

Duff & Phelps, LLC Chicago +1 312 697 4911 Cell: 847 420 6335 Adam.Warren@duffandphelps.com

Court Testimony Experience:

Managing Director, Dispute and Legal Management Consulting

Adam Warren is a managing director in the Chicago office and part of the Dispute Consulting service line. He has over 28 years of experience in the financial services industry.

Mr. Warren specializes in financial services industry issues with an emphasis on valuation of financial, commodity and complex derivative instruments; trading systems and processes; financial markets and exchanges; technology and operations; and market, credit and operational risk management of financial, derivative and commodity products. He has assisted more than 15 securities and derivative exchanges as well as numerous brokerage firms, clearing houses, hedge funds and investment management companies globally. He has presented at industry and legal events and has authored articles on risk management and financial markets.

Mr. Warren also provides court and arbitration testimony. He has testified in Federal Courts as well as several state courts. Also, Adam has testified in Financial Industry Regulatory Authority and other SRO arbitrations regarding issues such as industry standards and practices, alleged front running, insider trading, Regulation SHO and NMS violations, valuation and structure of auction rate securities and the nature of the auction rate securities market, options trading and complex derivative valuation.

Mr. Warren has spent more than 28 years working with numerous firms on trading, valuation, investments, operational and risk management issues for a wide variety of global clients.

Adam has testified and/or submitted expert reports in the following disclosed matters:

- United States District Court, Central District of California, Los Angeles, CA, <u>United States</u> v. Toby Scammell
- United States District Court, Northern District of Illinois, Chicago, IL, Securities and Exchange Commission v. <u>Rex C. Steffes et.al.</u>
- District Court of Dallas County, Texas, 68th Judicial District, <u>Highland</u> <u>Capital Management, L.P.</u> v. Patrick Daugherty
- District Court of Dallas County, Texas, 95th Judicial District, <u>Highland</u> <u>Capital Management, L.P.</u> v. RBC Capital Markets LLC, et. al.
- Supreme Court of the State of New York, County of New York, HYMF, Inc. v. <u>Highland Capital Management LP, et.al.</u>
- FINRA arbitration proceeding, Birmingham, AL, <u>Westervelt Company</u> v. Bank of America Securities

- Supreme Court of the State of New York, New York City, Piper Jaffray v. <u>Nationwide Insurance</u>
- NASD arbitration proceeding, New York, NY, <u>Timber Hill</u> v. Merrill Lynch
- NASD arbitration proceeding, Los Angeles, CA Vigilant Trading v. <u>ABN</u> AMRO
- United States District Court, Minneapolis, Minnesota ADM v. <u>Aon Risk</u> <u>Services</u>
- Supreme Court of the State of New York, UBS Securities LLC, et. al. v. <u>Highland Capital Management, L.P.</u>

Relevant Experience:

- In an arbitration hearing, testified on behalf of a major bank regarding the structuring of a Variable Rate Demand Note. Demonstrated that the structure of the note saved the issuer several million dollars in interest expense relative to issuing a fixed rate obligation.
- Testified in state court in Texas regarding the damage done to an alternative investment management company by the theft of proprietary company information by a terminated, former employee. Demonstrated the value of this information to the court and showed that retention by former employee could cause irreparable harm.
- Testified in Federal Court on behalf of a group of individuals accused of violations of insider trading regulations. Was qualified by the court in a Daubert hearing as an expert. Client was completely exonerated in a jury trial.
- Testified in state court in Texas regarding brokerage industry standards and practices around a failed trade. Provided direct and cross examination testimony. Client won a complete victory with an award exceeding \$25 million.
- Testified in a FINRA arbitration on behalf of a major broker/dealer, regarding the forced liquidation of a client account when the client failed to meet margin calls. Won a complete victory for the broker dealer.
- Defended a major hedge fund against claims it did not properly liquidate client positions following massive redemption requests.
- In an arbitration, testified as to the value of the minority interest held by a partner in a hedge fund. Panel accepted valuation and awarded the client a substantial judgment.
- Testified in a FINRA arbitration regarding the purchase of several hundred million dollars of structured auction rate notes for the account of a large family office. Valued the securities and demonstrated how they were unsuitable investments for the family office.
- Assisted an investment manager in a NFA arbitration in a claim that the fund's clearing firm had improperly liquidated its positions without issuing a margin call.
- Assisted major broker dealer in its defense against a claim that it had improperly sold SIV backed commercial paper to a client. Valued complex securities and assisted in developing strategy for successful mediation.
- On behalf of an issuer of municipal auction rate securities, evaluated the structure and cost of issuing auction rate versus fixed rate debt. Analysis required the multi-year valuation of the securities.

Relevant Experience (Continued):	•	Valued a series of auction rate securities to assist a major on-line firm in FINRA arbitration between itself and brokers. Evaluated the effect of a series of "max-rate waivers" on the valuation and trading of the issue.
	•	Valued and provided analysis of several auction rate securities purchased by a major firm regarding litigation between it and its brokers.
	•	Valued a series of VRDOs on behalf of the issuing broker dealer in a state court matter. Demonstrated that the municipal issuers paid a lower overall rate on the security when compared against issuing an equivalent duration fixed rate security.
	•	Assisted a client in the analysis of a series of complex CDO and other asset-backed auction rate securities for valuation and possible state court proceedings. The analysis of the securities included several complex mortgage pools.
	•	Valued a series of hedge and private equity funds on behalf of a claim of wrongful discharge and monies owed to a former fund executive. Calculated carried interest and management fees for a series of funds and valued amounts due to the client. Funds consisted of numerous different asset classes and types.
	•	On behalf of Anton Valukas, the court-appointed examiner led the analysis of the mortgage underwriting, ABS and CDO securitization operations of Lehman Brothers. Reviewed the FX and commodity trading activities of the firm and assisted in preparation of final report.
	•	Following receipt of a Wells notice from an SRO, reviewed the equities trading activity of a global broker dealer to investigate possible Regulation SHO violations. Analyzed 20 different segregation units to determine compliance with locate requirements and organizational policies and procedures. Prepared report and assisted in client's response to the regulators. The SRO withdrew the investigation without fine or sanction.
	•	Examined the pricing methodology for a series of pass-through notes backed by several series of aircraft leases and commented on the pricing and commissions realized by the brokers involved in the transaction.
	•	Assisted in the analysis of a bankrupt major hedge fund to determine the net asset value of the fund's investments. This review required a forensic analysis of the funds trades and valuation of its positions to assess the level of fraud perpetrated by the fund managers.
	•	Reviewed daily trading records of bankrupt hedge fund to evaluate and quantify fraudulent trading activity. Demonstrated that the trading manager had been falsifying performance record since inception of fund. Valued and recalculated the actual monthly NAV as well as actual management and incentive fees.
	•	Reviewed the global trading and hedging activities of the world's second largest soy bean trading and processing company. Evaluated front, middle and back office operations for both cash and derivative trading activity. Recommended improvements to their risk management and hedging operations.
	•	Reviewed trading activity for a trading desk at a major broker-dealer which uncovered and quantified rogue trading activity. Instruments evaluated included both equities and equity derivatives. Analysis required valuing and evaluating the structure of complex cash and derivative trades.
	•	Evaluated the risk management and hedging activities of one of the largest metal producing and refining firms in Canada.

Relevant Experience (Continued):

- Developed strategy and vision for a major Asian commodity exchange allowing them to survive onslaught from competitors.
- On behalf of regulators, evaluated the trading activity of a large OTC broker-dealer to determine whether the firm engaged in "front running" of customer orders. Analyzed hundreds of orders and thousands of individual transactions to calculate the extent and dollar cost of the front running activity.
- Assisted a major West Coast hedge fund in the complete re-engineering of its trading infrastructure. Developed requirements and specifications covering a broad group of asset and derivative classes, wrote RFP, evaluated multiple vendors and assisted in the final selection and implementation of the selected products. System provided complete trading and monitoring functionality for multiple asset classes.
- On behalf of the independent board of directors, evaluated the derivative trading activity of a large asset management company/hedge fund to determine whether commission charges paid by the funds to an affiliated broker-dealer were appropriate. Determined the extent of overcharges and possible remediation scenarios. Final report resulted in substantial rebates to the funds and a significant lowering of commission rates. Report and actions were accepted by the SEC in settlement of an inquiry letter.
- Developed the jet fuel hedging strategy for one of the top 10 airlines in the United States. Evaluated fuel purchasing patterns, determined best hedge for both location and quantity of jet fuel and established guidelines for optimal fuel hedges. Plan has allowed the company to remain profitable despite large increases in petroleum prices.
- Led the team which documented all Basel II policies and procedures for a major US trust bank. The team created an interactive, on-line system which was used by: auditors to monitor compliance, regulators to confirm and review the policies and processes and management to document maintain and train new employees about the bank's Basel II program.
- Traded and brokered a large number of financial and non-financial asset classes on many exchanges world-wide.
- Led risk management system creation for one of the largest derivative clearing firms in the world. System evaluated equities, debt instruments and a broad range of derivatives.
- Evaluated trading activity of broker-dealer to determine whether clients were receiving "best execution" of equity and fixed income trades.
- Developed methodology to evaluate Anti-Money Laundering capabilities for banks, brokers and other financial services firms.
- Led the selection process for a number of risk management systems and assisted their installation and integration, for several firms including, asset managers, insurance companies, futures and options exchanges, derivative clearing firms and large broker-dealers.
- Assisted major European stock, options and futures exchanges in the integration of their risk management departments following mergers. Developed strategic plan for merging processes, technology and personnel to minimize impact of the merger and to maximize effectiveness of the departments.

	 Assisted major Asian stock, options and futures exchanges in the integration of their risk management departments following their merger.
	 Recommended best practice policies to Asian securities regulators for review and audit of risk management departments of exchanges they regulated
	 Assisted the largest North American futures exchange in the development of an electronic trading platform which is now the largest electronic futures trading platform in the world.
Articles and Presentations:	 "High Frequency Trading: Wall Street Revolt or Distorted Hype?", <u>Securities Docket</u>, Webinar, May 16, 2014 "Securities Enforcement and Litigation: 2009 Recap and 2010 Predictions", CLE panel presentation sponsored by the American Bar Association, White Collar Section, February 2010.
	 "Current Litigation Issues Arising from the Financial Crisis", presentation to the Chicago Bar Association Membership, May, 2009.
	 "Recovery of Troubled Assets in the Current Financial Environment", <u>Aspatore Special Report: New Developments in the Subprime Crisis</u>, <u>An</u> <u>Immediate Look at the Legal, Governmental, and Economic Ramifications</u> <u>of the Changing Face of Subprime Lending</u>, Thomson/Aspatore, 2009.
	 "Taking Responsibility for ARS Failures", Aspatore <u>Special Report: The</u> <u>Increase in Auction-Rate Securities Lawsuits</u>, An Immediate Look at the <u>Legal and Governmental Ramification of the Controversy Surrounding</u> <u>ARS Failures</u>, Thomson/Aspatore, 2008.
	 With Dwight Grant, "Auction-Rate Securities: Legal and Valuation Insights", <u>Securities Litigation & Regulation</u>, Andrews Litigation Reporter, Thomson/Reuters West Publications, June 3, 2008 pp 3-5.
	 "Understanding what Chief Compliance Officers Should Know About New Activities of Traders", IMS conference, Napa California, October 3, 2007 Presentation to Chief Compliance Officers and Legal Counsel for over 85 investment management and brokerage firms. Discussed new trends in trading and how they affect the role of the CCO.
	 "Reducing Transaction Costs Using Single-Stock Futures", Transaction Performance, Institutional Investor Publications, Spring 2002, pp 102-105.
	 "Future Technology Direction of the Futures and Options Industry", Futures Industry Association, Boca Raton, Florida, 1999. Round table participant with leaders of global exchanges to discuss the direction of the Futures and Options industry along with trends in technology. Article appeared in the May, 1999 issue of <u>Global Finance Magazine.</u>
	 Panel Discussion of Trends in the Futures and Options Industry, Futures Industry Association, Chicago, Illinois, 1998.
	 "Financial vs. Power Markets, Comparing Analysis and Trading", Center for Business Intelligence, Washington D.C., 1998. Reviewed the similarities and differences between financial and power markets. Examined qualitative as well as quantitative factors involved with both.
	 "Designing a Risk Management System for Commodities", National Grain and Feed Association Annual Meeting, Orlando, Florida, 1998. Examined

		the key factors in designing risk management systems and technologies to manage exposures in the grain markets.
Articles and Presentations (Continued):	•	"Build versus Buy Decision in Risk Management Systems", Institute for International Research, Toronto, Canada, 1994. A discussion of the factors governing a build versus buy decision in the creation of a modern risk management system. Factors addressed included: costs, flexibility, maintenance, metrics and performance.
Education & Certifications:	•	M.B.A. Finance, University of Chicago Graduate School of Business. Focus on financial markets and complex instruments. 1985 A.B. U.S. History, The College, The University of Chicago. 1982