

TORBEN VOETMANN, Ph.D.

Principal

San Francisco, CA

+1.415.217.1007

Torben.Voetmann@brattle.com

Dr. Voetmann is a Managing Principal at The Brattle Group in its San Francisco office and an adjunct professor at the University of San Francisco's School of Management. His expertise includes cases related to accounting, corporate finance, capital markets, financial institutions, insider trading, and internal investigations. Dr. Voetmann has testified and consulted on issues related to financial econometrics (i.e., the application of statistical methods within an economic framework), testing asset pricing models, event-study analysis, stock and bond market behavior, market microstructure, securities and bond prices and capital markets, market efficiency, damages, and materiality in securities fraud and misrepresentation cases, including Rule 10b-5 and Section 11 matters. Dr. Voetmann has also testified and consulted on valuation issues related to mergers and acquisitions, appraisal actions, and other disputes involving valuation of private and public companies, illiquidity securities, employee stock options, and minority interests.

EXPERT WITNESS EXPERIENCE (Testimony and Reports)

- *Matthew Hall v. Pitcher Partners*, VID918/2018 (Hall Proceedings). Report August 2020.
- *In Re Appraisal of Bob Evans, Inc.* Court File C.A. No. 2018-0052-JRS. Report August 2019.
- *In Re Banc of California Securities Litigation*. Court File No. 0:18-mc-00076-WMW-KMM. Report May 2019.
- *United States of America v. Kaleil Isaza Tuzman and Omar Amanat*. Docket No.: 0208 1:15CR00536-001/004. Fatico Hearing Testimony April 2019.
- *The Mangrove Partners Master Fund, Ltd. V. Calamos Asset Management, Inc. C.A. No. 2017-0139-JTL*. Report December 2018.
- *Consumer Financial Protection Bureau v. OCWEN FINANCIAL CORPORATION, OCWEN MORTGAGE SERVICING, INC., and OCWEN LOAN SERVICING, LLC*. Case No. 9:17-CV-80495 – Marra/Matthewman. Declaration October 2018. Rebuttal Declaration November 2018.
- *In Re Banc of California Securities Litigation*. Court File No. 0:18-mc-00076-WMW-KMM. Declaration September 2018; October 2018; and November 2018.
- *United States of America v. Kaleil Isaza Tuzman and Omar Amanat*. Docket No.: 0208 1:15CR00536-001/004. Report July 2018.

TORBEN VOETMANN, Ph.D.

- *Robert Hurwitz v. LRR Energy, LP, et al.*, Case No. 1:15-cv-00711-MAK. Report April 2018.
- *Matthew Hall v. Slater & Gordon Limited*, VID1213/2016. Report October 2017.
- *Gwyn R. Hartman Revocable Living Trust U/A/D 11/16/93 v. Southern Michigan Bancorp, Inc. et al.*, Civil Action No.: 1:13-cv-00825. Report March 2017.
- *UNITED STATES OF AMERICA, Plaintiff-Intervenor, v. ALLQUEST HOME MORTGAGE CORPORATION, f/k/a/ ALLIED HOME MORTGAGE CORPORATION, et al., Defendants*, 12 Civ. 02676 (GCH). Jury Trial November 2016.
- *Guidant LLC F.K.A Guidant Corporation, and Subsidiaries, et al. v. Commissioner of Internal Revenue*, Docket Nos.: 5989-11, 5990-11, 10985-11, 26876-11, 5501-12, 5502-12. Report June 2016.
- *Securities and Exchange Commission v. Sasan Sabrdaran, et al.*, Case No. 3:14-cv-04825-JSC. Report May 2016, Deposition August 2016, Jury Trial November 2016.
- *Securities and Exchange Commission v. Bonan Huang, et al.*, Case No. 2:15-cv-00269-MAK. Report October 2015, Deposition October 2015, Declaration October 2015, Jury Trial January 2016.
- *United States of America v. Wells Fargo Bank. N.A. and Kurt Lofrano*, Case No. 12 Civ. 7527 (JMF)(JCF). Report June 2015, Deposition September 2015, Report October 2015.
- *Long, et al. v. Morgan Stanley Trust, N.A.*, Case No. 13-CV-3624. Report March, 2014.
- *Arbitration* - Testimony concerning the valuation of an early-stage startup company. Report March, 2014. Deposition February 2015. Arbitration March 2015.
- *Charles P. Haggarty and Gina M. Haggarty et al. v. Wells Fargo Bank, N.A.*, Case No. 3:10-cv-02416-CRB. Declaration August, 2012.
- *Munoz v. China Expert Technology, Inc.*, Case No. 07-CV-10531 (AKH)(S.D.N.Y.). Report, February, 2012. Deposition, March 2012.

EDUCATION

Ph.D., Finance, Copenhagen Business School, 2000

MS, Finance, Aarhus School of Business, 1993

BBA, Aarhus School of Business, 1991

TEACHING EXPERIENCE

University of San Francisco (2013 -)

- MBA – 6019: Managerial Finance
- MBA – 6204: Capital Market and Investment Banking
- MSFA – 714: Corporate Finance

The Wharton School, University of Pennsylvania (1998 – 2004)

- Undergraduate – FNCE 100: Corporate Finance (Honors Section)
- Undergraduate – FNCE 207: Corporate Valuation (formerly Security Analysis)
- MBA – FNCE 601: Corporate Finance
- MBA – FNCE 728: Corporate Valuation (formerly Security Analysis)
- MBA – FNCE 899: Independent Study Project in Finance

New York Institute of Finance, NYC (2001 – 2004)

- Financial Modeling in Excel and Security Analysis
- Business Valuation

Financial Modeling World, Australia (2002)

- Executive – Financial Modeling for Corporate Finance

Copenhagen Business School (1999 – 2000)

- Graduate – Seminar in Finance

RESEARCH PUBLISHED IN ACADEMIC JOURNALS

1. “Can Mispricing Explain the Value Premium?,” with Jeffrey Jaffe, Jan Jindra, and David Pedersen, *Financial Management*, 2020, Volume 49, 615–633.
2. “Does Unlisted Targets Sell at a Discount?,” with Jeffrey Jaffe, Jan Jindra, and David Pedersen, *Journal of Financial and Quantitative Analysis*, 2019, Volume 54, 1371–1401.
3. “Private Class Action Litigation and Cross-Listing: The Chinese Reverse Mergers and IPOs,” with Jan Jindra and Ralph A. Walkling, *Quarterly Journal of Finance*, 2017, Volume 7, 1–20.
4. “The Bid-Ask Spread in the Danish Stock Market: Evidence from the 1990s,” *International Journal of Economics and Finance*, 2016, Volume 8, 128–139.
5. “Returns to Acquirers of Public and Subsidiary Targets,” with Jeffrey Jaffe, Jan Jindra, and David Pedersen, *Journal of Corporate Finance*, 2015, Volume 31, 246–270.
6. “Skill Differences in Corporate Acquisitions,” with Jeffrey Jaffe and David Pedersen, *Journal of Corporate Finance*, 2013, Volume 23, 166–181.

TORBEN VOETMANN, Ph.D.

7. “Discussion of the Pre and Post-Tax Discount Rates and Cash Flows: A Technical Note,” with Jan Jindra, *Journal of Applied Research in Accounting and Finance (JARAF)*, 2010, Volume 5, 16–20.
8. “A New Approach for Interpreting Long-Run Returns, Applied to IPO and SEO Stocks,” with Jan Bo Jakobsen, *Annals of Economics and Finance*, 2005, Volume 6, 337–363.
9. “Top executive turnovers: Separating decision and control rights,” with Robert Neumann, *Managerial and Decision Economics*, 2005, Volume 26, 25–37.
10. “Demand Curves for European Stocks Slopes Down Too: Evidence from Float Capitalization Index Weights in Dow Jones STOXX 50,” with Robert Neumann, *Review of Finance*, 2003, Volume 7, 437–457.
11. “Does Ownership Matter in the Presence of Strict Anti-Activism Legislation? Evidence from Equity Transactions in Denmark,” with Robert Neumann, *International Review of Financial Analysis*, 2003, 157–171.
12. “Post-Acquisition Performance in the Short and Long Run: Evidence from the Copenhagen Stock Exchange 1993 – 1997,” with Jan Jakobsen, *European Journal of Finance*, 2003, Volume 9, 323–342.
13. “Free Float Index Weights of KFX – Experiences from the Dow Jones Europe STOXX Index,” with Robert Neumann, *Finans/Invest*, May 2001, 23–27.
14. “The Performance of Danish Bidding Firms,” with Jan Jakobsen, *Finans/Invest*, December 2000, 10–13.
15. “CEO Turnovers and Corporate Governance,” with Robert Neumann, *Finans/Invest*, December 1999, 20–23.
16. “Are the Stock Markets Integrated or Segmented?” *Finans/Invest*, April 1992, 23–25.

OTHER PUBLISHED RESEARCH AND ARTICLES

1. “Securities Class Actions: Trading Models to Estimate Individual Investor Trading Activity and Aggregate Damages,” with Ioannis Gkatzimas, Yingzhen Li, *The Brattle Group*, May 2017.
2. “BMC Software’s Lessons For Expert Witnesses,” with Sujay Dave, *Law360*, February 2016.
3. “Focus On Event Studies in Class Certification,” with Paul Hinton, Matthew Aharonian, *Law360*, December 2015.

TORBEN VOETMANN, Ph.D.

4. “Correct Application of Event Studies in Securities Litigation,” with Pavitra Kumar, The Brattle Group Publication, November 2015. Posted on EventStudyTools (Research Apps), St.Gallen. Available on: <http://www.eventstudytools.com>, December 2015.
5. “Delaware Appraisal Case Reaffirms Valuation Premium for S Corporations,” with Yvette Austin Smith and David McKnight, *Deal Points – The Newsletter of the Mergers and Acquisitions Committee*, Volume 20, Fall 2015.
6. “Event Studies,” with Simon Benninga, Chapter in *Financial Modeling*, 2008, 3rd Edition; 2014 4th Edition.
7. “Key Complexities In High-Frequency Trading Litigation,” with Zach Ziliak, Pavitra Kumar, *Law360*, June 2014.
8. “Rural Metro Redefines Investment Banks’ Role In M&A,” with Yvette Austin Smith, *Law360*, March 2014.
9. “Avoiding Pitfalls in the Litigation of Business Valuation,” with Gary Stahlberg, Ioannis Gkatzimas, and Bryan Plotts, in PLI Course Handbook, *Basics of Accounting for Lawyers 2013: What Every Practicing Lawyer Needs to Know*, Chapter 7, 181–213.
10. “Institutionelle og strategiske investorers betydning: resultater fra ¶29 meddelelser,” with Robert Neumann, *Finansielle splinter*, 2000, 65–71.

ACADEMIC HONORS AND AWARDS

The Dean’s Office of the Wharton School officially recognized my teaching efforts for the course Security Analysis (Corporate Valuation) in the fall of 2000 and Corporate Finance in the Spring of 2001.

The article “Skill Differences in Corporate Acquisitions,” with Jeffrey Jaffe and David Pedersen, *Journal of Corporate Finance*, 2013, Volume 23, pp.166-181 was awarded the 2014 NJBIA Bright Idea Award by the Stillman School of Business at Seton Hall University and the NJPRO Foundation, the public policy research affiliated of the New Jersey Business and Industry Association (NJBIA). The paper was identified as one of the top 10 manuscripts from over 216 publications.

ACADEMIC AND INDUSTRY CONFERENCES (ACCEPTED PAPERS AND PRESENTATIONS)

Practising Law Institute, “Pocket MBA: Finance for Lawyers and Other Professionals,” May 2014, May 2015, June 2016, October 2017, October 2018.

Financial Management Association, “Skills in Corporate Acquisitions,” October 2009, Reno, Nevada.

TORBEN VOETMANN, Ph.D.

Eastern Finance Association Conference, “Mergers and Persistence: A Test of Differential Skill in Corporate Finance,” May 2009, Washington, D.C.

Mid-Atlantic Research Conference in Finance (MARC), “Mergers and Persistence: A Test of Differential Skill in Corporate Finance,” March 2009, Philadelphia, Pennsylvania.

Financial Management Association “Implementing Float Capitalization Index Weights – Price and Volume Effects, October 2002, San Antonio, Texas.

European Financial Management Association “Implementing Float Capitalization Index Weights – Price and Volume Effects,” June 2002, London, United Kingdom.

Financial Management Association, “Implementing Float Capitalization Index Weights – Price and Volume Effects,” June 2002, Copenhagen, Denmark.

Financial Management Association, “Volatility-Adjusted Performance: An Alternative Approach to Interpret Long-Run Returns,” October 2001, Toronto, Canada.

Financial Management Association International, “Does Ownership Matter in the Presence of Strict Anti-Activism Legislation? Evidence from Equity Transactions in Denmark,” June 2001, Paris, France.

European Financial Management Association, “Volatility-Adjusted Performance: An Alternative Approach to Interpret Long-Run Returns,” June 2000, Athens, Greece.

Financial Management Association International, “Volatility-Adjusted Performance: An Alternative Approach to Interpret Long-Run Returns,” June 2000, Edinburgh, Scotland.

European Finance Association Annual Meeting, “CEO Turnover and Corporate Governance: Evidence from the Copenhagen Stock Exchange,” August 1999, Helsinki, Finland.

Workshop on Corporate Finance, “Volatility-Adjusted Performance: An Alternative Approach to Interpret Long-Run Returns,” Copenhagen, May 1999, Copenhagen, Denmark.

Financial Management Association International, “Post-Acquisition Performance in the Short and Long Run: Evidence from the Copenhagen Stock Exchange 1993-1997,” June 1998, Barcelona, Spain.

PROFESSIONAL EXPERIENCE

2013 – Present	Principal, The Brattle Group
2012 – 2013	Managing Director, Finance Scholars Group
2002 – 2012	Principal, Cornerstone Research

Managerial Expertise

- Directed consulting services with teams of up to thirty or more consultants
- Managed case involving multiple stakeholders, including multiple clients, experts, and lawyers
- Directed client relationships and the production of case deliverables under tight deadlines
- Developed consulting fee estimates and work plans for multi-million dollar projects

Expertise in Financial Econometrics

- Consulted, as an expert, and extensive experience with the event study methodology and damages estimation in securities litigations. Addressed non-standard issues that have arisen in assessment of materiality, including:
 - Isolating the value of information announcements when there are confounding announcements and/or events;
 - Estimating the value of relevant information that is revealed gradually;
 - General issues of materiality and price inflation when markets are potentially information inefficient;
 - Estimating materiality through event study when model structure is changing. e.g., volatility of abnormal return is changing, as happened during the recent financial crisis;
 - Event studies with securities that are thinly traded;
 - Developing event-studies using high-frequency data to measure price impact;
 - Establishing causality and issues that arise for damages estimations; and
 - Appropriate inflation ribbon estimates when continuous disclosure obligations are not met and the impact of concealment is changing.

Expertise in Finance

- Estimated fair market valuation of various businesses under different assumptions. Developed and modeled pro forma financial statements (profit and loss statements, balance sheets, and cash flow statements), costs, and profits over multiple years.
- Assessed reasonableness of, and modified, financial forecasts in light of market and industry conditions, including trend analysis.
- Estimated fair value of various businesses under different assumptions and in different industries.

TORBEN VOETMANN, Ph.D.

- Assessed illiquidity and private company discounts, and lack of marketability in valuation of private and public companies.
- Reviewed accounting, financial, and competitive position of acquired companies to assess reasonableness of acquisition prices. Applied various valuation methods, including discounted cash flows (DCF), multiples, comparables, and ratio analysis.

SELECTED CONSULTING EXPERIENCE

Securities

- Testified and consulted on numerous cases related to class certification issues, loss causation, and damages. Analyzed the reaction of the defendant's stock price to information disclosures in 10b-5 and Section 11 and 12 classes.
- Consulted on materiality, loss causation, and damages in securities cases involving stocks, bonds, mutual funds, mortgage-backed and asset-backed securities.
- Consulted on economic losses and loss causation for companies and investors in a range of industries, including banking, finance, real estate, oil and gas, software, media and telecommunications, retail, pharmaceuticals, biotechnology and transportation.
- Consulted on the market impact of short sales and investigated possible insider trading in various settings. Managed insider trading case through trial.

Valuation and Mergers & Acquisitions

- Consulted on valuation analyses of hedge funds, high-technology companies (including start-up ventures), international companies, and real estate ventures in a range of contexts, including breach of contract, mergers and acquisitions, initial public offerings, and employee compensation; and employee stock options.
- Consulted for a private company on appraisal matter and assessment of fair value. Analyzed valuation approaches such as DCF and multiples. Favorable trial verdict by Delaware vice-chancellor.
- Testified and consulted for private companies on valuation issues in several industries.
- Consulted and engaged as an expert to value an illiquidity private company.
- Consulted on valuing the liquidity of a small foreign company trading over the counter.

Asset Management, Hedge Funds and Private Equity

- Consulted for large asset management firm to analyze the impact of errors in an algorithmic trading strategy. Performed valuation of equity and bonds on customer accounts.

TORBEN VOETMANN, Ph.D.

- Consulted for several financial institutions to investigate the consistency of regulatory reporting of data by financial institutions, evaluated profitability and risk of investment strategies of hedge funds, and addressed damages.
- Consulted for private equity firms to analyze investment and financing strategies, competition, structure of funds, drivers of value, and compensation issues.
- Consulted for partners of hedge funds to perform valuation of venture capital management companies. Analyzed investment strategies, performance, and valuation of portfolio companies of venture capital funds.

Risk Analysis/Financial Modeling

- Consulted for large financial institution to analyze hedging strategies by counterparties of total return swap contracts, analyzed the sensitivity of asset-backed securities values to interest rates, valued cash flows from management of pension fund assets using Monte Carlo techniques, summarized risk characteristics of a portfolio of derivative securities, and assessed risk characteristics of reference obligations in a credit default swap.

PROFESSIONAL EDUCATION, CUSTOMIZED COURSE OFFERINGS, AND OTHER ACTIVITIES

- Designed, developed, and instructed an Executive course titled “Financial Modeling for Corporate Finance” for Financial Modeling World, Australia, 2002.
- Designed, developed, and instructed an Executive course title “Financial Modeling in Excel and Security Analysis” for FT New York Institute of Finance, 2001-2002.
- Valuation consultant on the development of the web-based course “Business Valuation” for FT New York Institute of Finance, 2001.
- Referee for *Journal of Empirical Corporate Finance* and *International Review of Financial Analysis*

PROFESSIONAL AFFILIATIONS

- American Bar Association (non-lawyer member)
- Bar Association of San Francisco
- Western Finance Association