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Di 'Woody' Wu

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Academic Positions

2018-	Assistant Professor of Finance, City University of Hong Kong
Fall 2012	Visiting Assistant in Research, School of Management, Yale University
Fall 2011	Research Assistant, Hong Kong University of Science and Technology

Education

2018	Ph.D. in Finance, Leonard N. Stern School of Business, New York University Thesis committee: Yakov Amihud, Xavier Gabaix (Chair), Kose John, Ralph Koijen
2013	M.A. in Economics, Tsinghua University Advisor: Zhishu Yang
2010	B.A. in Economics, Tsinghua University

Research Areas

Asset Pricing

Teaching Experience

2019-21	Security Analysis and Portfolio Management (EF3320); Asset Management (EF4328), City University of Hong Kong
2018-19	Advanced Security Analysis and Portfolio Management (EF4320); Asset Management (EF4328), City University of Hong Kong
2015 Summer	Foundations of Finance (FINC-UB.0002.01), NYU Stern

Working Papers

1. "A Disaster Explanation of Equity Term Structures", revise and resubmit, Journal of Financial Economics

   This paper incorporates the dividend recovery feature into the variable disaster model of Gabaix (2012). The recovery redistributes risk to the short end and volatility to the long end, leading to the following equity term structures: (1) for one-period return, the average slope is downward with countercyclical level and slope; (2) for beta (alpha), the average slope is upward (downward); and (3) for yield to maturity, the average slope is downward with countercyclical level and procyclical slope. The model further predicts a pro-cyclical slope for beta and alpha, and a countercyclical slope for the excess variance ratio.

   Presented at FMA, Hong Kong Joint Research Workshop, FMA Asia/Pacific Conference, Michigan State University, City University of Hong Kong, Columbia University (PhD), New York University

2. "Butterfly Implied Returns".

   For each S&P 500 stock, I calculate the rolling correlation between the VIX and the premium of butterfly at different strikes. The butterfly that co-moves most positively with VIX reveals the expectation of the stock's return in the future market crash. I call this return the Butterfly Implied Return (BIR). I construct a new strategy by shorting the vulnerable stocks with low BIR and longing the resilient stocks with high BIR. This cross-sectional strategy, which I call Betting with Butterfly, is a bet that the crash will happen. It is highly implementable, as it only involves liquid S&P 500 stocks. Over the 1996 to 2019 sample period, it earns a statistically significant alpha, ranging from 0.25% to 0.36% per month relative to various factor models. Building on BIR, I construct a value weighted average called the Butterfly Implied Return of the Market (BIRM) which is shown to explain 26% to 40% of the variation of SVIX (Martin, 2017) across different horizons.

3. "Extreme Illiquidity Risk and the Cross Sectional of Bond Returns", with Xi Chen, Junbo Wang and Chunchi Wu.

   We find that corporate bonds carry a significant premium of extreme illiquidity (EIL). This premium increases during the financial crisis and periods with high economic uncertainty, and permeates over different rating categories of corporate bonds. EIL has predictive power in the cross-section for future bond returns at least up to a one-year horizon. A tradable factor constructed from EIL portfolios cannot be explained by conventional stock and bond market factors and characteristic variables. Including this factor in the multifactor model substantially increases its explanatory power. The results show that the extreme illiquidity factor contains important information for corporate bond pricing.

PhD Students

Yang Lihai; Yan Han (co-chair)

Grants and Awards

2021	General Research Fund: Project #11503421, HKD209,993
2020	Early Career Scheme: Project #21504220, HKD300,000
2018	Finalist, Best Paper in Investments, FMA Asia/Pacific Conference