Valuing Venture Capital Investments

Brazil Edition

DUFF & PHELPS

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Agenda

Today's Presenters

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Section I

Duff & Phelps Firm Overview

Duff & Phelps Services

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

Valuation Advisory Services

Financial Reporting	Tax	Alternative Asset Advisory	Real Estate Services	Fixed Asset Management and Insurance Solutions
Purchase Price Allocation	Tax Valuation	Portfolio Valuation	Real Estate Valuation and Consulting	Machinery and Equipment Valuation
Goodwill and Asset Impairment	Transfer Pricing	Valuation Policy and Procedures Consulting	Real Estate Restructuring	Property Insurance Appraisal
Intellectual Property Valuation	Legal Entity Valuation	Fund Manager Valuations	Loan Services / Debt Advisory	Fixed Asset Inventory and Reconciliation
Fresh Start Accounting	Purchase Price Allocation	Created Value Attribution	Lease Renegotiation	IT Fixed Asset Inventory Services
Contingent Consideration, Asset and Liability Valuation	Estate and Gift Tax	Secondary Transfers	Right of Way Appraisal	Fixed Asset Componentization
Stock Compensation	Interest Expense Allocation	Valuation of Illiquid and Complex Securities	Cost Segregation	Property Record Outsourcing
Complex Securities Valuation	Worthless Stock Deductions	Derivatives and Structured Credit Products Valuation	Property Asset Management and Optimization	
Business Valuation	Stock Compensation		Transaction Due Diligence	
Strategic Value Advisory	Property Tax Services			
	Sales and Use Tax Services			
	Site Selection and Incentives Advisory			
	Unclaimed Property and Tax Risk Advisory			

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 **400 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
- **80% of the top 30** Limited Partners listed by PEI
- Our client base includes **20 BDCs**
- Significant **Venture capital, Private debt and mid-market private equity funds**; fastest growing segment.

» We review or value over **10,000 investment positions** on a quarterly basis, including derivatives and structured products

» We have **17 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
– **IVSC –** Board 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.

Professional Affiliations

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

Section II

Overview – Valuation of Venture Capital Investments

Defining Fair Value

Fair Value is defined by:

- FASB ASC Topic 820 (fka SFAS 157),
- IFRS 13, and
- 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. (emphasis added)

Key Considerations:

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

Description of Valuation Approach

Considerations

- Multiple approaches
- Information; access / availability
- Stage of development
- Each approach weighted according to its relative merits
  - Quality of data
  - Support for inputs and assumptions
  - Market Participant considerations

The typical venture capital valuation process entails two steps:

Step 1: Estimate the enterprise value of a subject company; and

Step 2: Allocate the enterprise value to the securities within the company's capital structure.

Approaches for Step 1:

Traditional Approaches

- Income Approach
- Market Approach
- Net Asset or Cost Approach

Venture Capital Oriented Approaches

- Scenario-Based Analysis
- Last Round of Financing
- Milestone / qualitative assessment

Description of Valuation Approach

Traditional Approaches (Step 1)

- **Income Approach**
  - Future earning capacity of the company
    - Growth and investment
    - Developing technology (products/services) and markets
    - New business models
  - Discount for the risk of achieving the projected cash flows
    - Mature company discount rate plus:
    - Technical feasibility
    - Market acceptance
    - Dilution
    - Probability of success
  - Include exit value or terminal value into perpetuity
    - Competitive advantages (relative to benchmarked firms)
    - Stable growth considering full business cycle (ups and downs)

Utilized for high-growth or mature companies

- Visibility regarding potential revenue and profit for the company
- Upside scenarios for less developed firms

Description of Valuation Approach

Traditional Approaches (Step 1)

- **Market Approach**
  - Comparison to similar businesses or assets that are priced in active market
  - Comparability
    - Stage of development and capital needs
    - Risks and Opportunities
    - Size and operating risk
  - Distortion of multiples
    - Limited history
    - Value for future maturity

Comparability is difficult so this approach is typically applied to:

- Indicate directional changes in value (Calibration)
- Benchmark for terminal value
- Future financial metrics adjusted to consistent timeframe and discounted for appropriate risk (normal% + POS)

- **Cost Approach (net assets)**
  - Replacement value (development efforts)
  - Time to market value or opportunity costs
  - Obsolescence, Learning-curve costs or development inefficacies excluded (general knowledge)

Appropriate for downside scenarios or liquidating businesses

- IP or other intangible assets that have alternative use or salvage value
- Non-operating assets or liabilities

Description of Valuation Approach

Venture Capital Oriented Approaches (Step 1)

- **Scenario-Based Analysis**
  - Forward-looking method considering:
    - Potential events / transactions / exits, and,
    - Payoffs to each class of equity
  - Probability weighted and discounted at an appropriate rate of return
  - Scenario values supported by traditional approaches or empirical data
  - Scenario distribution is important to capture enough spectrum of potential outcomes
    - Liquidation, base case and upside (complexity?)
    - Security rights
    - Augmented with an Optional Pricing Model (limiting selection bias)
  - Intermittent cash flow
    - Dilution factor or
    - If positive, increase to exit value

One of the best tools for valuing VC investments

- Balance flexibility, complexity and subjectivity
  - Calibration of most subjective factor
  - Investment thesis cases
  - Easier to measure risk trough probabilities
  - Value accretes with progress and potential market developments, not time
  - Estimates total company value consistent with allocation of value to security classes

Description of Valuation Approach

Venture Capital Oriented Approaches (Step 1)

- **Transaction approach**
  - Use as many data points as possible
    - Last Round of Financing
    - Tranche pricing (fixed or negotiated / required, contingent or optional)
    - Secondary transactions
    - Upcoming financing event (LOI or potential from empirical data)
  - Representative of Fair Value?
    - Must consider transaction price when estimating fair value (IFRS 13); weighting?
    - Consider blending data points or selection transactions that are more representative of Fair Value
  - Adjustments and weights to transacted values
    - Timing and size of the financing
    - Existence or lack of new investors, or changes in ownership structure
    - Strategic nature of the transaction
    - Asymmetry of information, nature of deal negotiations and motivation of the parties involved
  - Current valuation date, additional considerations and adjustments
    - Progress or failure regarding expected milestones relative to the cash burn (the Milestone Approach)
    - Anticipated or upcoming rounds, typically discounted for execution risk and quality of information.

Description of Valuation Approach

Step 2 methods, or implied Step 1 value based on transactions

- **Fully Diluted Approach** or **Common Stock Equivalents (“CSE”) Method**
  - Price all shares at the transacted price per share
  - No consideration of rights and preferences of different classes of equity;
    - IPO
    - Deal above conversion price
  - Treatment of management options, dividends and other terms not represented in share count

- **Option Pricing Method (“OPM”)** or **Contingent Claims Analysis (“CCA”)**
  - Allocates value from a continuous distribution of outcomes based on time and volatility, using Black-Scholes models
  - Security terms are likely to be enforced and monetized
  - Issues with dilution or future capital structure changes

- **Scenario-Based Analysis (**as described above)

- **Hybrid, weighting above methods**
  - Consistent weightings for Company value (step 1) as well as allocation of value (step 2)
  - Evidence from secondary trades
  - Empirical data for success rates by stage of development
  - Trends in performance or probability of success
  - Enforceability and control of specific rights

Description of Valuation Approach

- **Calibration**
  - Required by *IFRS 13 when the initial transaction is at Fair Value*
  - Measuring model assumptions consistent with the implied value of the company
    - Market Approach – Implied multiples, difference from traded multiples
    - Income Approach – discount rate (IRR)
    - Scenario-Based Analysis –probabilities or likelihood of success and scenario values

  - Consider the impact of changes that have occurred since transaction
    - Performance relative to plan
      - Revenue (or profitability) growth vs cash burn
      - Milestone achievement or failure vs expectations
    - Changes in market conditions (multiples, market capitalization and enterprise value)
      - Comparable companies
      - Secondary trades
      - Implied yields of traded or retired and issued debt

    - Changes in future expected scenarios or cash flows, if material, may indicate the need to recalibrate

      Down
      - Inefficient use of capital to change business plan, technology or target market; pivots
      - Discovery of new risks or need for more capital than originally expected

      Up
      - Additional opportunities
      - New markets or alternative uses of products / services
      - Higher than expected customer retention
      - Successful competitive advantages are established

Description of Valuation Approach

Additional Considerations in Estimating Fair Value for Venture Capital Investments

- Fair Value is the price of an orderly transaction at the measurement date:
  - Using market participant assumptions,
  - assuming knowledgeable parties, and
  - for the specific unit of account
- As changes to the business plan occur, it is important to understand why adjustments are being made.
  - New opportunities
  - Different risks
  - Failed efforts
  - Market conditions
- Fair Value may be represented by what you would pay for the investment, knowing now what you did not know before.
  - More or less money
  - More or less ownership interest or economic rights
  - More or less future capital needs of the company
  - Probability for success
  - The target market(s) have changed; size / nature of demand / competition

Description of Valuation Approach

Additional Considerations in Estimating Fair Value for Venture Capital Investments

- Fair Value changes

  - Company value changes
    - New information garnered through monitoring the portfolio company or from testing results
    - Success or failure to progress on milestones relative to cash burn expectations

  - Exit value changes
    - Resolution or development of market / competitor uncertainties
    - Change in opportunities of potential market size and share (potential competitive advantages).

  - Supply and demand of VC capital “non-performance risk”

  - Industry structure and long-term economic environment

  - Regulatory

  - Other changes in expectations for the success and financing of the portfolio company.

Valuation Challenges in the Current Environment

- Recent transaction price may no longer be indicative of fair value
- Lack of transaction data does not mean value is stable
- Greater rigor may be necessary if quarterly valuation process differs from Y-E process
- Portfolio company cash burn assumptions may need to be changed
- Portfolio company estimated results & projected future results may need to be updated
- Potential impact of recent legislation may need to be reflected
- Why?
  - Government public health actions have had a significant impact on the economy
  - Public Markets are Volatile
  - Investors still need fair value-based NAV

Portfolio Company Triage – Market Risk Exposure
Valuation Considerations Resulting From the Covid-19 Pandemic

- Liquidity – financial strength of company
  - Any Debt or material working capital needs?
  - Potential for covenant breach?
  - Cash runway?
  - Next Round of Financing? Syndicate interest? Likely limited access to new investors

- Sector and industry, by target market
  - Technology is not immune; Software better off than Hardware
  - Biotech ?
  - High-growth; growth from new customers severely impacted

- Stage of development – exposure to market(s)
  - Pre-revenue
  - Time to market
  - Customer/demand elasticity and financial health

- Flexibility of operations
  - Ability to change burn rate and/or operating leverage
  - Option to hibernate (shut down and relaunch costs and risks)

Portfolio Company Triage – Market Risk Exposure (cont.) Valuation Considerations Resulting From the Covid-19 Pandemic

- Enterprise Value
  - Direct financial impact in revenue and cash flow (timing and amount)
  - Indirect impact
    - » Supply chain financial health
    - » Access to resources and productivity

- Capital structure and unit if account
  - Liquidation Preferences—do they have value?
    - » Binary outcomes
    - » If financing is needed before “market recovery”
  - Ability to exit and control disposition
  - Delays in progress or market access likely leading to dilution

- Visibility and uncertainty; special situations
  - Market opportunities
  - Asymmetric risks
  - Near-term cash-out-date; does the company have enough momentum to garner funding
  - Pending transactions, if any

Calibration

- Simple illustration:
  - Series G Post-Money Valuation: $1.0B
  - Use Revenue projections at the time of the Series G financing round
  - Growth requires multiples to be compressed over time:
    - Year 1: $50.0M => Implied transaction multiple : 20.0X
    - Year 2: $100.0M => Implied transaction multiple: 10.0X (-50.0% change)
    - Year 3: $500:0M => Implied transaction multiple: 2.0X (-80.0% change)
    - Year 4: $750.0M => Implied transaction multiple: 1.3X (-35.0% change)
    - Year 5: $1.0B => Implied transaction multiple: 1.0X (-23.1% change)
- Adjustments are necessary
  - Company performance vs. Series G underwriting expectations
  - Overall market movement
  - Risk and return; milestone progress and cash burn
  - Availability of future capital
  - Other

Process Changes and Market Participant Considerations Resulting From the Covid-19 Pandemic

- Process and procedures should not change, unless it's broken
  - Similar robustness as year-end process
  - OPM use only
  - Information right problems (enhanced exposure to risk)
  - Transactions are stale (a statement not a question)
  - Doesn't consider current market facts that would impact Market Participant decisions
    - » Exit timing delayed and potential for dilution
    - » Liquidity strain on portfolio companies
    - » Impact of COVID-19 epidemic to business operations (e.g., revenue, supply chain, productivity, etc.) is expected to have short-, medium-, and long-term effects; adjust appropriate assumptions
    - » Decline in deals and access to capital much less than last year
      - » Deal pricing and returns adjusted for market uncertainty and capital supply
      - » Companies without momentum and willing syndicate base; likely shelved

  - Documentation and reasoning for inputs and assumptions is (always) key

  - Other industry impact
    - » Consolidation of capital in mega firms?
    - » LPs will likely focus on most proven managers
    - » Investors new outlook; greater emphasis on sustainable revenue growth and profitability

Valuation Guidance

AICPA Guidance – Valuation of Portfolio Company Investments of Venture Capital and Private Equity Funds and Other Investment Companies

- Chapter 8: Valuation of Equity Interests in Complex Capital Structures
- Methods of estimating the fair value of multiple classes of equity
  - Scenario-Based Methods
  - Option Pricing Method (“OPM” or Contingent Claims Analysis)
  - Current Value Method
  - Hybrid Method (A hybrid of scenario-based methods and OPM)
  - Fully Diluted Approach or Common Stock Equivalent Method (“CSEM”)
- How much weight should be placed on a recent financing round?
- How should the concept of Calibration be applied?

Section III

Valuation Examples

Valuation Example 1

- **AYUMI Entertainment Group ("AEG"), based in Seattle, WA, is an online fan-to-fan ticket marketplace that enables users to buy and sell tickets to concerts, theater, sports, and other live entertainment events in the U.S.**
- **On January 15, 2020 ("Calibration Date"), AEG raised a $100.0 million in a Series D round of financing led by new investors Yukari Ventures ($50.0 million) and others. The Series D round of financing implied a post-money valuation of $800.0 million.**

- Prior to COVID-19, 2020E revenue was $200.0 million or 4.0x implied Series D transaction multiple;
- Post-COVID-19, forward revenue multiples and market capitalizations of comparable companies have declined by a median of 50.0 percent and 25.0 percent since the Calibration Date, respectively;
- Based on the facts and circumstances above and what was known or knowable at the March 31, 2020 measurement date, Yukari Ventures concluded on the following fair value of its Series D shares:
  - Calibrated Series D transaction multiple: 3.0x
  - Implied total equity value: $600.0 million
  - Fair Value of Series D shares (Unit of Account): $37.5 million - $42.5 million

Valuation Example 2

- **Musk Co. is an early stage company based in Asia that focuses on electronic vehicle ("EV") related technology. The company's business model is to generate revenue through long-term contracts with large auto manufactures.**
  - The client's investment was made in December 2019
  - Cash runway of 1-2 years
  - The company currently has no meaningful revenue but had projected high growth over the next 3 years
  - COVID-19 has a significant impact on the business
- **To value the client's interest in Musk Co. as of March 31, 2020, the service provider considered a calibrated scenario-based analysis or probability-weighted expected return method (PWERM) to value the business. Key assumptions in the scenario-based analysis include:**
  - Probability Weighting – Shift toward the downside case
  - Exit Timing and Exit Value – Exit timing extended by 1 year
  - Discount Rate – An increase in alpha
  - Conclusion – A 20% discount to cost.

Audience Questions

Resources:

- IPEV Valuation Guidelines and IPEV Board Special Guidance
- AICPA Article: Investment Companies: Measuring Fair Value in Times of Significant Uncertainty
- 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
  - Your Duff & Phelps service team

Appendix A

Duff & Phelps Alternative Asset Advisory

Steven Nebb, CFA

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Steven Nebb is a managing director in the San Francisco office and part of the Alternative Asset Advisory services business unit. He is the client relationship champion for the Company's Portfolio Valuation practice in Asia and Western North America, and is the firm's product leader for the valuation of Venture Capital, early-stage and Unicorn investments.

Steve has over 20 years of experience performing numerous valuations and financial analyses for a variety of purposes, including financial reporting, tax, fairness opinions and transaction advisory, litigation and strategic planning. Steve's engagement highlights include private equity, illiquid debt, and complex derivative valuations throughout the alternative asset investor industry. He advises limited partners from large sovereign wealth funds to local pension plan managers regarding valuation and industry best practices. For venture capital, hedge funds, business development corporations and private equity funds he covers high-tech; biotech and healthcare; consumer durables, consumables and brand conglomerate; and, engineering, consulting and defense contracting industries.

Prior to joining Duff & Phelps, Steve performed valuation and financial advisory engagements for over eight years with the Valuation Services Practice of PricewaterhouseCoopers LLP (PwC) and Standard & Poor's Corporate Value Consulting Group (CVC). Prior to that, Steve's experience includes analyzing aerospace and defense contractor operational capabilities, financial performance and contract satisfaction. Steve provided consultation to the Department of Defense, Department of State and the Federal Aviation Administration, regarding contractual issues and contract negotiations.

Steve received his B.S. in finance from George Mason University. He is also a CFA Charterholder and a member of The CFA Institute, the Security Analysts of San Francisco and the Licensing Executives Society, San Francisco Chapter.

Robert J. (Joey) Malagon

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Robert J. (Joey) Malagon is a managing director in the New York office and part of the Alternative Asset Advisory services business unit. Joey has more than 16 years of experience and specializes in the valuation of illiquid securities and interests. He oversees Duff & Phelps' Portfolio Valuation services across Latin America.

Joey provides valuation advisory services to alternative asset managers, including private equity, hedge funds and business development companies. He has performed valuations of portfolios of illiquid equity interests held by large private equity funds and has valued management fees and carried interest for private equity management entities. Joey's hedge fund experience includes the analysis of private loans, including senior secured and subordinated debt, convertible preferred and common equity, warrants and other derivatives, and limited partner and general partner interests under the guidelines of ASC § 820 or the equivalent international standard.

Joey's other experience includes the valuation of businesses and intangible assets for a diverse range of companies, including: regional and multinational banks, specialty retailers, industrial manufacturers, distillers and brewers, as well as numerous other companies under the guidelines of ASC § 805 (formerly SFAS 141) and ASC § 350 (formerly SFAS 142).

Joey joined Duff & Phelps in conjunction with the merger of Standard & Poor's Corporate Value Consulting ("CVC") with Duff & Phelps. Prior to joining the New York office of CVC, Joey worked as a senior associate in the Atlanta office of CVC.

Joey received his B.S. in finance from the University of Florida.

Alternative Asset Advisory - Practice Overview

Creating enhanced transparency in the Alternative Asset Investment Space

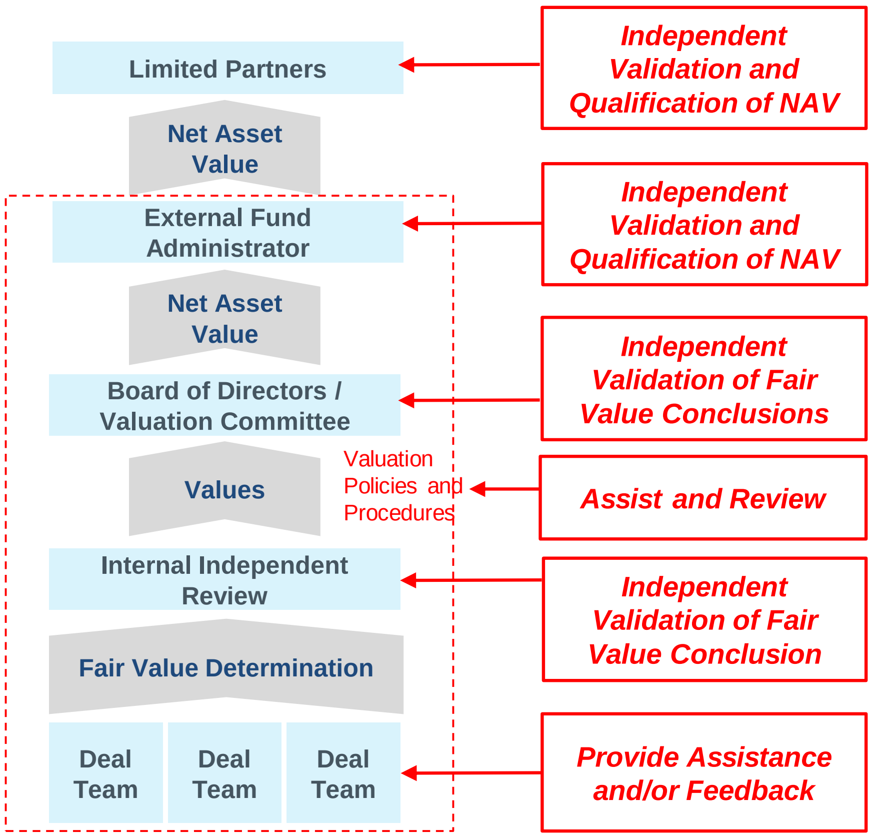
Who We Are

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

- 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
- Special advisor to the Institutional Limited Partners Association
- 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
- Active member of Alternative Investment Management Association (AIMA)
- 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

» 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)

Corporate Securities

» 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

Structured Products

» Residential whole loans, MSRs and Residential Mortgage Backed Securities (RMBS): Subprime, Alt-A, Option ARMs, RPL, NPL, SFR, 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, CDO^2, Synthetic CDOs, Reg-Cap transactions, and Trust Preferreds.
» Collateralized Fund Obligations (CFOs) – Hedge Fund and Private Equity Interests

Contractual Agreements

» Executive compensation plans
» Contracts with contingent payments
» Employee stock options (FAS 123/IFRS2)
» Management Incentive plans associated with portfolio companies (FAS123R/IFRS2)

Options & Other Derivatives

» 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 premier global valuation and corporate finance advisor with expertise in complex valuation, dispute consulting, M&A and restructuring. The firm's more than 2,500 employees serve a diverse range of clients from offices in North America, Europe and Asia.