



Valuation Framework & Regulatory Environment

WEBINAR | 6TH DECEMBER 2017 | 10AM EST

- ◆ The valuation of private assets - whether equity, debt, real estate or the more esoteric classes of infrastructure, commodities, etc. - has always been a challenging task. Typically illiquid, and frequently complex, private asset classes usually require the deployment of sophisticated techniques and methodologies, and specialist data sets. This is not a job for the amateur!
- ◆ The sector has experienced spectacular growth over the last few years, as institutional investors search out yield for their burgeoning cash piles. Private assets under management in 2016 were close to \$5trn and this is forecast to triple in size over the next 5 years. Increasingly, traditional public asset managers are entering the sector - 66 percent of annual fundraising for technology start-ups in 2016 came from this source.
- ◆ With mom and pop's pension and the kids college fees now becoming exposed to what was previously a professionals market, the regulators are becoming increasingly active and vigilant. Valuations especially are coming under unprecedented scrutiny, and the SEC has been encouraging a process to make these more consistent, transparent and defensible.
- ◆ In response to this, Voltaire Advisors and Duff & Phelps have co-operated to produce a series of web briefings on the subject. Over three sessions we will cover some of the key topics investment funds need to be alert to, and apprised of, when it comes to complying with regulatory rules and industry best practice in private asset valuation.



David L. Larsen, CPA

Managing Director,
Alternative Asset Advisory
Services,
Duff & Phelps



DUFF & PHELPS

Valuation Framework

December 2017

David L. Larsen, CPA, ABV, CEIV
Managing Director
Duff & Phelps LLC

Agenda

Valuation Framework

- SEC's View – What is illiquid?
- New Valuation Regulation and Credential Framework – CEIV, CVFI
- Proposed Audit Standards with respect to fair value estimates
- Questions

More Than 70 Offices and Affiliates Worldwide



The Americas

Atlanta	Houston	Princeton
Austin	Jacksonville	San Francisco
Boston	Los Angeles	São Paulo
Calgary	Mexico City	Seattle
Cayman Islands	Miami	Silicon Valley
Chicago	Milwaukee	Stamford
Dallas	Montreal	Toronto
Denver	Morristown	Vancouver
Detroit	New York	Washington, DC
Fredericton	Philadelphia	

Europe and Middle East

Abu Dhabi	Frankfurt	Padua
Amsterdam	Lisbon	Paris
Athens	London	Pesaro
Barcelona	Longford	Porto
Berlin	Luxembourg	Prague
Bilbao	Madrid	Rome
Birmingham	Manchester	St. Petersburg
Bologna	Milan	Turin
Channel Islands	Moscow	Warsaw
Dublin	Munich	

Asia-Pacific

Almaty	Shanghai
Bangalore	Shenzhen
Bangkok	Singapore
Beijing	Taipei
Guangzhou	Tokyo
Hong Kong	
Mumbai	
New Delhi	

Enhancing Value

Across a Range of Expertise

Valuation	Corporate Finance	Disputes and Investigations	Tax Services	Compliance and Regulatory Consulting
Technical expertise and specialized support in the areas of complex valuation, alternative assets, real estate and fixed asset management	Objective guidance to management teams and stakeholders throughout restructuring, financing and M&A transactions, including independent transaction opinions	Financial analysis, consultation and expert testimony in the context of litigation, arbitration and mediation	Expertise in implementing tax solutions surrounding property tax, business incentives, transfer pricing and unclaimed property	Helping financial services firms navigate the compliance and regulatory landscape, mitigating risk throughout the business lifecycle

David L. Larsen, CPA, CGMA, ABV, CEIV

Managing Director, Alternative Asset Advisory Services



Duff & Phelps, LLC
San Francisco
+1 415 693 5330
David.Larsen@duffandphelps.com

David Larsen is a managing director in the San Francisco office of Duff & Phelps and part of the Portfolio Valuation service line. He has more than 30 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 an advisor to and has served as Vice Chair of the International Private Equity and Venture Capital Valuations Board (IPEV), which in 2015 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.

SEC Liquidity Disclosures

SEC Liquidity Disclosures

- Highly liquid investments – Convertible to cash within 3 business days.
- Moderately liquid investments – Convertible to cash in more than 3 calendar days but within 7 calendar days.
- Less liquid investments – Saleable within 7 calendar days, but with cash settlement taking longer than that.
- Illiquid investments (15% rule) – Not saleable within 7 calendar days.

Valuation Tension

ASC Topic 820:

- Actively traded assets (sufficient volume and frequency to determine a price—generally exchange traded)
- By rule valued at $P * Q$
- No blockage discount allowed

New Rules:

- Disclosure buckets driven by time to convert to cash
- Large holdings potentially split between buckets

SEC historical viewpoint:

- No blockage discount

Should FASB revisit $P*Q$?

“Unicorns!” Where do they fit? How and how often should they be valued?

Competing Definitions?

Overlapping classifications could create confusion

- Disclosure buckets—Time to Convert To Cash
- Liquid/Illiquid—Sold within 7 days
- Financial Reporting—Level 1, 2, 3 Valuation Inputs

Example—Unicorn

- Classified as Level 3; Valued using unobservable inputs
- Liquid—Could be sold within 7 days
- <7 days—May require time for proceeds to be received

Example—Foreign Exchange Traded Security

- Classified as Level 1; Valued at $P \times Q$
- Liquid—Could be sold within 7 days
- <7 days—May require time for proceeds to be received

Level 3 Valuations

Historically most Mutual Fund's invested in assets classified as level 1 or level 2 (valued using observable inputs)

Increasingly investing in “private” investments resulting in considerations:

- Valued using level 3 inputs (does the Fund have a framework for valuation)
- Impacts 15% illiquid rule
- Impacts disclosure buckets

Valuing Unicorns & other early stage investments:

- Last Round?
- Differences in rights?
- Consideration of milestones/performance
- Pressure for transactions, but limited secondary exchanges

New Valuation Credentials and Professional Infrastructure

Perceived Valuation Problem

- Some individuals are conducting fair value measurements that are not analytically consistent, conceptually appropriate, technically sound, or properly supported.
- The SEC expressed a desire the valuation profession collaborate and coordinate their efforts to establish the qualifications, training, accreditation, and oversight of individuals conducting fair value measurements.
- The valuation profession is fragmented and involves a variety of not-for-profit and for profit organizations that have differing membership constituents as well as varying requirements qualifications, experience, training, accreditation, and reaccreditation.
 - In addition, there are individuals that publicly profess themselves to be valuation experts that are not members of any recognized VPO and are not subject to any professional, ethical, or technical standards.
- Public perception that the valuation profession is not an actual profession similar in character to the legal, medical, and accounting professions.
- The fragmented nature of the valuation profession, the ability of unqualified and uncertified individuals to practice, as well as the array of valuation credentials and designations has left government regulators, corporate entities, investors, and the general public in a state of confusion regarding the qualifications, expertise, experience, integrity, and credibility of individuals conducting fair value measurements.

Task Force Approach

- The AICPA, ASA and RICS working groups have determined that the key elements of a VPO infrastructure that would govern individuals conducting fair value measurements (for U.S. financial reporting purposes) should include the following:
 - Professional Qualifications
 - Accreditation and Reaccreditation
 - Performance Requirements
 - Quality Review and Discipline
 - Ethics and Enforcement

Task Force Approach (cont.)

- The Task Force formed four work-streams designed to address VPO governance and operational infrastructure issues relevant to fair value measurements activities, as follows:
 - **Governance and Coordination** - Address a variety of governance and infrastructure issues, including the role, functions, and structure of existing VPOs. The Task Force decided that the Governance and Coordination work-stream would provide overall coordination of the project.
 - **Performance Requirements** - Build a process to develop a Mandatory Performance Framework (i.e., requirements that will govern the quality of work needed to support fair value measurement conclusions and opinions) to be applied by all fair value credential holders as defined by the Qualifications work-stream.
 - **Qualifications** - Develop requirements or recommendations for base knowledge, initial testing, and ongoing continuing education. Recommend whether a separate “credential” for providing fair value measurements is needed.
 - **Quality Control** - Develop a framework for quality reviews of individual practitioners by existing VPOs. Among the issues to consider are frequency of review, sources of communication, disciplinary processes and outcomes, and legal matters.

Overview

- **New Valuation Credential** for Financial Reporting valuations:
Certified in Entity and Intangible Valuation (CEIV)
 - Valuation Professional Organizations (VPOs) issuing the CEIV credential:
 - » American Society of Appraisers (ASA)
 - » American Institute of Certified Public Accountants (AICPA)
 - » Royal Institution of Chartered Surveyors (RICS)
- **New Performance Standards** for valuations - comprising two components:
 - ***Mandatory Performance Framework (MPF)***
 - Application of the MPF

The first phase of a broader credentialing / mandatory performance requirements process for various asset classes

CEIV Credential: A Two Phase Process

- Intended for valuation professionals who perform fair value measurements for financial statement reporting purposes
- Must meet rigorous qualifications as well as ongoing education and credential maintenance requirements
- Includes MPF requirements
- Agrees to be subjected to a periodic Quality Review

VPO Phase

- Hold/obtain a VPO credential (ASA, ABV, RICS), or
- Use VPO pathway to pass a VPO-equivalent exam
 - Qualifying exams (e.g. CFA) can be used as a substitute for the VPO exam
 - May be required to undertake ethics and other standards courses

CEIV Phase

- Complete VPO prerequisites
- Complete 4 online courses: on accounting standards & regulatory environment, FV specialized guidance and related auditing requirements, and MPF
- Pass a two-part CEIV exam
- **3,000** hours of FV measurements experience in preceding 5 years
- Continuing education, experience and compliance requirements per each VPO

Basic Premise of MPF

Support work with sufficient detail to provide a clear and well organized link from the data and information gathered to the final conclusion of value

- To comply, **work scope** and **documentation** should be such that an experienced **professional** must be able to:

Understand:

- The purpose, nature, extent, and results of the procedures performed
- All approaches and methods used, and why commonly used approaches and methods were not used (if applicable)
- Inputs, judgments, and assumptions made and why they were used

Determine: who performed the work and their qualifications

Identify:

- Intended users of the valuation report
- Sources and support for inputs, judgments, and assumptions
- Measurement date

Scope of the MPF and the Application of MPF

- Designed to be used by **all valuation professionals** who perform valuations for:
 - Entities required to submit registration statements/filings to the SEC
 - Private entities reporting under U.S. GAAP

*To support management assertions made in financial statements issued for
Financial Reporting (FR) purposes*

- Applicable to estimating the **FV of a business, business interest, intangible assets, certain liabilities, or inventory**
 - *Does not apply to commodity derivative and similar contracts*
- MPF is mandatory for CEIV credential holders:
 - CEIVs who perform valuation services for their clients or employers are required to adhere to the MPF for FR purposes
- Compliance with MPF is best practice by valuation professionals who do not have the CEIV credential
- The interpretation of certain limited aspects of the MPF *is still evolving* and *meetings on the CEIV / MPF professional infrastructure are still being held*

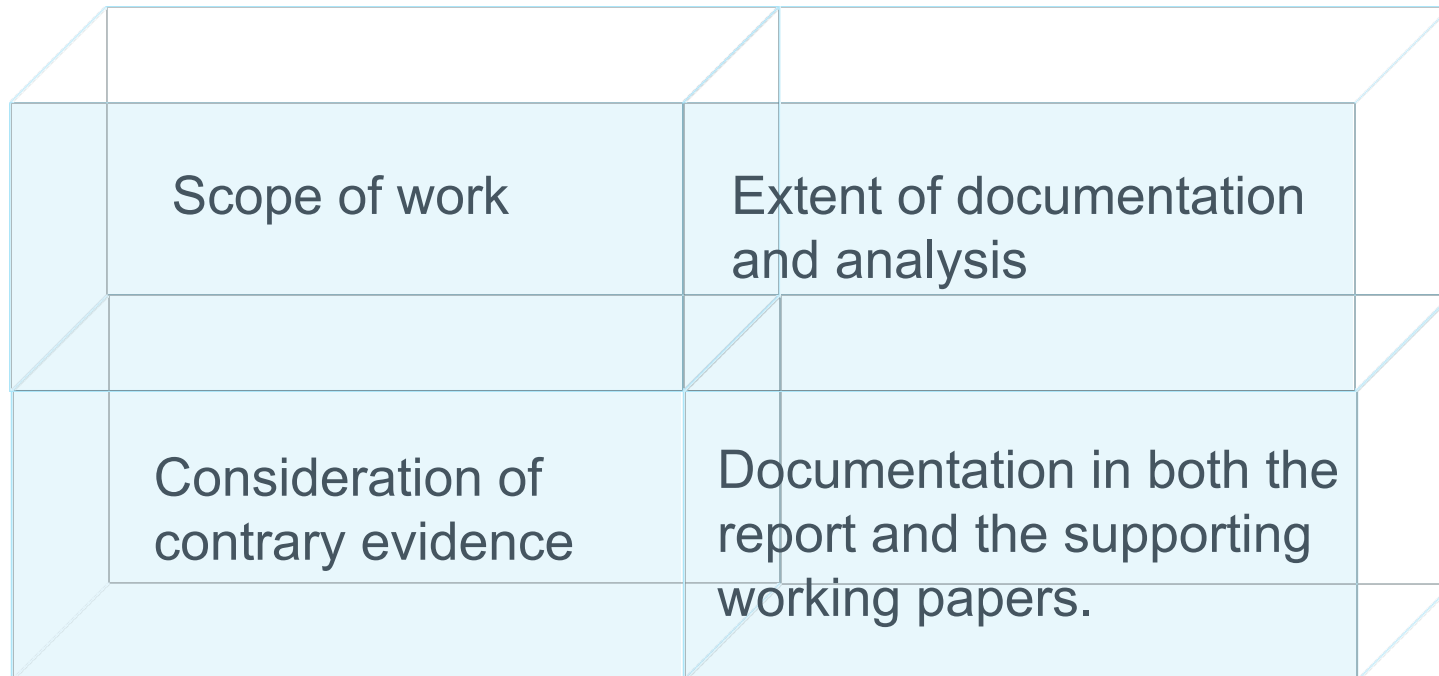
When is the new Framework Applicable?

- **MPF is “live” – there was no effective date. The MPF is effective now!**
- **CEIV Credential Requirements have been published**
- **CEIV Prerequisite Training Courses are available**
- **CEIV Examination is available**

Impact On the Valuation & Audit Process, and Management

Mandatory Performance Framework

How much work should be performed in order to design, implement and conduct a valuation analysis?



Scope of work	Extent of documentation and analysis
Consideration of contrary evidence	Documentation in both the report and the supporting working papers.

Establishes the extent to which valuation professionals perform their work in terms of depth of analysis and documentation

Application of the MPF

General Valuation Guidance; Business Valuation Guidance; and Valuation of Assets and Liabilities Guidance

Specifically, these sections address matters that need:

- **Greater consistency** in the application of valuation approaches and methods,
- **Support** for issues that require the application of professional judgment, and
- **Documentation** of inputs.

Application of MPF Topics

General Valuation Guidance

- Fair value measurement
- Selection of valuation approaches and methods
- Prospective financial information

Business Valuation Guidance

- Discount rate derivation
- Growth rates
- Terminal value multiple methods and models
- Selection of, and adjustments to, valuation multiples
- Selection of guideline public companies or guideline company transactions

MPF Implications – Current and Pending

- The **MPF** is now **considered best practice** (at a minimum) for:
 - All Valuation Professionals, whether or not they have the CEIV credential
 - MPF is mandatory for CEIVs
- May impact global valuation professionals where the reporting entity is an SEC filer
- Nature and extent of **audit procedures** to be applied are expected to be a function of MPF compliance
- Auditors will expect internal FV measurements to be developed consistent with the MPF
 - Auditors may raise the issue during their review of **ICFR**
- **Regulators** (SEC/PCAOB) will likely expect valuation professionals (in particular third-party specialists and auditor specialists) to have the CEIV credential
- Even when a third-party specialist is involved, **management's** understanding of the requirements of the MPF and the Application of the MPF is encouraged:
 - For example, appropriate documentation will facilitate the interaction with the valuation specialist, smooth the FV measurement process, and the audit process

Impact of the New Framework!

Implication (over time):

- Auditors will evaluate a Fund's / Manager's Valuation Internal Controls to determine if they are consistent with the MPF
- Auditors will expect a Fund Manager's Fair Value measurements to be derived and documented consistent with the MPF
- Regulators (SEC/PCAOB) will expect Valuation Professionals (external and possibly internal) to have the CEIV credential
- Investors will expect Fund Managers to comply with the MPF and have a CEIV credential holder (internal or external) involved in the Valuation process

The Proposed CVFI Credential

CVFI Proposed Requirements

CVFI (Certified in Valuation of Financial Instruments) Credential

- Intended for all professionals who perform fair value measurements of Financial Instruments for financial reporting and other reports.
- Includes mandatory performance requirements (FIPF/AFIPF).
- Requirements for obtaining the CEIV not yet announced.

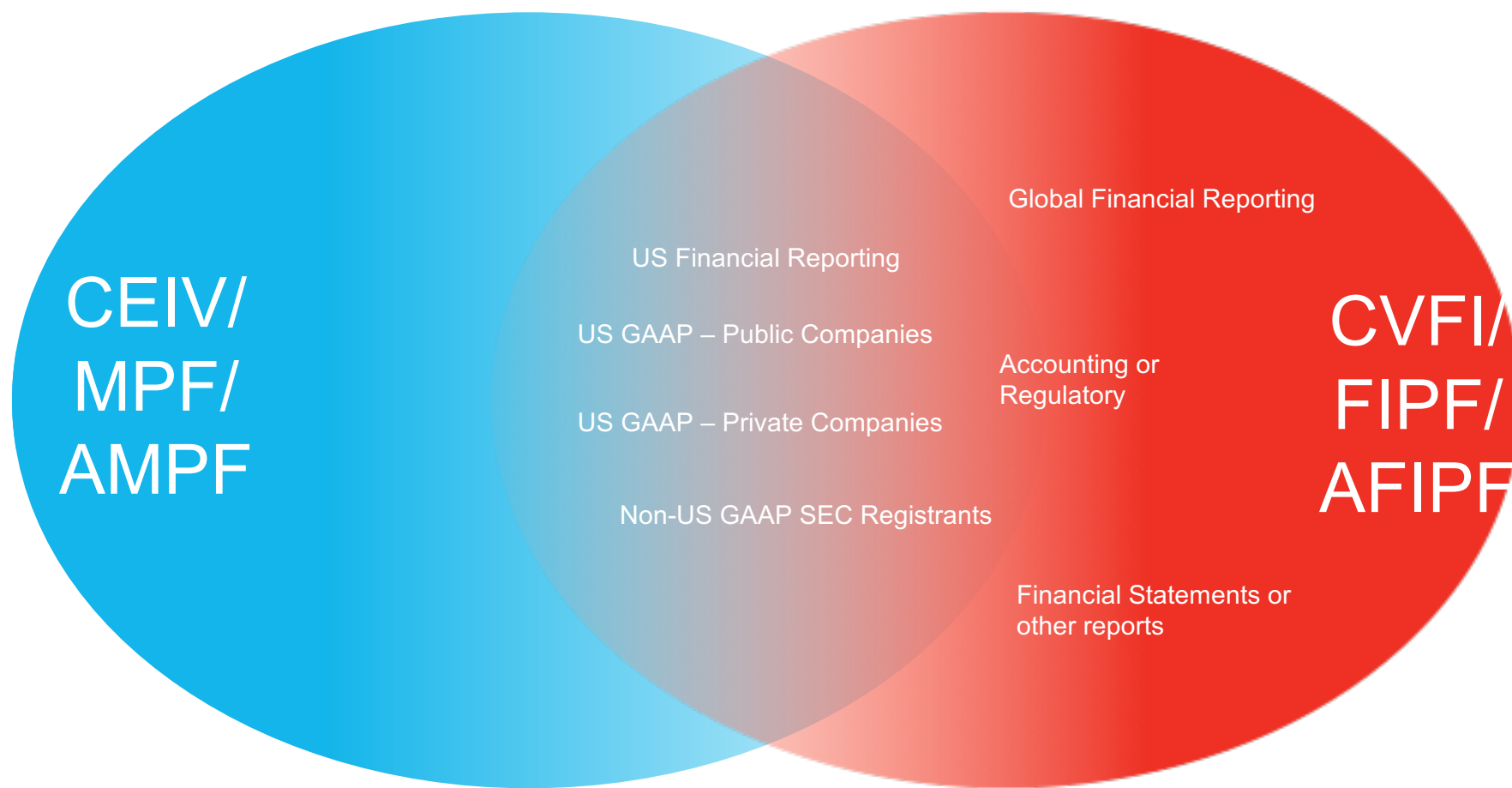
FIPF & APPLICATION

- Applicable to estimating the fair value of:
 - Equity Securities
 - Debt Securities
 - Derivatives
 - Hybrid Securities
 - Structured Products
 - All other assets and liabilities that meet the definition of financial instruments
- Designed for use by all valuation professionals.
- CVFI credential holders are required to adhere to the MPF documents.
- Adhering to the FIPF (FI Performance Framework) is considered best practice by valuation professionals who do not have the CVFI credential

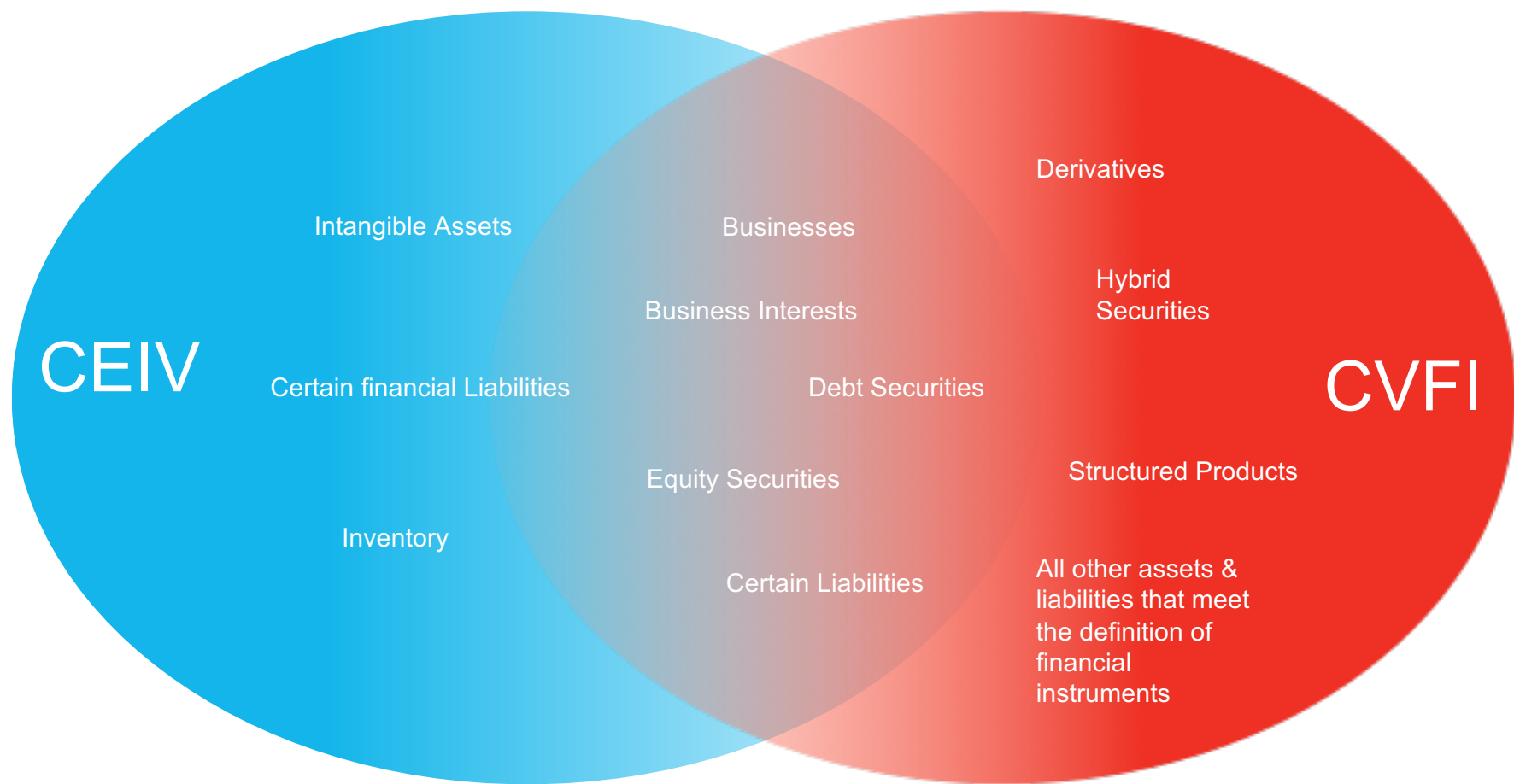
CVFI vs CEIV

- CVFI Disclosure Framework (DF) is substantially similar to the CEIV Mandatory Performance Framework (MPF)
- Application of the DF contains summary level valuation guidance for the various types of Financial Instruments
- Why do we need two different frameworks?

CEIV vs CVFI



CEIV vs CVFI



Other Current
Events

PCAOB – Proposed Auditing Standards

PCAOB Proposal: Auditing Accounting Estimates, Including Fair Value Measurements

- Expands requirements for auditing accounting estimates, and the definition of an accounting estimate
- Establishes a single standard and a uniform, risk-based approach for auditing accounting estimates
- Focuses the auditor's attention on the most significant estimates in the financial statements and the need to devote more attention to potential management bias
- Includes more guidance on auditing the fair value of financial instruments, including the use of information from pricing sources
- Enhances the guidance around the three substantive testing approaches for auditing estimates:
 - Testing the company's process used to develop the estimate
 - Developing an independent expectation for comparison to the company's estimate
 - Evaluating evidence from subsequent events and transactions

PCAOB's Stance on Pricing Services

- A5 ...The following factors affect the relevance of pricing information provided by a pricing service:
 - a. Whether the fair values are based on quoted prices in active markets for identical financial instruments;
 - b. When the fair values are based on transactions of similar financial instruments, how those transactions are identified and considered comparable to the financial instrument being valued; and
 - c. When no recent transactions have occurred for either the financial instrument being valued or similar financial instruments, or the price was developed using a quote from a broker or dealer, how the fair value was developed, including whether the inputs used represent the assumptions that market participants would use when pricing the financial instrument.
- .A6 When the fair values are based on transactions of similar financial instruments, the auditor should perform additional audit procedures to evaluate the process used by the pricing service.
- .A7 When there are no recent transactions either for the financial instrument being valued or for similar financial instruments, the auditor should perform additional audit procedures, including evaluating the appropriateness of the valuation method and the reasonableness of observable and unobservable inputs used by the pricing service.

PCAOB's Stance on Multiple Quotes

- A8 When pricing information is obtained from multiple pricing services, less information is needed about the particular methods and inputs used by the individual pricing services when the following conditions are met:
 - a. There are recent trades of the financial instrument or of financial instruments substantially similar to the financial instrument being tested;
 - b. The particular financial instrument is routinely priced by several pricing services;
 - c. Prices obtained from multiple pricing services are reasonably consistent, taking into account the nature and characteristics of the financial instrument, the methods used, and market conditions; and
 - d. The pricing information for the financial instrument is generally based on inputs that are observable.
- Note: When the above conditions are not met, the auditor should perform additional audit procedures, including evaluating the appropriateness of the valuation method and the reasonableness of observable and unobservable inputs for a representative price.

PCAOB's Stance on Broker Quotes

- A9 When the company's fair value measurement is based on a quote from a broker or dealer ("broker quote"), the relevance and reliability of the evidence provided by the broker quote depend on whether:
 - a. The broker or dealer is free of relationships with the company by which company management can directly or indirectly control or significantly influence the broker or dealer;
 - b. The broker or dealer making the quote is a market maker that transacts in the same type of financial instrument;
 - c. The broker quote reflects market conditions as of the financial statement date;
 - d. The broker quote is binding on the broker or dealer; and
 - e. There are any restrictions, limitations, or disclaimers in the broker quote and, if so, their nature.
- Note: Broker quotes generally provide more relevant and reliable evidence when they are timely, binding quotes, without any restrictions, limitations, or disclaimers, from unaffiliated market makers transacting in the same type of financial instrument. If the broker quote does not provide sufficient appropriate audit evidence, the auditor should perform procedures to obtain relevant and reliable pricing information from another pricing source pursuant to the requirements of the appendix.

Takeaways

- **The Current Regulatory and Audit Environment** is characterized by a:
 - Robust PCAOB inspection process, including a continuing focus on fair value
 - Thorough and detailed audit procedures already applied in practice by many audit teams with respect to fair value measurements
- **The PCAOB Proposals** call for:
 - More audit effort over accounting estimates generally (particularly for *non-fair value* estimates, which may be a significant change in practice)
 - Greater auditor focus on assessing the potential for management bias in significant estimates
 - Increased audit effort in testing and evaluating the work of company specialists
- **Mitigating Factors and Potential Benefits** to consider include the:
 - Use of qualified, credentialed third-party specialists
 - CEIV/CVFI credential and compliance with MPF/DF performance standards for fair value estimates

Questions?

Appendix A

About Duff & Phelps

Duff & Phelps

Dedicated to Delivering Value

Valuation and Corporate Finance Advisors

- More than 10,000 engagements performed in 2015
- 5,000 clients including more than 40% of the S&P 500

2,000+ Employees in more than 70 offices globally

Advisory Capability

- Valuation Advisory
- Alternative Asset Advisory
- Compliance and Regulatory Consulting
- Disputes and Investigations
- Legal Management Consulting
- M&A Advisory
- Restructuring Advisory
- Tax Services
- Transaction Opinions

HISTORY

- **1932-1994**
Duff & Phelps founded and evolves into diversified financial services firm
- **1994**
Credit ratings business spun-off
- **2005**
Acquired Corporate Value Consulting (CVC) from Standard & Poor's
- **2007-2012**
Listed on the NYSE

Financial advisor to examiner in Lehman Brothers bankruptcy

Engaged by the Congressional Oversight Panel on the Troubled Asset Relief Program

Acquired 14 complementary businesses to expand our service offering
- **2013**
Taken private by an investor consortium led by The Carlyle Group
- **2015**
Acquired Kinetic Partners and launched Compliance and Regulatory Consulting practice
- Acquired American Appraisal, significantly enhancing our global Valuation practice
- **2016**
Acquired CounselWorks to expand Compliance and Regulatory Consulting practice

More Than 70 Offices and Affiliates Worldwide



The Americas

Atlanta	Houston	Princeton
Austin	Jacksonville	San Francisco
Boston	Los Angeles	São Paulo
Calgary	Mexico City	Seattle
Cayman Islands	Miami	Silicon Valley
Chicago	Milwaukee	Stamford
Dallas	Montreal	Toronto
Denver	Morristown	Vancouver
Detroit	New York	Washington, DC
Fredericton	Philadelphia	

Europe and Middle East

Abu Dhabi	Frankfurt	Padua
Amsterdam	Lisbon	Paris
Athens	London	Pesaro
Barcelona	Longford	Porto
Berlin	Luxembourg	Prague
Bilbao	Madrid	Rome
Birmingham	Manchester	St. Petersburg
Bologna	Milan	Turin
Channel Islands	Moscow	Warsaw
Dublin	Munich	

Asia-Pacific

Almaty	Shanghai
Bangalore	Shenzhen
Bangkok	Singapore
Beijing	Taipei
Guangzhou	Tokyo
Hong Kong	
Mumbai	
New Delhi	

Powering Sound Decisions

We Serve

62% of Fortune 100 companies

85% of Am Law 100 law firms

68% of the 25 largest Euro STOXX companies

72% of the 25 largest private equity firms in the PEI 300

72% of the 25 largest hedge funds in the Alpha Hedge Fund 100

We are the largest independent valuation advisory firm.

We Rank

#1 U.S. Fairness Opinion Provider¹

#1 Global Fairness Opinion Provider¹

#2 U.S. Middle Market M&A Advisor²

We Performed

Over **10,000** engagements in 2015 for more than **5,000** clients

Over **6,000** valuation advisory engagements in 2015 for more than **2,500** clients

Portfolio valuation advisory services for over **70%** of top-tier private equity firms in 2015

Over **1,000** Fairness and Solvency Opinions for **\$2 trillion** in deal value since 2005

1. Published in Thomson Reuters' "Full Year 2015 Mergers & Acquisitions Review." Duff & Phelps tied with Huatai Securities Co. Ltd. for #1 for Global Fairness Opinions.

2. Thomson Financial Securities Data (U.S. deals \$10M < \$250M). Full year 2015.

Enhancing Value

Across a Range of Expertise

Valuation	Corporate Finance	Disputes and Investigations	Tax Services	Compliance and Regulatory Consulting
Technical expertise and specialized support in the areas of complex valuation, alternative assets, real estate and fixed asset management	Objective guidance to management teams and stakeholders throughout restructuring, financing and M&A transactions, including independent transaction opinions	Financial analysis, consultation and expert testimony in the context of litigation, arbitration and mediation	Expertise in implementing tax solutions surrounding property tax, business incentives, transfer pricing and unclaimed property	Helping financial services firms navigate the compliance and regulatory landscape, mitigating risk throughout the business lifecycle

Our Services

Valuation

Valuation Advisory

Purchase Price Allocation
Goodwill and Intangible Asset Impairment
Impairment of Long-Lived assets
Tax Valuation
Intellectual Property Valuation
Transfer Pricing
Business Valuation
Contingent Asset and Liability Valuation
Fresh Start Accounting
Complex Securities Valuation
Strategic Value Advisory

Alternative Asset Advisory

Portfolio Valuation
Complex Asset Solutions

Real Estate Services

Real Estate Valuation and Consulting
Corporate Real Estate Services
Real Estate Restructuring
Collateral Valuation / Loan Services
Lease Renegotiation
Right of Way Appraisal
Cost Segregation
Underwriting Due Diligence

Fixed Asset Management and Insurance Solutions

Fixed Asset Inventory and Reconciliation
Property Record Outsourcing
Fixed Asset Componentization
Property Insurance Appraisal
Machinery and Equipment Valuation
IT Fixed Asset Inventory Services

Corporate Finance

M&A Advisory

Buy-Side and Sell-Side Advisory
Transaction Advisory Services
Private Placement of Debt and Equity
Financial Sponsor Coverage

Transaction Opinions

Fairness Opinions
Solvency Opinions
ESOP and ERISA Advisory
Commercially Reasonable Debt Opinions

Restructuring Advisory

Corporate Restructuring
Debt Advisory
Distressed M&A and Special Situations
Cayman Restructuring

Compliance and Regulatory Consulting

Compliance Consulting
Regulatory Consulting
Risk and Management Company Solutions
Hosted Regulatory Solution
Regulatory Tax Advisory
Business Services

Disputes and Investigations

Intellectual Property Disputes
Commercial and Shareholder Disputes
Complex Securities and Capital Markets Litigation
Fraud, Forensic and Investigative Services
M&A Purchase Price Disputes and Arbitration
Bankruptcy Litigation
Business Insurance Consulting
Monitoring Trustee Services
Forensic Technology and Analytics

Legal Management Consulting

Technology
Strategy and Operations
Information Governance

Tax Services

Property Tax Services
Business Incentives Advisory
Unclaimed Property and Tax Risk Advisory
Tax Litigation
Sales and Use Tax Services
Strategic Tax Advisory Review Services

Services Across the Transaction Lifecycle

Assessment of Strategic Alternatives

Transaction Consulting

Transaction identification
Buy-side / Sell-side advisory
Industry and market scoping studies
Financial projections and transaction modeling

Investment

Transaction Pursuit

Financial due diligence
Business valuation
Fairness opinions
Accretion/Dilution analyses
Carve-out analyses
Solvency opinions
Strategic tax planning

Change of Control Acquisition

Purchase price allocation
Valuation and structuring of contingent consideration, earn-outs and stock-based compensation
Valuation of guarantees and indemnifications
Tax valuations

Reporting and Operating Performance Improvement

Financial and Tax Reporting

Goodwill and intangible asset impairment testing
Transfer pricing
Tax legal entity valuations
Unclaimed property reporting
Cash Flow Improvement
Property tax consulting
Real property cost segregation
Real estate consulting
Business incentives advisory

Financing

Private placement of debt and equity
ESOP and ERISA advisory
Collateral valuation

Financial Distress

Restructuring advisory
Fresh start accounting

Exit Planning and Sale

Exit Preparation

Sell-side M&A advisory
Sell-side due diligence

Post Sale

Dispute analysis/litigation support
Post acquisition disputes
Shareholder disputes
Expert witness testimony

Regulatory Affiliations

Duff & Phelps advises the world's leading standard setting bodies on valuation issues and best practices.



U.S. Securities and
Exchange Commission



International
Accounting Standards
Board



Financial Accounting
Standards Board



**Appraisal
Institute™**
*Professionals Providing
Real Estate Solutions*

Appraisal
Institute



American Institute
of CPAs



International Valuation
Standards Council



**The
Appraisal
Foundation**

The Appraisal
Foundation



Institute of Management
Accountants

Portfolio Valuation Advisory Services

*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

- We review over **5,000 illiquid investment positions** with an aggregate value of approximately **\$225 billion** on a quarterly basis.
- Our client base consists of over **350 alternative asset fund managers and investors**, including:
 - **80% of the 10 largest** private equity firms
 - **40% of the 50 largest** hedge funds
 - **70% of the 10 largest** BDCs
 - Investors – ranging from small family offices to large public pension funds and Sovereign Wealth Funds

Thought Leader

- We are at the forefront of the industry's leading committees on valuation processes, guidelines, and regulations:
 - **IPEV** – Vice Chair
 - **ILPA** – Special Advisor
 - **AICPA PE/VC Valuation Guide Task Force** – Member
 - **FASB Valuation Resource Group** – Member
 - **Managed Funds Association** – Sustaining Member
 - **AIMA – Guide to Sound Practices For the Valuation of Investments Working Group**
- Leadership in drafting **IPEV** and **PEIGG** private equity valuation guidelines
- Author of *Private Equity Valuation – The definitive guide to valuing investments fairly*
- Development of Duff & Phelps Created Value Attribution Framework.

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 1,000 employees serve a diverse range of clients from offices in North America, Europe and Asia.

M&A advisory, capital raising and restructuring 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 and capital raising services in the United Kingdom and Germany are provided by Duff & Phelps Securities Ltd., which is authorized and regulated by the Financial Conduct Authority.

Thank You!

- ◆ Participants will receive a copy of the slide deck and a recording of the Webinar tomorrow.
- ◆ This Webinar is part of our series with Duff & Phelps looking at issues and challenges in the valuation of private assets – more details can be found here:

<http://www.voltaireadvisors.com/voltaire-advisors-duff-and-phelps-private-assets-valuation-briefing-series.html>

- ◆ This was the final Webinar of the current series



Contact Us

Voltaire Advisors LLP

14 Wall Street
New York
NY 10002
USA

No.1 Poultry
London
EC2R 8JR
UK

+44 800 677 1694
info@voltaireadvisors.com
www.voltaireadvisors.com

