



Syllabus: PPHA 36101-2020

Financial Investments for Public Policy

PPHA 36101
“Financial Investments for Public Policy”
Autumn 2020

Professor: Carolin Pflueger

cpflueger@uchicago.edu

Revision date: 8/14/2020

COURSE GOALS

Financial markets play an important role for public policy. Central banks, Federal and local governments, and public and private pension funds are faced with decisions about risk and return in financial markets. Being able to use financial data to inform these decisions is crucial. The tools of investments analysis can be used to understand the effects of these financial decisions for individuals saving for retirement, governments, and pension funds.

This class covers the core tools of financial investments and applies them in the context of public policy. Over the course of this class you will familiarize yourself with the main concepts of investments theory for stocks, bonds, and investment portfolios and apply them using real data in Excel. A particular focus will be on empirical applications. During the course of this class, students will learn to access relevant financial data and how to interpret it. Applications will be supported with real-world financial reports from governments, investment funds, rating agencies etc. Students will learn to find and access these reports and use them to support their analysis. Applications and assignments in this course will be structured around Excel with real-world data – the basic tool in the financial industry and many organizations to analyze data. Theory and data analysis will be supplemented with weekly market updates, linking the course content with current events and market developments. For the academic year 2020/2012, this course will be online-only.

CERTIFICATE IN FINANCE AND PUBLIC POLICY/CERTIFICATE IN MUNICIPAL FINANCE

This class can be taken to count towards the certificate in finance and public policy and the certificate in municipal finance. For more information, see here:

<https://harris.uchicago.edu/academics/design-your-path/certificates/certificate-finance-policy>

<https://harris.uchicago.edu/academics/design-your-path/certificates/certificate-municipal-finance>

ASSESSMENT SUMMARY

There will be a midterm and a final exam, with a combined weight of 50%. If, for any reason, you must miss the midterm exam all the weight will be shifted towards the final. In-class participation will be graded and make up 10% of your grade. Assignments will make up the



Syllabus: PPHA 36101-2020

Financial Investments for Public Policy

remaining 40% of your grade. The worst in-class quiz and the worst assignment will be discarded.

The midterm will be held in class on Nov 4th, 2020. The final exam will be scheduled by the registrar in the exam period between December 9-11, 2020.

There will be assignments approximately every two weeks. Most will be group assignments, for which you will be required to work in groups of two or three, similar to business school assignments. Other assignments will be individual assignments.

COURSE INFORMATION

Instructor: Prof. Carolin Pflueger

Office hours: email me, by appointment

Email: cpflueger@uchicago.edu

Room: Keller 0021

Course website: <http://canvas.uchicago.edu>

Class meeting times: MW 10:50am-12:10pm

Teaching Assistants:

Mengqi Li mqli@uchicago.edu

Xi Li xili@uchicago.edu

Mahima Singh mahimas@uchicago.edu

COURSE MATERIALS

Online Format

The majority of classes will be live zoom classes, with some prerecorded material. Live zoom classes will be recorded for later viewing. Because participation and student input are crucial for your own learning and to be successful in the professional world, I urge you to use the class environment to practice these skills in a safe environment. Active participation through questions, student discussion, and keeping your cameras on will be factored into your class participation grade. I will also use small in-class quizzes to make sure everyone is on the same page and check your understanding. At the same time, I understand that many of us are in different time zones and have family obligations. If you have such constraints, please let me know as soon as possible at the beginning of class so I can accommodate.

Class Slides

Lecture notes will be posted on the course website before each lecture. You are expected to read through the notes before the lectures. After the lectures, it is your responsibility to review the course



Syllabus: PPHA 36101-2020

Financial Investments for Public Policy

material thoroughly. I will occasionally update the notes to refine the arguments based on the discussion in class, clarify questions from class, give additional references, and provide up-to-date examples or data.

Spreadsheets

Excel spreadsheets will be available on the course website. These spreadsheets implement models covered in class using data from financial markets. Understanding the spreadsheet exercises is critical, since assignments and exams will be closely based on those. Students should make themselves familiar with the principles underlying the calculations and will be expected to adapt and extend them in a variety of contexts. This class requires you to be fluent in Excel, including regression analysis and lookup tables.

Required Textbook

Investments, by Zvi Bodie, Alex Kane, and Alan Marcus, McGraw-Hill Irwin, 11th edition. (The 10th edition works also but page references do not match.) Available for about \$140 on amazon.com. You will also be required to purchase one Harvard Business School Case (Facebook's Libra: The Privatization of Money?) for about \$9.

This the standard textbook for investments courses at business schools, so after taking this class you will have the tools that are considered standard for an introductory class in investments. I will cover the main topics in this book and I expect you to read the chapters listed under the course topics. However, the focus of this class is on real-world applications to prepare you for working in either public policy or finance. For this reason, I will not cover all the material described in the book chapters. Instead, I will usually cover the core portion of the book chapters listed under each class topic and replace the applications with in-class data analysis. You are expected to use the class slides to identify which material within each chapter is part of the course material.

Applications will be supported with real-world financial reports from governments, investment funds, rating agencies etc. These additional readings will generally be more relevant to real-world applications and, as a result, significantly more challenging than the textbook.

Weekly capital markets updates

Every Wednesday, we will discuss recent market developments and connect them to the material covered in class. The discussion will be based on the weekly market updates available at <https://am.jpmorgan.com/us/en/asset-management/gim/adv/insights/weekly-market-recap> (click on "View the Recap") You are expected to read these weekly updates for the next class. I also expect you to make it a habit to read more broadly from publications, such as The Economist, Financial Times, Wall-Street Journal, New York Times, Bloomberg etc. and use your knowledge from these publications to be able to elaborate on the weekly market update.

I will call on students at the beginning of Wednesday class to give a market update. You should be able to answer the following questions:

1. What happened?
2. Why does it matter?
3. What concepts or theories that we have learned might help us think about these issues?



Syllabus: PPHA 36101-2020

Financial Investments for Public Policy

ASSESSMENT

Common policy for all assignments and exams

For team assignments, you may form groups of 2 or 3 (NOT 4 or more) students. Any team with four or more students will receive a grade of zero. You may work in different groups for each group assignment. Note that 2 marks will be awarded if you provide your group composition to the course TA 7 days before the any group assignment deadline. It is each student's responsibility to ensure that his/her name is listed in the team composition e-mail and on the team's submitted assignment. If your name is not listed, you will receive a grade of zero. We only accept regrade requests within 2 weeks of returning an assignment. Regrade requests can only be made for the entire assignment and not for individual questions.

My standard policy is that students will have to submit all assignments. I will discard the worst assignment grade, so if a student only misses one assignment this will have no effect on the final grade. However, the material in all assignments is examinable, so I highly recommend that you hand in all assignments.

For questions about individual assignments, please contact the TA listed on the assignment.

Class participation

Regular class attendance and class participation will be factored into your class participation grade. Remember that listening to others and engaging with their comments is also important for contributing to any discussion, not just in class but also in any workplace. Quality contributions will be valued more highly.

Contributions to market updates can be factored into your class participation grade. You are expected to have read the weekly market updates and to contribute to class discussion about current events. I may ask individual students to summarize the current market update. High quality answers to the questions listed under "Weekly capital markets updates" will be valued more highly than a simple summary of events.

I may use unannounced in-class quizzes, which will factor into class participation. These quizzes will be designed to give me a better view of how the class is doing and to stimulate discussion.

If a student has to miss class, it is the student's responsibility to catch up on any missed materials from classmates' notes. As a matter of fairness to all other students, I will not provide extra office hours to make up missed materials, extra materials, or allow audio, video, or photo recordings. I value student attendance and class participation. I track class participation directly and through in-class quizzes. If a student misses an in-class quiz, this will be recorded as zero. I will generally discard the worst in-class quiz grade, so if a student only misses one quiz this will have no effect on the grade.

OTHER INFORMATION

Academic integrity



Syllabus: PPHA 36101-2020

Financial Investments for Public Policy

Students are allowed to discuss assignments, but the write up that you hand in must be distinctly your own. For team assignments, homework submissions that look identical to another team's, either fully or in parts, will not be accepted. Students cannot copy material from a previous course taught by myself, from other professors, or from solutions manuals for turning in assignments. These can only be used as study aids.

I accept re-grade requests only within two weeks of returning the assignment. Re-grade requests can only be made for the entire exam/assignment and not for individual questions. As a result, your grade can go either up or down following a re-grade request.

Because of the nature of online learning, the midterm and final exam will be open-book. Because they will be open book and to discourage plagiarism, you should expect the midterm and final to be longer than usual exams, and you should not necessarily expect to finish all questions.

You are reminded that plagiarism will be taken seriously. Please review the University of Chicago's statement on academic integrity, which reads:

"We believe it is contrary to justice, to academic integrity, and to the spirit of intellectual inquiry to submit the statements or ideas or work of others as one's own. To do so is plagiarism or cheating, offenses punishable under the University's disciplinary system. Because these offenses undercut the distinctive moral and intellectual character of the University, we take them very seriously; punishments for committing them may range up to permanent expulsion from the University of Chicago."

The full statement on academic integrity is available here:

<http://collegecatalog.uchicago.edu/thecollege/academicintegrity/>

Accommodations

If you need any accommodations, such as for missing class or due to medical conditions, please contact student affairs. Please understand that in fairness to all other students, I cannot provide accommodations unless you have obtained permission well in advance from student affairs. The standard policy in this class is that students must submit all assignments and attend all classes and exams, unless they have a clear accommodation from student affairs. To encourage student attendance and class participation, I will track class participation directly and through in-class quizzes. If a student misses an in-class quiz, this will be recorded as zero. I will generally discard the worst in-class quiz grade within the quarter, so if a student only misses one quiz this will have no effect on the grade. It is also students' responsibility to catch up on any missed materials from classmates' notes. As a matter of fairness to all other students, I will not provide extra office hours to make up missed materials, extra materials, or allow audio, photo, or video recordings.

General expectations

Consider the classroom an opportunity to prepare for your professional career. As future professionals, I expect you to be on time and prepared for class. I expect you to keep your microphone muted unless you are speaking, and all communications with classmates and instructors should be appropriate. If you send e-mails to the instructors or teaching assistants, please be polite, to the point, and use correct grammar and punctuation.



Syllabus: PPHA 36101-2020

Financial Investments for Public Policy

Practice exercises

The class assignments, in-class discussion, Excel spread sheets, and readings will provide you with preparation for the midterm and final exam. There will be no additional practice exercises or mock exams.

SCHEDULE: WEEKS 1 to 10

Schedule is tentative. All or a subset of tools/applications will be covered as time permits.

(1) Introduction: Financial markets and public policy

Tools: Money, stocks and bonds, mutual funds, pension funds, sustainable and impact investing

Applications: Facebook's Libra Currency

Reading: BKM Chapters 1 "The Investment Environment", 2 "Asset Classes and Financial Instruments", 3 "How Securities Are Traded", 4 "Mutual Funds and Other Investment Companies"

Facebook's Libra: The Privatization of Money? by Marco Di Maggio, Ethan Rouen, George Serafeim and Aldo Sesia (Harvard Business School Case 120-021)
<https://www.hbs.edu/faculty/Pages/item.aspx?num=56875>

Senate Committee on Banking, Housing and Urban Affairs Hearing on Facebook's Digital Currency (July 16, 2019)
<https://www.banking.senate.gov/hearings/examining-facebooks-proposed-digital-currency-and-data-privacy-considerations>

(2) Computing returns from financial markets

Tools: Computing returns for stocks and bonds, expected returns vs. realized returns, geometric (time-weighted) rate of return

Applications: (i) stock and bond market indices (ii) average performance of asset classes over time; (ii) typical risk and return of bonds, stocks, developed and emerging markets (iii) Value-at-risk and an insurer's ruin probability

Reading: BKM Chapter 5 "Risk, Return, and the Historical Record"

Norges Bank Investment Management Discussion Note "Risk and Return of Different Asset Allocations" (pages 1-10) Available at:
https://www.nbim.no/contentassets/bce455b7ad024b798195059e5de0fcb4/discussion_note_2-16_risk_and_return_of_different_asset_allocations.pdf

(3) Interest rates, exchange rates and present value

Tools: Duration, maturity, yield, real and nominal rates of interest, comparing rates of return for different holding periods

Applications: (i) Treasury Inflation-Protected Securities; (ii) Quantitative Easing; (iii) Exchange rate crises and policy in emerging markets



Syllabus: PPHA 36101-2020

Financial Investments for Public Policy

Reading: BKM Chapters 2 “Asset Classes and Financial Instruments”, 14 “Bond Prices and Yields”, and 15 “The Term Structure of Interest Rates”

“Emerging Markets Taper Tantrum”, Gerald Cohen, Brookings Institution Blog, January 29, 2014

<https://www.brookings.edu/blog/up-front/2014/01/29/emerging-markets-taper-tantrum/>

(4) Optimal Portfolio Choice

Tools: Diversification and portfolio risk, portfolios of two risky assets, Markowitz portfolio optimization model

Applications: (i) Portfolio allocation at the Norwegian Sovereign Wealth Fund (ii) Portfolio allocation at public pension funds

Reading: BKM Chapters 6 “Capital Allocation to Risky Assets” and 7 “Optimal Risky Portfolios”

Norges Bank Investment Annual Report 2018 Available at:

<https://www.nbim.no/contentassets/58002bca3e954e72ba7c823ada6ac084/government-pension-fund-global---quarterly-report-2q-2019.pdf>

Norges Bank Investment Management Discussion Note “Risk and Return of Different Asset Allocations” Available at:

https://www.nbim.no/contentassets/bce455b7ad024b798195059e5de0fcb4/discussion_note_2-16_risk_and_return_of_different_asset_allocations.pdf

Annual report of the Teachers’ Retirement System of the State of Illinois

https://trsil.org/sites/default/files/documents/CAFR-FY2019_1.pdf

(5) The Capital Asset Pricing Model

Tools: CAPM, the market portfolio, expected returns on individual securities, cost-of-capital

Applications: (i) Assessing performance of mutual funds

Reading: BKM Chapter 9 “The Capital Asset Pricing Model”

Ariel Investments Appreciation Fund

<https://www.arielinvestments.com/aaf/>

<https://www.morningstar.com/funds/xnas/caapx/portfolio>