



Credit-Sensitive Benchmark Symposium

September 18, 2020

*Panelist Biographies
In order of Appearance*



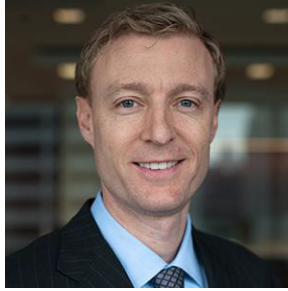
Nate Wuerffel

Senior Vice President, Markets Group of the Federal Reserve Bank of New York

Nathaniel Wuerffel is a Senior Vice President in the Markets Group of the Federal Reserve Bank of New York and Deputy Head of MOMA—the open market trading desk—for Domestic Markets. In this role, he is responsible for the Money Markets, Mortgage Markets, and Treasury Markets directorates. Together, these directorates are responsible for the implementation of domestic monetary policy operations as directed by the FOMC, monitoring and analyzing money markets, agency debt markets, mortgage markets, and Treasury markets, and executing Treasury auctions as fiscal agent for the U.S. Treasury. Beginning in 2015, Mr. Wuerffel helped develop and sponsor an annual joint agency conference on the evolution of the Treasury market, and serves as the Bank’s senior liaison to the Treasury Market Practices Group, a group of market professionals sponsored by the New York Fed that promotes best practices in the domestic markets. In 2008, Mr. Wuerffel transferred to the New York Fed from the Federal Reserve Bank of Chicago, where he held a variety of roles including leadership of the risk management and strategic planning functions. Mr. Wuerffel holds a B.A. degree from Valparaiso University and an M.A. degree from University of Chicago.

Alastair Hughes
Senior Advisor- Markets Directorate, Bank of England
[\(https://www.tisa.uk.com/product/libor-transition/\)](https://www.tisa.uk.com/product/libor-transition/)

Alastair Hughes is a senior advisor in the Bank of England's Markets Directorate, leading the work on risk-free rate transition. Prior to this he spent most of his career as a supervisor of Globally Systemically Important Banks (GSIBs). Most recently as a Head of Division in the Prudential Regulation Authority (PRA) covering the London operations of North American firms including JPMorgan, Citigroup and Bank of America. He spent several years as a member of the FSB's Senior Supervisor Group, a forum for senior representatives of supervisory authorities to engage in dialogue on risk management practices, governance, and other issues concerning complex, globally-active financial institutions.



Alastair M. Borthwick

President-Global Commercial Banking, Bank of America

Alastair Borthwick is president of Global Commercial Banking for Bank of America, and is a member of the company's executive management team. He is also one of the Vice Chairs for the Global Diversity and Inclusion Council. The Commercial Bank, one of the firm's eight lines of business, delivers integrated banking solutions to clients across Middle Market Banking; Real Estate; Healthcare, Education and Not for Profit; and Dealer Financial Services.

Prior to being named to his current role in 2012, Borthwick was a managing director and co-head of Global Capital Markets. In that role, he had responsibility for Equity Capital Markets, Investment Grade Debt Capital Markets, Leveraged Finance, and Global Origination for Rates & Currencies. Previously, Borthwick was head of Global Investment Grade Debt Capital Markets, a position he held since joining the company in 2005. Borthwick spent the prior 12 years at Goldman Sachs.

Borthwick is a member of the board of directors of the Posse Foundation, one of the most comprehensive and renowned college access and youth development programs in the United States. Borthwick holds a Masters in Business Administration degree from the Amos Tuck School at Dartmouth College, and he graduated from the University of St. Andrews in Scotland where he majored in economics and statistics. He is a member of the Board of Advisors for Tuck.



Jason Granet

Corporate Treasury, Goldman Sachs

Jason is responsible for leading the firm's London Inter-bank Offered Rate (LIBOR) transition effort. He is a member of the Alternative Reference Rate Committee, which is the public-private sector working group to help ensure the market's successful transition to alternative rates, and a member of the Commodity Futures Trading Commission Market Risk Advisory Committee's Interest Rate Benchmark Reform Subcommittee.

Prior to assuming his current role, Jason was deputy head of Liquidity Solutions for Goldman Sachs Asset Management (GSAM). From 2010 to 2017, Jason was head of International Liquidity Portfolio Management for GSAM, responsible for the management of international liquidity portfolios. From 2007 to 2010, he was co-head of the Secured Funding team on the Central Funding desk for the Investment Management Division. Prior to that, Jason worked in the portfolio and risk strategy group of GSAM's Fixed Income team from 2004 to 2007. Before joining GSAM, he was an analyst in Fixed Income Operations. Jason joined Goldman Sachs in 2000 and was named managing director in 2012.

Jason was recognized by Financial News as one of the "FN 40 Under 40 Rising Stars of Asset Management" in 2013 and 2014. Jason serves on the Board of Trustees of Fairy Bricks. Jason earned a BA in Economics from the University of Michigan in 2000.



Darrell Duffie

Professor, Stanford University

Darrell Duffie is the Adams Distinguished Professor of Management and Professor of Finance at Stanford Graduate School of Business. He is also Professor (by courtesy) in the Department of Economics, Stanford University, Senior Fellow of the Stanford Institute for Economic Policy Institute, and Senior Fellow (by courtesy) of the Hoover Institution at Stanford University.

Duffie is a Fellow of the Econometric Society, a Research Fellow of the National Bureau of Economic Research, a Fellow of the American Finance Association, and a Fellow of the American Academy of Arts and Sciences. He was the 2009 president of the American Finance Association. Duffie serves on the board of Dimensional Funds and was a member of the board of directors of Moody's Corporation from 2008-2018. Duffie chaired the Financial Stability Board's Market Participants Group on Reference Rate Reform. He is a Project Advisor of The G30 Working Group on Digital Currencies.

Duffie's research focus is the design and regulation of financial markets. His most recent books include *How Big Banks Fail* (Princeton University Press, 2010), *Measuring Corporate Default Risk* (Oxford University Press, 2011), *Dark Markets* (Princeton University Press, 2012), and *Fragmenting Markets: Post-Crisis Bank Regulations and Financial Market Liquidity* (forthcoming, 2020, DeGruyter).



Tim Bowler

President, IBC Benchmark Administration

Timothy J. Bowler is President of ICE Benchmark Administration, a wholly-owned subsidiary of Intercontinental Exchange, Inc. IBA combines robust regulatory and governance frameworks with advanced technology to bring credibility and trust to globally important benchmarks.

Prior to joining ICE Benchmark Administration in October of 2017, Bowler was a managing director in the Financial Institutions Group at Goldman Sachs advising U.S. depository institutions. Before returning to Goldman Sachs in 2016, Bowler was Counselor to Secretary Lew at the U.S. Treasury. In that function, he was responsible for advising the Secretary on matters related to Housing Finance Reform and troubled municipalities including the Commonwealth of Puerto Rico. He previously served as the U.S. Treasury's Acting Assistant Secretary for Financial Stability and Deputy Assistant Secretary for the Office of Capital Markets.

Before the U.S. Treasury, Bowler was a managing director in Goldman Sachs' Financial Institutions Group and held various capital markets and risk management roles at JPMorgan.

Bowler earned a Bachelor of Science degree with a concentration in Finance from the College of William and Mary.



Richard Sandor
Chairman and CEO, American Financial Exchange

He currently is Chairman and CEO of the American Financial Exchange (AFX) established in 2015. AFX is an electronic exchange for direct interbank/financial institution lending and borrowing. The AFX flagship product, the AMERIBOR benchmark index, reflects the actual borrowing costs of thousands of regional, mid-sized and community banks across the U.S.

He is also the CEO of Environmental Financial Products (EFP), which was the incubator to the Chicago Climate Exchange (CCX).

Known world-wide as the “Father of Financial Futures,” in 2002 he was named by *TIME Magazine* a “Hero of the Planet.” In 2007 as one of the magazine’s “Heroes of the Environment” for his work as the “Father of Carbon Trading.” And in October 2013, Dr. Sandor was awarded the title of Knight of the Legion of Honor in France, for his accomplishments in the field of environmental finance and carbon trading.

He served on the board of directors of leading commodities and futures exchanges such as the Chicago Mercantile Exchange, Intercontinental Exchange, Chicago Board of Trade, London International Financial Futures and Options Exchange and Tianjin Climate Exchange, as well as several philanthropic and non-for-profit organizations.

He authored and co-authored numerous academic and popular press publications on finance and environmental topics. His most recent, “Electronic Trading and Blockchain: Yesterday, Today and Tomorrow,” was published by World Scientific in April 2018 and translated into Chinese and published by in May, 2020.

He earned Bachelor of Arts degree from the City University of New York, Brooklyn College, and a Ph.D. in Economics from the University of Minnesota. In addition, he holds an honorary degree of Doctor of Science, *honoris causa*, from the Swiss Federal Institute of Technology (ETH).

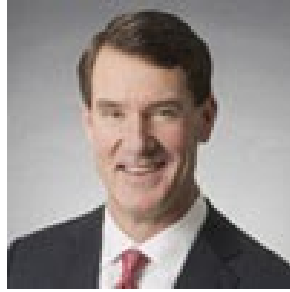


Thomas C. Deas, Jr.

Chairman, National Association of Corporate Treasurers

Thomas C. Deas, Jr. is the Chairman of the National Association of Corporate Treasurers (www.nact.org), having also served a previous term as its Chairman from 2011 through 2013. From 2001 until his retirement in 2016, he served as Vice President and Treasurer of FMC Corporation (NYSE: FMC). Prior to joining FMC, he served as Vice President, Treasurer and CFO of Applied Tech Products Corp., of Airgas, Inc. (NYSE: ARG) and of Maritrans Inc. (NYSE: TUG). Prior to these positions, Mr. Deas was employed for 18 years at Scott Paper Company (NYSE: SPP) and Kimberly-Clark Corporation (NYSE: KMB), where he served in various capacities in finance and treasury.

Mr. Deas received a BS in Physics from the University of South Carolina. Following service as a destroyer officer in the U.S. Navy, he received an MBA from the Wharton School of the University of Pennsylvania. He is the past Chairman of the International Group of Treasury Associations and is a director of the University of South Carolina Educational Foundation and its Investment Policy Committee. He has served as a member of the Financial Stability Board's Market Participants Group and is a current representative to the Federal Reserve's Alternative Reference Rates Committee. Both these efforts focus on changes in how LIBOR and other interest rate indexes are determined. Mr. Deas is a member of the steering committee of the Coalition for Derivatives End-Users. He is a frequent speaker at investor conferences and professional forums and has testified on financial and derivatives reform before several Congressional committees.



William Demchak
CEO, The PNC Financial Services Group

William S. Demchak is chairman, president and chief executive officer of The PNC Financial Services Group, one of the largest diversified financial services companies in the United States. Demchak joined PNC in 2002 as chief financial officer. In July 2005, he was named head of PNC's Corporate & Institutional Banking responsible for PNC's middle market and large corporate businesses, as well as capital markets, real estate finance, equity management and leasing. Demchak was promoted to senior vice chairman in 2009 and named head of PNC businesses in August 2010. He was elected president in April 2012, chief executive officer in April 2013 and chairman in April 2014.

Before joining PNC in 2002, Demchak served as the global head of Structured Finance and Credit Portfolio for JP Morgan Chase. He also held key leadership roles at JP Morgan prior to its merger with the Chase Manhattan Corporation in 2000. He was actively involved in developing JP Morgan's strategic agenda and was a member of the company's capital and credit risk committees.

Demchak is a member and past chairman of the board of directors of the Bank Policy Institute and is a member of The Business Council. In addition, he serves as chairman of the Allegheny Conference on Community Development and is on the boards of directors of the Extra Mile Education Foundation and the Pittsburgh Cultural Trust.

Demchak received a bachelor of science degree from Allegheny College and earned an MBA with an emphasis in accounting from the University of Michigan.