

SCOTT R. MULDAVIN, CRE, FRICS

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PROFESSIONAL EXPERIENCE

Green Building Finance Consortium, Executive Director
The Muldavin Company, Inc., President.
Guggenheim Real Estate, Co-Founding Principal
The Roulac Group, Managing Director
Deloitte & Touché, Partner in Charge of Real Estate Consulting, Southwest Region.
Deloitte & Touché, Senior Manager, Real Estate Consulting Group, a national leader of Real Estate Consulting for Financial Institutions.
Deloitte Haskins & Sells, Manager, Real Estate Consulting Group
Deloitte Haskins & Sells, Real Estate Consulting Group, a Senior Consultant and Real Estate Economist
Kenneth Leventhal & Company, Senior Real Estate Consultant.
California Department of Housing and Community Development, Research Analyst
East Bay Municipal Utilities District, Research Assistant

PROFESSIONAL DESIGNATIONS

Counselor of Real Estate (CRE), American Society of Real Estate Counselors
Fellow of the Royal Institute of Chartered Surveyors (FRICS)

EDUCATION

M.C.R.P., Master of City and Regional Planning, Harvard University
B.A., Bachelor of Arts in Environmental Studies, University of California, Berkeley

PROFESSIONAL AFFILIATIONS

Current

Advisory Board, RERC Industry Outlook
Advisory Board, Journal for Sustainable Real Estate
American Society of Real Estate Counselors
Royal Institute of Chartered Surveyors
National Association of Realtors
Northern California Chapter, American Society of Real Estate Counselors
Urban Land Institute

Prior

Institute of Management Consultants, Certified Management Consultant
Advisory Board, Global Real Analytics
American Real Estate Society
Pension Real Estate Association
Mortgage Bankers Association
Multi-Family Housing Institute (Advisory)
International Real Estate Society
National Association of Real Estate Investment Trusts
Editorial Board, *Real Estate Issues*
COMPS Advisory Council
Editorial Board, *Real Estate Capital Markets Report*
Editorial Board, *Real Estate Finance*

SUSTAINABLE FINANCE, INVESTMENT AND VALUATION

Select Affiliations/Collaborations (Current/prior)

Green Building Finance Consortium: Founder and Executive Director of group developing sustainable property underwriting, valuation, and risk assessment methods and practices.

US Department of State's Bureau of Overseas Building Operations Industry Advisory Panel: Member of the IAP providing advice relative to latest building industry concepts, best practices, and innovations in property development, acquisitions, management and operations.

Commission for Environmental Cooperation: Member of international advisory group assisting North American Free Trade Agreement created group's multi-year research program on sustainable buildings.

Zero Energy Commercial Building Consortium: Advisor to the Finance and Valuation working group of a broad national (US) consortium of organizations focused on the development of policy recommendations for Congress and the DOE to enable the country to meet its longer term goals of deep energy efficiency and renewable energy production.

Rocky Mountain Institute: Collaborating with RMI on a range of issues including a workshop of top financial institutions and sustainable finance experts to target and prioritize actions to expand sustainable investment/finance; and advisory work on the RMI's "Ramping Up Retrofit" strategy and website.

Northwest Energy Efficiency Alliance Value Curriculum: Assisted in the development of teaching curriculum based on the Consortium's book: "Value Beyond Cost Savings: How to Underwrite Sustainable Properties"

CoreNet Global Energy Research Project: Served on international Advisory Panel working to identify key barriers and enablers to investment in energy efficiency and assess the value implications of energy investment.

World Business Council for Sustainable Development: Collaboration on sustainable finance and valuation initiatives.

ASTM Energy Performance Disclosure Task Force: Member of task force that advised in the development of new ASTM standard: ASTM E-2797-11 Building Energy Performance Assessment for a Building Involved in a Real Estate Transaction.

National Building Sciences Institute Council on Finance, Insurance and Real Estate: Member of newly forming Council to promote interaction and sharing between building sciences and technology and real estate/finance sectors.

Appraisal Institute: Coordinating with Appraisal Institute members on Consortium's Implementation Team and Advisory Board in the development of valuation practices and training.

Royal Institute of Chartered Surveyors: Collaborating with RICS on energy policy, valuation, and education of its members on key issues regarding sustainable property valuation and decision-making practices as well as in policy initiatives involving energy efficiency investment.

North American Youth Leadership Project for a Sustainable Future (YLPSF): Advisor to group promoting sustainable leadership opportunities for high school youth in Mexico, Canada and the United States.

Database for Sustainable and High Performance Buildings (DASH): Member of the Steering committee developing information to measure the performance of sustainable buildings.

Lawrence Berkeley National Laboratories: Collaboration on energy and building health related research efforts and the efforts of the Construction Building Institute to develop plan for zero energy buildings.

California Energy Commission: Member of the Home Energy Rating System (HERS) Program Booklet Advisory Committee.

US Green Building Council: Assisted USGBC to establish their Research Agenda for the Future to guide sustainable building research and collaborate on other activities.

Thesis/Research Advisor: Serve on dissertation committee and expert panel for Ph.D. students and advise scores of masters and bachelor's degree candidate students in sustainable finance and valuation research around the world.

Editorial Board, Journal of Sustainable Real Estate: Editorial Board of one of the first peer-reviewed journals emphasizing sustainable property performance and valuation.

Select Sustainability Presentations

“Beyond Compliance: Property Sustainability and Business Value”, British American Business Council, May 11th, 2011.

“Life Cycle Costing: Don't Forget Value and Risk” Department of State, Office of Overseas Building Operations Industry Advisory Panel, April 26th, 2011.

“Integrating Value and Risk into Sustainable Financing”, Leeds School of Business Sustainability Speakers Series, University of Colorado, Boulder, April 6th, 2011.

“Sustainable Property Finance”, Urban Land Institute, Sacramento, March 25th, 2011.

“Opportunities and Challenges in Sustainable Property Finance” Federal Reserve Bank and Tulane University Conference on Green Development and Finance, New Orleans, March 11th, 2011.

“Financing the Smart City”, Sustainable Finance Conference, Annual Sustainable Finance Conference, Schack Institute of Real Estate, New York University, New York City, February 22, 2011.

“Selling Energy to the Commercial Real Estate Markets”, Efficiency Connections Northwest Utilities Conference, Seattle, December 1, 2010.

“Key Issues in Transforming Sustainable Practices through Public-Private Collaborations” Seattle 2030 District, Seattle, November 30th, 2010.

“Valuing and Financing Sustainable Property, Annual Meeting of Argentina Green Building Council, Buenos Aires, November 9th, 2010.

Roundtable on Sustainable Value and Practices, Green Building Course, Torcuato Di Tella University, Buenos Aires, November 8th, 2010.

“Sustainable Property Performance and Financial Analysis”, 17th Annual Land Policy Forum, Tokyo, October 28th, 2010.

“Net Zero Energy Initiatives” Bureau of Overseas Building Operations, US Department of State, Washington DC, October 14th, 2010.

“Sustainable Development and Value” Urban Land Institute, Small Scale Development Council, Urban Land Institute, Annual Meeting, Washington DC, October 13th, 2010.

“Public-Private Strategies for Energy Efficiency”, Workshop Moderator, Public Officials Workshop, Urban Land Institute, Annual Meeting, October 13th, 2010.

“Costs and Benefits of Green Building, Putting Research into Practice” US Green Building Council Webinar, September 30th, 2010.

“Integrating Value and Risk into Decision-Making”, Building Owners and Managers Association National Advisory Council, Sonoma, California, September 24th, 2010.

“Sustainable Property Lending: Challenges and Opportunities” Environmental Bankers Association, September 16th, 2010.

Value Beyond Cost Savings: How to Underwrite Sustainable Properties, National Urban Land Institute Sustainability Exchange, September 16th, 2010.

“New Insights into Performance Measurement”, Urban Land Institute, Atlanta 2010 Underwriting Sustainable Property Investments Summit, July 13th, 2010.

“Perspectives on Green Building and Location Efficient Investment”, Funders Network for Smart Growth and Livable Communities, San Francisco, June 28th, 2010.

“Implementing Finance Strategies”, Moderator, Urban Land Institute Energy Efficiency Finance Policy and Practice Forum, New York City, June 8th, 2010.

“ Sustainable Property Performance—IEQ and Energy Issues”, ASHRAE Existing Buildings Conference, New York City, April 20th, 2010.

“Value Beyond Cost Savings: Lessons for Sustainable Land Development”, China US Sustainable Land Use and Governance Training Collaboration 10-Year Anniversary Workshop, Ministry of Land and Resources, Beijing, March 22, 2010.

“ Value Beyond Cost Savings: How to Underwrite Sustainable Properties, Orange County US Green Building Council’s Annual Event, January 28th, 2010.

“The Economics of Corporate Sustainability”, Greenbuild 2009, Annual Meeting of US Green Building Council, November 11th, 2009

“Proving the Value of Sustainable Property Investment”, Greenbuild Workshop, Annual Meeting of the US Green Building Council, November 10th, 2009

“The Green Quotient in Institutional Investing”, Urban Land Institute Annual Meeting, November 6th, 2009

“Role of Green in Real Estate: Managing Risk and Finding Rewards in Green Building”, Urban Land Institute Annual Meeting, November 5th, 2009

“Risk and Revenues: The Margin of Green”, Urban Land Institute, New York Council, October 15th, 2009

“Valuation: A Key to Zero Net Energy Building”, New York Academy of Science, June 4th, 2009

“Green Building Valuation: Its About the Money (and Risk)”, Corporate Sustainability Summit, Austin TX, May 28th, 2009

“Sustainable Property Valuation and Underwriting”, Real Estate Finance Seminar, Construction, Engineering and Management Program, Stanford University, May 18th, 2009

“Sustainable Property Due Diligence”, National Association of Real Estate Investment Fiduciaries, Fall Meeting, Dana Point, California, October 15th, 2008

“Sustainable Property Valuation and Underwriting”, Pension Real Estate Association, Fall Meeting, Chicago, October 2, 2008.

‘Fundamental Financial Model for Sustainable Properties’, World Sustainable Building Conference, Melbourne, Australia, September 23, 2008.

“Sustainable Property Investment and Underwriting”, National Association of Real Estate Investment Managers, NAREIM' Senior Officer Research Resource Discussion Forum, May 14th, 2008.

“The Role of IEQ in Financially-Based Private Property Investment Decisions”, 2008 Indoor Environmental Quality Workshop, Lawrence Berkeley National Laboratory, April 24, 2008.

“Underwriting and Financing the Green Value Premium”, Hotel Developers Conference, Las Vegas, March 13, 2008

“Sustainable Property Valuation”, Develop Green: Sustainable Solutions for Commercial Real Estate, National Association of Industrial and Office Parks, Phoenix, March 12th, 2008.

“Pension Funds and Sustainable Property Investing” Visions Insights and Perspectives Conference, Institutional Real Estate Inc. Conference, Phoenix Arizona, January 17th, 2008

“Underwriting Sustainable Property Development”, Urban Land Institute’s San Francisco's Green Trends Program Series: Financing and Investing in Green Buildings, San Francisco, January 8th, 2008.

“Sustainable Property Finance and Investment”, CommercialSource Online Convention, National Association of Realtors, December 4, 2007

“Sustainable Property Development Trends”, Green Developers Speakers Series, San Francisco, October 9th, 2007.

“Sustainable Property Underwriting and Finance”, Dutch Treat Group of Leading Commercial Mortgage Lenders, Life Mortgage and Real Estate Officers Council, Nashville Tennessee, September 24, 2007,

“Why Sustainability is Good for Business, panel at the Los Angeles Business Council’s Sustainability Summit, July 18, 2007.

Sustainable Building Economics and Value, Summer Meeting of the National Council of Real Estate Investment Fiduciaries, Costa Mesa California, June 14, 2007.

“Fiduciary Approach to Underwriting Sustainable Properties”, Annual Meeting of Pension Manager, Chicago, June 7, 2007.

“Opportunities and Challenges to Green Building Investment” Gaining Ground Urban Development Leadership Summit, Victoria, British Columbia, June 4-6, 2007.

“Green Building Cost and Valuation”, Swinerton Green Building Forums, San Diego and Los Angeles, May 10 and May 14, 2007.

“Green Building Ripe for Opportunity”, Panel Chairperson, Counselors of Real Estate, Montreal, April 24, 2007.

The Financial Case for Going Green, Sound Business Strategy? National Advisory Council of the Building Owners and Managers Association National Advisory Council, Sonoma, California, April 20th, 2007.

“Green for Green Buildings”, Stoel Rives Industry Forum, April 10th, 2007

“Sustainable Building Finance and Underwriting”, Commercial and Multi-Family Finance Board of Governors Underwriting and Closing Committee, April 4th, 2007

“Green Building Asset Valuation and Capital Markets”, CB Richard Ellis, Global Client Roundtable, March 22, 2007.

“Valuing Green Cash Flows, A Fiduciary Approach”, Massachusetts Institute of Technology, Spring Seminar Series, March 14, 2007.

“Underwriting Sustainable Properties, A Fiduciary Approach”, Building Owners and Managers Real Estate Executive Summit, February 28th, 2007.

“Documenting Green Building Value: The Appraisal and Underwriting Process”, USGBC Annual GreenBuild Conference, November 15, 2006.

“The Real Story Behind Sustainable Property Investing”, Counselors of Real Estate Annual Meeting, October 23, 2006

"Putting a Dollar Value on Green Buildings", BetterBricks Leadership Awards on October 12, 2006 in Portland, Oregon and October 27, 2006 in Seattle, Washington.

“Breaking Down Barriers to Green Building Investment”, International Commission for Environmental Cooperation, June 13, 2006.

“Refining the Business Case for Green Building Investment”, CEO Roundtable, U.S. Green Building Council, May 12, 2006.

Sustainability Publications

“Learning Curve”, IP Real Estate, November/December 2010

“*Value Beyond Cost Savings: How to Underwrite Sustainable Properties*”, 300 page book, GBFC, January 2010.

“*Value Beyond Cost Savings: How to Underwrite Sustainable Properties*”, six Expanded Chapters, 650 pages, GBFC, January 2010.

“Ten Principles of Sustainable Property Valuation and Underwriting”, *Property World*, Royal Institute of Chartered Surveyors, Fall 2009.

“Consortium Building Sustainable Building Decision-Making Infrastructure”, *Investments and Pensions Europe*, April 2008.

“Financial Assessment of Sustainable Properties”, *European Real Estate Yearbook*, January 2008.

“Putting Green in Your Pocket”, *Expectations & Market Realities in Real Estate: 2008*, November 2007

“Strategic Response to Sustainable Property Investing”, *Pension Real Estate Quarterly*, Summer 2007.

“Financing Green Development”, Co-authored with Andy Fuscas, *Urban Land Green Magazine*, Spring 2007.

“Tapping into the Green Agenda”, Guest Column, *Investments & Pensions Europe*, January/February 2007.

“The Green Quotient, Q&A with Scott Muldavin”, Interview, *Urban Land Magazine*, October 2006.

PROFESSIONAL BACKGROUND

Scott Muldavin is President of The Muldavin Company, Inc., a consulting firm serving the real estate industry. Prior to founding The Muldavin Company in 1999, Mr. Muldavin was a leader of the real estate consulting practices at Deloitte & Touché and the Roulac Group. Mr. Muldavin is both a Counselor of Real Estate and a Fellow of the Royal Institute of Chartered Surveyors.

Sustainable Finance and Valuation

In 2006, Mr. Muldavin became Executive Director of the Green Building Finance Consortium, a group he founded in 2006 to address the industry's need for better valuation and underwriting practices to enable an assessment of sustainable properties from a financial perspective. His book detailing the Consortium's work: *Value Beyond Cost Savings: How to Underwrite Sustainable Properties* is the first to address the identification, pricing, and mitigation of risk that is key to sustainable finance.

Mr. Muldavin's work with the Consortium is based hundreds of interviews with corporations, investors, lenders, developers and service providers pursuing sustainable property investment strategies to understand their challenges, failures, and successes. The Urban Land Institute, the Royal Institute of Chartered Surveyors, the Building Owners and Managers Association, the Mortgage Bankers Association, the Pension Real Estate Association, the National Association of Realtors and others support his work.

He has been involved in scores of collaborative projects with energy and sustainability leaders worldwide, addressing performance assessment, energy efficiency, valuation, database development and other important topics. Examples include his advisory work with the US Department of State's Bureau of Overseas Building Operations, the Rocky Mountain Institute's Retrofit Ramp-up and Finance Project, CoreNet's Global Energy Research Project, the National Association of Realtors Green Designation Curriculum Project, the California Energy Commission's Home Energy Rating System Committee, the North American Commission for Environmental Cooperation's Green Building Advisory Task Force, the Database for High Performance and Sustainable Building, and his work on behalf of the United Kingdom's Energy Performance and Value Project.

Real Estate Industry Experience

For more than 30 years, Mr. Muldavin has advised the nation's leading real estate companies including CalPERS, RREEF, Bank of America, Ohio State Teachers Retirement System, Alaska Permanent Fund, Wells Fargo, Kilroy Realty, Hunt Realty, Amstar, Catellus Development Corporation, Equitable Real Estate, Standard Insurance Company, Merrill Lynch, the Government of Singapore Investment Corporation, Standard & Poor's Corporation, Universal Studios, and Finova Realty.

Mr. Muldavin also works closely with smaller investors or companies seeking to restructure, recapitalize, or adapt their businesses or portfolios to changes in the market as well as governments, professional associations and other organizations.

Mr. Muldavin was a founding principal of Guggenheim Real Estate, an investment company managing over three billion dollars of real estate invested throughout the United States in private equity, REITs, and high yield debt. As a member of the Investment Committee for three years, Mr. Muldavin was actively involved in investment decision-making, due diligence, joint venture

structuring, project finance, securities analysis, and investment manager screening and evaluation.

The American Society of Real Estate Counselors and the Royal Institute of Chartered Surveyors have both awarded Mr. Muldavin their highest level of professional certification recognizing his real estate and consulting expertise.

Speaking, Publications and Academics

Mr. Muldavin has lectured on real estate finance, mortgage lending, risk management, securitization, investment and sustainability at the Urban Land Institute's Development School, UC Berkeley, Stanford University, the Massachusetts Institute of Technology, Tulane University, University of Colorado, New York Academy of Science, Lawrence Berkeley National Laboratories, the University of Georgia, Torcuato Di Tella University, the Tokyo Land Forum, and the Chinese Ministry of Land and Resources as well as in company training sessions and other venues.

He also speaks regularly at forums sponsored by the Urban Land Institute, the Mortgage Bankers Association, the Royal Institute of Chartered Surveyors, the National Council of Real Estate Investment Fiduciaries, the Pension Real Estate Association, the American Real Estate Society, the National Association of Real Estate Investment Managers, the National Association of Industrial and Office Parks, the Counselors of Real Estate, the Appraisal Institute, the Building Owners and Management Association, the Canadian Life Insurance Association, and at scores of other forums.

His speaking and publications have been international in scope. He has addressed business and academic audiences throughout North America, South America, Europe, Asia, and Australia. His book: "*Value Beyond Cost Savings: How to Underwrite Sustainable Properties*" is being used throughout the world and has been translated into Chinese, where Mr. Muldavin has made multiple visits to discuss his work. He also advises the Department of State on building and sustainability issues as part of their Industry Advisory Panel on Overseas Building Operations.

Mr. Muldavin regularly consults with students and professors regarding their research projects and master and PhD theses. Select examples include sustainable finance and valuation research underway at UC Berkeley's Haas School of Business, Clemson University, University of Colorado, and Rutgers University. Mr. Muldavin selectively participates on PhD. Dissertation committees including a student examining the "Geography of Capital Flows" at the University of Washington, a student working on "Integrating Value and Uncertainty in Sustainable Options Analysis" at Virginia Tech, and a student at Clemson University doing a dissertation examining sustainable property decision0making.

As an Executive Committee Member and Chair of the Education Committee for the Counselors of Real Estate and member of the Urban Land Institute's National Program Committee, he was responsible for four National Conferences involving hundreds of educational sessions and scores of speakers covering the topics of investment and economic trends, valuation, underwriting, capital markets, international capital flows, corporate real estate, and other key real estate topics. He also chairs the Counselors of Real Estate's External Affairs Committee.

In addition to his recent 650 page book: "Value Beyond Cost Savings: How to Underwrite Sustainable Properties" and Chapter on Financial Analysis in Real Estate Mathematics, to be published in Fall 2011, Mr. Muldavin has authored nearly 200 articles published in *Real Estate*

Finance, Bankers Magazine, RICS Property World, Urban Land, European Real Estate Yearbook, The Journal of Property Management, The Pension Real Estate Quarterly, Real Estate Issues, The Investment Property and Real Estate Capital Markets Reports, Institutional Investor, Builder and Developer, The Real Estate Accounting and Tax Journal, and other industry publications. Mr. Muldavin has served on the Editorial Advisory Boards of Real Estate Finance, The Real Estate and Capital Markets Report, Real Estate Issues, and is currently an Advisory Board member of the Journal of Sustainable Real Estate.

Mr. Muldavin is a regular contributor to the real estate finance and investment industry. In addition to his pioneering work for Standard & Poors Corporation and Guggenheim Real Estate, he has presented 12 papers and participated on numerous panels at the Annual Meetings of the American Real Estate Society, one of the nation's top academic real estate organizations; authored a quarterly "Real Estate Finance Update" in *Real Estate Finance*, for 16 years; developed the Real Estate Capital Flows Index, which was published quarterly for many years by the Pension Real Estate Association and Institutional Real Estate Inc.; and authored key articles and reports on mezzanine financing, real estate technology, sustainable property underwriting and other topics.

Real Estate Finance and Securitization

Mr. Muldavin is a recognized leader in real estate finance, mortgage lending, investment, valuation and securitization with broad experience in equity and debt transaction structuring, underwriting, due diligence, investment fund design, and corporate real estate finance.

During the last few years, as founder and Executive Director of the Green Building Finance Consortium, Mr. Muldavin has applied his expertise in underwriting, due diligence and property decision-making practices to develop sustainable property underwriting and valuation methods and practices. His book on underwriting and valuing sustainable properties is based on his experience and scores of interviews and meetings with lenders, rating agencies, investors, and other capital providers. He advises numerous universities, governments, professional associations and companies about improving their underwriting and due diligence practices in light of changes in market risks and sustainability trends.

Mr. Muldavin has been involved in the commercial mortgage-backed securities industry since its beginning in 1984. He was the lead consultant that developed the first commercial mortgage risk-rating system for Standard & Poor's Corporation that initiated the \$600 billion+ CMBS industry. He developed models to quantify mortgage risk and rate CMBS loans and pools based on extensive loan file reviews and interviews with Metropolitan Life, Prudential, Aetna, Travelers, New York Life, Bank of America, Dime Savings, and other leading financial institutions concerning their underwriting, servicing, and historic mortgage performance.

As a national leader of the Real Estate Financial Institutions practice for Deloitte & Touché, he worked with financial institutions to improve their underwriting and servicing systems, assess risks in their mortgage portfolios, estimate loan losses and develop new organizational structures and systems to assist them in accessing the CMBS market. He was also a member of Deloitte & Touches' Resolution Trust Fund task force. Clients served included First Bank Systems, Bank of America, Home Savings and Loan, Freddie-Mac, The Great West Life Assurance Company, Union Federal, Merchants National Bank, and Glendale Federal Savings Bank.

Mr. Muldavin has worked with CMBS conduit lenders like Finova Realty Capital and Nomura, insurance companies like Standard Mortgage Investors, and banks like the Silicon Valley Bank

to assist them in their underwriting and understanding of the CMBS industry and their mortgage production and servicing platforms.

Through his involvement with Guggenheim Real Estate, and their investment in ARCap's High Yield CMBS Fund, LLC, he is familiar with the investment opportunities, risks, due diligence, servicing and process of "kicking-out" mortgages employed by "B-piece" buyers. Mr. Muldavin also served on the Advisory Board of Global Real Analytics, an advisor to Alliance Capital and others investing in portfolios of REITs and Commercial Mortgage-backed Securities worth over \$1.5 billion.

Mr. Muldavin also has experience in the mortgage business from the perspective of a borrower. At Guggenheim Real Estate, significant leverage is placed on direct property investments through the use of conduit, bank, and insurance company mortgages. Additionally, he has advised borrowers in structuring and accessing real estate capital for over 25 years, work he has continued in his role as Executive Director of the Green Building Finance Consortium.

Mr. Muldavin has been involved in the Real Estate Investment Trust (REIT) market since the early 1980s. He has advised real estate development and securities companies, including E.F. Hutton and Merrill Lynch, concerning new REIT securities offerings. He has advised institutional investors, including the State Teachers' Retirement System of Ohio and The California Public Employment Retirement System, regarding REIT investment issues. As an investment committee member of Guggenheim Real Estate, he monitored the REIT market and participated in investment decisions concerning the allocation of nearly \$300 million in REIT investments. Mr. Muldavin also tracked and analyzed REIT IPOs, capital flows, investment performance and related issues for nearly 20 years, presenting his analyses to clients as well as in articles, seminars and speeches.

Business Strategy

Mr. Muldavin has worked extensively with real estate companies and service providers to clarify and focus their business strategies, improve operations, and communicate their financial and organizational strengths to potential customers, capital sources, partners, Boards of Directors, and others.

Mr. Muldavin brings substantial breadth in working on hundreds of engagements with real estate companies over the last 25 years, extensive valuation and property markets experience, and expertise in forecasting transaction volumes, property value trends and real estate capital flows to his work.

Mr. Muldavin has developed business strategies for individuals and smaller private companies; international real estate services firms, Internet companies, pension funds, insurance companies, investment managers, banks, investment banks, corporations, and developers.

Property Analysis and Valuation

Mr. Muldavin has been involved in hundreds of real estate valuation, feasibility, or due diligence analyses for clients. As the Partner in Charge of the real estate appraisal practice at Deloitte & Touché on the West Coast, he had direct responsibility for all real estate appraisal work performed in his region.

Mr. Muldavin has conducted portfolio valuations, partnership valuations and valuations involving many unique property and business assets. Select engagements of particular interest include his creation of a methodology to value shares of limited partnerships in the secondary

market; valuation of a portfolio of hotels, offices, and industrial properties in the first major bankruptcy of a Japanese syndicator; valuation of a \$3 billion diversified development company; valuation of a national mortgage banking and servicing company; valuation of a portfolio of major department stores; and valuation of an 11,000 property apartment portfolio.

Mr. Muldavin has assisted clients with environmentally impaired properties including John Mansville, Ace Insurance, and Universal Studios. He has also been involved in evaluating numerous leases in the context of acquisitions, workouts and litigation.

Mr. Muldavin's recent study of "Technology and the Demand for Commercial Real Estate", published by *The National Association of Realtors*, provided a framework and new insights for understanding property values in the future. His book: "*Value Beyond Cost Savings: How to Underwrite Sustainable Properties*" and "Expanded Chapters provide over 600 pages of detailed valuation and property analysis instruction which is used by many Universities.

Mr. Muldavin's expertise in valuation is a central part of his industry-leading role to develop valuation methods and practices for sustainable properties. He is working closely with leading appraisal groups worldwide including the Appraisal Institute and the Royal Institute of Chartered Surveyors.

Transaction Structuring and Due Diligence

Mr. Muldavin has been involved in structuring and due diligence of real estate property and business transactions. He has completed due diligence engagements involving the acquisition of office buildings, retail properties, hotels, multi-family properties, industrial properties, large land parcels, mortgage portfolios, mortgage companies, commercial banks, real estate service companies and other real estate assets.

Mr. Muldavin has specialized expertise in conducting due diligence on new business and investment opportunities. Mr. Muldavin has evaluated new real estate investment sectors for pension funds, new business-lines for investment banks, new product opportunities for financial institutions and investment managers, and new information products and services for national real estate information firms.

As an advisor and Investment Committee member of Guggenheim Real Estate, Mr. Muldavin reviewed hundreds of retail, office, industrial and multi-family investment opportunities throughout the United States, as well as investments in mezzanine loans, B-piece investment, funds, preferred equity, and REITs.

Mr. Muldavin's work with the Green Building Finance Consortium builds on his expertise through the identification of current underwriting and due diligence best practices and necessary modifications in practice to accommodate assessment of sustainable properties from a "fiduciary/financial" perspective.

Investment Strategy and Research

Mr. Muldavin has completed strategic research on critical investment and business questions ranging from worldwide real estate portfolio allocation strategies to special reports on new financing or investment vehicles, property markets, and business opportunities. Mr. Muldavin has published his work in numerous articles and reports on a wide range of investment, finance, and economic topics.

Mr. Muldavin has applied his investment strategy and research to the development of systems to aid investment decision-making. Mr. Muldavin developed some of the first appraisal management, risk-rating, and geographic market investment potential systems in the industry.

Mr. Muldavin has had extensive involvement with public and private equity securities. He has consulted on security structuring, investments, organizational strategies, strategic planning, performance monitoring, and competitor studies for commingled funds, REITs, limited partnerships and corporations.

Litigation Experience

Mr. Muldavin has applied his business and investment experience as an expert witness or litigation consultant on behalf of scores of plaintiffs and defendants in civil, bankruptcy and criminal matters in various courts (Municipal, Superior, and Federal) and alternative dispute resolution settings including arbitrations and mediations. Mr. Muldavin has experience as an expert witness in complex real estate damages and securitization cases as well as cases involving business practices and responsibilities of general partners, lenders, developers, governments, investment managers, service providers, securities firms and other participants in the real estate and finance industries.

Mr. Muldavin has been one of the lead experts in a series of high profile cases involving mortgage representations and warranties, and a host of related underwriting, servicing, and rating issues in the commercial mortgage-backed securities industry.

PARTIAL CLIENT LIST**Scott R. Muldavin****Investors**

Alaska Permanent Fund Corporation
Amstar Group, Ltd
CalPERS
CalSTRS
GSIC Investment Corporation
Hunt Realty

Mitsui Trust and Banking
Prudential Real Estate Investors
Seligman & Associates
Shamrock Holdings
State Teachers Retirement System of Ohio

**Investment
Managers**

Birtcher Pacific
Catellus Development Corporation
Equitable Real Estate
Guggenheim Real Estate
Global Real Analytics
Principal Real Estate Investors

Kilroy Realty Corporation
Maruko
McMorgan & Company
Metropolitan Life Insurance Company
RREEF
Seagate Properties

Lenders

Admiral Insurance Company
Bank of America
Farmers Insurance Group
Freddie Mac
Federal Deposit Insurance Corporation
First Bank Systems
First Nationwide Bank
Glendale Federal Bank

Great West Life Assurance Company
Home Savings
Howard Savings Bank
Merchants National Bank
Silicon Valley Bank
Standard Mortgage Investors
Valley Federal Savings and Loan
Wells Fargo Bank

**Finance
Companies**

Buchanan Street Partners
Finova Realty Corporation
Merrill Lynch

Nomura Securities
Warburg Pincus
UBS

Corporations

Aerojet Corporation
All Nippon Airways
House of Blues
Johns Manville

Nissan Motor Corporation
Pacific Enterprises
Phoenix American Corporation
Texaco
Universal Studios

PARTIAL CLIENT LIST (continued)
Scott R. Muldavin

Developers

Arlie Land & Cattle Company
Brookfield Development Company
Barrett American
Carr Gottstein Properties
Divco West Properties
Grupe Development Company
The Keech Development Company

Marene Friedburg
McGuire Thomas
Metropolitan Development Company
Parkmead Partners
Pacific Bay Homes
Sierra Pacific Development Company
Summa Corporation
Universe, LLC

**Service
Providers**

ARUP
CB Richard Ellis
Century 21
COMPS, Inc.
eReal Estate Integration
Global Real Analytics

Multifamily Housing Institute
National Association of Realtors
PricewaterhouseCoopers
Seagull Technology
Standard & Poor's Corporation
Property Capital.com

Law Firms

Alschuler, Grossman, Stein & Kahan
Arter & Hadden
Barg, Coffin, Lewis & Trapp
Cahill, Gordon & Reindel
Cooley Manion Jones
Folger, Levin & Kahn
Frilot, Partridge, Kohnke & Clements
Gaims, Weil, West & Epstein
Gardere Wynne Sewell
Holland & Knight
Latham & Watkins
Lathrop & Gage
Lewis, D'Amato, Brisbois & Bisgaard
Loeb & Loeb

Long & Levitt
Luce, Forward, Hamilton & Scripps
Melrod, Redman & Gartlan
O'Melveny & Myers
Russ, August, Kabat & Kent
Sedgwick, Detert, Moran & Arnold
Sheppard, Mullin, Richter & Hampton
Stein & Lubin
Steptoe & Johnson
Tarkington, O'Neill, Barrack & Chong
U.S. Department of Justice
Williams & Connolly
Wasser, Cooperman & Carter

Note: Partial list of clients served by Scott Muldavin.

OTHER SPEECHES

“Prices & Yields: Where Do We Go From Here? Counselors of Real Estate Annual Meeting

“Sustainability of Capital Flows and Pricing”, Urban Land Institute, Office and Industrial Council

“The Evolution of Mezzanine Financing”, American Real Estate Society

“Commercial Real Estate Financing”, American Real Estate Society Annual Meeting

“Real Estate Investment Strategies”, San Diego Chamber of Commerce

“Business Strategies for the Consulting Profession”, Counselors of Real Estate Chapter Meeting

“Real Estate Equity Risks and Returns”, Counselors of Real Estate Annual Meeting

“Real Estate Investing in Southern California”, Asian Business League

“Non-Traditional Opportunities in Value-Added Real Estate Investing”, Institute for International Research, Real Estate “Value Added” Conference

“New Perspectives on Critical Issues Facing the Real Estate Industry”, Company Sponsored Seminar

“Alternative Real Estate Investment Opportunities”, Panel Chairperson, Annual Real Estate Investment for Pension Funds Conference

“Business Opportunities for Real Estate Counselors”, Annual Meeting of the Counselors of Real Estate

“Implications of Technology on the Property and Services-Markets”, Annual Meeting of the Commercial Section of the National Association of Realtors

“Lessons Learned from the Capital Markets”, Annual Meeting of the National Investment Center for the Seniors Housing and Care Industries

“Strategic Planning For e-Business and Dot.coms”, Marin County Bar Association

“Applying Data For Competitive Advantage”, American Real Estate Society Annual Meeting

“Environmental Issues in Real Estate”, Panel Chairperson, American Real Estate Society Annual Meeting

“Institutional Real Estate Consulting Practices”, Annual Real Estate Investment for Pension Funds Conference

“Capital Markets and Lending Risk”, New Mortgage Originators Seminar, Finova Realty Capital

“Making Data and Technology Pay”, Annual Meeting of the National Multi-Housing Council

“Investment Opportunities and Risks in Today’s Changing Market,” Counselors of Real Estate Annual Conference

“The Effect of the Decline of the Real Estate Securities Market on Overall Capital Flows and Asset Pricing,” Annual Fall Conference of the Appraisal Institute

“Accessing Capital: Strategic Targeting of Real Estate Capital Providers,” Urban Land Institute Real Estate Finance School

“International Real Estate Investment Trends,” BOMA International National Advisory Council Annual Meeting

“Following the Money: Changes in Institutional Ownership and Investment Patterns,” BOMA International National Advisory Council Annual Meeting

“The Influence of Real Estate Capital Flows on Institutional Investor Performance,” American Real Estate Society Annual Meeting

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“Unique Aspects of Strategic Planning For Real Estate Companies,” Counselors of Real Estate, Keynote Luncheon Speaker

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“Structure of the Real Estate Industry,” Real Estate Research Center and Directors Meeting

“Capital Market Trends: Structural or Cyclical Change?” American Real Estate Society Meeting

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“Strategic Considerations in Mortgage Servicing,” American Real Estate Society Meeting

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¹ Primary contributions were research, analysis, and editing.