

FE 536 - RISK MANAGEMENT IN FINANCIAL INSTITUTIONS

2021 - SPRING

INSTRUCTOR

Cenk C. KARAHAN

CLASS TIME

Saturdays 2–5 pm

CLASSROOM

Live on Zoom

EMAIL

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OFFICE LOCATION

IB 305

OFFICE HOURS

by appointment only

COURSE OVERVIEW

This elective course covers the foundations of modern financial risk management. We focus on financial institutions and discuss a wide range of topics, including; the analysis of market risk (equity, FX, interest rate, commodity risk etc.), credit risk; measures of financial risk; optimal hedging and insurance through financial derivatives; the benefits and costs of financial risk management; the logic behind enterprise-wide financial risk management systems and their relations to long-term strategy. The objective of the course is to make professional students tasked with managerial decisions comfortable with the concept and quantitative tools of financial risk management, understand the potential pitfalls in numerous measures of risk, and financial derivatives as instruments to hedge financial risk.

READING

Required articles and case studies will be provided as the semester progresses.

The Wall Street Journal, Financial Times, the Economist.

Although not required, you may consider the following books as reference.

Risk Management and Financial Institutions (3rd ed.) by John C. Hull

Risk Management by Crouhy, Galai and Mark

GRADING

- **Homework (40%)** – Quantitative problem sets requiring analysis and empirical tests.
- **Case Study Reports (20%)** – Individually written analyses of 2-3 case studies.
- **Participation (10%)** – Contribution to in-class discussions.
- **Final (30%)** – Final exam covering the issues discussed in class.
- **Attendance** is of crucial importance for this class and your presence and active participation in class discussions are expected and strongly encouraged.

COURSE CONTENTS

Below is a tentative outline of the topics that will be covered throughout the semester. We may pay more attention to certain topics based on the class composition and demand.

- Introduction to and the rationale behind financial risk management, classification of various risks, building blocks of a successful risk management system
- Identifying, measuring and hedging the exposure to financial price risk, volatility, correlation, Value-at-Risk, expected shortfall etc.
- Derivatives, financial innovation and financial risk management
- Hedging with futures, forwards and options, commodity risk, FX risk etc.
- Measuring and managing options risks, Greeks, volatility surface
- Interest rate risk management, duration, convexity, fixed income derivatives such as caps, floors and swaps
- Credit risk measurement, modeling corporate default, actuarial approach, reduced-form approach, copulas, hedging credit risk, credit derivatives
- Global financial crisis and systemic risk
- Time permitting we will touch upon topics like liquidity risk, political risk, regulations like Basel etc.