Economics 360-2	Northwestern University	Investments
Masako Ueda	Department of Economics	Winter 2024

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Office Hours: Tuesdays 9:00-11:00am @KGH 3195 or zoom, or by appointment
Lectures: MW 9:30-10:50am @University Hall 121
Prerequisites: Econ 360-1, Corporate Finance or equivalent
Teaching Assistant: Luxi Han, luxihan2024@u.northwestern.edu
Discussion Section: F 9:30-10:20am @University Hall 121

Goal

The goal of this course is to introduce students to the theories and techniques involved in forming a portfolio of securities. In particular, by the end of the quarter, students should be familiar with the existing set of financial instruments and the related terminology, have an understanding of the tradeoffs facing investors, and have the ability to evaluate alternative investment strategies. Much of the course will rely heavily on statistics and economics and their applications in real-world finance are emphasized. Topics related to security selection will be discussed, but the primary focus of the course is on the creation of optimal portfolios of securities. Topics include asset allocation, asset pricing models, market efficiency, anomalies, performance evaluation and fixed-income securities.

Readings

- Required Texts: Investments 13th edition, by Bodie, Kane and Marcus, McGraw-Hill. Earlier editions are also fine.
- HBSP Cases: (1) Asset Allocation at the Cook County Pension Fund, (2) Thompson Asset Management, (3) Arbitrage in Government Bond Market and (4) Strategic Capital Partners. The link to purchase these cases will be posted in canvas.
- Other materials: Several short readings, handout, problem sets and their suggested solutions and sample exams to be posted at canvas.northwestern.edu.

Excel and Python

We often use Excel in the classroom. If you are not comfortable with Excel, please get in touch with me for tutorials. This course also uses the programming language Python. Please install Anaconda, which is a Python software package, along with pandas_datareader onto your laptop before the first discussion section on Friday January 5.

- For installation of Anaconda, see https://python-programming.quantecon.org/intro.html
- For installation of pandas_datareader, execute "conda install -c anaconda pandas-datareader" in Terminal in mac and Command Prompt in Windows.

We use pre-written Python programs and do not go into their details.

Grading

There are one midterm and a final exam which jointly count towards 65% of your course grade. The exam grade will be determined from the *higher* of the following two weighted averages:

(1) 25% 1st midterm exam, and 40% final exam;
(2) 10% 1st midterm exam, and 55% final exam.

There are 6 graded problem sets. I will drop the lowest problem set score from your grade. The remaining five problem sets will each account for 6% of your grade, for a total of 30% of your final grade. The background survey accounts for 1% of your grade. The last 4% of the grade is based on class etiquettes and contribution.

The midterm exam is scheduled in a regular class. *The final exam* is cumulative and scheduled on 9-11am on Friday March 15th. End-of-chapter problems and sample exams (to be posted on canvas) will provide valuable practice for the midterm and final. Some problem sets contain such practices but not many.

The problem sets will mostly require you to obtain and make use of real-world financial data or to analyze a case and thus will give you an idea of how theory connects to reality. Students may form study groups; each group consists of at most **three** people, and submits one write-up for the problem sets. Late problem sets will not be accepted. Some problem sets are challenging and graded mainly on the basis of completion.

Class contribution is required to enrich the learning environment and make the class more interesting and beneficial for everyone involved. In addition, it is good preparation for future endeavors in the business world.

Class contribution can be demonstrated in three ways. First, you can contribute to class by speaking in class. Second, you can post constructive questions/suggestions/articles about the class material, problem sets and cases, on the online forum. Third, you can e-mail me written feedback about the course. Disturbing behaviors count as negative contribution.

If you would like your exam regraded, email me telling why you feel the current grade is incorrect within one week of the day on which the exam was returned. Then, we will regrade the whole exam. Be aware that your grade may go down after regrading.

Open-book Exams
The two exams are both open-book, but hard. If you are trying to obtain a good grade, review the class materials including sample exams thoroughly before each exam.

Mobile Communications Policy
Mobile telephone devices should have the ringer turned off. Students may not make or receive phone calls, or send or receive text messages during class.

The Class Honor Code
Students are encouraged to work together when preparing for class, problem sets and exams. However, actual exams should be wholly your own individual effort. Any remaining questions or uncertainty should be discussed with me. Violating the class honor code will result in a harsh penalty. Students are also expected to treat classmates and the instructor with respect. This includes arriving for class on time and refraining from any disruptive behavior during class.

Academic Integrity
Students in this course are required to comply with the policies found in the booklet, "Academic Integrity at Northwestern University: A Basic Guide". All papers submitted for credit in this course must be submitted electronically unless otherwise instructed by the professor. Your written work may be tested for plagiarized content. For details regarding academic integrity at Northwestern or to download the guide, visit: https://www.northwestern.edu/provost/policies-procedures/academic-integrity/index.html

Accessibility Statement
Northwestern University is committed to providing the most accessible learning environment as possible for students with disabilities. Should you anticipate or experience disability-related barriers in the academic setting, please contact AccessibleNU to move forward with the university's established accommodation process (e: accessiblenu@northwestern.edu; p: 847-467-5530). If you already have established accommodations with AccessibleNU, please let me know as soon as possible, preferably within the first two weeks of the term, so we can work together to implement your disability accommodations. Disability information, including academic accommodations, is confidential under the Family Educational Rights and Privacy Act.

COVID-19 Classroom Expectations Statement
Students, faculty and staff must comply with University expectations regarding appropriate classroom behavior, including those outlined below and in the COVID-19 Expectations for Students. With respect to classroom procedures, this includes:

- Policies regarding masking, social distancing and other public health measures evolve as the situation changes. Students are responsible for understanding and complying with current University, state and city requirements.
- In some classes, masking and/or social distancing may be required as a result of an Americans with Disabilities Act (ADA) accommodation for the instructor or a student in the class even when not generally required on campus. In such cases, the instructor will notify the class.

If a student fails to comply with the COVID-19 Expectations for Students or other University expectations related to COVID-19, the instructor may ask the student to leave the class. The instructor is asked to report the incident to the Office of Community Standards for additional follow-up.

Exceptions to Class Modality
Class sessions for this course will occur in person. Individual students will not be granted permission to attend remotely except as the result of an Americans with Disabilities Act (ADA) accommodation as determined by AccessibleNU.

Prohibition of Recording of Class Sessions by Students
Unauthorized student recording of classroom or other academic activities (including advising sessions or office hours) is prohibited. Unauthorized recording is unethical and may also be a violation of University policy and state law. Students requesting the use of assistive technology as an accommodation should contact AccessibleNU. Unauthorized use of classroom recordings – including distributing or posting them – is also prohibited. Under the University's Copyright Policy, faculty own the copyright to instructional materials – including those resources created

specifically for the purposes of instruction, such as syllabi, lectures and lecture notes, and presentations. Students cannot copy, reproduce, display, or distribute these materials. Students who engage in unauthorized recording, unauthorized use of a recording, or unauthorized distribution of instructional materials will be referred to the appropriate University office for follow-up.

Support for Wellness and Mental Health
Northwestern University is committed to supporting the wellness of our students. Student Affairs has multiple resources to support student wellness and mental health. If you are feeling distressed or overwhelmed, please reach out for help. Students can access confidential resources through the Counseling and Psychological Services (CAPS), Religious and Spiritual Life (RSL) and the Center for Awareness, Response and Education (CARE). Additional information on all of the resources mentioned above can be found here:
https://www.northwestern.edu/counseling/
https://www.northwestern.edu/religious-life/
https://www.northwestern.edu/care/

Course Schedule (subject to minor change)

DAYS	TOPICS	IMPORTANT DATES
Jan 3	*Introduction and Review (Ch. 5)*	Intro to Python and Survey due Jan 5 (F)
Jan 8, Jan 10&17 (3 classes)	*Asset Allocation (Ch. 6-8)* Risk and Return, Capital Allocation, Portfolio Selection, Minimum Variance Frontier, Index Models	PS #1 due Jan 16 (Tue)
Jan 22, 24 & 29 (3 classes)	*Asset Pricing Models (Ch. 9-10)* CAPM, APT, Factor Models	PS #2 due Jan 25 (Thu)
Jan 31 & Feb 7 (2 classes)	*Market Efficiency and Anomalies (Ch. 11-13, 24)* Return Predictability, Behavioral Finance, Performance Measures	PS #3 due Feb 1 (Thu)
Feb 5 (M)	**MIDTERM EXAM**	
Feb 12, 14 & 19 (3 classes)	*Market Efficiency and Anomalies, cont'd*	PS #4 due Feb 15 (Thu)
Feb 21, 26 & 28 (3 classes)	*Fixed Income Securities* Case: Arbitrage in Government Bond Market	PS #5 due Feb 29 (Thu)
Mar 4 & 6	*Limits to Arbitrage and Review Session* Case: Strategic Capital Partners	PS #6 due Mar 7 (Thu)
Mar 15 (F)	**Final EXAM, 9:00-11:00am**	