# Hong Kong University of Science and Technology
# Department of Finance

FINA790b: Empirical Finance

**Part 1: Issues and Methodologies in Asset Pricing** **Chu Zhang**

## Course Description

Part one of the course covers various issues and empirical methods in asset pricing studies. It begins with the concept of efficient market and several tools frequently used in empirical studies of finance. The first issue to be examined is the time-series properties of asset prices in terms of return predictability, followed by the issues of excess volatility, the equity premium puzzle, and the risk-return relationship for aggregate markets. The focus is then turned to the cross-sectional implications of asset pricing models, which cover the methods of testing the relationship between expected returns and the betas with respect to systematic factors, including the Fama-MacBeth two-pass methodology, Gibbons-Ross-Shanken test, latent-variable tests, and the stochastic discount factor (SDF) approach. Issues and methods of identifying systematic factors will then be discussed.

## Class Schedule and Content

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| Lecture 1: | Asset Pricing Fundamentals/ A Toolkit of Empirical Analysis |
| Lecture 2: | Return Predictability |
| Lecture 3: | Excess Volatility/ Equity Premium Puzzle |
| Lecture 4: | Risk-Return Relationship |
| Lecture 5: | Tests of Beta Pricing Models |
| Lecture 6: | The Stochastic Discount Factor Approach |
| Lecture 7: | In Search of Asset Pricing Factors |

## Textbooks

**(CLM)** Campbell, J.Y., Lo, A.W. and MacKinlay, A.C., 1997, *The Econometrics of Financial Markets*, Princeton University Press.

**(Coch)** Cochrane, John, 2006, *Asset Pricing*, Princeton University Press.

**(Hami)** Hamilton, J., 1994, *Time Series Analysis*, Princeton Press.

About 40% of the course material will be drawn from textbooks. The rest will be based on journal papers.