

# UNIVERSITY OF HOUSTON

## FINA 7A23, Portfolio Theory & Practice Spring 2021

### University Policy Notice: Recording of Class:

Students may not record all or part of class, livestream all or part of class, or make/distribute screen captures, without advanced written consent of the instructor. If you have or think you may have a disability such that you need to record class-related activities, please contact the Center for Students with DisABILITIES. If you have an accommodation to record class-related activities, those recordings may not be shared with any other student, whether in this course or not, or with any other person or on any other platform. Classes may be recorded by the instructor. Students may use instructor's recordings for their own studying and notetaking. Instructor's recordings are not authorized to be shared with anyone without the prior written approval of the instructor. Failure to comply with requirements regarding recordings will result in a disciplinary referral to the Dean of Students Office and may result in disciplinary action.

### University Policy Notice: Syllabus Changes:

Due to the changing nature of the COVID-19 pandemic, please note that the instructor may need to make modifications to the course syllabus and may do so at any time. Notice of such changes will be announced as quickly as possible.

**INSTRUCTOR:** Guojun Wu, Ph.D. Professor of Finance  
**OFFICE:** Melcher 220F  
**OFFICE HOURS:** Email for Zoom sessions  
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### COURSE MATERIALS:

Required:

“Investments”, Bodie, Kane, and Marcus, 12<sup>th</sup> edition, McGraw-Hill.  
ISBN 978-1260013832 (earlier edition acceptable)

Recommended:

Class notes, cases, and readings on Blackboard

### COURSE DESCRIPTION:

This course covers the portfolio theory, its applications and several other important concepts in investment management.

The development of portfolio theory is considered a major achievement of modern finance. This course begins by looking at the history of interest rates and returns of assets of different risk levels. This leads to the discussion of investor's attitude toward risk and risk aversion, and naturally the relationship between risk and expected return. The analysis of portfolio starts with

the simple case of two assets and then generalizes to the N-assets case. The concept of optimal portfolio and the efficient frontier are then developed.

The application of portfolio theory and the CAPM begins with the popular concept of “beta” and the index models. Investment philosophies are presented with the discussion of passive versus active management, indexing strategies, ETFs and market timing strategies. Finally financial modelling and arbitrage trading strategies are discussed.

## **COURSE WEBSITE**

Course materials other than the textbooks are posted on the website. You should check the website regularly, and it should be the first place you want to look for course related information or if you have questions regarding assignments and cases.

## **CASES**

Case package at  
<https://hbsp.harvard.edu/import/811735>

There might be one or two cases for assignment in the course. You are expected to form groups of three or four members. In order to deal fairly with evaluation problems, every group member will be required to submit a participation grade for every other member at the final quiz (on a scale of 1 to 10).

The written case report PPT is due at the beginning of the assigned class period. No late submissions will be accepted. The analysis should consist of specific and concise responses to the case questions, supported by tables or quantitative analysis as required. For each case, one or more groups will be assigned to present their analyses in class. The presentation itself will not be graded. You are encouraged to email the presentation slides to me a day before the discussion.

## **QUIZ**

There will be an in-class final quiz at the end of the seven-week term. The quiz is open book, open notes.

## **ATTENDANCE**

Students should attend all live Zoom classes during class time.

**UH Absence Policy:** Regular class attendance, participation, and engagement in coursework are important contributors to student success. Absences may be excused as provided in the University of Houston Undergraduate Excused Absence Policy and Graduate Excused Absence Policy for reasons including: medical illness of student or close relative, death of a close family member, legal or government proceeding that a student is obligated to attend, recognized professional and educational activities where the student is presenting, and University-sponsored

activity or athletic competition. Additional policies address absences related to military service, religious holy days, pregnancy and related conditions, and disability.

## **GRADE**

Your grade will be determined according to the following weighting scheme:

Case Reports	50%
Quiz	50%

## **COURSE OUTLINE: (subject to change by the instructor during the semester)**

*Pay attention to announcements in class for due dates.*

Monetary Policy and Interest Rate Dynamics  
Asset Classes and Risk Premium  
Portfolio Diversification and Capital Allocation

Readings: BKM Chapter 5-6  
*Dimension Fund Advisors, 2002* [HBS Case]

Construction of Optimal Portfolios

Readings: BKM Chapter 7  
*Investments: Delineating an Efficient Portfolio* [HBS Case]

### **CASE Assignment: Ontario Teachers' Pension Plan Board: The Asset Allocation Decision**

Investment Philosophies and Strategies

Readings: BKM Chapter 11  
*Martingale Asset Management* [HBS Case]

Passive and Indexing Investment Strategies, ETFs

Readings: BKM Chapter 8, 10  
*Vanguard Group, Inc., in 2006 and Target Retirement Funds* [HBS Case]  
*Exchange-Traded Funds at Vanguard (A)* [HBS Case]

Market Timing, Arbitrage and Trading

Readings: Lecture notes  
*Fixed Income Arbitrage in a Financial Crisis (A, B): US Treasuries in November 2008* [HBS Case]  
*AQR's Momentum Funds (A, B)* [HBS Case]

QUIZ (posted to Blackboard)