University of St Andrews

BUSINESS SCHOOL,
DEPARTMENT OF MANAGEMENT
DEPARTMENT OF FINANCE **2024-25**

FI5611 – PORTFOLIO MANAGEMENT & INVESTMENT

MODULE TYPE/SEMESTER: Core (20 credits), Semester 2

MODULE CO-ORDINATOR: Prof. Dimitris Chronopoulos (co-taught by Dr. George Kladakis)

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AIM:
The aim of the course is to become familiar with the theory and empirical evidence related to portfolio management and investment analysis. By the end of the module, students will have the opportunity to develop their ability to critically understand current theoretical and empirical methods in field of portfolio management. Topics will include choice theory under uncertainty, optimal portfolio construction, and active management strategies. Emphasis will be on empirical applications of theoretical concepts.

METHOD OF TEACHING & LEARNING:
TEACHING: 10 Weeks, 2 hours per week
TUTORIALS: 10 Weeks, 1 hour per week
Office Hours: TBA

LEARNING OUTCOMES:
Knowledge & Understanding / Intellectual Skills
Students learn to analyze and audit an environment using publicly available information. They learn to sort and assess the validity and importance of information.

Module Specific / Practical Skills; Transferable / Key Skills
Understand the principles and theories underlying portfolio management. Knowledge of the key issues in asset allocation and portfolio composition at an advanced level Knowledge of modern portfolio theory to optimize portfolio construction and asset allocation. Communicate effectively about investment strategies and investment recommendations to stakeholders.

INDICATIVE TOPIC OUTLINE:
Knowledge of portfolio theory, investment policy and asset allocation techniques.
Content and Structure:
Week 1

1. Definitions of concepts (Time value of money; Asset returns calculations; Risk and uncertainty)
   Readings: Investments Ch. 5 & Mathematics for Economics Ch 8
2. Uncertainty, Risk Preference, and Expected Utility Theory Part I (The portfolio selection problem; Expected utility theory)
   Readings: Microeconomic Analysis Ch. 11;

Week 2
1. Uncertainty, Risk Preference, and Expected Utility Theory Part II (Markowitz risk premium; Arrow-Pratt measures of risk aversion; Mean-variance framework);
   Readings: Investments 6.1; Tobin J., (1958), Financial Theory and Corporate Policy Ch. 3.A-D & Ch. 3.F; "Liquidity Preference as Behavior Towards Risk.", Review of Economic Studies, 67: 65-86.

Week 3
1. Mean-Variance Portfolio Theory (The combination line; Feasible set; Efficient frontier; Optimal portfolio; Two fund monetary separation theorem)
   Readings: Investments Ch. 7; Reilly & Brown Ch. 7.

Week 4
1. The Single index model
   Readings: Investments Ch. 8

Week 5
1. The CAPM
   Readings: Investments Ch. 9

Week 6
1. Index investing and portfolio performance analysis
   Readings: Ch. 24 Bodie et al.

Week 7
1. Fixed income securities
   Readings: Ch. 14 and 15 Bodie et al.

Week 8
1. Investing with derivatives (options and forward/futures)
   Readings: Ch. 20, 21 and 22 Bodie et al.

Week 9
1. Empirical evidence on asset pricing models
   Readings: Ch. 12, 13 Bodie et al.

Week 10
1. Credit risk and the role of credit rating agencies
   Readings: Journal articles (see reading list)

ASSESSMENT:
The structure of the course will consist of regular lectures and tutorials.

- **Coursework 1**
  In person online quiz. Week 8 (40%) (*students are not allowed to return to previous questions in online quizzes*).
- **Coursework 2**
  Project. Week 9 (20%)
- **Coursework 3**
  In person nline quiz. Week 12 (40%) (*students are not allowed to return to previous questions in online quizzes*).

READING LIST:
Textbook: The main textbook for this module is currently available in the library on short and long loan basis.

- Zvi Bodie, Alex Kane, and Alan J. Marcus, *Investments,* (11th Ed.), McGraw-Hill, Irwin, 2018. *(primary module textbook)*
- Copeland T.E., J.F. Weston and K. Shastri, *Financial Theory and Corporate Policy* (4th Ed.), Harlow, Essex Pearson, 2014.

Supplement Textbooks:

- Sharpe, W., Alexander, G. and Bailey, J. (1999) *Investments*, Prentice Hall, 1999.
- Elton, J.E., Gruber, J.M., Brown, J.S., and Goetmann, N.W. (2007) *Modern Portfolio Theory and Investment Analysis*, (6th Ed.), Wiley.
- Reilly F. and K. Brown (2006) *Investment Analysis and Portfolio Management*, (8th Ed.), Thomson South-Western.
- Hoy et.al., *Mathematics for Economics*, 2nd Ed., MIT Press, 2001.
- Huang, C.F. and R.H. Litzenberger*, Foundations for Financial Economics*, North-Holland, 1988. (Advanced Textbook)

Optional Reading:

- B. Malkiel. A random walk down wall street. WW Norton & Co, 2000.
- P. Bernstein. Capital Ideas. Free Press, 1992.
- R. Haugen. The new finance: The case against efficient markets. (2nd Ed.), Prentice Hall, 1999.
- B. Warwick. Searching for Alpha. Wiley, 2000.
- N. Taleb. Fooled by randomness: The hidden role of chance in markets and life. Texere, 2001.

Journal articles on Credit Rating Agencies:

- Ahmed, A. S., Wang, D., & Xu, N. (2024). An empirical analysis of the effects of the Dodd–Frank Act on determinants of credit ratings. *Journal of Business Finance & Accounting*, *51*(1-2), 363-397.
- Bolton, P., Freixas, X., & Shapiro, J. (2012). The credit ratings game. *The Journal of Finance*, *67*(1), 85-111.
- Bongaerts, D., Cremers, K. M., & Goetzmann, W. N. (2012). Tiebreaker: Certification and multiple credit ratings. *the Journal of Finance*, *67*(1), 113-152.
- Griffin, J. M., Nickerson, J., & Tang, D. Y. (2013). Rating shopping or catering? An examination of the response to competitive pressure for CDO credit ratings. *The Review of Financial Studies*, *26*(9), 2270-2310.
- Jiang, J. X., Stanford, M. H., & Xie, Y. (2012). Does it matter who pays for bond ratings? Historical evidence. *Journal of Financial Economics*, *105*(3), 607-621.
- Jones, L., Alsakka, R., ap Gwilym, O., & Mantovan, N. (2022). Regulating rating agencies: A conservative behavioural change. *Journal of Financial Stability*, *60*, 100999.