



September 8, 2017

- 8:30am Coffee service
- 9:10am Introduction, Jeff Harris, Chief Economist and Director, Division of Economic and Risk Analysis, SEC
- 9:15am Welcome remarks, Commissioner Michael S. Piwowar
- 9:30am Session 1: The Effect of Exchange-Traded Products on Financial Markets
Moderator: Scott Bauguess, Division of Economic and Risk Analysis, SEC
- Itzhak (Zahi) Ben-David (Chair in Finance & Real Estate, Ohio State University)
 - Anthony Lynch (Professor, Stern School of Business, New York University)
 - Russ Wermers (Professor, Smith School of Business, University of Maryland)
- A review of ETPs from an academic perspective and a discussion of the effects of ETPs on securities markets and potential issues facing market participants as the ETP market continues to grow and evolve.
- 10:30am Break
- 10:45am Session 2: Implications for Investors
Moderator: Rick Fleming, Office of the Investor Advocate, SEC
- Deborah Fuhr (Managing Partner and Co-Founder, ETFGI)
 - Jeffrey Meli (Co-Head of Research, Barclays PLC)
 - Jim Ross (Chairman of the Global SPDR, State Street)
- A discussion of the implications for retail and institutional investors of investing in a maturing ETP market, aimed at identifying the structural differences between investment products that are exchange-traded versus those that are not.
- 11:45am Break
- 12:00pm Session 3: The Future of Exchange-Traded Products
Moderator: Jason Zweig, Wall Street Journal
- Ananth Madhavan (Head of Global Research for ETFs and Index Investing, Blackrock)
 - Laura Morrison (Global Head of Exchange Traded Products, BATS)
 - Kathleen Moriarty (Partner, Arnold & Porter)
- A discussion of where the ETP market is headed including views on potential new products and attendant cost-benefit tradeoffs.
- 1:00pm Concluding remarks, Commissioner Kara M. Stein

Biographies for Speakers

Jeffrey H. Harris

Jeffrey H. Harris is the Chief Economist and Director of the Division of Economic and Risk Analysis at the U.S. Securities and Exchange Commission. He has an extensive background in market microstructure and regulatory issues.

Dr. Harris previously served as Chief Economist at the U.S. Commodity Futures Trading Commission and has prior experience as Visiting Academic Fellow at the Nasdaq Stock Market and as Visiting Academic Scholar at the U.S. Securities and Exchange Commission. He has held faculty appointments as the Dean's Chair in Finance at the Whitman School of Management at Syracuse University, as the Collins Chair of Finance in the Cox School of Business at Southern Methodist University (visiting), at the University of Delaware, at the University of Notre Dame and at The Ohio State University. His research appears in the *Energy Journal*, *European Financial Management*, *Financial Management*, *The Financial Review*, the *Journal of Finance*, the *Journal of Investment Management*, the *Journal of Financial and Quantitative Analysis*, the *Journal of Financial Economics*, the *Journal of Futures Markets*, the *Review of Futures Markets* and the *Review of Financial Studies*.

Dr. Harris is on leave from American University, where he holds the Gary Cohn Goldman Sachs Endowed Chair in Finance at the Kogod School of Business. He received his B.A. in Physics and MBA from the University of Iowa and a Ph.D. in Finance from The Ohio State University.

Commissioner Michael S. Piwowar

Michael S. Piwowar was first appointed to the U.S. Securities and Exchange Commission (SEC) by President Barack Obama and was sworn in on August 15, 2013. Dr. Piwowar was designated Acting Chairman of the Commission by President Donald Trump from January 23, 2017, to May 4, 2017.

Previously, Dr. Piwowar was the Republican chief economist for the U.S. Senate Committee on Banking, Housing, and Urban Affairs under Senators Mike Crapo (R-ID) and Richard Shelby (R-AL). He was the lead Republican economist on the four SEC-related titles of the Dodd-Frank Act and the JOBS Act. Dr. Piwowar also worked on a number of important SEC-related oversight issues under the jurisdiction of the Committee, such as securities, over-the-counter derivatives, investor protection, market structure, and capital formation.

During the financial crisis and its immediate aftermath, Dr. Piwowar served in a one-year fixed-term position at the White House as a senior economist at the President's Council of Economic Advisers (CEA) in both the George W. Bush and Barack Obama Administrations. While at the CEA, Dr. Piwowar also served as a staff economist for the Financial Regulatory Reform Working Group of the President's Economic Recovery Advisory Board.

Before joining the White House, Dr. Piwowar worked as a Principal at the Securities Litigation and Consulting Group (SLCG). At SLCG, he provided economic consulting to law firms involved in complex securities litigation and technical assistance on market structure, regulatory policy, and risk management issues to domestic and international securities regulators and market participants.

Dr. Piwowar's first tenure at the SEC was in the Office of Economic Analysis (now called the Division of Economic and Risk Analysis) as a visiting academic scholar on leave from Iowa State University and as a senior financial economist. In those roles, he provided economic analyses and other technical support to the Commission and other SEC Divisions and Offices on a wide range of rulemaking, compliance, and enforcement matters.

Dr. Piwowar was an assistant professor of finance at Iowa State University where he focused his research on market microstructure and taught undergraduate and graduate courses in corporate finance and investments. He published a number of articles in leading academic publications and received several teaching and research awards.

Dr. Piwowar received a B.A. in Foreign Service and International Politics from the Pennsylvania State University, an M.B.A. from Georgetown University, and a Ph.D. in Finance from the Pennsylvania State University.

Scott W. Bauguess

Scott W. Bauguess is Deputy Chief Economist of the U.S. Securities and Exchange Commission and Deputy Director for the Division of Economic and Risk Analysis.

Dr. Bauguess oversees the Division's risk assessment and data-driven, predictive analytics development, designed to detect fraud and misconduct in the Commission's investigation and examination programs, specifically in the areas of corporate issuers, investment advisers, and asset managers. He also leads some of the most important data-related issues currently facing the Commission, including those involving data collection and analysis, and standards and structuring. He oversees the business management of the SEC's Tips, Complaints, and Referrals (TCR) system, which was launched in 2010 to accelerate the detection of market misconduct. His service has also included directing the Commission's economic analyses in recommendations to the Commission to enact federal rules related to corporate disclosure and governance, accounting standards, structured finance, and OTC derivatives.

Dr. Bauguess joined the SEC in 2007 from Texas Tech University where he was on faculty in the College of Business, and taught graduate courses in corporate financial policy at George Washington University. Dr. Bauguess received his Ph.D. in Finance from Arizona State University in 2004. He also holds a B.S. and M.S. in Electrical Engineering and prior to his doctoral studies spent six years working as an engineer in the high tech industry.

Itzhak (Zahi) Ben-David

Professor Itzhak ("Zahi") Ben-David is the Neil Klatskin Chair in Finance and Real Estate at The Ohio State University Fisher College of Business. He serves as the Academic Director of the Ohio State University Center for Real Estate. He teaches real estate and finance classes to undergraduate and MBA students.

Professor Ben-David has published in top finance and economics journals, such as *Quarterly Journal of Economics*, *Journal of Political Economy*, *Journal of Finance*, *Journal of Financial Economics*, and *Review of Financial Studies*. Ben-David works in several research areas in finance including real estate, financial intermediation, financial markets, behavioral finance, and household finance.

Professor Ben-David holds a PhD in Finance and an MBA from the University of Chicago, as well as a BS and an MS in Industrial Engineering, a BA in Accounting from Tel-Aviv University, and an MS in Finance from London Business School.

Anthony Lynch

Professor Lynch received a B.Com with first class honors, an M.F.M, and a LL.B with honors from the University of Queensland. He received his Ph.D in Finance and Economics from the University of Chicago in 1994. He has been a finance professor at NYU's Stern School of Business since that time, receiving tenure and promotion to associate professor in 2001, and receiving promotion to full professor in 2012. He was appointed a research associate of the NBER in 2002. He has conducted research on a broad range of financial issues, but he has particular expertise in the areas of portfolio allocation, asset pricing, and mutual funds. His research has been published in all the major academic finance journals including the *Journal of Finance*, the *Journal of Business*, the *Journal of Financial Economics*, the *Journal of*

Financial and Quantitative Analysis, and the Review of Financial Studies. He was previously an Associate Editor of the Review of Finance.

Russ Wermers

Russ Wermers is Professor of Finance and Director of the Center for Financial Policy (CFP) at the Smith School of Business, University of Maryland at College Park, where he won a campus-wide teaching award during 2005 and a Krowe Teaching Award (within the Smith Business School) during 2013. As Director, Professor Wermers guides the CFP in its mission of generating research that informs financial policy in the private and public sectors. His main research interests include studies of the efficiency of securities markets, as well as the role of institutional investors in setting stock prices. In addition, he studies and teaches quantitative equity strategies, and is currently researching microfinance institutions in Thailand. His papers have been published in leading scholarly journals, such as *The American Economic Review* and *The Journal of Finance*. He is coauthor of a book on the latest scientific approaches to performance evaluation and attribution of professional fund managers, written for academics and practitioners (published in December 2012). He received his Ph.D. from the University of California, Los Angeles, in December 1995.

Rick Fleming

Rick Fleming was named the SEC's first Investor Advocate in February 2014.

Prior to joining the Commission, Mr. Fleming spent fifteen years as a state securities regulator, including more than a decade as General Counsel for the Office of the Kansas Securities Commissioner. He moved to Washington, D.C. in 2011 to serve as the Deputy General Counsel for the North American Securities Administrators Association (NASAA), where he advocated for investors and represented the organization of state securities regulators before Congress and federal agencies, including the SEC.

Mr. Fleming received his bachelor's degree with a dual major in finance and economics from Washburn University and holds a law degree from Wake Forest University.

Deborah Fuhr

Deborah Fuhr is the managing partner and co-founder of ETFGI, an independent research and consultancy firm launched in 2012 in London offering the following 8 research subscription services:

ETFGI annual research service – paid subscription

ETFGI annual review of institutions and mutual funds that use ETFs and ETPs – paid subscription

ETFGI Active ETF landscape annual report service – paid subscription

ETFGI Smart Beta ETF Landscape annual report service – paid subscription

ETFGI & Kreab 2017 ETF Trading and Market Structure Conference – June 7 New York City - Paid

ETFGI EM and FM report – paid subscription

ETFGI monthly Highlights – free subscription

ETFGI weekly newsletter – free subscription

Previously, she served as global head of ETF research and implementation strategy and as a managing director at BlackRock/Barclays Global Investors from 2008 – 2011. Fuhr also worked as a managing director and head of the investment strategy team at Morgan Stanley in London from 1997 – 2008, and as an associate at Greenwich Associates.

Deborah Fuhr was named Recipient of 100 Women in Finance's 2017 European Industry Leadership Award. Ms Fuhr was the recipient of the 2014 William F. Sharpe Lifetime Achievement Award for outstanding and lasting contributions

to the field of index investing, the Nate Most Greatest Contributor to the ETF industry award at the 11th annual ExchangeTradedFunds.com awards dinner in 2015, the ETF.com Lifetime achievement award in 2015. She has been named as one of the “100 Most Influential Women in Finance” by Financial News in 2016, 2015, 2014, 2013, 2012, 2009, 2008 and 2007, and as one of the “10 to Watch in 2014” by Rep. magazine and wealthmanagement.com. Ms Fuhr won the award for the Greatest Overall Contribution to the development of the Global ETF industry in the ExchangeTradedFunds.com survey in 2011 and 2008 and received an award for her contribution to the ETF sector at the annual closed end funds and ETF event in New York and was featured in the Investors Chronicle’s list of “150 people that can make you money” in 2010.

Ms Fuhr frequently writes articles for various publications including: Financial News, ETFI Asia, CityWire, FT Advisor, Pensions and Investments, IPE: Investments and Pensions Europe, Focus -World Federation of Exchanges and the Financial Times.

Ms Fuhr is one of the founders and on the board of Women in ETFs, one of the founders and on the board of Women in ETFs EMEA chapter, is on the board of Cancer Research UK’s ‘Women of Influence’ initiative to support female scientists. Ms. Fuhr is on the editorial board of the Journal of Indexes (United States), Journal of Indexes (Europe), and Money Management Executive; the advisory board for the Journal of Index Investing; and the investment panel of experts for Portfolio Adviser, the FTSE ICB Advisory Committee, the International Advisory Committee for the Egyptian Exchange, and the University of Connecticut School of Business International Advisory Board. She holds a BS degree from the University of Connecticut and an MBA from the Kellogg School of Management at Northwestern University.

Jeffrey Meli

Jeff Meli is Co-Head of Research within the Investment Bank at Barclays. Based in New York, he is also a member of the Investment Bank Executive Committee and the US Management Committee, as well as Co-Chairman of the Research Executive Committee.

Jeff joined Barclays in 2005, as Head of US Credit Strategy Research. He later became Head of Credit Research, playing a key role in the expansion of the firm’s credit research franchise. He has taken on a number of other senior positions since then and was most recently Co-Head of FICC Research before being named Co-Head of Research globally. He has been instrumental in driving the monetization agenda and developing premier events within Macro and Credit Research, and has helped to grow the Product Management function.

Jeff has also recently spearheaded the firm’s response to potential regulatory changes in Macro and Credit Research, representing the firm in conversations with regulators and as part of industry working groups.

Previously, he worked at Deutsche Bank and JP Morgan, with a focus on structured credit. Jeff has a PhD in Finance from the University of Chicago and an AB in Mathematics from Princeton.

Jim Ross

Jim is an Executive Vice President of State Street Global Advisors (SSGA) and is Chairman of Global SPDR. He also serves as Chairman of the Board of SSGA Funds Management, Inc. (SSGA FM), SSGA's Registered Investment Advisor, and as Chairman and Chief Executive Officer of State Street Global Advisors Funds Distributors, LLC (SSGA FD), SSGA's registered broker dealer.

In these roles, Jim is responsible for leading SSGA's engagement with ETF stakeholders including regulators, mutual fund and ETF Boards of Directors, industry associations, key clients, partners and the media. Jim leads SSGA's positioning on important issues related to ETFs and is responsible for advancing SSGA's long-term ETF strategy and innovation. He has an extensive history with exchange traded funds and is frequently quoted in the media. Jim is responsible for SSGA's

Global Funds Management organization and is a member of the SSGA's Executive Management Group as well as SSGA's Global Product Committee. Jim also serves on the Investment Company Institute's Board of Governors and is Chairman of the ICI's Exchange Traded Funds Committee.

Jim serves as a volunteer board member of the Alzheimer Association of MA/NH.

Prior to joining State Street in 1992, he worked for Ernst & Young as a senior accountant, responsible for auditing investment companies and insurance companies. Jim holds a Bachelor's degree in Accountancy from Bentley College.

Jason Zweig

Jason Zweig is the investing and personal-finance columnist for *The Wall Street Journal*. He is the author of *The Devil's Financial Dictionary*, a satirical glossary of Wall Street (PublicAffairs Books, 2015), and *Your Money and Your Brain*, on the neuroscience of investing (Simon & Schuster, 2007). Zweig edited the revised edition of Benjamin Graham's *The Intelligent Investor* (HarperCollins, 2003), the classic text that Warren Buffett has described as "by far the best book about investing ever written." Zweig also wrote *The Little Book of Safe Money* (Wiley, 2009); co-edited *Benjamin Graham: Building a Profession*, an anthology of Graham's essays (McGraw Hill, 2010); and assisted the Nobel Prize-winning psychologist Daniel Kahneman in writing his book *Thinking, Fast and Slow*. From 1995 through 2008 Zweig was a senior writer for *Money* magazine; before joining *Money*, he was the mutual funds editor at *Forbes*. Zweig has also been a guest columnist for *Time* magazine and *cnn.com*. He has served as a trustee of the Museum of American Finance, an affiliate of the Smithsonian Institution, and sits on the editorial boards of *Financial History* magazine and *The Journal of Behavioral Finance*. A graduate of Columbia College, Zweig lives in New York City.

Ananth Madhavan

Ananth Madhavan, PhD, Managing Director, is Global Head of Research for ETF and Index Investing at Blackrock, Inc. He is responsible for advancing thought leadership and innovation for iShares through research and analytics. Dr. Madhavan's service with the firm dates back to 2003, including his years with Barclays Global Investors (BGI), which merged with BlackRock in 2009. At BGI, he was the Global Head of Trading Research and Transitions and CEO of BGI's affiliate broker. He also worked closely with the alpha and trading teams to design and implement trading strategies to capture short horizon market opportunities.

Prior to joining BGI, Dr. Madhavan was a Managing Director of Research at ITG and a member of the firm's management and executive committees. Previously, he was the Charles B. Thorton Professor of Finance at the Marshall School of Business at the University of Southern California and an Assistant Professor of Finance at the Wharton School of the University of Pennsylvania.

Dr. Madhavan earned a BA degree from the University of Delhi, MA degree from Boston University, and a PhD in economics from Cornell University.

Laura Morrison

Laura Morrison is Senior Vice President and Global Head of Exchange Traded Products at the CBOE. In her role, Ms. Morrison oversees the company's listings business, developing strategy, working with issuers to list their products and overseeing market quality incentive programs. In addition, Ms. Morrison manages the team at ETF.com, the world's leading authority on exchange-traded funds. ETF.com is a fully-owned, editorially independent subsidiary of CBOE.

An exchange industry veteran, Ms. Morrison joined Bats from the New York Stock Exchange (NYSE) where she spent 20 years in leadership roles. In her last eight years at NYSE, she served as Senior Vice President, Global Index and Exchange Traded Products, leading the team which managed ETF listings and trading as well as the NYSE index business. Ms.

Morrison played a leading role in bringing new and innovative ETF products to market while launching key market quality programs and growing NYSE's ETF issuer base to record numbers.

Previously at NYSE, Ms. Morrison held senior-level positions as Managing Director, Member Firm Sales, and Managing Director, NYSE Global Listings Group. She also worked at NYSE specialist unit, CMJ Partners L.P. after beginning her career at Barnett Bank in Fort Lauderdale, Florida.

Ms. Morrison currently serves as a board member for Women in ETFs and the Borough of Manhattan Community College (BMCC) Foundation Board. She also served as a member of the Standard & Poor's Index Committee. She holds a Series 7 license. In 2017, Laura was awarded the Fund Marketer of the Year at the Mutual Fund Awards recognized for her efforts to help ETF providers compete with more established offerings.

Kathleen Moriarty

Kathleen H. Moriarty is a partner in the Corporate Department of Arnold & Porter Kaye Scholer LLP. She has extensive experience representing investment companies with the creation, structuring and development of new exchange-traded products (ETPs) and was actively involved in the development of SPDRs, the first US exchange-traded fund (ETF) as well as many other ETFs. Kathleen represents a wide variety of market participants in connection with ETPs as well as commodity-backed derivative securities and non-investment company exchange traded vehicles, such as the US ETFS precious metals trusts. She also advises index providers licensing their financial products to ETPs.

In addition, Kathleen represents entities that are developing businesses involved in the virtual currency and Blockchain space.

Kathleen is regularly quoted in the media about issues relating to ETPs, financial indexes, bitcoin, Blockchain and other virtual currency related matters. She is a frequent speaker at industry conferences and webinars, and has published articles on these topics.

Kathleen is an inaugural member of the ETF DataBase's ETF Hall of Fame, a recipient of two Global ETP Icons of the Industry Awards, the winner of the first ETF.com Lifetime Achievement Award, the IMN 2016 William F Sharpe Lifetime Achievement Award and the Nate Most Greatest Contributor to the ETF Marketplace Award in 2017.

Commissioner Kara M. Stein

Kara M. Stein was appointed by President Barack Obama to the U.S. Securities and Exchange Commission (SEC) and was sworn in on August 9, 2013.

While at the Commission, Commissioner Stein has advocated for strong investor protections and for initiatives to further increase competition and facilitate capital formation. Commissioner Stein has focused on identifying ways to enhance our securities market structure to promote efficiency and resiliency. She also has advocated for updating the Commission's rules and practices for the Digital Age, including calling for the formation of a Digital Disclosure Task Force to aid in the Commission's assessment of the nature, timing, and delivery of information to a variety of investors and other market participants. In addition, Commissioner Stein has advocated for the formation of an Office of Data Strategy and a Chief Data Officer to concentrate on the governance and utilization of information in a data-driven environment. She is also a strong advocate for the timely completion of the consolidated audit trail (CAT); the shortening of the settlement cycle for equities and fixed income; enhanced clearing agency standards; and the further development of tools that facilitate the use of machine readable disclosures.

Commissioner Stein serves as the Commission's liaison to the North American Securities Administrators Association (NASAA), represents the Commission at meetings of the International Organization of Securities Commissions (IOSCO),

and is an ardent supporter of furthering diversity and inclusion initiatives at the SEC. Currently, Commissioner Stein sponsors the SEC's LGBT and the Disability Interests Advisory Committees, and she serves as the Chair of the SEC's Diversity Council.

Commissioner Stein joined the Commission after serving as Senior Policy Advisor for securities and banking matters to U.S. Sen. Jack Reed. From 2009 to 2013, she was Staff Director of the Securities, Insurance, and Investment Subcommittee of the U.S. Senate Committee on Banking, Housing, and Urban Affairs. During that time, Commissioner Stein played an integral role in drafting and negotiating significant provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

During her tenure in the U.S. Senate, Commissioner Stein also served as Staff Director of the Banking Committee's Subcommittee on Housing and Transportation, as Legal Counsel to Sen. Jack Reed, and a Legislative Assistant to Sen. Chris Dodd.

Before working in the U.S. Senate, Commissioner Stein was an associate at the law firm of Wilmer, Cutler & Pickering, an assistant professor with the University of Dayton School of Law, an Advocacy Fellow with the Georgetown University Law Center, and a Skadden Public Interest Fellow.

Commissioner Stein received her B.A. from Yale College and J.D. from Yale Law School.