduction to Consumer Credit – 36 pages (HBS Online)
OPTIONAL – Consumer Credit: The Next Crisis – 20 pages (HBS Online)
OPTIONAL – Formula That Killed Wall Street – 76 pages (LATTE)
Class 5 – Capital Markets Credit
This lecture will discuss credit analysis of financial derivatives in which credit exposures can fluctuate in unpredictable ways. Topic will include “wrong way” risk, structured financing transactions, and how credit default swaps can be used to reduce credit risk as well as can be misused.

Reading:
Measuring Contingent Credit Exposure – 4 pages (LATTE)
Introduction of Credit Default Swaps – 9 pages (HBS Online)
OPTIONAL – Markit Credit Indices: A Primer – 36 pages (LATTE)

Class 6 – Credit Innovations
This lecture will discuss recent innovations in credit risk analysis. Topics will include, stress testing and scenario analysis; enhancements in credit analysis resulting from Artificial Intelligence/Machine Learning, Blockchain; “Big Data”; and other innovations in Financial Technologies.

Reading:
2019 Supervisory Scenarios for Annual Stress Tests (LATTE) – 17 pages
How Blockchain Applications Will Move Beyond Finance (HBS Online) – 5 pages
Collaborative Intelligence: Humans and AI are Joining Forces (HBS Online) – 11 pages

Evaluation
Class Participation (30%). Your class participation grade will be based on the extent and quality of your contributions. Raising thoughtful questions or providing constructive comments that result in new insights for the class will received highest assessment levels.

Homework Assignments (50%). A 3-page writing assignment will be given at the end of each lecture. These papers will be based on content of the lecture in addition to aspects which students will investigate on a self-directed basis (similar to insights students might be expected to bring to their work products in a professional work environment).

Final Examination (20%) The final examination will be cumulative and “open book”. Focus will be on students’ ability to apply learned concepts.

Teaching Assistant
Nikita Ivanchenko (inikita96@brandeis.edu) will be the teaching assistant for this course.

Policy on use of Phones
Use of electronic devices for conversations or messages must not occur while lecture in ongoing.

Academic Integrity
You are expected to be honest in all of your academic work. Please consult Brandeis University Rights and Responsibilities for all policies and procedures related to academic integrity. You may be required to
submit work to TurnItIn.com software to verify originality. Any allegations of academic dishonesty will be forwarded to the Director of Academic Integrity. Sanctions for academic dishonesty can include failing grades and/or suspension from the university. Citation and research assistance can be found at Library Citation Support

Disabilities

If you are a student with a documented disability on record at Brandeis and wish to have a reasonable accommodation made for you in this class, please see me immediately.