

# ASSET PRICES AND INVESTMENT STRATEGIES

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# Asset Prices and Investment Strategies

## (i) Course Description

This course provides a rigorous panoramic analysis of the **interplay between asset pricing theory, investment strategies and the empirical evidence with and without funding liquidity related market frictions (borrowing constraints)**.

- We present a unified treatment of asset pricing models using the **stochastic discount factor framework**, and discuss several key aspects of asset pricing as consumption risk, time-varying expected returns, predictability of future returns, non-separable preferences, and multi-factor asset pricing models.
- We also discuss relevant implications for investment strategies.
- Finally, we present asset pricing models with funding liquidity restrictions, and intermediary asset pricing models.

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## (ii) Requirements

- The target audience for this course is economics and finance graduate students. The course presumes some exposure to graduate introductory courses in finance, economics, statistics and econometrics. The grade will be based on weekly problems and empirical exercises with real data and a final exam.
- Weekly exercises by groups of 3 people will represent 40% of the grade. A closed book final exam will represent 60% of the course. All students must obtain at least 4 points out of 10 in the final exam for the 40% of the group exercises to be taken into account in the final grade. Also, class attendance is strictly necessary to compute the group points in the final grade.
- The final exam will consist of multiple choice questions in which you will have to justify your answer.

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## (iii) Contents

### *1. Foundations of Asset Pricing and Investments*

- 1.1 Foundations of Asset Pricing and Investments
- 1.2 Time-Varying Expected Returns
- 1.3 Factor Risks

### *2. The Stochastic Discount Factor Theory of Asset Pricing*

- 2.1 The Stochastic Discount Factor Theory of Asset Pricing
- 2.2 Time-Varying Expected Returns and Predictability
- 2.3 Stochastic Discount Factors: General Properties and Risk-Neutral Pricing
- 2.4 Stochastic Discount Factors and Beta Pricing Models

### *3. Macro-Finance Asset Pricing Models*

- 3.1 An Overview
- 3.2 Macroeconomic Factors and the Consumption-Based Asset Pricing Model
- 3.3 Consumption-Based Asset Pricing Models with Non-Separability
  - 3.3.1 Recursive Preferences
  - 3.3.2 Habit Preferences

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## ***4. Factor Pricing***

- 4.1 Factor Pricing Theory: An Overview
- 4.2 Static Factors and the Capital Asset Pricing Model (CAPM)
- 4.3 Dynamic Factors and Multifactor Asset Pricing Models
- 4.4 Quality at a Reasonable Price (QARP)
- 4.5 Value and Momentum
- 4.6 The Performance of Dynamic Factors Asset Pricing Models
- 4.7 Factor (Not Assets) Optimal Allocation
- 4.8 Intertemporal Asset Pricing Models with Non-Separability and Rebalancing

## ***5. Factor Pricing with Funding Liquidity and Leverage***

- 5.1 Liquidity Risk: Market-Wide Liquidity Shocks and Asset Pricing
- 5.2 Funding Liquidity Risk: The Margin-Based CAPM
- 5.3 Intermediary Asset Pricing Models

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## References

- **Andrew Ang**, *Asset Management: A Systematic Approach to Factor Investing*, Oxford University Press, 2014
- Kerry Back, *Asset Pricing and Portfolio Choice Theory*, Oxford University Press, 2010
- John Cochrane, *Asset Pricing*, Princeton University Press, 2005
- Antti Ilmanen, *Expected Returns on Major Asset Classes*, Wiley Global Finance, 2012
- George Pennachi, *Theory of Asset Pricing*, Pearson-Addison Wesley, 2008
- Lasse H. Pedersen, *Efficiently Inefficiently*, Princeton University Press, 2015