

RAVI KASHYAP

E-mail: ravi.kashyap@stern.nyu.edu



Education:

CITY UNIVERSITY OF HONG KONG

Hong Kong

- Expecting PhD in Economics / Finance. Profile Link: <http://www.cb.cityu.edu.hk/research/student/rkashyap3/>
- Completing Doctoral Thesis titled – “Notes on Uncertainty, Unintended Consequences and Everything Else”.

NEW YORK UNIVERSITY, Leonard N. Stern School of Business

New York, NY

- Master of Business Administration, May 2009

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

Calicut, India

- Bachelor of Technology (Computer Science and Engineering), May 1999

Publications:

1. Kashyap, R. (2018). Auction Theory Adaptations for Real Life Applications. *Research in Economics*, (Forthcoming)
2. Kashyap, R. (2018). Solving the Equity Risk Premium Puzzle and Inching Towards a Theory of Everything. *The Journal of Private Equity*, 21(2), 45-63
3. Kashyap, R. (2017). Fighting Uncertainty with Uncertainty: A Baby Step. *Theoretical Economics Letters*, 7(5), 1431-1452
4. Kashyap, R. (2017). Microstructure under the Microscope: Tools to Survive and Thrive in The Age of (Too Much) Information. *The Journal of Trading*, 12(2), 5-27
5. Kashyap, R. (2017). Solving Society's Big Ills, A Small Step. *Asian Social Science*, 13(4), 175-191
6. Kashyap, R. (2016). Hong Kong - Shanghai Connect / Hong Kong - Beijing Disconnect (?), Scaling the Great Wall of Chinese Securities Trading Costs. *The Journal of Trading*, 11(3), 81-134
7. Kashyap, R. (2015). A Tale of Two Consequences: Intended and Unintended Outcomes of the Japan TOPIX Tick Size Changes. *The Journal of Trading*, 10(4), 51-95
8. Kashyap, R. (2015). Financial Services, Economic Growth and Well-Being: A Four-Pronged Study. *Indian Journal of Finance*, 9(1), 9-22
9. Kashyap, R. (2014). Dynamic Multi-Factor Bid–Offer Adjustment Model: A Feedback Mechanism for Dealers (Market Makers) to Deal (Grapple) with the Uncertainty Principle of the Social Sciences. *The Journal of Trading*, 9(3), 42-55
10. Kashyap, R. (2014). The Circle of Investment: Connecting the Dots of the Portfolio Management Cycle ... *International Journal of Economics and Finance*, 6(5), 244-263

Industry Talks / Academic Conferences:

1. July 2018. Securities Lending Strategies, Valuation of Term Loans using Option Theory. International Conference on Finance, Banking and Financial Stability. Bali, Indonesia.
2. June 2018. David vs Goliath (You against the Markets), A Dynamic Programming Approach to Separate the Impact and Timing of Trading Costs. Asian Meeting of the Econometric Society, Seoul, South Korea.
3. June 2018. (Session Chair). Fighting Uncertainty with Uncertainty. China Meeting of the Econometric Society, Shanghai, China.
4. May 2018. Hong Kong - Shanghai Connect / Hong Kong - Beijing Disconnect. Scaling the Great Wall of Chinese Securities Trading Costs. The Transformation of Asian Economic Institutions: Understanding Local Changes and Global Impacts on Business and Society. Budapest, Hungary
5. July 2017. Securities Lending Strategies, Valuation of Term Loans using Option Theory. World Finance Conference, Cagliari, Italy.

6. June 2017. Combining Dimension Reduction, Distance Measures and Covariance. China Meeting of the Econometric Society, Wuhan, China.
7. June 2017. Combining Dimension Reduction, Distance Measures and Covariance. Asian Meeting of the Econometric Society, Hong Kong, China.
8. May 2017. (Session Chair). David vs Goliath (You against the Markets), A Dynamic Programming Approach to Separate the Impact and Timing of Trading Costs. International Trade and Finance Association Conference themed, Leading Issues in International Trade and Finance, Poznan, Poland.
9. April 2017. Solving Society's Big Ills, A Small Step. 75th Annual Midwest Political Science Association Conference, Chicago, Illinois, USA.
10. March 2017. Microstructure under the Microscope: Tools to Survive and Thrive in The Age of (Too Much) Information. Seminar on AI, Machine Learning and Sentiment Analysis Applied to Finance, UNICOM Seminars, Hong Kong.
11. December 2016. A Tale of Two Consequences: Intended and Unintended Outcomes of the Japan TOPIX Tick Size Changes. Auckland Finance Meeting, Auckland, New Zealand.
12. November 2016. Securities Lending Strategies, Valuation of Term Loans using Option Theory. Vietnam Symposium on Banking and Finance, Hanoi, Vietnam.
13. October 2016. Uncertainty, Unintended Consequences and Everything Else: Study of Recent APAC Market Microstructure Events. Trade Tech Asia, Singapore.
14. October 2016. Oxford Style Debate: Securities Trading in 2020 – Is the Asset Manager a Dying Breed? Trade Tech Asia, Singapore.
15. August 2014. Use of Transaction Cost Analysis in a Multi-Market Environment. FIX Trading Community, Melbourne, Australia.

Working Papers (Under Review):

1. Kashyap, R. (2017). Artificial Intelligence, A Child's Play. Working Paper.
2. Kashyap, R. (2017). Fighting Uncertainty with Uncertainty: Time Value of Knowledge and the Net Present Value (NPV) of Knowledge Machines. Working Paper.
3. Kashyap, R. (2017). Imitation in the Imitation Game. Working Paper.
4. Kashyap, R. (2017). The Universal Language, Mathematics or Music. Working Paper.
5. Kashyap, R. (2017). A to F, For Whom the Bell (Curve) Tolls: Trade Your Grade Based on the Net Present Value of Friendships with Financial Incentives. Working Paper.
6. Kashyap, R. (2016). Combining Dimension Reduction, Distance Measures and Covariance. Working Paper.
7. Kashyap, R. (2016). Securities Lending Strategies, Exclusive Auction Bids. Working Paper.
8. Kashyap, R. (2016). Securities Lending Strategies, Valuation of Term Loans using Option Theory. Working Paper.
9. Kashyap, R. (2016). David versus Goliath (You against the Markets), A Dynamic Programming Approach to Separate the Impact and Timing of Trading Costs. Working Paper.
10. Kashyap, R. (2016). Fighting Uncertainty with Uncertainty: A Deeper Investigation of Inventory Management. Working Paper.
11. Kashyap, R. (2015). The Uncertainty Principle of the Social Sciences. Working Paper.
12. SSRN Link: <http://ssrn.com/author=1529635> / arXiv Link: http://arxiv.org/a/kashyap_r_1.html

Professional Experience:

2017-Date **SOLBRIDGE INTERNATIONAL SCHOOL OF BUSINESS**
Assistant Professor

Daejeon, South Korea

- Teaching Introductory Finance, Financial Management, Financial Derivatives, Problem Solving with / without Mathematics and Investment Analysis for MBA (Student Rating: 4.87/5.0) and BBA (Student Rating: 4.48/5.0) programs.

MARKIT HK LTD / CLSA ASIA PACIFIC MARKETS

Hong Kong

2012-2017 **Quantitative Specialist / Product Manager**

- Responsible for APAC region for quantitative products, Transaction Cost Analysis and Alpha Research Signals.
- Understand the investment process at institutions across the Asia-Pacific region and provide consultancy on how the above products can increase their security returns, reduce their cost of trading by improving execution schedules, algorithm usage, broker and venue selection.
- Conduct research related to Security Selection, Portfolio Management and Transaction Cost Analysis.
- Developed models to estimate the market impact, risk and liquidity (including volume profiles and prediction).
- Created Multi Factor models to find securities that generate alpha and consistent risk-adjusted returns.

MORGAN STANLEY ASIA

Hong Kong

2009-2012 **Equity Quant Strategist / Vice President, Equity Financing Products**

- Defined the roles and responsibilities of the strategist organization across the entire firm and the rules of engagement (or interaction) between different functional units and the strategy division such that maximum benefits would accrue to the firm.
- Set the Multi-Year Strategic Direction for the Securities Lending and Equity Financing Desks.
- Increased the P&L of the Securities Lending and Funding desks by over 20% through better pricing and optimal allocation resulting in cheaper funding for the entire firm.
- On one hand, simplified and made redundant the unnecessary use of complex models by replacing them with simpler heuristics that were more intuitive and produced better results; on the other hand, found areas where a higher level of quantitative measures would improve revenues.
- Pioneered the use of derivative and stochastic models for Delta One Financial Products by developing a model using a stochastic process governing liquidity to price long term deals.
- Demonstrated the application of mathematical modeling techniques to business areas where it was considered extremely difficult to apply.
- Proposed a product idea to reduce Information Overload and sponsored a project to implement the idea as a technology solution.
- Developed Intellectual Property worth millions of dollars.
- Below are some of the key aspects of the multi-year strategic plan involving trading, pricing, risk management, marketing, client strategies, technology and operations.
 - Created models to price spot deals and term deals and create corresponding spot and forward curves.
 - Proposed a model that was adopted globally as the standard for securities loan pricing.
 - Performing time series analysis and various optimization techniques to maximize utilization and revenue.
 - Introduced new metrics into the Risk Management system.
 - Produced client strategy pieces regarding sectors, macro ideas and other investment themes.
 - Created a first of a kind scale using a multi factor methodology to measure the relative shortness of securities and create a Top Short Ranking that was distributed periodically to clients.
 - Developed trading strategies and back tested them and pitched it to external clients based on macro and sector themes.
 - Developed a unique model to combine individual player market share to estimate overall market share.
 - Developed a model to value long only portfolios and estimate a basis point bid for exclusive portfolio auctions based on a three tiered scale, conservative, normal and aggressive.
 - Performed event studies to determine the impact of announcements and regulatory changes on stock price performance and the pricing of securities loans.
 - Devised ways to optimally allocate securities lending inventory using the Knapsack algorithm and solve the start of day, intra day and stochastic client rewards and arrival time problems.
 - Devised strategies to decide whether to take on principal positions and hedge them using futures and ETF's.
 - Calculated durations and volatility of repo transactions, securities loans and client trades to ensure best utilization of client margin positions and the lowest funding costs for firm positions and treasury usage.
 - Performed quantitative analysis and back testing to estimate shortfall and optimize inventory utilization.

GAIN CAPITAL LLC

New York, NY

2008 **Quantitative Research Consultant, FX Market Making Desk (Temporary while completing MBA)**

- Developed a stochastic currency pricing model incorporating market volatility and trading factors with potential annual impact of more than 2 million USD. Designed a model to analyze client profitability using various P&L factors and Principal Component Analysis; created a scale on which client efficiency could be measured.

MERRILL LYNCH INC

New York, NY

2005-2008 **Assistant Vice President, Equity Derivatives and Swaps Desk**

- Implemented a division wide plan to change the portfolio liquidity reserve model; the new methodology factored in the skew and time sensitivity of derivative positions and improved the accuracy.

CITIGROUP INC

New York, NY

2001-2005 **Senior Programmer / Analyst, Equity Derivatives / Equity Division**

- Analyzed a new volatility model and implemented continuous fitting of the volatility surface and other solutions to provide real time pricing of complex derivative products.

D.E.SHAW INDIA PVT LIMITED / WILCO INTL PVT LTD / GOLDMAN SACHS (Client)

1999-2001 **Project Leader, Wealth Management Division**

New York, NY / Hyderabad, India

- Only candidate to be recruited on campus by D.E. Shaw. This division was taken over by Wilco International.

Technical Skills: Proficient in KDB/Q, Eviews, R, SAS, Matlab, Excel, Bloomberg, VBA, C++, C#, Java, SQL etc.

Additional:

- HK SFC Type I, II and VII Licensed. HKSI Candidate of the month, Nov 2009.
- Most innovative project on Wall Street by InfoWorld Magazine and Technology Managers Forum, 2003.
- Student of the Acting Program, HB Studio, NY; Swimming, Skiing, Volleyball, Traveling and Reading.