

CONFERENCE PROGRAM

2021 Conference on Derivatives & Volatility

12 - 13 November 2021
Chicago, IL



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Welcome to the 2021 Conference on Derivatives and Volatility!

Welcome to the fifth annual Conference on Derivatives and Volatility, co-hosted by Cboe Global Markets and the Financial Management Association International. This year's program offers fifteen paper presentations and keynote addresses by Steve Heston of the University of Maryland, and by Clemens Kownatzki (Pepperdine University) and Bluford Putnam (CME Group). We hope you will find something on the program that is especially interesting to you.

Program Co-Chairs:

Torben Andersen, Nathan S. and Mary P. Sharp Professor of Finance, Northwestern University
Bjorn Eraker, Professor of Finance Bill Nygren Chair in Investments, University of Wisconsin-Madison
Russell Rhoads, Head, Research and Consulting, EQDerivatives; Clinical Associate Professor, Indiana University

About Cboe Global Markets and The Options Institute

Cboe Global Markets, Inc. ("Cboe Global Markets" or "Cboe") is one of the world's largest exchange holding companies, offering cutting-edge trading and investment solutions to investors around the world. The company is committed to defining markets and driving the global marketplace forward through product innovation, leading edge technology and seamless trading solutions.

The Options Institute has been the light-bearer of derivatives education since 1985. In the era of information overload, the Options Institute has evolved to keep the everyday investor empowered using education. Through its global network of expert instructors, adjunct faculty, bespoke training programs, and free educational events and content, The Options Institute (OI) is the premier education hub for curious minds of all experience levels.

About the Financial Management Association International

Established in 1970, the Financial Management Association (<https://www.fma.org/>) is a global leader in developing and disseminating knowledge about financial decision making. FMA's mission is to broaden the common interests between academicians and practitioners, provide opportunities for professional interaction between and among academicians, practitioners and students, promote the development and understanding of basic and applied research and of sound financial practices, and to enhance the quality of education in finance. It serves over 5,100 members across 74 countries.

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Conference Program

All conference events will take place on the 7th Floor, Options Institute Classroom

All sessions will be in person and broadcast via Zoom

8:45 AM – 9:30 AM

Registration

7th Floor, Options Institute Classroom

9:30 AM – 12:10 PM

Session I:

The Role of Leveraged ETFs on option market imbalances and end-of-day price dynamics

Heiner Beckmeyer, University of Münster | **Andrea Barbon**, Swiss Institute of Banking & Finance and University of St. Gallen | **Andrea Buraschi**, Imperial College | **Mathis Moerke**, Swiss Institute of Banking & Finance and University of St. Gallen

Presenter: Heiner Beckmeyer

Discussant: Kris Jacobs, University of Houston

The lead-lag relationship between VIX futures and SPX futures

Christine Bangsgaard, Aarhus University | **Thomas Kokholm**, Aarhus University and Danish Finance Institute

Presenter: Christine Bangsgaard

Discussant: Sang Seo, University of Wisconsin-Madison

The impact of derivatives on cash markets: Evidence from the introduction of Bitcoin futures contracts

Donghwa Shin, University of North Carolina – Chapel Hill | **Patrick Augustin**, McGill University & Canadian Derivatives Institute | **Alexey Rubtsov**, Global Risk Institute

Presenter: Donghwa Shin

Discussant: Nicola Fusari, Johns Hopkins University

Risk management, agency costs, and lending covenants

Ilona Babenko, Arizona State University | **Hendrik Bessembinder**, Arizona State University | **Yuri Tserlukevich**, Arizona State University

Presenter: Yuri Tserlukevich

Discussant: Paul Whelan, Copenhagen Business School

7th Floor, Options Institute Classroom

12:15 PM – 1:45 PM

Luncheon & Keynote Address

Keynote Address - "Option Momentum"

Steve Heston

Professor of Finance, University of Maryland

Steve Heston graduated with a BS double major in Mathematics and Economics from the University of Maryland, College Park in 1983. He attended the Graduate School of Industrial Administration and earned an MBA in 1985 followed by a PhD in Finance in 1990. He has held previous faculty positions at Yale, Columbia, Washington University, and the University of Auckland in New Zealand. He has worked in the private sector with Goldman Sachs in Fixed Income Arbitrage and in Asset Management Quantitative Equities. He is known for analyzing options with stochastic volatility and international stock risk.

7th Floor, Options Institute Classroom

1:45 PM – 3:45 PM

Session 2:

Option-Implied spreads and option risk premia

Christopher Culp, Johns Hopkins Institute for Applied Economics and Swiss Finance Institute | Mihir Gandhi, University of Chicago | Yoshio Nozawa, University of Toronto | **Pietro Veronesi**, University of Chicago, NBER, CEPR

Presenter: Pietro Veronesi

Discussant: David Bates, University of Iowa

Stock market return predictability dormant in option panels

Yoosoon Chang, Indiana University | **Youngmin Choi**, Baruch College, CUNY | Soohun Kim, Korea Advanced Institute of Science and Technology | Joon Park, Indiana University

Presenter: Youngmin Choi

Discussant: Paola Pederzoli, University of Houston

A decomposition of conditional risk premia and implications for representative agent models

Fousseni Chabi-Yo, University of Massachusetts – Amherst | **Johnathan Loudis**, University of Notre Dame

Presenter: Johnathan Loudis

Discussant: Jeroen Dalderop, University of Notre Dame

7th Floor, Options Institute Classroom

3:45 PM – 4:00 PM

Coffee Break

7th Floor, Options Institute Classroom

4:00 PM – 5:20 PM

Session 3:

Betting on the likelihood of a short squeeze

Ilias Filippou, Washington University in St. Louis | Pedro A. Garcia-Ares, ITAM | **Fernando Zapatero**, Boston University

Presenter: Fernando Zapatero

Discussant: Dmitriy Muravyev, Michigan State University

Retail derivatives and sentiment: A sentiment measure constructed from issuances of retail structured equity products

Brian Henderson, George Washington University | Neil Pearson, University of Illinois – Urbana-Champaign and Canadian Derivatives Institute | **Li Wang**, Case Western Reserve University

Presenter: Li Wang

Discussant: Ivan Shaliastovich, University of Wisconsin - Madison

2nd Floor, Telegram Room

5:30 PM - 7:30 PM

Conference Dinner – 2nd Floor, Telegram Room

Practitioner

"Event Risk, Options, and Risk Management"

Clemens Kownatzki

Assistant Professor of Finance and Department Chair, Accounting, Finance and Real Estate, Pepperdine University

Bluford Putnam

Managing Director and Chief Economist, CME Group

Clemens Kownatzki has been an executive in the financial services industry for well over two decades. His experience ranges from management positions in brokerage and treasury operations to advising corporate as well as retail clients with a focus on managing their risk effectively. He has also been an active investor in options and derivatives markets. Having lived and worked in Europe, the Middle East, Asia and the U.S., his investments range from equity to international capital and currency markets.

In 2010, he joined Pepperdine University and is currently Assistant Professor of Finance. In 2020, he became the Department Chair of Accounting, Finance and Real Estate. During his tenure, he was Academic Director of the MS Applied Finance program from 2017-2019. In 2016, he received a prestigious research grant from the Chicago Mercantile Group Foundation. Dr. Kownatzki's primary research interest focuses on the important question of how risk and market volatility affects investment returns. He also authored the book Money Music 101, which is the foundation for a personal finance class at LA College of Music.

Dr. Kownatzki earned his PhD in Economics and Management from Claremont Graduate University. He also holds an MBA degree from the Pepperdine Graziadio Business School.

Bluford (Blu) Putnam is Managing Director and Chief Economist of CME Group. He is responsible for leading global economic analysis and monitoring developments in the price patterns, volatility and correlations of futures and options markets.

Prior to joining CME Group, Putnam gained more than 35 years of experience in the financial services industry with concentrations in central banking, investment research and portfolio management. He started his career as an economist with the Federal Reserve Bank of New York and later moved to the Chase Manhattan Bank. He has served in London as Morgan Stanley's Global Bond Strategist and Kleinwort Benson's Chief Economist. Moving into portfolio management, he has held positions as Chief Investment Officer for Equities and Asset Allocation at the Bankers Trust Company in New York and President of CDC Investment Management Corporation.

Putnam holds a Ph.D. in economics from Tulane University. He has authored five books on international finance, as well as published in such academic journals as the American Economic Review and the Journal of Finance, among many others. In the past, he has served on the adjunct faculty of several business schools, including The Wharton School, New York University, and Columbia University.

Saturday, November 13, 2021

All sessions will be presented virtually

9:00 AM – 9:30 AM

Registration

9:30 AM – 11:30 AM

Session 4:

The components of the CDS bid-ask spreads: A reduced-form approach

Jennie Bai, Georgetown University and NBER | May Hu, RMIT University | **Xiaoxia Ye**, University of Liverpool | Fan Yu, Claremont McKenna College

Presenter: Xiaoxia Ye

Discussant: Fabrice Tourre, Copenhagen Business School

Who knows? Information differences between trader types

Albert Menkveld, Vrije Universiteit Amsterdam | **Ion Lucas Saru**, Vrije Universiteit Amsterdam

Presenter: Ion Lucas Saru

Discussant: Markus Baldauf, University of British Columbia and Chicago Booth

Presidential cycles and exchange rates

Hsuan Fu, Université Laval | Pasquale Della Corte, Imperial College London and CEPR

Presenter: Hsuan Fu

Discussant: Zhengyang Jiang, Northwestern University

11:30 AM – 1:00 PM

Lunch

Product Innovation Presentation: “Broad-based Index Derivatives: Developing Correlation and Dispersion as a Tradable Asset Class”

John Hiatt and Parth Shah, Cboe Global Markets

1:00 PM - 3:00 PM

Session 5:

Forecasting realized volatility: An automatic system using many features and machine learning algorithms

Sophia Zhengzi Li, Rutgers Business School | Yushan Tang, Rutgers Business School

Presenter: Sophia Zhengzi Li

Discussant: Aurelio Vasquez, ITAM

The shape of the pricing kernel and expected option returns

Tobias Sichert, Stockholm School of Economics and Swedish House of Finance | Christian Schlag, Goethe University – Frankfurt and Leibniz Institute for Financial Research SAFE

Presenter: Tobias Sichert

Discussant: Fousseni Chabi-Yo, University of Massachusetts – Amherst

Realised volatility forecasting: Machine learning via financial world embedding

Eghbal Rahimikia, University of Manchester and Oxford-Man Institute of Quantitative Finance, University of Oxford | Stefan Zohren, Oxford-Man Institute of Quantitative Finance, University of Oxford | Ser-Huang Poon, University of Manchester

Presenter: Eghbal Rahimikia

Discussant: Dacheng Xiu, University of Chicago

Participant Index

Name	Affiliation	Session Number
Markus Baldauf	University of British Columbia and Chicago Booth	4
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David Bates	University of Iowa	2
Heiner Beckmeyer	University of Münster	1
Fousseni Chabi-Yo	University of Massachusetts – Amherst	5
Youngmin Choi	Baruch College, CUNY	2
Jeroen Dalderop	University of Notre Dame	2
Hsuan Fu	Université Laval	4
Nicola Fusari	Johns Hopkins University	1
John Hiatt	Cboe Global Markets	Presentation
Steven Heston	University of Maryland	Keynote
Kris Jacobs	University of Houston	1
Zhengyang Jiang	Northwestern University	4
Clemens Kownatzki	Pepperdine University	Keynote
Sophia Zhengzi Li	Rutgers Business School	5
Johnathan Loudis	University of Notre Dame	2
Dmitriy Muravyev	Michigan State University	2
Paola Pederzoli	University of Houston	2
Bluford Putnam	CME Group	Keynote
Eghbal Rahimikia	University of Manchester	5
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Sang Seo	University of Wisconsin – Madison	1
Parth Shah	Cboe Global Markets	Presentation
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Donghwa Shin	University of North Carolina – Chapel Hill	1
Fabrice Tourre	Copenhagen Business School	4
Yuri Tserlukevich	Arizona State University	1
Aurelio Vasquez	ITAM	5
Paul Veronesi	University of Chicago	2
Li Wang	Case Western Reserve University	3
Paul Whelan	Copenhagen Business School	1
Dacheng Xiu	University of Chicago	5
Xioaxia Ye	University of Liverpool	4
Fernando Zapatero	Boston University	3

Attendees

Last Name	First Name	Affiliation
Abbey	Denis	Northcentral University
Aggarwal	Pallavi	Cboe Global Markets
Albejadi	Arwa	Illinois Institute of Technology
Alhomaidhi	Sara	Illinois Institute of Technology
Andersen	Torben	Northwestern University
Baldauf	Markus	University of British Columbia & Chicago Booth
Banjade	Dhruba	Brenau University
Bangsgaard	Christine Dieckmann	Aarhus University
Bates	David	University of Iowa
Becker	Alexander	Boston University
Beckmeyer	Heiner	University of Münster
Bhagawan	Praveen	IFMR GSB, Krea University
Brennan	Tim	S&P Global
Carpenter	Gordon	Cboe Global Markets
Chabi-Yo	Fousseni	University of Massachusetts - Amherst
Chen	Leon	Minnesota State University - Mankato
Chesebro	Todd	Crown College
Choi	Youngmin	Baruch College, CUNY
Chung	Bo	Cboe Global Markets
Cicco	Vince	Cboe Global Markets
Clay	Cathy	Cboe Global Markets
Cordell	Ade	Cboe Global Markets
Corvino	Pasquale	
Dalderop	Jeroen	University of Notre Dame
Deraimo	Gina	Cboe Global Markets
Dong	Nathan	Boston College
Edwards	Tim	S&P Global
Eraker	Bjorn	University of Wisconsin - Madison
Evangelou	Angelo	Cboe Global Markets
Filippou	Ilias	Washington University in St. Louis
Fisher	Jacob	Jefferson Financial Federal Credit Union
Fu	Hsuan	Université Laval
Fusari	Nicola	Johns Hopkins University
Gaur	Tushar	
Gordon	Nicole	Cboe Global Markets
Guo	Hui	
Gurrola	Kyle	Cboe Global Markets
Gurrola-Perez	Pedro	World Federation of Exchanges
Hammoudeh	Fares	
Harwood	Vance	VolatilityShares
Henderson	Brian	George Washington University
Heston	Steven	University of Maryland
Hiatt	John	Cboe Global Markets
Hocking	Rob	Cboe Global Markets
Hollstein	Fabain	Leibniz University - Hannover
Huang	Phil	Options Clearing Corporation
Jacobs	Kris	University of Houston
Jiang	Zhengyang	Northwestern University
Jitariu	Andrei	Cboe Global Markets
Jones	C. Kyle	Buena Vista University

Keckes	Ambrus	York University
Khuntia	Alok	Cboe Global Markets
Kokholm	Thomas	Aarhus University
Kong	Lingfei	Washington University in St. Louis
Kownatzki	Clemens	Pepperdine University
Kumanduri	Rama	Options Clearing Corporation
Lai	Van Son	Laval University
Laza	Ariel Aldo Giovanni	Northwestern University
Lavacca	Michelle	St. Joseph's College
Li	Bingxin	West Virginia University
Li	Sophia	Rutgers Business School
Lin	Danmo	University of Warwick
Lin	Kaitao	Cboe Global Markets
Loudis	Johnathan	University of Notre Dame
Maleki	Majid	Concordia University
McGonigle	Mike	University of Texas – El Paso
Meng	Ning	Options Clearing Corporation
Mitchell	Andrew	St. Mary's College of California
Mollner	Josh	Northwestern University
Moran	Matt	Cboe Global Markets
Muravyev	Dmitriy	Michigan State University
Musale	Gitesh	
Natenberg	Shelly	Cboe Global Markets
Navarro	Rolando	Options Clearing Corporation
Nguyen	Phuong-Anh	York University
O'Callahan	Dennis	Cboe Global Markets
Oehler	Andreas	Bamberg University
Ono	Sadayuki	Hiroshima University
Patterson	George	PGIM Quantitative Solutions
Pearson	Neil	University of Illinois at Urbana-Champaign and Canadian Derivatives Institute
Pederzoli	Paola	University of Houston
Peng	Zhe	Wilfrid Laurier University
Putnam	Bluford	CME Group
Rahimikia	Eghbal	University of Manchester and Oxford-Man Institute of Quantitative Finance, University of Oxford
Rhoads	Russell	EQDerivatives/Indiana University
Riva	Raul	Northwestern University
Rosa	Mark	University of New Orleans
Saru	Ion Lucas	Vrije Unversiteit Amsterdam
Schwartz	Henry	Cboe Global Markets
Seo	Sang	University of Wisconsin - Madison
Shah	Parth	Cboe Global Markets
Shah	Ms.	Cboe Global Markets
Shaliastovich	Ivan	University of Wisconsin - Madison
Shen	Cindy	University of Iowa
Shin	Donghwa	University of North Carolina – Chapel Hill
Sichert	Tobias	Stockholm School of Economics & Swedish House of Finance
Silva	Tiago	Cboe Global Markets
Simaan	Majeed	Stevens Institute of Technology
Son	Matthew	University of Florida

Symeonidis	Lazaros	University of Essex
Taatian	Ali	Stevens Institute of Technology
Tang	Yushan	Rutgers Business School
Todorov	Viktor	Northwestern University
Tourre	Fabrice	Copenhagen Business School
Tserlukevich	Yuri	Arizona State University
Vasquez	Aurelio	ITAM
Veronesi	Pietro	University of Chicago
Wang	Li	Case Western Reserve University
Wang	Junbo	Louisiana State University
Wang	Yang	Hong Kong Polytechnic University
Wang	Zhiguang	South Dakota State University
Whelan	Paul	Copenhagen Business School
Wong	Lauren	Options Clearing Corporation
Xiu	Dacheng	University of Chicago
Yamashiro	Roger	
Yan	Xiao	
Yu	Qianfan	CME Group
Zapatero	Fernando	Boston University

Program Committee

Co-Chairs

- Torben Andersen, Northwestern University
- Bjorn Eraker, University of Wisconsin-Madison
- Russell Rhoads, EQ Derivatives, Indiana University

Committee Members

- Patrick Augustin, McGill University
- Nina Boyarchenko, Federal Reserve Bank of New York
- Foussemi Chabi-Yo, University of Massachusetts – Amherst
- Jaewon Choi, University of Illinois
- Jeroen Dalderop, University of Notre Dame
- Christian Dorion, HEC Montreal
- Peter Feldhutter, Copenhagen Business School
- Mathieu Fournier, HEC Montreal
- Nicola Fusari, Johns Hopkins University
- Elise Gourier, ESSEC Business School
- Michael Halling, University of Luxembourg
- Kris Jacobs, University of Houston
- Sophia Li, Rutgers Business School
- Juan Londono, Federal Reserve Board
- Dmitriy Muravyev, Michigan State University
- Neil Pearson, University of Illinois
- Paola Pederzoli, University of Houston
- Seth Pruitt, Arizona State University
- Zhaogang Song, Johns Hopkins University
- Viktor Todorv, Northwestern University
- Peter Van Tassel, Federal Reserve Bank of New York
- Aurelio Vasquez, ITAM
- Liuren Wu, Baruch College

Notes

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