

Structure and Outline of the Course

The syllabus embedded on the front page of the Canvas website for our class provides up-to-date details about readings, assignments, and due dates.

FNCE 2320/7320: International Banking

The Wharton School
University of Pennsylvania
Spring Semester 2024

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Course Objectives, Requirements and Grading

This course focuses on international financial institutions, especially the activities of global, systemically important banks. We will examine how current and historical events are reshaping the industry and highlight the basic analytics of managing a financial institution's exposures to liquidity, credit, market, operational, and reputational risks. Most classes will begin with a discussion of a current event related to course topics, usually based on news articles or a blog. I will post these brief articles along with some points to consider as you read the article in the Announcements section of Canvas at least 24 hours before the relevant class. Throughout the semester, we will discuss public policy issues facing the international financial system. The objective of this course is to provide you with a broad overview of the forces shaping international banking and a framework for understanding continuing changes.

The class format includes lectures and class discussions. I welcome your questions and comments. Indeed, your constructive classroom participation **will help boost your grade** if your final score is at a breakpoint in the distribution. More importantly, you will find that the more actively you participate in class discussions, the more easily you will master the material. To facilitate discussion, please display your name tent each class and take the seat you indicate on the seating chart we will establish when we meet in person.

The home page of Canvas brings together the reading list, lecture notes and other class materials with direct links to the underlying files or material on the web. Some readings and assignments will undoubtedly change over the semester as events warrant. You should regard the syllabus embedded in the home page as definitive regarding assignments, readings, and deadlines.

We will use excerpts from the current edition of Financial Institutions Management: A Risk Management Approach 11th edition (2024) by Anthony Saunders, Marcia Cornett, and Otgo Erhemajamts (Text) as a basic reference largely for the last half of the course. McGraw-Hill has gathered these excerpts in a custom book, available at the UPENN bookstore as: International Banking, FNCE-2320/7320 (Text), ISBN # 9781307965599, for \$40. Or, if you're comfortable with the eBooks, you can purchase it for \$38 at the following URL: [custom \(mheducation.com\)](https://www.mheducation.com) by entering ISBN # 9781307965605 or Herring in the search box. (If you encounter any issues purchasing the eBook, technical assistance is available at McGraw-Hill's support line at 1-800-331-5094, press 2, press 2(Create), press 1. If you have had no prior experience with the financial services industry or if you plan to build your career in the sector, however, you may want to acquire the complete, recently revised edition of the Text for \$180. It has become the industry standard.

Assignments

I have provided several problem sets to help you think more deeply about the course material and enable you to gauge your progress. These will not be graded and thus should not be turned in, but you will have access to the correct answers alongside the assigned problems.

Team Projects

Three team projects will be assigned to give you deeper exposure to analytic techniques

related to the course. These projects will be graded. Please use Canvas to form teams **no larger than five** to work on these projects and to submit the completed projects. Undergraduates and MBA candidates may form teams together although you may find differences in calendars pose practical difficulties in collaboration.

The first project will involve using accounting and market data to compare the performance of two internationally active banks. This project will also take you into some of the more subtle details of understanding annual reports. The second project will require you to compute value at risk (VaR) measures for a bank portfolio. The third project involves evaluating a bank's balance sheet and income statement under alternative stress scenarios. Stress testing has become a fundamental technique of risk analysis and regulation. The projects will be available on Canvas at least two weeks before they are due.

Current Events Writing Assignments

International banking is an especially dynamic sector of the financial services industry and so I urge you to follow current developments in the *Financial Times*, *Wall Street Journal*, or *The New York Times*. Under the university's new interpretation of the fair use exemption to the copyright law, I will no longer be able to attach pdfs of articles from these sources. I will, however, be able to link the assignments directly to the websites of these newspapers. Fortunately, the university has arranged for free student subscriptions to the following news sources:

- [Bloomberg.com](https://www.bloomberg.com)
- [Financial Times](https://www.ft.com)
- [New York Times](https://www.nytimes.com)
- [Wall Street Journal](https://www.wsj.com)
- [Washington Post](https://www.washingtonpost.com).
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Please subscribe now so that you will be able to follow the links when I assign them as background for our current events assignments. In addition, you will undoubtedly want to sample some of the ever-growing numbers of blogs, some of which are collected and linked on Canvas. A glossary of some of the more esoteric terms is also included. Both these resources are collaborative projects, so if you have found something useful that is not on the list (or a web link that is broken), please let me know, and I will update the list.

Roughly every two weeks, I will ask you to turn in a writing assignment based on your reading of current events. This assignment has three objectives. First, I want you to follow events related to international banking in high-quality magazines, newspapers, or blogs. This will broaden and deepen your knowledge and facilitate your continued learning after finishing the course. Second, I want you to think critically about what you read. Third, I want you to learn to write effective memos.

To perform the writing assignment, first, find an article related to a topic we discussed in the course that may interest your classmates. Your submission should begin with a very brief, one-paragraph summary of the article. Second, pose three questions that would lead the reader to think more deeply about issues implicit in the article. Finally, provide an answer to each question you pose. I may use some of these submissions (without the answers) to guide our discussions of current events in class. I have provided two examples to illustrate the approach in the appendix to this reading list. Although you may be accustomed to using ChatGPT 4 or its equivalent in other courses, your learning will be enhanced if you undertake this assignment without the aid of generative AI.

Daily Quizzes

Given the size of our class, direct participation in class discussions can be challenging, so I want to provide an additional way for you to demonstrate your participation in class. Most days you will take a four-minute, automated quiz on Canvas during class. The quiz will usually consist of three straightforward multiple choice or True/False questions. In addition to providing you with a way to demonstrate your participation in class, it will give me immediate feedback about whether I need to clarify a topic or explain it in a different way. Each quiz will be based on material presented in class that day. When I compute your final grade, I will discard your lowest three scores. The remaining scores will receive a weight of 15% in the determination of your aggregate final score.

I will administer two in-class mid-term exams. The first mid-term takes place on Wednesday, February 28th and the second mid-term (which will not be cumulative) on Monday, April 22nd. The exams will be closed book, but I will provide all relevant formulas on the exam itself. Of course, the University Honor Code will apply. I will give each mid-term a weight of 25% in computation of your final score. We will not have a final exam.

A Canvas folder contains mid-term exams (along with answers) for the past two years. I have posted them for two reasons: (1) These exams can help you judge quickly whether this course fits your needs and interests. If you find these concepts do not interest you, this course is not a good fit. (2) These exams also indicate the *kind* of questions I am likely to pose. Please be aware, however, that the course does change from year to year regarding concepts covered, emphases on topics, and current events covered, so the questions on the exam you take will be different. Resist the temptation to study for the exams by focusing mainly on the sample exams rather than reviewing what we do in class. Note these exams emphasize *critical thinking*, not memorization or computation. Also, please note the sample exams were administered as two-hour take-home exams, so the exams you take this semester will be shorter and contain all formulas you may need in computing the answers.

Grading

Your grade will depend on your final score weighted as follows:

27% for the combined three team projects

8% for your current events writing assignments

25% for your grade on the first mid-term exam

25% for your grade on the second mid-term exam

15% for class participation based on your performance on the brief in-class quizzes

(I will drop the lowest three scores on your quizzes in computing your average.)

If your weighted final score falls on a borderline, it will be adjusted upward if you have participated actively and effectively in class discussions.

Please note that even though undergraduates and MBAs will take the same exams and quizzes, they must be graded on separate scales. The Graduate Division requires that final grades adhere to a prescribed distribution. There is no prescribed distribution for undergraduates.

We will make use of the Wharton Attendance App, which can be accessed by using

AirPennNet and the Canvas mobile app. Check-ins open 10 minutes before class and close at the end of class. If you are not familiar with the App, you will want to refer to the PowerPoint prepared by Wharton Instructional Technology: [attendance_app_students.pptx](#).

A few weeks into the semester, I will implement the Student Lunch Program. It provides me with the opportunity to meet you informally, outside class. Not only do I enjoy getting to know you better, but it has proven to be an invaluable feedback mechanism for me as the course progresses. I will post sign-up lists on Canvas at several points during the semester if you would like to participate in the program.

I. OVERVIEW OF THE BUSINESS OF BANKING

I.A. Introduction

Class note: [Overview of Banking](#)

Readings

[“Overview of the Banking Industry”](#)

Assignment

[Complete Questionnaire](#)

Please make sure to answer all questions, **including question 7**

Additional Resources

For a recent overview of the state of global banking see this excerpt from McKinsey’s Global Banking Annual Review, October 2023.

I.B. How Banks Make Money (usually)

Class note: [How Banks Make Money \(usually\)](#)

Readings

Text, pp. 4-23.

"Banks--the Basics" This is an excerpt (pp. 3-20) from a monograph, *Banking 101, Second Edition*, by Matt O'Connor, Robert Placet, Bernard von-Gizycki and Ricky Dodds, Deutsche Bank, 25 May 2017. (Hereafter, excerpts from this publication are designated DB.) This monograph, written by a leading bank security analyst and his team, remains the best practical guide linking bank decision-making to the balance sheet and income statement. The data are a bit stale, so focus on the concepts, not the statistics.

DB, "Credit"

DB, "Liquidity"

R.J. Herring, "Notes on Bank Accounting & Ratio Analysis"

Additional Resources

If your recollection of accounting fundamentals is hazy, you may find it useful to watch a very basic review of income statement and balance sheet relationships on YouTube at: <http://www.youtube.com/watch?v=h3IMANILkw0>

The FDIC provides a compact summary of some accounting policies and links to resources dealing with several accounting issues in *Banker Resource Center: Accounting*, <https://www.fdic.gov/resources/bankers/accounting/>

If you want to dig into the details of OCI, see CFA Institute, "Analyzing Bank Performance: Role of Comprehensive Income"

If you have a particular interest in CECL, the Fed has published a brief note analyzing the impact of the adoption of CECL during the pandemic, "The New Accounting Framework Faces Its First Test/CECL During the Pandemic"

I.C. Financial Analysis of Banks

Class note: Financial Ratio Analysis

Readings

Text, "Financial Statement Analysis Using a Return on Equity (ROE) Framework" pp. 2-3 and 24-35.

DB, "Bank Stock Valuations"

Additional Resources

DB, "Banks Stocks: How they are Valued"

(This reading is somewhat redundant with the prior reading, but it is interesting to see the different issues highlighted in valuing European stocks.)

FitchRatings, "Bank Rating Process," excerpt from Criteria Report: Bank Rating Methodology

Provisions and the allowance for loan loss are unique to banks. If you would like some extra help in mastering this concept, see this video produced by Breaking Into Wall Street: "The Loan Loss Allowance for Banks" FIG (22.17), which works through the accounting entries in detail: <https://breakingintowallstreet.com/kb/bank-modeling/allowance-for-loan-losses-for-banks-fig/>

The accounting rules for recording provisions and loan losses changed markedly in 2020-2021. The ABA, the bank lobbying organization, has posted a video on the new approach to establishing provisions and loan loss reserves, called Current Expected Credit Loss Standards (CECL). The video reflects the ABA's skepticism about the new accounting policy, but it is clear and informative:

<https://www.aba.com/advocacy/ourissues/cecl-implementation-challenges>

Assignment

Financial Analysis of Banks

I.D. Optimal Capital and the Cost of Equity Capital

Class note: Conceptual Issues: The Role of Capital & Cost of Equity

Readings

A. Berger, R. Herring and G. Szegö, 1995, "The Role of Capital in Financial Institutions," Reprinted in The Regulation and Supervision of Banks, edited by Maximilian J.B. Hall, The International Library of Critical Writings in Economics, Edward Elgar Publishing Limited

"On the Relevancy of Modigliani and Miller to Banking: A Parable and Some Observations," P. Pfleiderer

"What do the banks' target returns on equity tell us?" Martin Wolf, Financial Times, September 25, 2011

Additional Resources

NYU Prof. Damodaran posts frequently up-dated estimates of the cost of capital by sector in the U.S. He breaks out estimates for Regional Banks and for Money Center Banks based on the standard CAPM model:

http://people.stern.nyu.edu/adamodar/New_Home_Page/datafile/wacc.htm

"The Parade of the Bankers' New Clothes Continues: 23 Flawed Claims Debunked," A. Admati and M. Helwig

R.J. Herring, 2011, "Fair Value Accounting and Financial Instability, Reprinted from Encyclopedia of Financial Globalization

I.E. Regulatory Capital and the G-SIB Designation

Class note: Regulatory Capital and the G-SIB Designation

Readings

"Bank Capital and Liquidity," M. Farag, D. Harland, and D. Nixon

DB, "Capital"

FDIC, "Definition of Regulatory Capital"

"2023 list of global systemically important banks (G-SIBs)," Financial Stability Board, November 2023

The Office of Financial Research has created an interactive chart to decompose the G-SIB score for each G-SIB and show how it has changed over the past three years: <https://www.financialresearch.gov/gsib-scores-chart/>. Please explore the interactive features.

David Wessel, "What is bank Capital? What is the Basel III Endgame?,"Links to an external site. Brookings Institution, November 29, 2023.

"Interagency Overview of the Notice of Proposed Rulemaking for Amendments to the Regulatory Capital Rule,"OCC, Fed, and FDIC, July 27, 2023

Additional Resources

If you would like to examine a proposal to simplify regulatory capital, see: "The Evolving Complexity of Capital Regulation," R. Herring

Investopedia has posted a compact summary, *Risk-Based Capital Requirement: Definition, Calculation, Tiers* with links to other posts that provide a deeper explanation: <https://www.investopedia.com/terms/r/risk-based-capital-requirement.asp>

BNPParibas/Fortis has produced a very simple video overview of Basel III that describes risk weights and liquidity requirements that we will study in the second half of the semester: [Basel III in 10 minutes](#)

II. RISK MEASUREMENT AND MANAGEMENT

II.A. VaR, the New Paradigm in Risk Management for Managing Market Risk

Class Note: [Managing and Regulating Market Risk](#)

Readings

Text, pp. 38-62 & 70-73

G. Guill, 2007, "[Bankers Trust and the Birth of Modern Risk Management](#)"

R.J. Herring and T. Schuermann, "[Capital Regulation for Position Risk in Banks, Securities Firms, and Insurance Companies,](#)" pp. 84-100

Additional Resources

If you are comfortable with calculus and basic probability theory, you may find a series of lectures by Prof. Olivier Scaillet at the University of Geneva in *Coursera* useful.

“Defining the Value-at-Risk”: <https://www.coursera.org/lecture/portfolio-risk-management/defining-the-value-at-risk-GY7jB>

“Computing the Value-at-Risk”: <https://www.coursera.org/lecture/portfolio-risk-management/computing-the-value-at-risk-TPHQj>

“Defining the Expected Shortfall”: <https://www.coursera.org/lecture/portfolio-risk-management/defining-the-expected-shortfall-4SsNo>

Assignment

Text, pp.75-76, do problems 5, 6, & 18

II.B. Managing Interest Rate Risk

Class note: The Treasury Function Part I: Funding the Bank Subject to Interest Rate Risk Constraints

Readings

Text, pp. 82-97 & 126 -156

Additional Resources

Optional, but recommended for yield curve review, pp.107-123

Optional, but recommended for incorporating convexity into the Duration Model, pp.174-185

Assignment

pp. 156-158, do problems 3,4, 16, 17, and 22.

II.C. Managing and Regulating Liquidity Risk

Class Note: Liquidity Risk Management

Readings

Text, pp. 188-211

“Bank Liquidity Requirements: An Introduction and Overview,” by Douglas Elliott, The Brookings Institution, June 23, 2014, read pp. 22-30, sample the rest according to your interest

Additional Resources

Optional for those with advanced training in economics or a special interest in liquidity, a survey by Jean Tirole, the second French winner of the Nobel Prize in Economics:

J. Tirole, 2011, "Illiquidity and All Its Friends," Journal of Economic Literature 49(2): pp.287-325

II.D. Managing Credit Risk

Class note: Managing Credit Risk

Readings

Text, pp. 224-265

Assignment

Text, pp.266-270, do problems 20, 25, 27 & 38

III. FINANCIAL CRISES AND BANK REGULATION

III.A. Real Estate Booms & Banking Busts

Class note: Real Estate Booms and Banking Busts

Readings

R. Herring and S. Wachter, "Real Estate Booms and Banking Busts: An International Perspective"

"*UBS Global Real Estate Bubble Index 2023*," read "Key results," pp.4-6, scan "Methodology and Data," pp.23-24, and read detailed results according to your interest.

Additional Resources

"Popping property bubbles: Choosing the right pin," The Economist, August 30, 2014 (skim according to interest)

"Location, location, location: Global house prices" The Economist, October 7, 2015 (skim according to interest)

DBE, "Case study: the Celtic Tiger" (skim according to interest)

III.B. The Safety Net in Principle

Class note: The Safety Net in Principle: An International Comparative Perspective

Readings

P. Tucker, "The lender of last resort and modern central banking: principles and reconstruction," in BIS Papers, No. 79, pp. 10-42

Additional Resources

Keoun and P. Kuntz, "Wall Street Aristocracy Got \$1.2 Trillion from Fed," Bloomberg.com, 22 August 2011

T. Humphrey, "Lender of Last Resort: What it is, whence it came and why the Fed isn't it," Cato Journal, Spring 2010, pp. 333-364.

Assignment

The Safety Net

III.C. The Regulatory Assault on Too Big to Fail: Living Wills, TLAC & Resolution Policy

Class Notes: The Regulatory Assault on Too Big To Fail: Living Wills, TLAC & Resolution Policy

Readings

"Safe to Fail," T. Huertas, May 2013

Additional Resources

"The Cross-Border Challenge in Resolving Global Systemically Important Banks," J. Carmassi and R. Herring," 2015

"Resolution of Global Systemically Important Financial Institutions Under the Bankruptcy Code," overheads from a workshop sponsored by the Wharton Financial Institutions Center

III.D. The Safety Net in Practice: SVB & Credit Suisse

Class Notes:

The Safety Net in Practice: Credit Suisse, SVB, Signature Bank, and First Republic

Readings

"Review of the Federal Reserve's Supervision and Regulation of Silicon Valley Bank," Board of Governors of the Federal Reserve, April 2023, pp. 1-14, 27-29, and 93-99.

"2023 Bank Failures," Financial Stability Board, October 2023, pp. 4-13 and 27-31.

Resources

"Preliminary Review of Agency Actions Related to March 2023 Bank Failures," GAO report to the Committee on Financial Services, House of Representatives, April 2023

“The FDIC’s Orderly Liquidation Authority,” Office of Inspector General FDIC, September 2023
“FDIC’s Supervision of Signature Bank,” FDIC, April 28, 2023

IV. SHADOW BANKING AND DECENTRALIZED FINANCIAL INTERMEDIATION

IV.A. Overview of Shadow Banking: Securitization

Class Note: Shadow Banking

Readings

S. Claessens, Z. Pozsar, L. Ratnovski, and M. Singh, “Shadow Banking: Economic and Policy,” pp. 1-36

D. Tarullo, “Thinking Critically About Non-Bank Financial Intermediation,” pp. 1-13, November 17, 2015

S. Fischer, “Financial Stability and Shadow Banks: What We Don’t Know Could Hurt Us,” pp. 1-11, December 3, 2015

Financial Stability Board, “Global Shadow Banking Monitoring Report 2023,” December 2023, pp. 1-30, browse the remainder according to your interest.

Additional Resources

For background on the relationship between regulation and the non-bank financial intermediation see:

P. Olson, “Regulation’s Role in Bank Changes,” pp. 13-20

N. Cetorelli, B. Mandel, and L. Mollineaux, “The Evolution of Banks & Financial Intermediation: Framing the Analysis,” pp. 1-12.

For more information about securitization see:

V. Bod and J. Santos, “The Rise of the Originate-To-Distribute Model and the Role of Banks in Financial Intermediation,” pp. 21-34

N. Cetorelli and S. Peristiani, “The Role of Banks in Asset Securitization,” pp. 47-63

For a comprehensive overview of RePo and Securities lending see:

Baklanova, Copeland, and McCaughrin, “Reference Guide to U.S. RePo and Securities Lending Markets,” OFR, September 9, 2015

For shadow banking development in other domains see:

"Bringing Light Upon the Shadow, A Review of the Chinese Shadow Banking Sector,"
Andrew Sheng, Christian Edelmann, Cliff Sheng, and Jodie Hu, Oliver Wyman/Fung
Global Institute, 2015

"Non-banks Shake-up Dutch mortgages,"_ The Economist, December 27, 2016

"Peer-to-peer lending, From the people, for the people," The Economist, May 9, 2015

"Virtual Currencies: Emerging Regulatory, Law Enforcement, and Consumer Protection
Challenges,"GAO Report, May 2014

For those who enjoy learning by watching videos, two useful videos on Shadow Banking
appear on YouTube:

<http://www.youtube.com/watch?v=mq1Nh1hIXk> and
<http://www.youtube.com/watch?v=v3rfgkTAIho>

In addition, you may enjoy these videos on securitization by bionicturtledotcom:

<http://www.youtube.com/watch?v=iTehIK4nF6w>

<http://www.youtube.com/watch?v=cuG4kcGu6tA>

http://www.youtube.com/watch?v=Sac-qiZoU_0

<http://www.youtube.com/watch?v=KvG3X7KPb3M>

<http://www.youtube.com/watch?v=oWGY-NYzz0g>

And just for fun (and for the amazing foresight of two comedians in the fall of 2007) watch:

<http://www.youtube.com/watch?v=z-oIMJMGd1Q>

IV.B. FinTech

Class Notes: *FinTech Overview*

Readings

"Cryptocurrencies and Public Policy: Key Questions and Answers," by Douglas Elliott, Oliver Wyman _

Office of Financial Research 2023 Annual Report, "Digital Assets," pp. 57-61

Additional Resources

The FT crypto glossary

"Regulating Digital Currencies: A Welcome First Step," *Realtime Economic Issues Watch*,
Peterson Institute for International Economics, by David Heller & Edwin Truman

"Assessment of Risks to Financial Stability from Crypto-assets," Financial Stability Board,

February 2022

FT video: Can Crypto Currencies be Controlled?

