Derivatives and Asset Pricing Research Symposium

9 December 2024 (Monday)

M1603 (Senate Room), 16/F, Li Ka Shing Tower, The Hong Kong Polytechnic University

Masters of Ceremonies: Jie (Jay) Cao & Yajing (Stella) Wang, The Hong Kong Polytechnic University

9:00-9:10	**Opening Remarks**	**John Wei**, The Hong Kong Polytechnic University
9:10-9:50	**Paper 1**	**Do Financial Market Developments Benefit Employees? Evidence from the Derivatives Markets**
	Presenter	**Dragon Tang**, The University of Hong Kong
	Discussant	**Jongsub Lee**, Seoul National University
	Moderator	***Jimmy Jin**, The Hong Kong Polytechnic University*
9:50-10:30	**Paper 2**	**Why Does Volatility Demand Fall During Market Turmoil? A Market Maker Perspective**
	Presenter	**Kris Jacobs**, University of Houston
	Discussant	**Sophie Ni**, Hong Kong Baptist University
	Moderator	***Chen Yao**, The Chinese University of Hong Kong*
10:30-11:00	*Group Photo/ Tea Break*	
11:00-11:40	**Paper 3**	**Betting Against the Crowd: Option Trading and Market Risk Premium**
	Presenter	**Gang Jason Li**, The Chinese University of Hong Kong
	Discussant	**Jianfeng Hu**, Singapore Management University
	Moderator	***Tse-Chun Lin**, The University of Hong Kong*
11:40-12:10	**Keynote Speech 1**	**Why We Should Study Long-Term Investment Outcomes**
	Speaker	**Hendrik Bessembinder**, Arizona State University
	Moderator	***Bing Han**, University of Toronto and The Chinese University of Hong Kong*
12:10-14:00	***Lunch (Ju Yin House Seafood Restaurant, 4/F, Communal Building, PolyU)***	
14:00-14:30	**Keynote Speech 2**	**Index Options and Market Volatility: How Large is Their Impact?**
	Speaker	**Neil Pearson**, University of Illinois Urbana-Champaign
	Moderator	***Chu Zhang**, The Hong Kong University of Science and Technology*
14:30-15:10	**Paper 4**	**Option Pricing with Intraday and Overnight Underlying Asset Dynamics**
	Presenter	**Gang Gary Li**, The Hong Kong Polytechnic University
	Discussant	**George Panayotov**, The Hong Kong University of Science and Technology
	Moderator	***Jun Cai**, City University of Hong Kong*
15:10-15:40	*Tea Break*	
15:40-16:20	**Paper 5**	**Hedge Fund Option Usage and Skewness Risk Premium**
	Presenter	**Shuaiqi Li**, City University of Hong Kong
	Discussant	**Byoung Kang**, The Hong Kong Polytechnic University
	Moderator	***Jialin Yu,** The Hong Kong University of Science and Technology*
16:20-17:00	**Paper 6**	**Discount Rate Revision and the Mispricing Factor Zoo**
	Presenter	**Aoxiang Yang**, Peking University HSBC Business School
	Discussant	**James O'Donovan**, City University of Hong Kong
	Moderator	***Grace Hu**, PBCSF Tsinghua University*
17:00-17:40	**Panel Discussion**	**Research Frontiers in Derivatives and Asset Pricing**
	Panelists	**Hendrik Bessembinder, Bing Han, Kris Jacobs, Yingying Li, John Wei, Chu Zhang**
	Moderator	***Xintong Zhan**, Fudan University*
17:40	**Closing Remarks**	**Gang Gary Li**, The Hong Kong Polytechnic University
18:00	***Dinner (Regal Kowloon Hotel 富豪九龙酒店, 71 Mody Road, Tsimshatsui)***	

PAPER 1

Do Financial Market Developments Benefit Employees? Evidence from the Derivatives Markets

Authors:
Anastasia Richmond, University of London
*Dragon Yongjun Tang, The University of Hong Kong
Sarah Qian Wang, University of Warwick

Abstract:
Do innovations in financial markets affect the welfare of employees? Analyzing trading of equity options and credit default swaps (CDSs), we find that underlying firms' employees benefit from such financial market development. The findings are consistent whether employee welfare is measured by ESG rating, employee satisfaction, workplace safety, or compensation. Firms spend more to improve the value of human capital when options or CDSs are traded on their securities. Further analysis suggests that derivatives trading affects employee welfare by reducing managerial short-termism, as information efficiency is enhanced by derivatives trading. Our findings reveal that derivatives trading is beneficial to workers.

PAPER 2

Why Does Volatility Demand Fall During Market Turmoil? A Market Maker Perspective

Authors:
*Kris Jacobs, University of Houston
Anh Thu Mai, Purdue University Northwest
Paola Pederzoli, University of Houston

Abstract:
End users typically are net long VIX call options to hedge against market downturns, but paradoxically reduce these net long positions during periods of market turmoil. We explain this puzzle by considering a demand system with different demand curves for market makers and end users in a zero net supply market, and we use the time series of end users' and market makers' net positions to estimate the latent demand curves. Our findings indicate that both demand curves shift right during periods of market turmoil, but market maker demand reacts more strongly, especially for options with short maturities. These high-risk periods are therefore characterized by reduced net long positions of end users, higher volatility returns, and wider bid-ask spreads.

PAPER 3

Betting Against the Crowd: Option Trading and Market Risk Premium

Authors:
Jie Cao, The Hong Kong Polytechnic University
*Gang Li, The Chinese University of Hong Kong
Xintong (Eunice) Zhan, Fudan University
Guofu Zhou, Washington University in St. Louis

Abstract:
We find that the cross-sectional average of equity call options order imbalance (ACIB) negatively forecasts future market risk premium. The predictability by ACIB is robust to different horizons, from days to months. Though constructed from the options market, ACIB represents a general investor sentiment which is closely related to the Baker-Wurgler sentiment index. We do not find a significant effect of the average put options order imbalance. Further evidence indicates that ACIB tends to reflect sentiment from retail investors. We document consistent results using stock market returns from fourteen alternative financial markets.

PAPER 4

Option Pricing with Intraday and Overnight Underlying Asset

Authors:
*Gang Li, The Hong Kong Polytechnic University
Zerong Wang, University of Science and Technology of China

Abstract:
Asset price dynamics during trading periods and non-trading periods are found to be substantially different. We extend the GARCH-type option pricing model by incorporating the joint dynamics of intraday and overnight returns and derive a closed-form option pricing formula for both AM- and PM-settled options. The model generates more negative conditional skewness of short-term returns than the benchmark GARCH model does, via leverage effects from both intraday and overnight return shocks. The model estimation shows that the magnitude of the variance risk premium of overnight returns is much greater than that of intraday returns. The model's fitting of the prices of the S&P index options at both market open and close is substantially improved upon the benchmark model, and the improvement is robust across moneyness and maturity.

PAPER 5

Hedge Fund Option Usage and Skewness Risk Premium

Authors:
Shuaiyu Chen, Purdue University
*Shuaiqi Li, City University of Hong Kong

Abstract:
We study how hedge fund (HF) option usage can affect skewness risk premium in the cross-section of individual stock options. We find that stocks with HFs employing long naked put strategy (long put option without the underlying stock) more heavily have higher returns of their skewness assets comprised of options, whose payoff (price) resembles the realized (risk-neutral) skewness of the underlying stock return. We document evidence consistent with a price-pressure channel: HF demand on put options, especially the out-of-the-money ones, makes those stocks' puts more expensive and their risk-neutral skewness more negative, leading to lower prices of skewness assets. After decomposing risk-neutral skewness into systematic and idiosyncratic components, we find that only idiosyncratic skewness is negatively affected, suggesting that idiosyncratic skewness is priced; HF naked put positions cannot predict realized skewness, indicating a lack of skill in timing crash risk at the individual stock level. Other HF option strategies do not affect skewness risk premium for various reasons.

PAPER 6

Discount Rate Revision and the Mispricing Factor Zoo

Authors:
Bixiao Chen, Peking University
*Aoxiang Yang, Peking University

Abstract:
We apply an option-based measure of firm-level discount rate and discount rate revision to the factor zoo. A simple test separates factors into two groups: those that reflect rational risk compensation and mispricing. Mispricing factors are on average more significant statistically and economically than rational factors. Notable mispricing factor categories include volatility, profitability, external financing, short-sale constraints, and momentum. Mispricing factors' long-short unexpected returns exhibit strong time-series comovement. So do their long-short discount rate revisions. Controlling for discount rate revisions renders the mispricing factor zoo statistically insignificant. Discount rate (cash flow) revision explains a larger fraction of time-series (cross-sectional) variation of the mispricing factor zoo.

List of Conference Speakers / Discussants / Moderators

First Name	Last Name	Institution	Title
Hendrik	Bessembinder	Arizona State University, Department of Finance	Professor and the Francis and Mary Labriola Endowed Chair in Competitive Business
Jun	Cai	City University of Hong Kong, Department of Economics and Finance	Associate Professor
Jie (Jay)	Cao	The Hong Kong Polytechnic University, School of Accounting and Finance	Professor
Bing	Han	The Chinese University of Hong Kong, Department of Finance	Visiting Professor
		University of Toronto, Rotman School of Management	Professor and the TMX Chair in Capital Markets
Grace	Hu	Tsinghua University, PBC School of Finance	Associate Professor
Jianfeng	Hu	Singapore Management University, Lee Kong Chian School of Business	Associate Professor Area Coordinator of Finance
Kris	Jacobs	University of Houston, Department of Finance	C.T. Bauer Professor of Finance Interim Department Chair
Jimmy	Jin	The Hong Kong Polytechnic University, School of Accounting and Finance	Associate Professor
Byoung	Kang	The Hong Kong Polytechnic University, School of Accounting and Finance	Associate Professor
Jongsub	Lee	Seoul National University, Department of Finance	Professor
Gang (Gary)	Li	The Hong Kong Polytechnic University, School of Accounting and Finance	Associate Professor
Gang (Jason)	Li	The Chinese University of Hong Kong, Department of Finance	Assistant Professor
Shuaiqi	Li	City University of Hong Kong, Department of Economics and Finance	Assistant Professor
Yingying	Li	The Hong Kong University of Science and Technology, Department of Information System, Business Statistics and Operations Management (ISOM) and Department of Finance	Chair Professor
Tse-Chun	Lin	The University of Hong Kong, HKU Business school	Professor Area Head of Finance
Sophie	Ni	Hong Kong Baptist University, Department of Accountancy, Economics and Finance	Associate Professor
James	O'Donovan	City University of Hong Kong, Department of Economics and Finance	Assistant Professor
George	Panayotov	The Hong Kong University of Science and Technology, Department of Finance	Associate Professor
Neil	Pearson	University of Illinois Urbana-Champaign, Gies College of Business	Harry A. Brandt Distinguished Professor of Financial Markets and Options
Dragon	Tang	The University of Hong Kong, HKU Business school	Professor
John	Wei	The Hong Kong Polytechnic University, School of Accounting and Finance	Distinguished Research Professor
Aoxiang	Yang	Peking University, HSBC Business School	Assistant Professor
Chen	Yao	The Chinese University of Hong Kong, Department of Finance	Associate Professor
Jialin	Yu	The Hong Kong University of Science and Technology, Department of Finance	Associate Professor
Xintong (Eunice)	Zhan	Fudan University, School of Management	Professor and Lidasan Endowed Chair
Chu	Zhang	The Hong Kong University of Science and Technology, Department of Finance	Chair Professor Department Head