

DAVID C. SHIMKO

david.shimko@gmail.com

CURRICULUM VITAE

April 2008

EDUCATION

Northwestern University

The Graduate School

Sep 1982 – Jun 1988

PhD in Managerial Economics & Decision Sciences (MEDS)

- Finance Concentration; courses in microeconomics, statistics, game theory and operations research (probability/stochastic processes/ mathematical programming)
- Dissertation title: "The valuation of risky discrete cash flows: Theory with applications to insurance and mortgage finance"
- Winner of State Farm Companies Foundation Doctoral Dissertation in Insurance award

Northwestern University

College of Arts & Sciences

Sep 1978 – Jun 1982

BA in Economics

- Secondary concentration in applied mathematics

BOARD APPOINTMENTS

Cournot Capital

Jun 2007 – Present

Outside Director

- Mandated by credit agency guidelines (one of two)
- Credit Derivatives Product Company wholly owned by Morgan Stanley

Ariston Pharmaceuticals

Jan 2007 – Present

Director

- Drug micro-delivery company funded by Paramount Capital
- Audit committee member

Global Association of Risk Professionals (GARP)

Feb 2002 – Present

Member of the Board of Trustees and Executive Committee Member

- Restored 50,000+ member professional nonprofit organization
- Acting Chairman from February through December 2002
- Elected to the Board of Trustees
- Recruited and installed new board and management

PROFESSIONAL EXPERIENCE

Asset Deployment, LLC

Jan 2000 – Present

Founder and President

- Financial services firm specialized in structuring solutions for investors

NYU

Courant Institute of Mathematical Sciences

Sep 2006 – Present

Adjunct Professor

- Instructor for "Case Course in Corporate Financial Engineering"

Risk Capital Management Partners LLC

Sep 1999 – Dec 2007

Co-Founder and President

- Risk management consulting company targeting energy and banking (25 persons)
- Awarded "Best Risk Management Firm in North America" by *Euromoney* in 2004 and 2007
- Banking clients include JPMorgan, Merrill Lynch, Austrian Export Credit Bank (OeKB), Westfield Insurance Group, CSFB and ABN-AMRO.
- Energy and commodity clients include BC Hydro, Cinergy, Dynegy, PG&E Energy Trading, Williams EMT, Sempra, Western Mining and BHP (Australia), Perez Companc (Argentina)
- Company purchased by Towers Perrin in June 2006 and renamed Towers Perrin Risk Capital

PROFESSIONAL EXPERIENCE (continued)

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Harvard Business School

Sep 1999 – Jun 2004

Senior Lecturer, Department of Finance

- Taught Debt Capital Markets, a second-year advanced elective course
- Developed and taught Corporate Financial Engineering, also a second-year advanced elective course

Bankers Trust Corporation

Acquired by Deutsche Bank

Apr 1997 – Sep 1999

Principal and Head, Risk Management Advisory

- Promoted to Principal from VP in Jan 1998, Head in 1999
- Managed group of 9 advisors
- Advised BT's clients on strategic risk management policy, both originating and executing paid advisory assignments
- Developed "CoVar", a planned BT subsidiary to help companies manage counterparty credit risk with the optimal use of centralized collateral processing

J.P. Morgan Securities, Inc.

May 1996 – Feb 1997

Vice President, Head of Risk Management Research

- Advised institutions on strategic risk management issues, such as hedging policy, capital structure, benchmarking and risk capital allocation. Clients include U.S. Fortune 500 companies and commodity producers globally.
- Oversaw risk measurement initiatives internal to J.P. Morgan, such as improvements to RiskMetrics, CreditMetrics, integration of credit and market risk, and comparison of proprietary trading strategies.
- Managed group of ten quantitative analysts.

J.P. Morgan Securities, Inc.

May 1993 – May 1996

Vice President, Head of Commodity Derivatives Research

- Produced research and advised clients worldwide on strategic hedging and risk positioning. Research titles shown below.
- Oversaw development of pricing and risk management models for commodity forwards, options and exotics.
- Co-created the J.P. Morgan Commodity Index

University of Southern California

Marshall School of Business

Sep 1987 – May 1993

Assistant Professor of Finance

- Taught PhD, MBA and BS/BA courses in derivatives theory, investments and corporate finance.
- Tenure track appointment; resigned prior to consideration for tenure

Northwestern University

J.L. Kellogg Graduate School of Management

Sep 1986 – May 1987

Visiting Professor

- Taught advanced MBA courses in corporate finance

EXPERT WITNESS TESTIMONY

Nevada Power

Mar 2008 – Present

Case No. CV-S-03-0357-RCJ (LRL)

Before the U.S. District Court, District of Nevada:

SIERRA PACIFIC RESOURCES and NEVADA POWER COMPANY Plaintiffs, vs. MERRILL LYNCH & CO., INC; MERRILL LYNCH CAPITAL SERVICES, INC., ALLEGHENY ENERGY, INC., ALLEGHENY ENERGY SUPPLY COMPANY, LLC Defendants

- Expert report filed on behalf of plaintiffs in April 2008

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BOOKS, CHAPTERS & SOFTWARE

Credit Risk: Models and Management

First and Second Edition, 2004, Risk Books

Edited two volumes on building and applying analytic credit models to the management of credit portfolios

Corporate Risk Strategy and Management

1999, Risk Books

Collection and reprint of Risk Magazine articles

Financial Risk and the Corporate Treasury

1997, Risk Books

Two chapters on using corporate risk management techniques in the treasury department.

The Innovative Investor

1993, Richard D. Irwin

Comprehensive Lotus 1-2-3 (now Excel) templates designed to make the teaching of investment theory simpler

Finance in Continuous Time: A Primer

1992, Kolb Publishing Company (now Blackwell)

Primer text for PhD students or technical practitioners to prepare them for more advanced texts

ACADEMIC PUBLICATIONS

"The Equilibrium Valuation of Risky Discrete Cash Flows in Continuous Time," Journal of Finance, Vol. XLIV, No. 5,

Dec 1989, pp. 1373-1383.

Values cash flows that occur at random times, such as the claims from insurance contracts, defaults from bonds, or prepayments on mortgages.

"The Valuation of Multiple Claim Insurance Contracts," Journal of Financial & Quantitative Analysis, Vol. 27, No.2

Jun 1992, pp. 229-246.

Values randomly occurring cash flows in insurance contracts considering the impact of deductibles and indemnity limits. Provides a financial model where diversifiable risk increases insurance premia.

"Bounds of Probability," Risk Magazine, Vol. 6, No. 4

Apr 1993, pp. 33-37

Explains an intuitive and tractable method for determining implied probability distributions for security and futures values from option prices.

"Options on Futures Spreads: Hedging, Speculation and Valuation," Journal of Futures Markets

Apr 1994, pp. 183-213.

Values options on the difference between two futures contracts. An exact single integral solution is provided, along with an approximate analytic solution. The model is applied to crack spread options on the NYMEX.

SELECTED TRADE PUBLICATIONS: RISK CAPITAL

"Risk Appetites: How hungry are utility investors?"

Jan 2005, Public Utilities Fortnightly

Links risk management strategy for a utility with risk reporting and shareholder relations

"Pay as you go"

Jan 2005, Energy Power and Risk Magazine (with Brett Humphreys)

Explains daily risk charge methodology for market, credit and collateral risk

"How to avoid an earnings surprise"

Dec 2004, Public Utilities Fortnightly, (with John Bampfylde)

Shows how model risk may be more important than market risk, since it affects the likelihood of earnings restatements

"Risk Management Principles for the Utility CEO"

Jun 2004, Public Utilities Fortnightly (with Tim Essaye and Brett Friedman)

Suggests how to link risk management policy to the financial objectives of a firm

"Cleaning up the mess"

Dec 2003, The Desk, (with Brett Friedman)

How to convey better risk information to credit agencies

"Avoiding credit risk overcharges"

Jul/Aug 2003, GARP Risk Review

Suggests an improved mechanism to charge traders for counterparty credit risk

"Derivatives in the boardroom"

Jun 2002, Public Utilities Fortnightly

Addresses the struggle of Chief Risk Officers who must act as both risk controllers and portfolio managers

"How to bet the ranch"

May 2000, Financial Times

How do corporations increase their risk leverage well-beyond their assets and what can be done about it

TRADE PUBLICATIONS: J.P. MORGAN RESEARCH

"Optimal Probability Trading Strategies"

Aug 1994

Sep 1994, reprinted in Risk Magazine

Shows how to design optimal derivative strategies to take advantages on a trader's view of the entire probability distribution of a security or futures price

"Commodities: A Suitable Asset Class"

Sep 20, 1994

Makes the case for collateralized commodity investment in a diversified portfolio

"The JPMCI --- A Commodity Benchmark"

Sep 20, 1994

Argues that the JPM Commodity Index is the best index for achieving the benefits of commodity investment

"Managing commodity curve risks"

Feb 23, 1995

Calculates commodity curve hedge ratios (Front Month Equivalents) from implied volatility curves, and shows how to hedge long-dated commodity positions with shorter-dated ones

"Why buy commodity stocks?"

Feb 23, 1995

Finds that the long-term correlation between commodity producers' shares and the underlying commodity prices is generally very small

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“Risk management for corporate growth” <i>Mar 15, 1995</i>	Shows that hedging, by facilitating debt issuance, allows a gold producer to make better use of equity, implying a new source of shareholder value from risk management
“Is hedging a zero-sum game?” <i>Mar 23, 1995</i>	Shows that while hedging may be zero-sum for the counterparts to a trade, the broader value of hedging can make the game positive-sum
“Tactical commodity curve positioning” <i>May 10, 1995</i>	For an investor who wants to be long a commodity, this piece shows how backwardation and implied volatility can be used to choose the optimal maturity structure of a trade
“When to use exotic derivatives” <i>June 19, 1995</i>	Argues that exotic derivatives are appropriate in two conditions, when a hedger has a complex economic exposure, or when a speculator has a precise view on the probability distribution or path of an asset price
“Should commodity buyers buy calls?” <i>July 6, 1995</i>	Argues that backwardation provides an added incentive for some commodity buyers to buy call options --- i.e. the usual hedging benefits plus an insurance premium
“Nonlinear risk management” <i>Dec 26, 1995</i>	Explains why correlation is insufficient as a basis for hedging many kinds of risk
“Trader performance measurement” <i>Jan 26, 1996</i>	Shows how to compare the performance of traders using VaR relative to explicit benchmarks as the appropriate risk measure for computing risk-adjusted returns
“Portfolio management of oil reserves” <i>Feb 6, 1996</i>	Suggests that oil producers could increase returns for shareholders by synthetically owning more short-term oil vs long-term oil

TRADE PUBLICATIONS: RISK MAGAZINE MONTHLY COLUMNS

“Options or insurance?” <i>July 1995</i>	In the classroom, many suggest that options are like insurance. On the trading floor, that seems to change; options are like speculative instruments
“Room for a view” <i>Aug 1995</i>	Sharpens investment strategies to be sensitive to traders’ views and protect them against risks for which they have no views
“Safe executions” <i>Sep 1995</i>	Shows how options protect against execution risk of dynamic trading strategies in addition to price changes
“In praise of cross-pricing” <i>Oct 1995</i>	Illustrates the benefits of linking electricity prices to aluminum prices for an aluminum producer
“Derivatives and the bottom line,” <i>Nov 1995</i>	Summarizes the shareholder value arguments in favor of hedging
“What is VaR?” <i>Dec 1995</i>	VaR is not just a standard deviation, it’s a measure of capital allocation that often works better than actual capital
“Divorce and derivatives” <i>Jan 1996</i>	Sometimes you’re better off without some risks; derivatives give corporations the power to separate risks that previously were inseparable
“How to speculate” <i>Feb 1996</i>	How to measure a trader’s performance using VaR relative to an explicit benchmark
“Hedging away your returns” <i>Mar 1996</i>	What appear to be risk premiums for hedging in some commodity markets may in fact represent systematic losses to one side of the market and systematic gains to the other side
“Risk and tell” <i>Apr 1996</i>	Explains when hedging disclosure is appropriate
“Surrendering your options” <i>May 1996</i>	Shows when corporations should capitalize their real options by selling financial equivalents
“VaR for corporates” <i>June 1996</i>	Many corporate managers think VaR is for banks. This column argues that while the calculation has to be adjusted for corporations, it is equally valid
“Investors’ return on VaR” <i>July 1996</i>	Tells investors how to use VaR to leverage their views and earn higher returns, if they are right
“When corporates are banks” <i>Aug 1996</i>	Corporations run large hidden credit portfolios to clients and suppliers, not really unlike banks
“Capital structure and risk” <i>Sep 1996</i>	Leverage, equity financing, reinsurance and options are all substitutes, and should be evaluated on the same basis, <i>i.e.</i> what is the optimal contingent capital structure of a firm?
“Calling a trade a trade” <i>Oct 1996</i>	Ten top quotes from corporate managers who go to great lengths to avoid the “S” word (speculation)
“Hedging a northern exposure” <i>Nov 1996</i>	Recommends securitization as a solution to Alaska’s dependence on volatile oil-linked tax and royalty revenues
“Hedge with an edge” <i>Dec 1996</i>	When to use hedging strategy to competitive advantage (resolving a popular dilemma)
“Many happy returns”	Demonstrates the structural premium paid to investors who are long emerging markets

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<i>Jan 1997 (with Rob Reider)</i>	currencies relative to developed markets
“Watch your assets” <i>Feb 1997</i>	Major foreign acquisitions may bring unwanted foreign exchange exposure; how to best manage these risks
“A workplan for strategic risk management” <i>Mar 1997</i>	How to use the corporate pro-forma to do firm-wide risk management for corporations
“So you’re a risk manager?” <i>Apr 1997</i>	A lot of risk managers seem to really be risk measurers... how can they elevate the role?
“Not so great expectations” <i>May 1997</i>	Risk models often ignore expected returns, a fatal flaw for long-dated risk analysis
“See Sharpe or be flat” <i>Jun 1997</i>	The RAROC approach (Risk-adjusted return on capital) is exactly the same as the Sharpe ratio—only more general in applicability
“SEC and security” <i>Jul 1997</i>	The proposed SEC disclosure requirements may have hidden benefits for corporations
“The politics of VAR” <i>Aug 1997</i>	How to incorporate sovereign risks into international capital budgeting decisions
“Yearnings per share” <i>Sep 1997</i>	Suggests that risk managers should interview investors and analysts in order to determine a company’s proper risk management policies
“A golden opportunity” <i>Oct 1997 (with Robert McDonald)</i>	Gold producers face a unique hedging anomaly: subsidization of their hedging programs by central banks
“Speed for brains” <i>Nov 1997</i>	Sometimes, being fast is as good as being smart; is the value of intellectual capital declining?
“10 years on top of a stone” <i>Dec 1997 (with Ram Challa)</i>	Corporations have come a long way in 10 years in improving their firm-wide risk management practices
“The tell-tale deal” <i>Jan 1998</i>	Derivative marketers give away valuable options while appearing profitable on paper; stopping the death spiral
“Substandard deviations” <i>Feb 1998 (with Jean-Paul St. Germain)</i>	Most risk managers assume volatility is calculated from the standard deviation of percentage returns. Often, this leads to ridiculous results
“When credit is due” <i>Mar 1998</i>	A true risk management dilemma: No-one can ever know their counterparty’s exposure to other counterparties; how to price these hidden credit costs
“Discounting success” <i>Apr 1998</i>	Comparing the CAPM, RAROC and insurance-based models for determining discount rates
“The case of the missing credit costs” <i>May 1998 (with Rich Apostolik)</i>	Credit lines are not being allocated economically, nor are they being used to measure risk-adjusted performance at major broker/dealers
“Hysterical simulation” <i>Jun 1998 (with Brett Humphreys and Vijay Pant)</i>	Historical simulation gives historical observations equal weightings, but historical sampling should give greater weight to periods most like the present
“Cash before value” <i>Jul 1998</i>	Value-at-risk and Cash-flow-at-risk are not as different as it first appears
“I want to be a loan” <i>Aug 1998 (with Brett Humphreys)</i>	How to use loan-equivalents to measure and charge for counterparty credit risk
“Collateral damage” <i>Sep 1998</i>	Under balance-sheet based methods of absorbing credit risks, traders pay their counterparties’ credit costs; in a collateralized system, each pays their own way—why this is better.
“As if by magic” <i>Oct 1998</i>	Hedging converts market risk to credit risk, and collateralization turns credit risk into operational risk. Can risk never be destroyed?
“Cloak and dagger” <i>Nov 1998</i>	The costs and risks of not knowing your counterparties’ market and credit exposures
“Voting on value” <i>Dec 1998 (with Brett Humphreys)</i>	Securities analysts are often characterized as not understanding the value of risk management; according to this survey, it appears they really do.
“Viva la VaR!” <i>Jan 1999</i>	How do you calculate the return on a futures position? Popular views and why they are wrong.
“Ain’t necessarily so” <i>Feb 1999</i>	VAR is almost like levered equity, with one exception. How limited liability and bankruptcy laws change the VAR calc and corporate strategy.