



Coronavirus Pandemic and Public Market Volatility

Impact on Valuing Private Debt and Equity Investments

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- III. Valuation Considerations in the Current Environment
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- A. Duff & Phelps Alternative Asset Advisory

Srividya Gopal, CVA, MRICS

Managing Director & Southeast Asia Leader, Valuation Advisory Services



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Srividya is Managing Director & Southeast Asia Leader, Valuation Advisory Services at Duff & Phelps. She set up American Appraisal Singapore operations in 2012, which later got acquired by Duff & Phelps, the largest global independent valuation advisory firm.

She has 23 years of experience in valuations, transactions and management consulting. She has advised numerous companies on valuations for the purposes of financial reporting, transaction, restructuring, taxation, dispute resolution and financing.

She is a member of the Institute of Valuers & Appraisers of Singapore (IVAS) Council as well as the IVAS Professional Development Committee. She chairs their Advocacy & Engagement Committee. She is a former member of the global Regulatory Board of the Royal Institution of Chartered Surveyors (RICS). She is also an empaneled valuer with the Intellectual Property Office of Singapore (IPOS) for their IP Financing Scheme.

Earlier in her career, Srividya was the Partner and Practice Leader – Valuations at Grant Thornton India and prior to that, she has also worked with Baring Communications Equity Asia (BCEA), a private equity fund in Singapore, part of the ING-Barings group and with A.F. Ferguson & Co (part of Deloitte).

Srividya has advised several global and Asian clients across a variety of sectors such as technology, life sciences, manufacturing, consumer products, energy & resources etc.

Srividya has published various articles on valuation, PE/VC and M&A, and has been interviewed by several television channels, newspapers and magazines. She is a regular speaker at conferences and seminars.

Srividya is a registered Chartered Valuer & Appraiser (CVA) with IVAS, Member of the RICS (MRICS) and successfully completed the Certified in Entity and Intangible Valuations (CEIV) training and examination. She also has a Post Graduate Diploma in Management (equivalent to MBA), is a Graduate of the Institute of Cost & Works Accountants of India and a Bachelor of Commerce.

David L. Larsen, CPA/ABV/CEIV

Managing Director, Alternative Asset Advisory



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David Larsen is a managing director in the Seattle office of Duff & Phelps and part of the Alternative Asset Advisory service line. He has more than 35 years of transaction and accounting experience. He specializes in fair value accounting issues, and specifically in valuation, accounting, and regulatory issues faced by Alternative Asset managers and investors.

David advises leading Private Equity Managers and Institutional Investors and has advised numerous strategic and private equity acquirers in all areas of mergers, acquisitions, joint ventures, divestitures and valuation related matters. He provides valuation policy and process assistance to a number of the world's largest institutional limited partner investors and some of the world's largest alternative Investment managers. David is a member of the International Valuation Standards Council Standards Review Board, an advisor to and has served as Vice Chair of the International Private Equity and Venture Capital Valuations Board (IPEV), which in 2018 released updated International Private Equity Valuation Guidelines and serves as a member of the American Institute of Certified Public Accountants (AICPA) PE/VC Practice Guide Task Force. David has served as a special advisor to the Institutional Limited Partners Association; board member, project manager and technical advisor to the Private Equity Industry Guidelines Group and was instrumental in developing and drafting the Private Equity Industry Guidelines Group's Valuation and Reporting Guidelines; member of the Financial Accounting Standards Board's Valuation Resource Group responsible for providing the Board with input on potential clarifying guidance on issues relating to the application of the principles of FASB ASC Topic 820 (formerly SFAS No. 157), *Fair Value Measurements* and a member of the AICPA Net Asset Value Task Force.

Prior to joining Duff & Phelps, David was a Partner in KPMG LLP's Transaction Services practice, where he was the segment leader of KPMG's U.S. Institutional Investor practice. He served 13 years in KPMG's Seattle, Düsseldorf and Prague audit practices prior to moving full time to advisory work.

David received his M.S. in accounting from Brigham Young University's Marriott School, his B.S. in accounting from Brigham Young University. He is a certified public accountant licensed in California and Washington. David is also a member of the AICPA and the California and Washington Society of Certified Public Accountants and is a FINRA Series 7, 24 and 63 registered representative.

Rishi Aswani, CFA

Managing Director, Alternative Asset Advisory



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Rishi is a managing director in the Alternative Asset Advisory group and is based in Mumbai. He is responsible for overseeing Portfolio Valuations and Secondary Market Advisory in India.

Rishi has over 16 years of financial advisory experience, both on the consulting and client side. His clients primarily include alternative asset managers, including private equity funds, hedge funds and credit funds both in India and in the U.S and U.K. Rishi specializes in mark-to-market valuations across diverse portfolios of illiquid and privately-held securities including loans, bonds, convertibles, preferred equity, equity, and derivatives under the guidelines of IFRS 13, ASC § 820 or the equivalent local GAAP standard.

Rishi returned to Duff & Phelps in 2015 through the firm's acquisition of American Appraisal. Prior to joining American Appraisal, Rishi provided Apollo Global Management, then a \$160bn investment firm, a range of internal advisory services for its Credit funds domiciled in the United States, India and Singapore.

Prior to this stint, Rishi worked with the Avista Houlihan Lokey partnership in India, and Duff & Phelps in the New York office where he advised Board of Directors, CFOs and Controllers on a variety of valuations of businesses and assets for transaction, financial reporting and tax purposes across a broad spectrum of industries.

Rishi has been a speaker on valuation-related topics at universities such as Harvard University, forums organized by the Indian Private Equity & Venture Capital Association (IVCA), VCCircle, the International Valuation Standards Council (IVSC) and ASSOCHAM. He is also a contributing author to journals such as the IVCA semi-annual publication, and the VCCircle platform.

Rishi received his Bachelor's degree in Finance and International Business from the Leonard N. Stern School of Business, New York University. Rishi has passed the FINRA Series 7 exam, is a RICS member and CFA charter holder. In 2019, Rishi was selected for the "40 under 40" award by the AIWMI.

Bennett Cupit, CFA

Director, Alternative Asset Advisory



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Bennett Cupit is Director in Duff & Phelps' Hong Kong office and is part of the Portfolio Valuation practice. Before joining our Hong Kong practice, Bennett spent ten years in our San Francisco office, providing valuation and consulting services to private equity funds, hedge funds, venture capital firms, business development corporations, limited partners, and corporate clients covering numerous industries across the world.

Bennett's expertise lies in:

- Providing valuation services for illiquid investments such as private equity, debt, and derivatives;
- Assisting both GPs and LPs in developing and enhancing their valuation policy and procedures;
- Providing corporate valuation services for a variety of purposes including impairment testing, accounting for stock-based compensation, purchase accounting, valuation for tax purposes, and other corporate-related matters;
- Secondary market transaction pricing of illiquid fund positions between large, well known GPs and LPs; and
- Assisting private equity firms with valuing various management company entities.

Bennett received his M.B.A. with honors from Thunderbird School of Management and has a degree in International Economics from the University of Arkansas. He is a member of Beta Gamma Sigma International Honor Society, a CFA Charterholder, and a member of The CFA Institute.

Section I

Duff & Phelps Firm Overview

Duff & Phelps

Duff & Phelps is the global advisor that protects, restores and maximizes value for clients in the areas of valuation, corporate finance, investigations, disputes, cyber security, compliance and regulatory matters, and other governance-related issues. We work with clients across diverse sectors, mitigating risk to assets, operations and people.

3,700+
TOTAL PROFESSIONALS
GLOBALLY

MORE THAN
19,000
ENGAGEMENTS
PERFORMED IN 2019

13,500
CLIENTS INCLUDING NEARLY
47% OF THE
S&P 500

THE
AMERICAS

1,900+
PROFESSIONALS

EUROPE AND
MIDDLE EAST

1,100+
PROFESSIONALS

ASIA
PACIFIC

700+
PROFESSIONALS

ONE COMPANY

ACROSS 28 COUNTRIES WORLDWIDE



THE AMERICAS

Addison	Houston	Pittsburgh
Atlanta	Libertyville	Reston
Austin	Lisle	St. Louis
Bogota	Los Angeles	San Francisco
Boston	Mexico City	São Paulo
Buenos Aires	Miami	Seattle
Cayman Islands	Milwaukee	Secaucus
Chicago	Minneapolis	Silicon Valley
Dallas	Morristown	Stamford
Denver	Nashville	Toronto
Detroit	New York	Washington, DC
Grenada	Philadelphia	

EUROPE AND MIDDLE EAST

Abu Dhabi	Dublin	Munich
Agrate Brianza	Frankfurt	Padua
Amsterdam	Lisbon	Paris
Athens	London	Pesaro
Barcelona	Longford	Porto
Berlin	Luxembourg	Rome
Bilbao	Madrid	Turin
Birmingham	Manchester	Warsaw
Channel Islands	Milan	
Dubai	Moscow	

ASIA PACIFIC

Bangalore	Shanghai
Beijing	Shenzhen
Guangzhou	Singapore
Hanoi	Sydney
Ho Chi Minh City	Taipei
Hong Kong	Tokyo
Hyderabad	
Mumbai	
New Delhi	

Enhancing Value Across a Range of Expertise

VALUATION ADVISORY

Valuation and consulting for financial reporting, tax, investment and risk management purposes

- Valuation Services
- Alternative Asset Advisory
- Real Estate Advisory
- Tax Services
- Transfer Pricing
- Fixed Asset Management and Insurance Solutions



CORPORATE FINANCE

Objective guidance to management teams and stakeholders throughout restructuring, financing and M&A transactions, including independent fairness and solvency opinions

- M&A Advisory
- Fairness Opinions
- Solvency Opinions
- Transaction Advisory
- ESOP and ERISA Advisory
- Commercially Reasonable Debt Opinions
- Distressed M&A and Special Situations



GOVERNANCE, RISK, INVESTIGATIONS AND DISPUTES

Combined Duff & Phelps and Kroll risk management and mitigation, disputes and other advisory services

- Business Intelligence and Investigations
- Disputes
- Cross-Border Restructuring
- Cyber Risk
- Legal Management Consulting
- Security Risk Management
- Compliance Risk and Diligence
- Compliance and Regulatory Consulting



PRIME CLERK

Provides bankruptcy and class action claims administration through its proprietary software and industry leading management team.

- Chapter 11
- Strategic Communications
- Contract Review
- Corporate Actions
- Class Action



PROFESSIONAL AFFILIATIONS

Duff & Phelps Managing Directors provide input to regulators and standard-setters, and actively contribute to the development of valuation industry best practices.



IPEV

International Private Equity
and Venture Capital
Valuation Guidelines



International
Accounting Standards
Board



Appraisal
Institute™
*Professionals Providing
Real Estate Solutions*

Duff & Phelps Alternative Asset Advisory

*Duff & Phelps assists clients with **design and implementation of best-in-class valuation policies and processes**, including on-going review of valuation procedures and conclusions to ensure best practices.*

Market Leader

- » Our client base consists of **450+ alternative asset** fund managers and investors in the **U.S. and globally**
- » We perform in-depth valuation analyses of all asset types for clients across the spectrum of banks, hedge funds and private equity firms globally:
 - **70% of the top 25** largest Hedge Funds
 - **70% of the top 25** largest Private Equity Funds
 - **50% of the top 25** largest publicly traded Hedge Fund platforms (business development companies or “BDCs”)
 - Our client base includes **20 BDCs**
 - **Private debt funds** and **mid-market private equity funds** are the fastest growing segment of our client base
- » We review or value over **10,000 investment positions** on a quarterly basis, including derivatives and structured products
- » We have **18 full-time Managing Directors** and draw from D&P’s pool of over 1,000 valuation professionals with wide ranging sector and asset class expertise across the spectrum

Thought Leader

- » We are at the forefront of the industry’s leading committees on valuation processes, guidelines, and regulations:
 - **IPEV** – Board Member
 - **ILPA** – Special Advisor
 - **AICPA PE/VC Valuation Guide Task Force** – Member
 - **FASB Valuation Resource Group** – Member
 - **Managed Funds Association** – Sustaining Member
- » Leadership on drafting IPEV and PEIGG private equity valuation guidelines
- » Development of Duff & Phelps Created Value Attribution Framework.

Duff & Phelps’ Portfolio Valuation practice enables alternative investment managers to enhance their valuation process with the independence and objectivity that investors require.

Section II

Investment Company and Fair Value Background

Fair Value Definition Has Aligned

Fair Value is defined by:

- IFRS 13,
- International Private Equity & Venture Capital Guidelines (IPEV)
- International Valuation Standards (reference basis of valuation; Financial Reporting – IFRS 13)
- FASB ASC Topic 820
- Ind-AS 113
- GASB (US Government Accounting Standards Board) Statement 72

as:

- » *... the price that would be received TO SELL an asset or paid to transfer a liability in an ORDERLY transaction between market participants at the measurement date.*

Key Considerations:

- Unit of Account
- Calibration
- Market Participant Assumptions
- Orderly transaction (Active Market)
- How does Value Accrete?
- Application of Judgement

Why Fair Value?

- **IFRS 9 (Financial Instruments) & ASC Topic 946 (Investment Company Accounting):**
 - All investments reported at Fair Value as dictated by IFRS 13 and ASC Topic 820
- **Fiduciary Duty - basis that Fund investors (such as Limited Partners, “LPs”) use to report periodic (quarterly/yearly) performance.**
 - Investors / fund beneficiaries
 - Other interested parties; corporate governance, taxpayers, etc.
- **Decision Making**
 - Fair Value is the best basis for investors to make “apples to apples” asset allocation decisions.
 - Interim investment decisions (manager selection), monitoring interim investment performance, and overall performance of an investor’s portfolio, on a reasonably comparable basis.
 - For some; Fair Value is a basis for incentive compensation decisions.
- **Financial Reporting**
 - Investors need FV based NAV to allow them to prepare their own financial statements
- **A historical reporting basis, such as cost, does not provide meaningful comparability across investments.**

Investors (LPs) must satisfy themselves that reported NAV is based on IFRS 13/ ASC Topic 820 compliant fair value of underlying investments

What does Fair Value mean in times of market dislocation?

- Fair Value \neq Fire Sale Price
- Fair Value does take into account current market conditions
- Fair Value does take into account information that is known and knowable at the measurement date.
- Fair Value does reflect a market participants view as to how much they would pay
- Increased uncertainty and increased risk generally indicate higher return expectations and therefore lower asset prices
- Infrequently-traded or non-traded investments are generally less volatile than actively traded investments. During times of rapid public market value changes, up or down, private investments tend to lag the public markets and tend to change value less steeply than actively traded investments.
- Accounting rules require that observable prices for the same asset be given appropriate weight when estimating fair value.

Fair Value is the amount that a market participant would pay, in an orderly transaction, taking into account current market conditions and all relevant known and knowable information pertaining to the investment being valued at the measurement date

Macro Valuation Considerations at March 31, 2020

- Fair value is the amount that a market participant would pay in an orderly transaction at March 31, 2020
- Current Crisis and Public Market Volatility has similarities to 2008/2009 financial crisis
- Uncertainty has increased—market participants would take increased uncertainty into account, reflected by:
 - Decreased return assumptions
 - Delayed exit assumptions
 - Reduced cash flow assumptions
- Central Bank Actions
 - Lowering the discount rate does not necessarily translate into reduced risk
 - Credit spreads may be widening
- Investee company industry and geography require thorough assessment

Valuation Considerations resulting from the Covid-19 Pandemic

- Enterprise Value Considerations
 - Revenue
 - » Impact on customer demand
 - » Timing
 - » Customer financial health
 - Supply Chain
 - » Timing and availability of goods
 - » Cost of goods
 - » Supplier financial health
 - Operations
 - » Employee availability
 - » Employee productivity
 - » Ability to work remotely and maintain appropriate cybersecurity
- LTM EBITDA or other metrics in arrears needs to be updated in real time
- Current liquidity needs—Can the company survive? Debt Covenants? Working capital refresh needs?
- Future Cash flow projections need to be updated to consider short-term, medium-term and long-term expected impacts
- Consideration of the impact of a potential recession (short and long-term impact)

Valuation Considerations resulting from the Covid-19 Pandemic

- **What should we ask ourselves when applying standard valuation approaches?**
- Actively traded investments (sufficient volume and frequency to determine a price) are valued at $P*Q$ (with limited exceptions)
- Income Approach
 - Does my forecast represent post Covid-19 expectations?
 - Does my forecast consider the impact of a potential recession?
 - Discount rates
 - » Credit spreads may be widening
 - » Reduction in Central Bank rates may not translate into lower risk
 - » Starting place may be prior discount rate adjusted for increased risk
 - » If projections have not been updated, likely need for increase in the company specific risk premium (alpha)

Valuation Considerations resulting from the Covid-19 Pandemic

- Observable transaction prices (if deemed @ fair value) for Investments that are not actively traded, but have an observable price must be given appropriate weight
- Market Approach w/ Public Comparables
 - Do I expect the impact on my portfolio company to be equivalent to the public comps?
 - Should I adjust my operating metrics prior to applying multiples?
 - What kind of adjustment should I make to the resulting TEV from this approach?
- Market Approach w/ Recent Transactions
 - How recent is the transaction?
 - Is it still comparable?
 - What kind of adjustment should I make to my target firm metrics?
 - What kind of adjustment should I make to the resulting TEV from this approach?
- Care should be taken not to “double dip” when using comparable company multiples
 - Adjust the multiple/discount rate, or
 - Adjust the metric/projections, or
 - Adjust the multiple/discount rate and the metric/projections

Specific Investment Considerations

- Debt
- Equity
 - Early Stage
 - Late Stage
- Real Estate
- Infrastructure
- Energy
- Fund Interests
- E-commerce / businesses with online models

Audience Questions

- Resources:
- IPEV Valuation Guidelines and IPEV Board Special Guidance:
 - www.privateequityvaluation.com
- AICPA Article: Investment Companies: Measuring Fair Value in Times of Significant Uncertainty
<https://www.aicpa.org/interestareas/forensicandvaluation/resources/businessvaluation.html>
- AICPA Accounting and Valuation Guide: Valuation of Portfolio Company Investments of Venture Capital and Private Equity Funds and Other Investment Companies
- Duff & Phelps
 - Frequently Asked Questions: Measuring the Fair Value of Private Debt and Equity Investments in Times of Significant Uncertainty : http://images.duffandphelps.com/Web/DuffPhelps/%7B25bcfa88-6998-4c81-88e4-5e9ed7f235a2%7D_DP200797_BK_Marxh_Webcast_FAQ.pdf
 - Your Duff & Phelps service team

Selected March 31, 2020 Valuation Questions

- Do cash flow projections need to be updated, or can we just consider the current situation as temporary?
- How do you quantify the impact on private debt investments?
- Would you expect the value of Real Estate to change?
- Does market dislocation make some securities “thinly traded”? What should we do?
- How should we think about “calibration” given current market conditions?
- What weight should be applied to recent transaction prices?
- For highly leveraged companies, what amount of debt should be used in coming to the value of equity (if enterprise value is lower, could equity value be zero)

Selected March 31, 2020 Valuation Questions (cont.)

- With artificially low government bond yields, what is the impact on cost of capital?
- How should we consider lack of liquidity, potential covenant breaches, customer non-payments, etc.?
- How should “level 2” investments, be valued—can we still use broker quotes and pricing services?
- How long should we expect the crisis to last when considering known and knowable?
- How did values change in December 2008 and March 2009—does that provide a road map for today?
- If fair value is determined using known and knowable information at March 31, 2020, what do we do if the markets rebound or tank further in April or May 2020?

Final Comments

Resources:

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- David Larsen: +1 415 693 5330; david.larsen@duffandphelps.com

Thank you for attending!

Appendix A

Duff & Phelps Alternative Asset Advisory

Alternative Asset Advisory - Practice Overview

Creating enhanced transparency in the Alternative Asset Investment Space

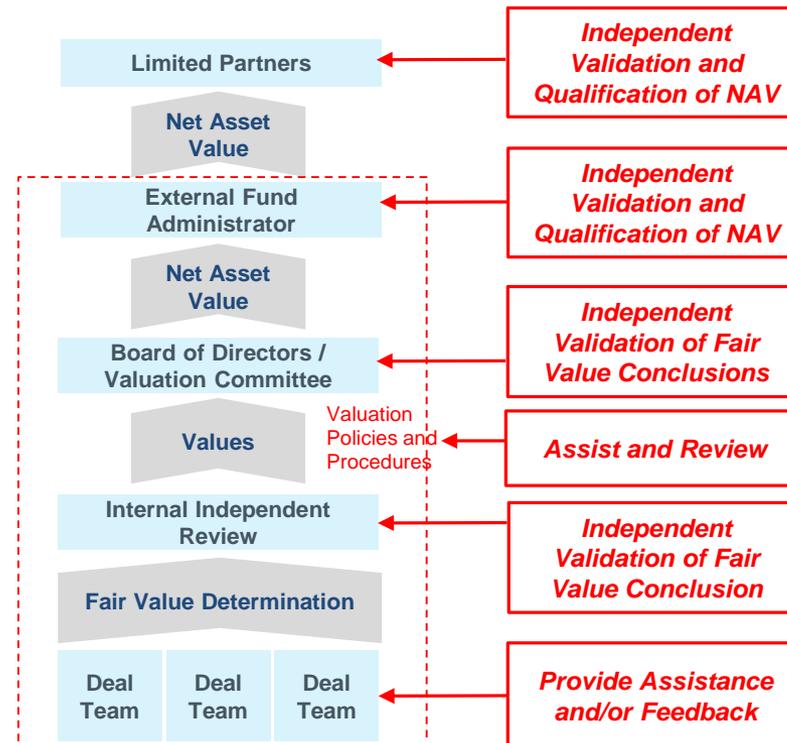
Who We Are

Duff & Phelps is a global industry leader in the alternative asset investment space, with expertise in all classes of illiquid securities and clients across North America, Europe, the Middle East, and Asia

How and Where We Can Help

Duff & Phelps provides an independent and objective view on valuation that enhances our clients' financial reporting process and internal control environment

Typical Engagements



Unparalleled Industry Thought Leadership

Creating enhanced transparency in the Alternative Asset Investment Space

Industry Thought Leadership

- » Service on FASB's Valuation Resource Group
- » Participation in the U.S. Securities and Exchange Commission's mark-to-market roundtable in November 2008
- » Membership on the American Institute of Certified Public Accountants' Alternative Investments Net Asset Value Task Force
- » Leadership in drafting the Private Equity Industry Guidelines Group's (PEIGG) U.S. Private Equity Valuation Guidelines
- » Membership on the International Private Equity and Venture Capital Valuations Board, focused on providing global guidelines for valuing private equity. Duff & Phelps co-drafted the IPEV Valuation Guidelines
- » Active member of Alternative Investment Management Association (AIMA)
- » Special advisor to the Institutional Limited Partners Association
- » Quoted by media outlets including Wall Street Journal, Financial Times, New York Times, CFO Magazine, CNBC, Fox Business News, Private Equity International, and Hedge Funds Review on issues impacting alternative investments valuation.

Benefits of Duff & Phelps Alternative Asset Advisory

- » Duff & Phelps review provides an independent and objective view on valuation that enhances our Client's valuation and financial reporting process
- » We ensure that our Clients' valuations methodology is compliant with current guidance and financial reporting requirements
- » We ensure that our Clients' methodology and approach is aligned with industry best practise using our experience and insight
- » Our involvement provides additional assurance to investors as to robustness of valuation process
- » We provide support for finance teams challenging and supporting deal team values
- » Our discussions with LPs indicate an increased focus on importance of timely, accurate reporting
- » At our Clients' request, and with a signed third party release letter, we communicate with LPs directly
- » Duff & Phelps review valuations prepared to ensure:
 - Objective and independent valuation conclusions
 - Compliance with guidelines and regulations
 - Consistent and robust approach with work-paper support

Our Areas of Expertise Span the Full Spectrum of Illiquid Assets and Securities

We are a recognized market leader, providing valuation services to the alternative investment management community. We currently review thousands of positions across a broad range of industries and clients.

Alternative Assets	Corporate Securities	Structured Products	Contractual Agreements	Options & Other Derivatives
<ul style="list-style-type: none"> » Private/Direct Loans » Real Estate » Private Equity and Venture Capital (Direct) » Private Equity and Venture Capital (Co-invest) » Hedge Fund and Private Equity General Partnerships (GPs) » Hedge Fund and Private Equity Limited Partnership Interests (LPs) » In-Kind Distributions » Other Illiquid investments » Non-performing loans (NPLs) 	<ul style="list-style-type: none"> » Convertible debt » Callable debt » Private Secured and Unsecured Loans » Distressed Debt » Other Debt Instruments » Preferred and Non-Public stock » PIPEs » Illiquid Common Equity » Employee stock options (FAS 123/IFRS2) and Restricted Stock » Warrants » Securities with embedded derivatives » Allocation of value among various claim holders » Common stock of highly leveraged companies » Contingent stock 	<ul style="list-style-type: none"> » Residential whole loans, MSRs and Residential Mortgage Backed Securities (RMBS): Subprime, Alt-A, Option ARMs, RPL, NPL, fix and flip » Asset-Back Securities and Structured Notes » Commercial Real Estate (CRE) Loans, CMBS, CRE CDOs and CRE CLOs » Marketplace lending/P2P loans and securities » Various types of CDOs including ABS CDO, CBO, CLO, CDO², Synthetic CDOs, and Trust Preferreds. » Collateralized Fund Obligations (CFOs) – Hedge Fund and Private Equity Interests 	<ul style="list-style-type: none"> » Executive compensation plans » Contracts with contingent payments » Employee stock options (FAS 123/IFRS2) » Management Incentive plans associated with portfolio companies (FAS123R/IFRS2) 	<ul style="list-style-type: none"> » Futures & Forwards » Swaps - Interest Rate, Variance, Dividend, Energy and Volatility Swaps » Options - Equity, Interest Rate, Currency, Commodity & Energy Options » Credit Default Swaps and other credit derivatives » Warrants (Debt) » Other OTC derivatives » Catastrophe bonds

Sector Expertise

We have over a decade of experience in the portfolio valuation and alternative investments space, as well as experts covering all major asset classes, including Real Estate, Structured Products, Technology, Industrial Products, and Healthcare:

Experience	18 full time Managing Directors to ensure timely, intelligent responses to your issues and questions that bring you unparalleled market intelligence and insights.
Breadth	The broadest exposure to deal sizes ranging from lower middle market to the largest syndicated deals. Approximately 10,000 valuations of private investments were performed in 2018. These engagements involved billions of dollars in positions across all industries in both domestic and international geographies.
Capacity	Industry leading ability to leverage our 1,300+ valuation professionals with deep industry and product experience. Over 200 professionals regularly work on alternative asset advisory engagements.
Resources	As a large firm, we invest in leading technology to leverage investment data and bring market leading experience and insights to our clients.
Product Knowledge	Expertise with the most complex debt, equity, real estate and derivative investments in companies across the business lifecycle.
Thought Leadership	Our professionals are actively involved in shaping both the US and international landscape on Fair Value reporting issues, including co-authoring the current PEIGG and IPEV Fair Value guidelines.

Our experience with complex portfolios has given us unparalleled insight in valuing a broad range of alternative investments. As the largest valuation firm in the alternative asset space, we have valued a diverse array of investment classes, enabling us to approach our clients' valuation needs with confidence. This exposure puts us at the forefront of industry trends and valuation methodologies.

For more information about our global locations and services, please visit:
www.duffandphelps.com

About Duff & Phelps

Duff & Phelps is the global advisor that protects, restores and maximizes value for clients in the areas of valuation, corporate finance, disputes and investigations, cyber security, claims administration and regulatory issues. We work with clients across diverse sectors on matters of good governance and transparency. With Kroll, the leading global provider of risk solutions, and Prime Clerk, the leader in complex business services and claims administration, our firm has nearly 4,000 professionals in 25 countries around the world. For more information, visit

M&A advisory, capital raising and secondary market advisory services in the United States are provided by Duff & Phelps Securities, LLC. Member FINRA/SIPC. Pagemill Partners is a Division of Duff & Phelps Securities, LLC. M&A advisory, capital raising and secondary market advisory services in the United Kingdom are provided by Duff & Phelps Securities Ltd. (DPSL), which is authorized and regulated by the Financial Conduct Authority. M&A advisory and capital raising services in Germany are provided by Duff & Phelps GmbH, which is a Tied Agent of DPSL. Valuation Advisory Services in India are provided by Duff & Phelps India Private Limited under a category 1 merchant banker license issued by the Securities and Exchange Board of India.