Topics in Finance I, Part II

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Objective

Part II of the Topics in Finance I course builds on the empirical asset pricing course. Its aim is to make students familiar with topics of interest such as the expected utility paradigm, portfolio choice under uncertainty, arbitrage pricing theory, complete markets, and topics in empirical asset pricing. Depending on time constraints, one lecture may be devoted to the informational content of option prices for stock selection, asset allocation, risk management, and market timing. Attention will be drawn on a number of papers.

Assessment

Part II will be assessed by means of (i) a two hour exam counting for 60% of Part's II final grade, (ii) an in-class presentation of one paper selected from a list of paper described below; 30 minutes will be allocated to the presentation of each paper. You are expected to have understood the allocated papers in-depth and to have become familiar with the related literature and techniques. Replication of each paper is also expected. In-class presentations will count for 30% of Part's II final grade, (iii) A referee's report on the assigned paper. The referee's report will count for 10% of Part's II final grade and it should be submitted before the presentation date.

Course Outline

Section 1: **Expected utility, risk aversion and risk premium**

- VNM foundations: Sketch
- Risk aversion
- Measuring the risk premium (Markowitz risk premium, Pratt-Arrow measure)
- Standard & behavioral utility functions
- Intertemporal choice & Recursive preferences

Section 2: **Portfolio Choice**

- The role of risk premium, risk aversion and initial wealth.
- The effect of preferences
- Optimal portfolio choice and initial wealth
- Markowitz theory
- Two fund separation theorem & Optimal portfolio choice

Section 3: Arbitrage Pricing Theory

- Definition of arbitrage
- Derivation
- APT vs CAPM

Section 4: Complete Markets

- Complete markets: Hedging and relative pricing
- Arrow-Debreu securities
- Change of probability measure
- The binomial option pricing model

Section 5: Topics from empirical finance[1]

- Portfolio construction
- Financial derivatives: The informational content of derivatives' prices for quantitative asset management

[1] It will be covered should time constraints allow.

Recommended Bibliography

The Lecturer's notes will be distributed. These draw on material from the course textbooks and recommended references.

Textbooks

Cochrane, J.H., (2005). *Asset Pricing*, Revised Edition, Princeton University Press. (Chapters 1-10 and Chapter 20).

Danthine, J-P. and Donaldson, J.B., (2005). *Intermediate Financial Theory*, Second Edition, Elsevier Academic Press (Chapters 3-7).

Pennacchi, G., (2008). *Theory of Asset Pricing*, Pearson Addison-Wesley Series in Finance.

Students may also find useful to go through

Copeland, T.E., Weston, F.J., and Shastri, K. (2004). *Financial Theory and Corporate Policy*, 4rth edition, Prentice Hall.

Helpful articles to conduct your assessments

Harvey, C.R. Reflections on Editing the Journal of Finance, 2006-2012

Journal of Financial Economics, Tips for Authors by René M. Stulz, http://jfe.rochester.edu/tips.htm

Pedersen, L.H. How to Succeed in Academia or ~~Die Trying~~ Have Fun Trying, Slides, New York University.

Thomson, W. (1998). Guidelines on Writing Referee Reports, Working paper, Rochester Centre for Economic Research.

Berk, J. B., Harvey, C. R., Hirshleifer, D., (2015). Preparing a Referee Report: Guidelines and Perspectives

Papers

Campbell, H., and Ferson, W. (1991). The variation of economic risk premiums, *Journal of Political Economy* 99, 285-315.

Carr, P., and L., Wu (2009). Variance risk premiums, *Review of Financial Studies* 22, 1311-1341.

Chang, B., Christoffersen, P., Jacobs, K., and G. Vainberg, (2012). Option-implied measures of equity risk, *Review of Finance* 16, 385-428

Christoffersen, P., Chang, B., and Jacobs, K. (2013), Forecasting with Option Implied Information. In *Handbook of Economic Forecasting*, Volume 2, Elliott and Timmermann (Editors).

Daskalaki, C., Kostakis, A., and Skiadopoulos, G. (2014). Are there Common Risk Factors in Commodity Futures Returns?, *Journal of Banking and Finance* 40, 346-363.

Daskalaki, C. and Skiadopoulos, G. (2011). Should Investors include Commodities in their Portfolios after All? New Evidence, *Journal of Banking and Finance* 35, 2606-2626.

DeMiguel, V., L. Garlappi, and R. Uppal, (2009). How Inefficient are Simple Asset Allocation Strategies?, *Review of Financial Studies* 22, 1915-1953.

De Roon, F.A., Nijman, T.E., and C. Veld, (2000). Hedging Pressure Effects in Futures Markets, *Journal of Finance* 55, 1437-1456.
Faccini, R., Konstantinidi, E., Skiadopoulos, G. and Sarantopoulou, S. (2016). A New Predictor of Real Economic Activity: The S&P 500 Option Implied Risk Aversion (on-going research, to be distributed in class).
Fama, E.F., French, K.R., (1993). Common Risk Factors in the Returns on Stocks and Bonds, *Journal of Financial Economics* 33, 3–56.
Fama, E.F., French, K.R., (1996). Multifactor Explanations of Asset-Pricing Anomalies, *Journal of Finance* 47, 426-465.
Giamouridis, D. and Skiadopoulos, G. (2012). The Informational Content of Financial Options for Quantitative Asset Management: A Review. In *Handbook of Quantitative Asset Management*, B. Scherer and K. Winston (Editors), Oxford University Press.
Gorton, G. and Rouwenhorst, G. (2006). Facts and Fantasies about Commodity Futures, *Financial Analysts Journal*, 62 (March/April), 47-68.
Gorton, G.B., Hayashi, F., and G.K. Rouwenhorst, (2012). The Fundamentals of Commodity Futures Returns, *Review of Finance* 17, 35-105.
Kostakis, A., Panigirtzoglou, N., and Skiadopoulos, G. (2011). Market Timing with Option-Implied Distributions: A Forward-Looking Approach, *Management Science* 57, 1231-1249.
Skiadopoulos, G. (2013). Advances in the Commodity Futures Literature: A Review, *Journal of Derivatives* 20, 85-96.

(tentative) List of papers for in-class presentations

I divide the list of papers in four broad areas where you can choose from: Asset pricing, Liquidity, Portfolio choice and Risk management, and Predictability. You are more than welcome to suggest to present an alternative paper subject to my approval.

Asset pricing

Adrian, T., Etula, E., Muir, T., 2014. Financial intermediaries and the cross-section of asset returns. *Journal of Finance* 2557-2596.

This paper ties financial intermediaries to asset pricing

Balvers, R.J., Huang, D., 2009. Money and the C-CAPM. *Journal of Financial and Quantitative Analysis* 44, 337–368.

This paper ties money supply to asset pricing

Broadie, M.; Chernov, M. and M. Johannes, 2009. Understanding Index Option Returns, *Review of Financial Studies*, 22, 4493–4529.

This paper is about asset pricing for options

Chang, B., P. Christoffersen, and Jacobs, K. (2013). Market Skewness Risk and the Cross-Section of Stock Returns. *Journal of Financial Economics* 107, 46-68.

This paper is about risk-neutral skewness as a factor

Hou, K., Kim, S., and I. M. Werner (2016) (Priced) Frictions. Working paper, Ohio State University.

This paper is about frictions and asset pricing

Liquidity

Acharya, V. and Pedersen, L.H., 2005. Asset Pricing with liquidity risk, *Journal of Financial Economics* 77, 375-410.

This paper develops a model where liquidity is a priced factor.

Portfolio choice and Risk management

DeMiguel, V., L. Garlappi, and R. Uppal, 2009, How inefficient are simple asset allocation strategies?, *Review of Financial Studies* 22, 1915-1953.

This paper is about sophisticated and naive asset allocation strategies

Buss, A. and Vilkov, G. (2012). Measuring Equity Risk with Option-Implied Correlations. *Review of Financial Studies* 25, 3113-3140.

This paper is about estimating beta from option prices

Predictability

Bollerslev, T., Tauchen, G. and Zhou, H., 2009. Expected stock returns and variance risk premia. *Review of Financial Studies* 22, 4463-4492.

Variance risk premium as a predictor of stock returns: Theory and evidence

Bollerslev, T., Marrone, J., Xu, L., and H. Zhou (2014). Stock Return Predictability and Variance Risk Premia: Statistical Inference and International Evidence. *Journal of Financial and Quantitative Analysis* 49, 633-661.

Variance risk premium as a predictor of stock returns: International evidence

Hong, H., and M., Yogo, (2012) What does future market interest tell us about the macroeconomy and asset prices?, *Journal of Financial Economics*, 105, 473–490.

This is a paper about the role of the markets open interest as a predictor for the markets' returns

About the Lecturer

George Skiadopoulos is a Professor of Finance in the *School of Economics and Finance* at *Queen Mary University of London* and a Professor in Financial Derivatives at the *University of Piraeus* in the *Department of Banking and Financial Management*. He is also an Honorary Senior Visiting Fellow in the Faculty of Finance at *Cass Business School*, City University and an Associate Research Fellow at Warwick Business School.

He graduated from the Department of Economics of the Athens University of Economics and Business (AUEB) having a first class degree and ranked first in his graduating class. He holds a Ph.D. in Finance from the University of Warwick and an M.Sc. in Mathematical Economics and Econometrics from the London School of Economics.

His research interests lie in the areas of empirical asset pricing, investments and financial derivatives. His work has been published in academic journals such as the *Management Science*, *Journal of Financial and Quantitative Analysis*, *Journal of Banking and Finance*, the *International Journal of Forecasting*, etc. He serves in the editorial Boards of the *Journal of Banking and Finance*, *Journal of Business Finance and Accounting*, *Journal of Derivatives*, *Journal of Commodity Markets,* and *Multinational Finance Journal*.

Before joining academia, George worked in the R&D department of the Athens Derivatives Exchange. He has also acted as a consultant to hedge funds and leading Greek financial institutions. He has taught at a number of UK and Greek Universities and he has provided a number of executive training courses internationally. His research has received a number of grants from organizations like the Chicago Mercantile Exchange, the J.P. Morgan Centre of Commodities, University of Colorado at Denver, the Athens Derivatives Exchange, the Portuguese Ministry of Technology, and the Fondazione Cassa di Risparmio (Italy). George has also served as an evaluator for a number of grants including the prestigious Onassis Prize in Finance and he has also served in the Academic Advisory Board of the Professional Risk Managers International Association (PRMIA). For more information, please visit http://web.xrh.unipi.gr/faculty/gskiadopoulos