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Return and Risk Revisited

SUMMARIES

Francis Longstaff, University of California, Los Angeles
Keynote Speaker
Finance and Macroeconomics

Richard Roll, California Institute of Technology
Speaker
A Protocol for Factor Identification

Discussant: Andrew Wilson, Fidelity Investments

Several hundred factor candidates have been suggested in the finance literature. We propose a protocol for determining which factor candidates are related to risks and which candidates are related to mean returns. Factor candidates could be related to both risk and returns, to neither, or to one but not the other. A characteristic such as firm size, or anything else known in advance, cannot be a factor. However, characteristics can be related to mean returns either because they happen to align with factor loadings or because they represent arbitrage opportunities. Pervasive factors with accompanying risk premium should be related to the covariances among returns on assets held in the aggregate market portfolio. Time variation in both risk premiums and covariances is a challenge, but manageable with recently developed statistical procedures. We illustrate those techniques and also propose a new instrumental variables method to resolve the errors-in-variables problem in estimating factor exposures (betas) for individual assets.

Bradford Cornell, Ph.D., and Jason Hsu, Ph.D.
Speaker
The Self-Fulfilling Prophecy of Popular Asset Pricing Models

Raymond Iwanowski, Secor Asset Management

A fundamental question in asset pricing is what determines the cross-section of expected returns. Modern finance offers a theoretically elegant answer which takes it for granted that prices are set by end investors maximizing their expected lifetime utility from consumption. The analysis

implies that expected returns are a function of the covariance between security returns and per capita consumption growth.

Despite its appealing simplicity, the theory crucially depends on the counterfactual assumption that end investors make their own investment decisions. The traditional modeling framework has also failed in practice; it does not account for actual asset prices. In reality, due to cognitive limitations as well as constraints on the amount of time and information they have available, end investors delegate investment decision-making to an asset management ecosystem in which they play almost no role in setting prices. Instead, active, fundamentals-oriented portfolio managers set prices. This view of the institutional context gives rise to a provocative self-fulfilling prophecy. The cross-section of expected returns under such circumstances is determined by the discount rate models employed by these fundamental investors. Consequently, *the models not only describe expected returns, they also determine them.*

This hypothesis has numerous implications for both the theory of asset pricing and the practice of value-oriented investment management. For example, suppose that the historical value premium, which economists have attributed to an objective but hidden risk proxied by the HML factor, were actually the result of cognitive biases and behavioral mistakes. Even if the psychological origin were widely accepted, investment decision makers' continuing to include the HML beta in discount rate calculations would lead to the persistence of the value premium, rather than to its weakening or disappearance. That an asset pricing model can generate a self-fulfilling prophecy makes finance theory much less academic.

Investors Do Not Get Paid for Bearing Risk
Speaker
Harry M. Markowitz, Harry Markowitz Co.

Discussant: Cel Kulasekaran, Windham Capital Management, LLC

The relationship between the excess return of each security and its beta, where beta is defined as its regression against the return on the market portfolio, is linear in the Sharpe–Lintner ("S–L") Capital Asset Pricing Model ("CAPM"). This linear relationship is often interpreted to mean that CAPM investors are paid for bearing systematic risk. In this article, I will show that this is not a correct interpretation because two securities may have identical risk structures in terms of their covariances with other securities in the market, yet have different excess returns. In fact, if the parameters of the CAPM are generated in a natural way, then securities with the same risk structure almost surely will have different expected returns.

Ronald N. Kahn, BlackRock, Inc.
Speaker
Managing Multiple Managers 2.0

Discussant: Sharon Hill, Delaware Advisors

Managing multiple managers is a central challenge facing almost all investors. The standard approach, which goes back several decades, involves mean/variance optimization applied to the portfolio of funds. Our experience managing a multi-strategy hedge fund through the financial crisis has helped us identify several issues with this approach:

— It is very sensitive to errors in forecast correlations.
— It leads to portfolios with low predicted risk, but high predicted Information Ratios. The textbook answer to this is to add leverage, however that is problematic post the financial crisis.
— The portfolio's risk budget is more concentrated in generic ideas than are the risk budgets of the underlying funds.

These issues can lead to surprisingly negative tail events during crisis periods.

While there are no magic bullets to overcome these issues, we advocate increasing the concentration of the underlying funds, focusing them on orthogonal ideas, and running the funds to be part of a multi-strategy fund rather than a standalone fund. Multi-strategy funds have more flexibility here, as they control the underlying funds. The general challenge facing most investors is more difficult.

Sanjiv Das and Dan Ostrov, Santa Clara University
Speaker
Efficient Rebalancing of Taxable Portfolios

Discussant: Ananth Madhavan, BlackRock, Inc.

This paper presents tax-optimized rebalancing strategies for individuals over their entire life cycle under a tax regime based on the American tax model. We design a simulation model to find the tax efficient stock holding range that maximizes the expected utility of terminal wealth. Comparative statistics are presented for variations in market, tax, and investment parameters, including the effect of varying the rebalance frequency, the effect of using the full cost basis vs. the average cost basis, and the effect of the investor living vs. dying on the date of the portfolio's liquidation. We find that many reasonable scenarios correspond to an optimal strategy of passively allowing the fraction of the stock to vary over a given, finite range, but many other reasonable scenarios correspond to this range shrinking to a point, necessitating continual trading. We also show that as tax rates on capital gains increase, paradoxically, investors are often better off increasing the fraction of their portfolio invested in stock.

David Turkington, State Street Global Exchange
Speaker

The Divergence of High and Low Frequency Estimation: Causes and Consequences

Discussant: Fei (Felix) Xu, Vanguard

Informed investors recognize that hedging at least some of a portfolio's currency exposure, in most cases, improves its quality, but the best approach for doing so is not often obvious. We investigate a variety of currency hedging strategies, including linear strategies, non-linear strategies, and combinations thereof, to help investors determine their most suitable strategy.

Although there is not a unique hedging strategy that is universally superior, we are able to quantify the advantages and disadvantages of various hedging strategies and draw several general conclusions. For example, more flexible hedging constraints offer greater potential for risk reduction, non-linear hedging strategies using options offer clear tradeoffs between the degree of protection and the cost of the strategies, and both linear and non-linear strategies can be combined using full-scale optimization to account for non-normal payout structures and investor-specific preferences.

Allan Timmermann, University of California, San Diego
Speaker
Network Centrality and Fund Performance

Discussant: Peter Lee, AlphaSimplex Group, LLC

A better understanding of how fund managers are able to outperform a reasonable, passive benchmark is crucial to many investment decisions in finance. This paper attempts to shed light on this question by considering the performance of a large cross-section of UK pension fund managers. Uniquely, we have data on how pension fund managers form networks through their sharing of clients (manager-manager overlap) or their appointment by the same consultant. We argue

that such connections can be viewed as proxies for information flows in the pension fund industry.

We find that centrality in the network of pension fund managers is associated with better risk-adjusted performance in asset classes such as domestic stocks and domestic bonds—markets in which local information is likely to play an important role as UK pension fund managers held a substantial fraction of the overall market. In contrast, we find no benefits from network centrality among UK pension fund managers and their performance in international equities. We find that network centrality within one asset class (e.g., domestic bonds) does not add to performance in another asset class (e.g., domestic equities), once the centrality within the other asset class is included. Finally, we find that network centrality effects are strongest for the largest funds in our sample, controlling for the size of the fund.