

RISK MANAGEMENT AND HISTORY OF FINANCIAL CRISES

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COURSE SUMMARY

This course has an ambitious goal – to investigate both the tools of risk management at the firm level through hands-on training and practice, and the lessons of macroeconomic or systemic risk through examination of financial crises throughout history. These lessons are important – whether it is the South Sea Company crisis of 1700s or the mortgage debt crisis in the United States in the 2000s, financial crises have shaped our world. Understanding history is the first step towards intelligent policy.

To examine the financial and economic history we will read some of the classic (and also some of the newer) texts in this area:

A Monetary History of the United States, 1857-1960 by Milton Friedman & Anna Jacobson Schwartz Manias, Panics, and Crashes by Charles P. Kindleberger (for a history of financial panics) Extraordinary Popular Delusions and the Madness of Crowds by Charles Mackay (for a history of the 18th century South Sea Bubble in Britain and the Sword Blade Bank and Mississippi Company in France)

This Time is Different – Eight Centuries of Financial Folly by Carmen Reinhart & Kenneth Rogoff (for why this time is *not* different – financial folly has a long history)

Fragile by Design by Charles Calomiris & Stephen Haber (for a cogent and disciplined analysis of banking systems across time and across countries – US, Canada, UK, Mexico, and Brazil)

Below is the syllabus for the first half of the course, focusing on practical risk management for trading in financial markets – the tools and techniques traders and managers actually use to measure and manage market risk. The goal is to teach both the practical tools (exposure, duration, DV01, value-at-risk), and how and why those tools are valuable and useful.

SYLLABUS – First Half Summary

0. BASICS OF BONDS AND SWAPS

- 1. INTRO TO THE COURSE
 - How to think about risk and uncertainty in the financial world P&L distribution
 - Examples of how and why things go wrong
- 2. WHAT IS "RISK MANAGEMENT"? AND HOW DO WE EVEN THINK ABOUT "RISK"?
- 3. SENSITIVITY REPORTS EXPOSURE FOR FIXED INCOME TRADING
- 4. PORTFOLIO RISK VOLATILITY AND VAR MEASURING RISK
- 5. PORTFOLIO TOOLS AND SOURCES OF RISK
- 6. JPMORGAN LONDON WHALE CASE
- 7. PRACTICAL ISSUES IT, Data, Culture and Incentives
- 8. CONCLUSION

There will be a midterm and final exam. I will assign problems for the risk management material, and a mix of problems with possible essay for the economic history material. The weighting will be approximately 25% for the problems, 25% for the midterm, and 50% for the final. The final will be cumulative, i.e. cover the entire course material.