Shane Miller

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Academic Appointments

2020- Assistant Professor of Finance, Stephen M. Ross School of Business, University of Michigan

Education

2011 B.A. Economics/Mathematics University of Virginia, Charlottesville, VA

2020 Ph.D. Business Administration (Finance) Fuqua School of Business, Durham, NC

Research Interests

Asset Pricing, Macro-Finance, Econometrics

Research

"The Temporal Structure of Risk and the Cross-Section of Equity Returns"

I provide new evidence on the properties of the term structure of equity risk premia by using replication and no-arbitrage to estimate within-firm variation in expected returns across horizons. I demonstrate that a low dimensional set of returns and state variables provide a close replication of claims to firm capital gains at different horizons. Calculating returns from the no-arbitrage prices of these claims, I show that the term structure of risk premia is unconditionally upward-sloping for commonly used test assets like the market and book-to-market sorted portfolios. I derive nonparametric upper bounds on the prices of the replication errors to argue that these results are robust to the pricing of the basis risk of the replication. My method extends the literature by expanding both the span and scope of the data available to test term structure relationships while using prices of assets that are highly liquid relative to the existing derivative datasets.

"The Term Structure of Equity Risk Premia" with Ravi Bansal, Dongho Song, and Amir Yaron

Accepted, Journal of Financial Economics

We estimate a regime-switching model with traded equity dividend strips to show that the term structure of equity risk premia and discount rates are downward sloping in recessions and upward sloping in expansions. We find the results to be statistically significant and robust across the U.S., Europe, and Japan. The model-implied unconditional slope of the term structure of equity risk premia is positive across all regions albeit with large statistical uncertainty due to the small data set. We show that the standard asset

pricing models extended with regime-switching dynamics are able to reconcile both conditional and unconditional features of data.

"Are Creators Better Investors than Managers? Evidence from First-time Venture Funds." with David Brophy and Emmanuel Yimfor

We study the sources of cross-sectional variation in the performance of first-time venture capital (VC) fund partners (GPs). We find that, relative to GPs with startup experience (creators), GPs with VC experience (managers) are at least 20\% more likely to invest in successful deals or start a follow-on fund. Consistent with a network effect, we show that the higher success rate for managers primarily comes from joining successful syndicates, not from leading successful deals. Our results show that, in industries where proprietary access is an essential component of value-add, industry experience is an important element of success.

"Risk Evolution and Firm Dynamics" with Ravi Bansal and Dana Kiku

Work in Progress

We develop a framework to model the dynamics of growth and risk jointly at the firm, sectoral and aggregate market levels. In the model, risk sectors are cointegrated with the aggregate economy whereas individual firms they comprise are not. We show that these time-series dynamics have important implications for the cross-sectional distribution of growth and risk and are able to match the observed characteristics of the re-balanced and buy-and-hold portfolio strategies. In particular, we show empirically and theoretically that (i) in the cross section, expected growth, risk and risk premia are strongly positively correlated; (ii) the cross-sectional dispersion in expected growth rates, risks and returns declines with the investment horizon due to the stochastic evolution of firms' risk, and (iii) sectoral profitability is predictable by the scale of the sector. We exploit our dynamic framework to characterize and clarify the relationship between growth and cash-flow duration, the term-structure of risk premia, and the relative riskiness of claims on the existing and future firms.

Employment

Assistant Professor – Ross School of Business, University of Michigan (July 2020-Present)
Investment Analyst - University of Virginia Investment Management Co. (June 2011-June 2013)
Wealth Management Intern - Merrill Lynch GWM, Charlottesville, VA (Sept. 2010-April 2011)
Research Assistant - University of Virginia Economics Department (Summer 2010)

Professional Service

Referee – *Journal of Financial Econometrics, Journal of Financial Markets, Review of Financial Studies*
Program Committee – *European Finance Association 2021, 2022*

Teaching

Introductory Ph.D. Asset Pricing	Ph.D.	Lead Instructor
Financial Management	BBA	Lead Instructor
Advanced Investments	MBA	Head Teaching Assistant
Global Asset Allocation	MBA	Head Teaching Assistant
Global Financial Management	MBA	Head Teaching Assistant
Advanced Corporate Finance	MBA	Head Teaching Assistant

Workshop & Seminar Participation

Princeton Initiative: Macro Money and Finance (2015)
9th Macro-Finance Society Workshop (2017)
Northern Finance Association Annual Meeting (Discussant) (2020)

Academic Awards and Honors

Duncan Clark Hyde Outstanding Economics Major Award (2011)
Duncan Clark Hyde Award for Academic Achievement (2011)
Economics Distinguished Major – High Distinction (2011)
Phi Beta Kappa (2011)
Pi Mu Epsilon National Honorary Mathematics Society (2011)
University of Virginia Echols Scholar (2007-2011)