Voltaire ADVISORS

FALL 2017 | ISSUE 3

VALUATION RISK REVIEW

Valuation of Alternative Assets - Private Debt, Equity & Real Estate

CONTENTS

INTRODUCTION

Welcome to the third edition of our Valuation Risk Review. Issue #2 last summer looked at valuation issues facing US mutual funds. In this release we review some of the valuation challenges relating to alternative assets – private equity, debt and real estate. Future issues will zero in on other major user segments, such as hedge funds, and also cover different asset classes, so keep an eye open for forthcoming releases.

The valuation of alternative assets such as private equity, debt and real estate is coming under heightened scrutiny by regulators and investors as the asset class becomes more widely held. With 'Mr & Mrs 401(k)' increasingly exposed to investments of this kind via their mutual and pension funds, the requirement for more consistent and transparent valuations is growing.

Until recently, guidance on the valuation of such assets was limited. However, SEC-inspired industry initiatives are underway to formalize the process, with a new accreditation (the CEIV) and associated set of standards. Our first articles in this edition look more closely at these efforts and their rationale.

Subsequent sections kick-off with the proceedings of a series of panels Voltaire Advisors hosted on Private Equity, Debt and Real Estate valuations at a Breakfast Briefing in February of this year. These are followed by more detailed expert comment from industry practitioners on some of the more noteworthy issues in each field.

We believe that this segment of the industry will experience a significant transformation over the next few years. Alternative assets will become increasingly mainstream, and as a result the valuation standards to which investment managers will be held are likely to be ever more stringent. We will be following these trends closely on behalf of our clients.

Ian Blance

Ian Blance Editor

The New Certificate in Entity and Intangible Valuations

By **William A. Johnston**, ASA, Chair of the Business Valuation Committee, American Society of Appraisers

Why is the CEIV Certification Important?

During the last 15 years, the global accounting model has increasingly gravitated toward the use of fair value as the basis for measuring the financial statement values of assets and liabilities. There has also been an increased desire globally by investors for better, more current fair value estimates for a fund's investments. Estimating fair value measurements often involves the use of sophisticated financial models, various valuation approaches and analytical assumptions and professional judgment.

Public statements by U.S. capital market regulators have called into question whether some of the individuals conducting fair value measurement estimates have the requisite training, qualifications, experience and expertise to perform this type of work. These regulators also question whether individuals conducting these estimates are subject to a consistent set of professional, technical and ethical standards.

To address regulator concerns and protect the public interest on a global scale, the American Society of Appraisers (ASA), the American Institute of Certified Public Accountants (AICPA) and Royal Institution of Chartered Surveyors (RICS) have championed the co-development of a financial reporting credential to demonstrate member competency and accountability. This effort is another example of the profession's ability to collaboratively and proactively respond to market needs.

Who is it for?

The Certified in Entity and Intangible Valuations™ (CEIV™) credential is intended for professionals who perform fair value measurements for public and private company financial statement reporting purposes. This includes estimating the fair values of business interests, intangible assets for purchase price allocation requirements, and for impairment testing purposes. The credential is offered to members and prospective members of ASA, AICPA, and RICS who work in the fair value arena.

How Does the CEIV Credential Benefit Financial Entities or Advisors?

By obtaining the CEIV credential, professionals performing fair value measurements demonstrate their commitment to enhancing audit quality and consistency and transparency in fair value measurements. Credential holders must comply with a newly established performance framework and are subject to an ongoing quality control process, ensuring confidence in the consistency and transparency in their work, all to the benefit of the public interest and the financial companies and advisors servicing them.

ASA Certified CEIV Professionals

ASA is solely focused on valuation. ASA is also a leader in financial reporting and fair value education, and it is the only organization that offers a specialty designation for intangible assets. ASA also offers regional fair value conferences, webinars, and a specialized fair track at the organization's national conference. To maintain the CEIV credential, there is an ongoing education requirement, and ASA is a leader in providing that type of education.

William A. Johnston, ASA, is the Business Valuation Committee chair for the American Society of Appraisers and Managing Director for Empire Valuation Consultants. Mr. Johnston may be reached at billj@empireval.com or +1-212-714-2824.

DUFF & PHELPS

DUFF & PHELPS

Valuing fund interests of increasing concern?

By **Chris Franzek** & **David Larsen**, Duff & Phelps

Asset valuation processes for funds continue to be a prominent topic of discussion despite no major revisions in the past five years to FASB ASC 820 or IFRS 13, the two accounting rules defining fair value for fund financial reporting purposes. GASB Statement 72, issued in early 2015, mirrors the definition of fair value used by the Financial Accounting Standards Board and the International Accounting Standards Board and highlighted that investors in funds cannot blindly accept net asset value as the fair value estimate. In addition, investors' focus on fair value includes obtaining transparency, evolving industry best practices and the evolving regulatory landscape.

Fair value measurements are no longer considered by investors as a compliance box to tick on a monthly or quarterly basis. Investors continue to become increasingly sophisticated and the NAV received has evolved into an input into multiple processes: the investor's own financial reporting; asset allocation calculations; and risk considerations, incentive compensation, etc.

While not news, investors that report under GASB have to report their assets on the same fair value basis as other funds that report under U.S. generally accepted accounting principles or International Financial Reporting Standards. From experience, it is clear that many general partners are aware of this fact and that a weak valuation process on the GP end has operational impacts at the limited partner level.

LPs often lack the resources (human or funding) to have a robust valuation process. As such, these investors increasingly look to GPs or lead investors to leverage the GPs' valuation work for their own reporting purposes. To be able to leverage valuation work done at the GP/lead investor level, limited partners must be able to show the GP/lead investor has a robust and well-documented valuation process — starting with an up-to-date valuation policy and ending with robust documentation for the fair value determination of each asset, increasingly using the best practice of validating underlying investment valuations through the use of a qualified experienced third-party valuation expert. Absent the ability to show that, limited partners must have their own robust process at the asset level.

Related to fair values for financial reporting is the fact that LPs are becoming more sophisticated in the criteria used to manage their investment portfolios — both existing and new investments. Fair value is the only objective measure to compare dissimilar investments on each measurement date. Robust fair values enable LPs to make well-informed decisions around performance and asset allocation. Advancements in technology are making it increasingly easy for even smaller, resource constrained LPs to look at their portfolio's makeup and performance in ways they couldn't even a few years ago. When an LP sees a fund's NAV or the fair value of an underlying investment remain constant for a number of periods, it is increasingly being seen as a reason to reach out to the GP for a greater understanding of the valuations in question.

LPs are now looking past the fund level performance and have a greater understanding of the performance of the underlying investment performance. Be it allocations to industries or asset classes, robust fair values give LPs the information they need to make informed allocation decisions. GPs that do not have robust valuation processes might find interests in their funds being sold in the secondary market and/or not receiving future allocations. Looking forward, LPs are examining how GPs create value (alpha) in their investments and fair value is an important piece of the analysis that is an input to the capital allocation decision. Gone are the days when a GP got meaningful credit for increases in value because the market went up.

Harvard University recently announced significant changes to how it manages its endowment. These changes include a move away from asset-class-based investing to allocating resources based on risk. For all assets, movements in fair values are an important input into the true assessment of risk. For illiquid assets, market prices are not observable, therefore, robustly determined fair values are the basis for investors' assessments of risk for an individual investment or illiquid asset class. If fair values are not robustly determined, one's risk assessments will be misinformed, potentially having significant impacts on investment decisions.

The regulatory world continues to affect the world of fair value determination as well. From the European Union's Alternative Investment Fund Managers Directive making a clear push for independence in the valuation process to Brazil's enacting fair value rules for the first time (and requiring public disclosure of fair values by investment), regulators have taken notice of the importance of fair value to all constituents. 2016 saw the Securities and Exchange Commission and European regulators fine several funds for poor valuation practices despite valuation not being at the top of the published list of examination priorities.

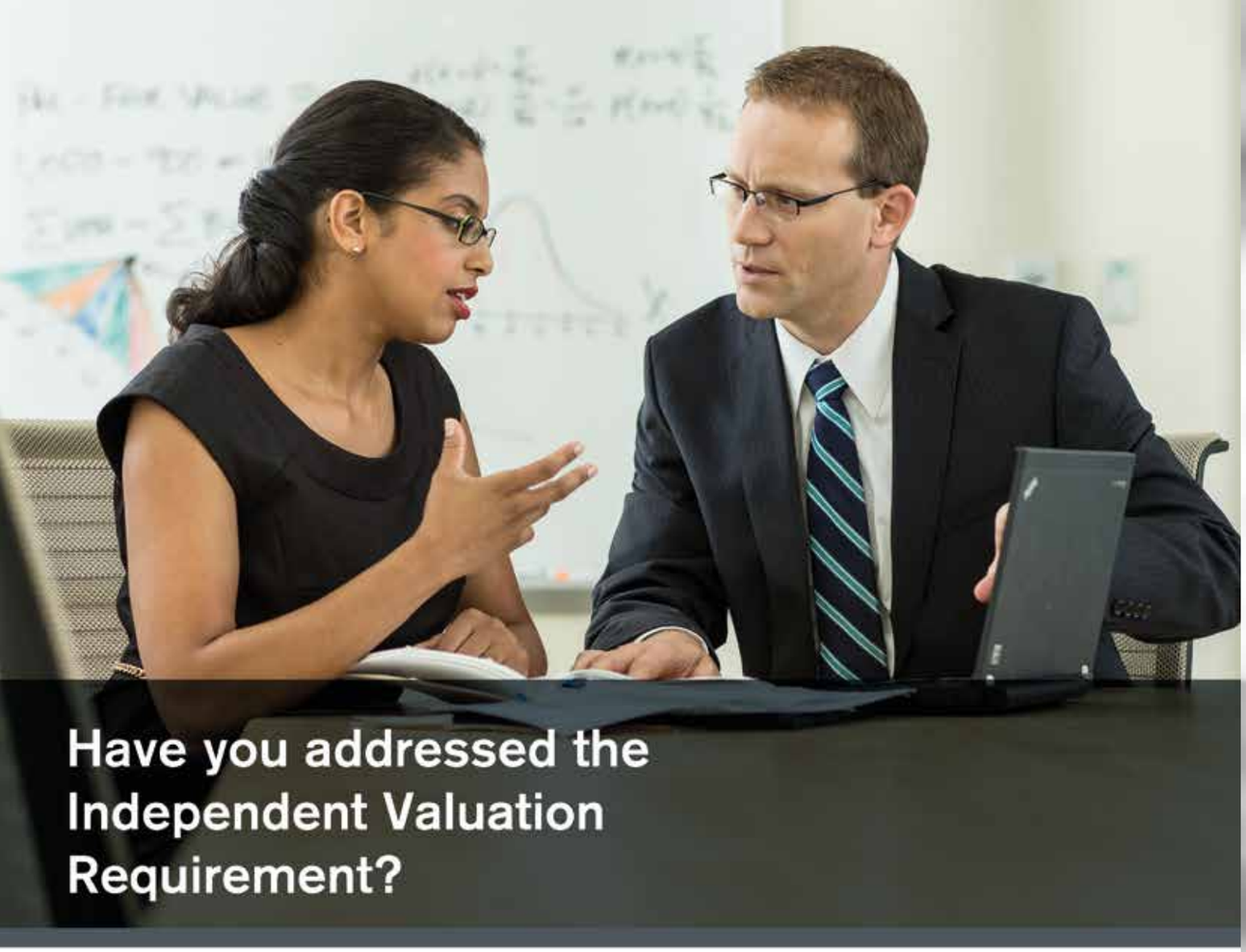
The American Institute of CPAs is working on a new guide for the valuation of private equity investments that is due out in draft form in early 2018. The AICPA guide is expected to be rich in examples that demonstrate proper valuation methodologies as well as the need for judgment in the valuation process. Weighing in at an expected 700-plus pages, the AICPA guide hopefully will provide more consistent guidance across the industry and, as it will be considered by auditors, it is likely to be pushed globally across the audit firms, enhancing global consistency.

There is also a push in the U.S. to add consistency to the valuation profession through regulation and requirement of a professional certification or designation. The requirements for the Certified in Entity and Intangibles Valuations designation are now being developed, as is the certification process. Auditors will be the "regulator" and will have the ability to accept/place more emphasis on valuations performed by a professional holding the CEIV designation and less emphasis on valuations not performed by a CEIV holder. This is developing in real time and is expected to be rolled out later this year.

In conclusion, while the definition of fair value remains unchanged, robust fair value measurement remains an evolving global topic and the trend continues to move toward higher quality, greater consistency and better transparency.

Chris Franzek is a Managing Director at Duff & Phelps LLC based in New York and David Larsen is a Managing Director based in San Francisco.

This content was previously published in Pensions & Investments.



Have you addressed the Independent Valuation Requirement?

Duff & Phelps is a market leader in providing illiquid portfolio pricing valuation services to the alternative investment management community, augmenting the valuation process to demonstrate the independence that is required by not only regulators but investors as well.

Contact:
Yann Magnan, European Leader I yann.magnan@duffandphelps.com
Ryan McNelley, European Alternative Asset Advisory I ryan.mcnelley@duffandphelps.com
Chris Franzek, Global Head of Alternative Asset Advisory I chris.franzek@duffandphelps.com

DUFF & PHELPS

Valuation and Corporate Finance Advisors

Portfolio Valuation and Regulatory Scrutiny

By Travis W. Harms, CFA, CPA/ABV
Senior Vice President, Mercer Capital

Over the past decade, we have been retained by several investment funds to assist them in responding to formal and informal SEC investigations regarding fair value measurement of portfolio investments. Reflecting back on those engagements yields a couple observations and reminders for funds and fund managers as they go through the quarterly valuation process.

First, fund managers should recognize that valuation matters, and it will really matter when something has gone awry. To that end, we recommend that funds:

- Document valuation procedures to follow (and follow them). Since valuation requires judgment, disagreements are inevitable. However, are you following the established valuation process? In hindsight, judgments are especially susceptible to second-guessing if established policies and procedures are not followed.
- Designate a member of senior management to be responsible for oversight of the valuation process. Placing valuation under the purview of a senior member of management demonstrates that valuation is an important function, not a compliance afterthought.
- Create contemporaneous and consistent documentation of valuation conclusions and rationale. No valuation judgment is "too obvious" to merit being documented. On the other side of the next crisis, what seems reasonable today may appear anything but. The middle of an investigation is not the best time to re-construct rationales for prior valuation judgments.

Second, it is important for fund managers to stay abreast of evolving best practices (or know people who do). Fair value measurement for illiquid portfolio investments is an evolving discipline. We recommend that funds:

- Solicit relevant input from the professionals responsible for the investment, auditors, and third-party valuation experts. Relying on appropriate professionals demonstrates that the fund managers take compliance seriously and are committed to preparing reliable fair value measurements.
- Check your math. In the glare of the regulatory spotlight, few things will prove more embarrassing than elementary computational errors. The proverbial ounce of prevention is certainly worth the pound of cure.
- Disclose the valuation process and conclusions. Just like potential investors do, regulators take comfort in transparency.

The best time to prepare for a regulatory investigation is before it starts.

PRIVATE EQUITY

MODERATOR

Marine Cole – Americas Editor, Private Equity International

Marine Cole is Americas Editor for Private Equity at PEI. She has been covering finance and business for more than a decade and has written for publications including The Wall Street Journal, Crain's New York Business, AdvertisingAge and Pensions & Investments. She also previously worked for Dow Jones Newswires. She is originally from France and holds a master's in journalism from Northwestern University's Medill School of Journalism.

SPEAKERS

Fredrick G. Betz, CFA - Managing Director, Economic & Valuation Services, KPMG

Fred is a Managing Director based in New York City with more than 12 years of valuation experience. He works with multi-national corporations and asset managers providing valuation consulting services for financial reporting, tax planning, corporate restructuring, mergers & acquisitions and investment purposes. Fred has deep industry experience in the alternative investments, financial services, transportation, information, software, and technology sectors. Fred has performed hundreds of valuation engagements analyzing businesses enterprises, debt, loans, equity, preferred stock, options, intellectual property, and various financial instruments. He assists clients with developing valuation policies and procedures and investment reporting frameworks.

Chris Franzek – Managing Director, Duff & Phelps

Chris Franzek is a managing director in the New York office and part of the Valuation Advisory Services business unit. He has more than 15 years of financial and valuation experience.

Chris specializes in the valuation of illiquid securities for hedge funds, private equity funds, business development corporations and fund of funds. He has performed valuations of some of the largest and most complex portfolios of private loans, private equity interests, real estate and derivative securities. Chris' hedge fund experience includes performing quarterly analyses of private loans, private equity and real estate positions, and various derivative securities.

His private equity experience includes the valuation of private equity investments as well as limited partnership (LP) interests, including four of the largest private equity LP-backed collateralized fund obligations to date. Chris also has extensive experience valuing private equity investments and portfolios, having analyzed over 3,000 private equity portfolio companies in the past five years.

Chris has performed a variety of valuations and decision support analyses for both public and private companies across many industries including the consumer products, apparel, chemicals, energy, hospitality/gaming, healthcare, industrial products, internet, pharmaceutical, publishing, retail and telecommunications industries. He also performed valuations of portfolio companies in connection with purchase price allocations under IFRS 3: Business Combinations and SFAS 141: Business Combinations and Intangible Assets and option pricing.

Prior to joining Duff & Phelps, Chris was a senior manager at BearingPoint, Inc. where he led their New York Valuation and Financial Advisory Services Practice.

Chris received his M.B.A. in finance from Cornell University's Johnson Graduate School of Management and his B.A. in economics from the University of Rochester. He is also a senior member of the American Society of Appraisers.

Travis W. Harms, CFA, CPA/ABV - Senior Vice President, Mercer Capital

Travis W. Harms leads Mercer Capital's Financial Reporting Valuation Group. Travis's practice focuses on providing public and private clients with fair value opinions and related assistance pertaining to goodwill and other intangible assets, stock-based compensation, and illiquid financial assets.

Travis leads Mercer Capital's Private Equity industry team and publishes a quarterly newsletter, Portfolio Valuation: Private Equity Marks & Trends. He also contributes regularly to Mercer Capital's Financial Reporting Blog.

Travis is a frequent speaker on fair value accounting topics to audiences of financial executives, auditors, and valuation specialists at professional conferences and other events across the U.S.

In addition to his work with clients on financial statement reporting issues, Travis performs valuations used for tax compliance, ESOP compliance, and other purposes for clients in a wide range of industries.

Travis is a member of The Appraisal Foundation's working group to address best practices for control premiums, and co-authored the book Business Valuation: An Integrated Theory, Second Edition, with Z. Christopher Mercer, ASA, CFA, ABAR.

Keith D. Smith, CFA - Managing Director, Empire Valuation Consultants

Keith is a Managing Director of Empire Valuation Consultants and a Chartered Financial Analyst (CFA).

Keith has extensive experience in financial consulting and business valuation. He has valued the equity, debt, derivatives, liabilities, and NOLs of publicly and privately held businesses for acquisitions, divestitures, estate and gift tax reporting, liquidation, financial reporting, and general corporate planning purposes.

In addition, Keith has valued specific intangible assets including technology, in-process research and development, trademark/trade names, customer and subscription lists, on-line audiences, covenants-not-to compete, inventory, workforce, and co-marketing agreements/alliances, as well as hardware and software maintenance contracts. He has a significant amount of experience in valuing technology, telecommunications, internet and finance companies, and early stage businesses.

Prior to joining Empire Valuation, Keith worked for PricewaterhouseCoopers LLP in Los Angeles as a Manager in the Valuation Services business. He was a Senior Technical Analyst with Management Consulting & Research, and served as a Captain in the U.S. Air Force.

PANEL SESSION:
PRIVATE EQUITY VALUATIONS

Marine Cole (MC) – The SEC has been scrutinizing the private equity market for some years now. I would like to ask the panel about the latest thinking on PE valuation coming from the SEC/AICPA working group?

> ***The SEC has been scrutinizing the private equity market for some years now.*** Marine Cole, Private Equity International

Chris Franzek (CF) – Yes, the working group is looking to get us some guidelines on private equity valuation later this year to try to make some sense of the hugely varied practices in place now. However, the group recognizes that there is judgement involved and has been careful not to produce a 'one size fits all' recipe. What the 800 or so pages will contain, however, is a huge number of worked examples, especially for situations where there may be some fundamental differences of opinion between audit firms, valuation firms and investors.

Fred Betz (FB) – What I have found interesting reading some of the drafts is the discussion of the pros and cons of the various methods. This will address a number of the sticking points referenced between audit firms and valuers. There are a couple of other interesting things. There is a discussion on calibration and there is also a focus on the exit values for market participants.

MC - What are the key issues to be considered for PE fund valuation policies and procedures?

FB – We are seeing a huge focus on this now. I think there are three kinds of categories we look at when we are dealing with valuation policy – governance, process and the technical aspects of valuation.

In terms of governance, we look the level of independence in the process, the role of compliance, the involvement of the deal team and whether there is a strong valuation committee. It is all about having a robust governance framework in place as a start point. Looking at process we consider how does the valuation get started, who does what, how does it work from start to finish. Finally there is the specific technical issues associated with valuing certain asset classes. This is where the AICPA work will fit in.

CF – We have yet to see a valuation policy that is perfect and it is recommended to revisit these at least every year. You need to look at things like have we moved into a new asset class that the policy doesn't cover? They should also be flexible enough to ensure that doing the right thing does not put you in violation of your own policy.

FB – Yes, make sure that you do what you say you are going to do. The first thing the SEC will look at is whether you are conforming to your stated policy, and by doing this you are at least one step further away from getting into trouble.

Travis Harms (TH) - One of our first exposures to this market was eleven or twelve years ago when we were retained by a client who had run afoul of the SEC. They called us to come in and help them defend what they had done. At the time criminal charges were still very much on the table and few things concentrate the mind quite so much like a pending jail sentence! One of the attorneys we were working with said that the only thing worse than not having policies or procedures is having policies and procedures and not following them.

That comment has stuck with me and I think that's a good caution, especially when you're in the policy and procedure drafting phase where there can be a good bit of enthusiasm to really get on top of things. There is a danger of over specifying and effectively setting a standard that you can't meet.

> ***The only thing worse than not having policies or procedures is having policies and procedures and not following them.*** Travis Harms, Mercer Capital

MC – What are the main considerations when valuing investments in venture/early stage companies?

TH - The first panel this morning was talking about private debt and the ranges of opinion and reasonableness about what an appropriate mark is for a given debt instrument might be. As we move to private equity that range probably expands a little bit and then as you move within private equity to venture and startup phases that range probably widens out even more.

A lot of that stems from a lack of historical information available with a more mature company, where on the big questions are: Do we have a good cash flow forecast? Have we developed a reasonable WACC? Are we getting the right market comps so we've got good multiples of EBITDA? and the like. Instead, with venture investments, you're focusing much more on what are the potential exits for this investment eighteen months to five years down the road and whether that might be through IPO, or sale to a strategic, or in some cases sale to another financial sponsor. Establishing reasonable parameters around those exits is challenging not only with respect to the magnitude - where you can only imagine the challenge associated with establishing what the company could IPO for in three years - but also the timing and the probability of various exits and also the dilution that will occur between the measurement date and that eventual exit. I think those are the primary inputs that are unique to the venture side of the private equity space and a lot of the work that goes into supporting fair value measurements here relates to really nailing down and establishing these inputs.

Keith Smith (KS) – Looking at market data to support some of these parameters, outside of some sectors such as biotech it can be tough to find appropriate data. This means that you are frequently relying on either future forecasts or third party transactions in securities of the firm. Using a DCF approach here will mean that you can pretty much get whatever number you want! You are making an educated guess with the data you have.

TH – I think that this heightens the importance of calibration to the analysis. In other words you know you're trying to find those anchors at which you can say that on this date we know that this security transacted at this price. Now our measurement date is six months after that, so what has changed at the company, in the markets generally and among the peer group.

KS - Exactly. You can look at trends in the market but these tend to get subsumed by company specific events very quickly. There is a lot more judgement involved here than with, say, debt instruments.

Continued overleaf

PANEL SESSION: **PRIVATE EQUITY VALUATIONS (CONTINUED)**

> ***You can look at trends in the market but these tend to get subsumed by company specific events very quickly.*** Keith Smith, Empire Valuation Consultants

TH - And while calibration is a critical part of measuring the fair value of venture companies, unknown variables remain. For example, you may be able to point to a calibration event on a date with the value of forty, but what you don't know with specificity is whether that price was eight times five or four times to ten. This has a huge impact when rolling forward, so you need to be sensitive to the variability and that it's not always as straightforward as it might seem.

MC – So does this mean that we are seeing greater discrepancies between valuations and the clients view? If so, how do you address that?

KS – Most of the differences I have seen have been based on calibration points, and that point is probably the best data if it's an independent transaction - I think everybody is pretty much in agreement on that. Depending upon the complexity of the securities there can also be issues related to this.

TH – The other thing with these types of investments is that things move very quickly relative to more mature companies.

FB – One area where you can get disagreement is where there's a down round where calibration sometimes doesn't work and it is better going back to a fundamental analysis.

CF – I think that most private equity funds are doing a decent job on fair valuation. If anything, they are probably erring on the cautious side. With venture funds, however, who get a number of SEC exemptions, we think that the main thing they exempt themselves from is fair valuation! We find that they either tend to stick to the value at the last round of financing, or if they have moved away from this, then it is because their auditor has told them that they have to use OPM.

We as a firm have taken a firm line on OPM, believing that it is not the right approach and that it systematically undervalues equity interests. However, we can see why the audit firms suggest this. The VC firms have generally done a poor job in explaining how they arrived at a value, and the audit firms would like to see an approach that is repeatable and documentable.

> ***I think that most private equity funds are doing a decent job on fair valuation. If anything, they are probably erring on the cautious side.***
> Chris Franzek, Duff & Phelps

MC - What are the main considerations when valuing investments in companies with complex capital structures? And what do these capital structures look like?

KS - I think that this probably comes back to the OPM issue that we have already talked about. One of the practical issues with the OPM as you think about the exit on the securities is that it rarely looks at the reality that either there is going to be some kind of dilution or you may get back nothing.

The OPM provides a useful tool for relative values, but I think that there are some theoretical issues in terms of what sort of the assumption are behind it.

CF – OPM depends on normal distribution of returns, and in most of the situations we are talking about, returns are not normalized. Also, with only a limited number of possible variables it very difficult to calibrate the model for changes in the firm's business.

TH - I think the allure of the OPM both from a valuation specialist perspective, as well as for auditors - perhaps especially for auditors - is that it's more structured and input driven. You know there are only a handful of inputs so we can audit the structure and then audit these two inputs and then we'll be done.

The irony at the heart of Fair Value measurement is that while we're so focused on market participants assumptions, with regard to the OPM that's just absolutely not a market participant technique. No one would actually look at it that way. With the PWERM, for instance, while you're making more assumptions you are at least making the types of assumptions that market participants are also making so you can have an informed discussion with your client about what are these exit alternatives.

By way of example, Fidelity has made some venture investments in selected funds, and in their public reporting they do not distinguish the value of investments from C, D or E rounds – there is one price - so they are not recognizing the different economic rights and preferences in their fair value reporting. That is certainly different from the perspective that we often get from audit firms so it's it was curious to me as to how they navigated that process.

KS – I think that when your way in the money on those options, they are all about the same value anyway, which could be what was happening in this case.

FB – As a firm we take a very pragmatic approach to this.

MC – What are the key calibration metrics in PE valuation?

FB – There are several key metrics and I think of it as a process. At origination we would go through all the aspects of the transaction and the investment thesis, and then calibrate all the valuation methods against the origination price to see if it supports their value. There's a pretty high bar of that you have cross for it not to be at fair value on the transaction data, but you need to go through the process and ensure that whatever method you use going forward supports the valuation on the deal date.

We then lay out a valuation page with all the key metrics and track how those change over time and whether they support the investment thesis or not.

CF – The investment thesis is very important here. If the management plan is to take a company, sell off a bunch of assets and add a bunch of new ones – effectively creating a new company – then we need to recognize that calibration at origination is an exercise in futility. We need to recognize that it doesn't work in all cases.

FB – Yes, this should not be set in stone. Calibration might work initially, but may need to be revised during the time of the investment.

Continued overleaf

PANEL SESSION: **PRIVATE EQUITY VALUATIONS (CONTINUED)**

MC - How much should a deal team be involved in the valuation process and at what stage?

TH - I think in a lot of this goes back to what Fred had mentioned earlier about your policies and procedures really being organized around governance process. The deal team is going to have the best information on the transaction and on the investment, so I think it would be foolish to write them out of the process. That said, the deal team will have drunk the Kool-Aid on the deal, they are excited about the deal, and they may not be bringing a market participant perspective to bear in what they're telling you about the company. So it's important I think for the valuation specialists to just have an appropriate level of professional skepticism and filter to recognize that what they're telling me about the transaction is from their perspective and that may or may not reconcile very well with a true market participant perspective and may not be appropriate for a fair value measurement.

The investment thesis is certainly an important part of understanding the deal, but as time goes on as I have reminded clients before, your investment thesis is not necessarily fair value. You need a valuation file that says something more than the managing director said this - you need to be able to correlate that to observable things going on in the broader market.

Also, if the fund is of sufficient size and has an internal valuation function, it is important that it has credibility and that the deal professionals give it some measure of respect. Having someone that is senior to them on the org chart with visible responsibility for the valuation process can really help. Obviously, the fiduciary responsibility to measure fair value is the board's and they can't outsource it, so in one sense that's always the case, but at a more practical level I think sometimes the deal team doesn't necessarily appreciate the gravity or the significance of the fair value process.

MC - What is the main market data requirements?

KS - It really depends upon the specific industry and where you are in development. Early on there's not going to be a whole lot of data and a lot of the valuation information is going to be based on the transactional details. As a company matures and there's more identifiable track record on revenues and milestone, there is more data available to compare to.

The ongoing provision of this data can actually represent an additional value add to investment funds, especially those who run a lean shop. Think about it as an ongoing re-underwriting of the investment. A lot of work goes into this at the start, but it is worthwhile revisiting these assumptions during the life of the deal

MC - What are the key audit issues and findings in your experience?

FB – I have a list! But highlighting the main ones, the first is blind automation - we have a tool and we use it, even if it not the most appropriate method. The next is answer driven analysis – where the facts are manipulated to provide an answer to an audit question. One I see a lot is funds being very conservative in valuation, rather than embracing the fact that fair value is fair value and should be going up and down during the life of the investment. Funds should take a write down as much as they take a write up on a transaction, but we know how that works!

Lack of involvement of deal teams, poor valuation policies, disregarding of wider valuation trends, inappropriate use of book value of debt, a whole lot of difficulty around 'unicorns' – it goes on!

We see a lot of funds being very conservative in valuation, rather than embracing the fact that fair value is fair value and should be going up and down during the life of the investment. Fred Betz, KPMG

MC – I would like to ask the panel now for their closing remarks.

TH – I think we are at an inflection point for portfolio valuation of private equity. I would point to two things – the AICPA guide coming out will be a landmark event for the profession, and at the same time the new CEIV designation and the accompanying mandatory performance framework that will really put some more structure around the valuation profession. I think that will do a lot to minimize the diversity in practice that we've seen today.

KS - I think overall, it's a challenging exercise and anything that brings more structure and agreement to methods is good. But we also need to recognize the role of judgement in the process and when you get to thinking that there is a simple formula for private equity valuation, you can get into trouble.

FB – I think that tax reform is going to be important, from both a valuation and operational context.

EMPIRE VALUATION CONSULTANTS

Gifting Carried Interests: Valuation & Planning Pitfalls - Experience from the Trenches

By **Hugh Woodside**, ASA, CFA, Managing Director

Over nearly 15 years of direct involvement in the valuation of private equity fund and real estate fund carried interests for gift tax purposes, experience has taught me that there are a wide range of considerations to ensure that the planning, execution and valuation process goes smoothly from the client's perspective. Many of these considerations involve planning and communication with all parties early in the process, and other considerations are directly connected with the valuation. All of them can have an impact on the process and the client's experience.

Carried Interests, Carry Points & the Vertical Slice: An Overview of Key Concepts

Carried Interest: In the context of private equity and private real estate funds, a carried interest is the right to share in prospective future profi ts of the fund. These rights are typically granted to the fund's general partner entity ("GPE") pursuant to the terms of the fund's governing documents. Within the GPE, carried interest is typically allocated to the members based on carry points or a carry percentage, which are discussed further below.

Carried interest is typically the most junior tranche of the fund's equity structure, to be realized only if future profits are significant enough to first satisfy returns of capital and a minimum internal rate of return ("IRR") to the investors. This is managed through a waterfall structure detailed in the fund's governing documents. A typical limited partner ("LP") capital waterfall, in which the GPE would receive a carried interest of 20%, might look something like this:

1. LPs in the fund would first receive a pro rata return of capital contributions to the fund;
2. LPs would receive an allocation of profits such that they received investment returns equal to an IRR-based hurdle rate on contributed capital (frequently 8%);
3. The GPE would receive a "catch-up" distribution of profi ts until it had received 20% of the profi ts distributed under steps two and three; and
4. Remaining profits, if any, would be allocated 20% to the GPE and 80% pro rata to the LPs.

Carry Points: The right to receive carried interest can be expressed in terms of a carried interest percentage or carry points. When expressed as a percentage, the GPE is typically entitled to receive 100% of the carried interest generated by the fund. In this case, if a member of the GPE has a 20% carried interest percentage, the member would be entitled to receive 20% of the carried interest cash fl ows received by the GPE. When expressed as points, there are typically 100 carry points in total. A member having 20 carry points would also be entitled to receive 20% of the carried interest cash fl ows received by the GPE.

Membership in the GPE typically includes two components: (1) a capital interest percentage, which is equal to the capital commitment of the individual member divided by the aggregate capital commitments to the GPE; and (2) a carried interest percentage or carry points, depending on the terminology utilized by the fund. There is no requirement that an individual member's capital percentage and carried interest percentage be the same. In fact, they are often different.

Vertical Slice: In order to avoid potential issues under Section 2701 of the Internal Revenue Code, a generally accepted technique utilized by many practitioners is the transfer of a "vertical slice." A vertical slice is a pro rata percentage of an individual's entire interest in a private equity or real estate fund. This would generally include an interest in the GPE, as well as any limited partnership interest that the individual owns directly in the fund itself.

A possible alternative to the use of a vertical slice is a carry derivative. The structure of the prospective transaction, and whether or not a vertical slice or carry derivative is more appropriate, is typically based on the recommendation of the client's estate planning counsel, and considers a wide range of factors specifi c to the client's situation.

Build a Team Early

Key initial players of the planning team typically include the client, his or her accountant, and the estate planning attorney. Often, valuation experts only become part of the process once a gift has been completed. In general, I advocate that the valuation expert should be involved early in the planning process, and prior to the time that the gift is completed. This is particularly important in the context of gift ing carried interests, given the technical and structural nuances associated with these gifts, and an experienced valuation expert can add value in structuring the transaction. Given the unique nature of carried interest transfers, fund counsel is also a key part of the team. Having drafted the fund documents, they are uniquely positioned to off er insight into how the fund works and often have a knowledge base that estate planning attorneys new to these transfers do not have. Another key individual to identify early in the process is the primary contact at the fund. While this is often initially the client, it is frequently the CFO who winds up quarterbacking the process. Everyone wins when the full team is assembled early in the process and communicates often throughout.

How to Structure the Engagement

Valuation engagements for carried interests most often start with a single client and attorney. One of my fi rst questions for the prospective client is always, "Do any of your partners also need a valuation?" Often, the answer is "yes." In that situation, it is frequently true that multiple planning attorneys and advisers are involved (the number of advisers seems to grow exponentially with the number of clients!). When this happens, I most often suggest that we be engaged by the fund (or the management company) directly, instead of by the individual client or their estate planning attorney. The engagement can be structured so that there are multiple users of the reports, and often the reports are tailored to individual partners. This process helps to ensure consistency across the valuations that individual partners are using to support their estate planning activities and helps to reduce the "per user" costs for the report – a win-win for the clients.

EMPIRE VALUATION CONSULTANTS

EMPIRE VALUATION CONSULTANTS

Gifting at Inception – How Early is too Early?

Executing a gifting transaction involving carried interests at "time zero" is attractive. Assuming that no capital has been called prior to the transaction, the "capital" component of the interest generally has $0 value, and the carried interest component would be at its lowest value due to the high degree of performance risk (there is generally signifi cant risk at inception associated with identifying attractive investment opportunities and ultimately realizing future gains on a fund-wide basis). But how early is too early? Answers to the following questions may help provide guidance for certain situations.

1. Have critical documents been executed in "final" form? I would characterize the fund agreement, offering memorandum and the GPE agreement as critical documents, because they defi ne the rights of the GPE relative to the fund, and the rights of the individual members of the GPE. Of course, the off ering memorandum provides critical information about the new fund. A few years ago, we were engaged in May to value gifts associated with transactions that were completed in January. An agreement for the GPE was executed prior to the gifting transactions, but it was a generic four-page placeholder agreement that did not remotely resemble the final GPE agreement. Simply put, while there was an implicit agreement among the members of the GPE as to what the final terms would be based on prior funds, it had not been properly documented in the GPE agreement. Had there not been a term sheet which was agreed upon by the members of the GPE that refl ected the expected fi nal terms of the GPE agreement, it would not have been possible to consider those terms in the valuation process. Issues of this nature can be avoided through timely communication between members of the advisory team.

2. Is the interest being transferred clearly NOT subject to dilution? It is common for carry points to be assigned to employees who become members of the GPE sometime after the inception of the fund, or for carry points to be reassigned within the GPE with the addition of a new partner. If the carry points associated with the interest to be transferred are subject to potential future dilution, the fair market value ("FMV") of the interest may be overstated if the prospective dilution is not properly accounted for. There are multiple ways to address this, which include: (1) specifi cally accounting for the dilution in the determination of FMV; (2) including a smaller percentage interest (lower number of carry points) in the transfer such that the potential future dilution would not impact the interest; or (3) executing an agreement that all prospective dilution will be borne by the interest retained by the donor. Not long ago, we were informed that a transfer was completed shortly before a dilutive event that occurred near formation. Following the dilutive event, the transferee owned a smaller interest in the GPE than he purportedly transferred just days before. This highlights the real-time flux of events and the critical need for the advisory team to be fully informed throughout the process.

3. Has the fund raised substantially its entire target committed capital amount? This is the most common question we get around timing. If there is a $500 million target for committed capital and only $200 million has been committed through the initial close, should a gifting transaction be completed at the initial close? Great question. How confi dent is the fund that it will close on the entire $500 million? The answer may be diff erent for a fund in a new fund family, versus the seventh or eighth fund in a successful family of funds. While uncertainty increases risk and theoretically reduces value, assuming an aggregate committed capital amount that turns out to be too high is counterproductive. However, it is generally still best to complete the transaction before any capital has been called. This is a nuanced decision and the right answer will vary from fund to fund, but it is a good conversation to have prior to the gifting transactions to help ensure that the goals are accomplished.

Alternatively, risk may also exist if the assumptions in the valuation are overly conservative regarding the capital raise. For example, there would be a meaningful impact on value if management communicated that the target capital raise for a fund would be capped at $500 million at the time a transaction was completed, and it was ultimately closed at $750 million or $1 billion. While that would be great for the fund, it could result in a meaningful increase in audit risk if the client's gift tax return was selected for audit.

Identity of the Transferee

While the identity of the transferee falls outside the context of the FMV definition and does not directly impact value, it does raise practical questions in connection with the transfer. The most signifi cant concern is the transferee's ability to fund the capital calls associated with the capital interest component of the vertical slice. One option is to execute a formal loan agreement between the transferor and the transferee, with the borrowed funds to be used to fund the capital calls. A second option is to contribute the vertical slice to a "wrapper" entity, such as a limited partnership or LLC, or to a trust which has suffi cient liquid assets to fund the future capital commitments. Liquid assets can be contributed to the newly-formed trust or entity to fund the capital calls, or a loan agreement can be put in place as described above.

The use of a wrapper entity may create valuation issues if not owned 100% by transferor prior to the contribution of a vertical slice, or if gifts of non-controlling interests in the wrapper entity will be made. This is particularly true if the wrapper entity owned other illiquid assets prior to the contribution of the vertical slice. If a wrapper entity is utilized in the transfer, discounts for lack of control and marketability at the entity level should be considered and applied as appropriate.

The Impact of Co-investment Vehicles

Over time, fund structures have evolved such that a meaningful component of the client's capital commitment to the fund may be invested through a parallel, or co-invest, vehicle. The structure of the co-invest vehicle may not only impact the valuation analysis, but it also will impact the composition of the vertical slice transfer. If the co-invest vehicle is effectively a feeder vehicle for the fund itself (i.e., capital invested through the co-invest vehicle is contributed to the fund itself, and the fund invests in the portfolio companies), it would likely be included in the vertical slice analysis and may also be responsible for its share of fund expenses (thereby increasing the expected IRRs of the other partner classes).

However, if the co-invest vehicle invests directly into the underlying portfolio companies side-by-side with the fund, it generally is not considered a part of the fund itself and would likely be excluded from the vertical slice transfer. Moreover, an investment management entity associated with the fund is generally not included in the vertical slice transfer.

It's in the Details – the Importance of Communication throughout the Process

A key part of the valuation process with carried interests is to ensure that all members of the team are on the same page with respect to what the fund agreement and the GPE agreement actually say. Across fund types, there are numerous variations on the priority of distributions—i.e., who gets what, and when? In venture funds, there is often a pro rata return of capital to all partners directly followed by a carried interest allocation to the general partner and all other profi ts to the limited partners. In later stage private equity and real estate funds, the return of capital is often followed by the payment of a preferred return, a "catch-up" to the GPE, and then allocation of the carried interest. There may also be multiple hurdle rates, with increasing carried interest allocations to the GPE based on the achievement of increasing IRR targets on LP capital. There are also several potential variations in the fund documents regarding when carried interest is earned, and which investors' capital is subject to the waterfall. Terms of the GPE agreement may also further impact the manner in which cash fl ows received from the fund are allocated to members of the GPE.

These are all meaningful considerations that directly impact the value of the carried interest cash fl ows at inception. Incorrect modeling could result in an over-allocation of value to the carried interest, which is problematic on many levels. I fi nd that it is critically important to review the fund model with the fund's management (typically the client/clients and the fund's CFO) prior to communicating estimates of value to the client. It gives the client an opportunity to "kick the tyres" and challenge the assumptions used to build the valuation model—and they appreciate being involved! Importantly, it also gives the planning team an opportunity to incorporate feedback into the process before the conclusions of value have been discussed.

EMPIRE
VALUATION CONSULTANTS

It's Not Worth $0! (i.e., Difficult Conversations & Planning Considerations)

Yes, I still encounter new clients who know that the value of the carried interest for income tax purposes at inception is $0 because no profits have been earned as of the date such interest is received by the client, and thus believe that the value is $0 for gift tax purposes as well. While prospective clients clearly understand that the carried interest is an option on performance of the fund and that it has value at inception, they may still think that it has a $0 value for gift tax reporting purposes. This is not the case. Unfortunately, this situation can lead to some difficult conversations, which are best had at the outset of the engagement. These conversations can be particularly tough if the client has made prior carried interest gifts and just assumed that the gifts had no value, and will become more complicated if the client didn't fi le gift tax returns for the earlier transfers. Having an "eyes wide open" conversation with the client is important to help them understand the risks associated with each of the options they have to address these situations. Such conversations should occur sooner rather than later in the planning process. This is the ultimate example of a situation in which the planning team can work together to help a client identify the best path forward in a diffi cult situation.

It's a Wrap!

This is a sample of some of the more signifi cant issues that we have encountered over the years. In each case, we've worked with the planning team and the client to identify the best possible solution, and to put processes in place to avoid future issues. Our team includes multiple Managing Directors, Managers and Valuation Consultants with experience in this space. We look forward to bringing that experience to your next engagement.

Since our founding in 1988, Empire Valuation Consultants has grown into one of the nation's leading and most respected independent valuation firms. We provide valuations to attorneys, accountants, business owners, private equity and hedge funds, commercial bankers, investment bankers, trust departments, insurance agents and fi nancial planners, among others.

With a staff of over 75 employees in New York City, Boston, Rochester, West Hartford and San Francisco, we are one of the largest and most well-respected valuation fi rms in the country. We bring excellence and integrity to every engagement through our team of highly skilled individuals who are among the fi nest our industry has to off er.

Hugh Woodside is a Managing Director at Empire Valuation Consultants, where he has worked since 2000. He is an Accredited Senior Appraiser (ASA) of the American Society of Appraisers and a Chartered Financial Analyst (CFA). Hugh has been involved in a wide range of carried interest valuations over a period of nearly 15 years, including private equity and real estate funds ranging in size from $250 million to over $2 billion.

Hugh H. Woodside, ASA, CFA
Managing Director
hwoodside@empireval.com

- 777 Canal View Blvd.,
  Suite 200
  Rochester, NY 14623
  t: 585.794.5720
- One International Place,
  Suite 1400
  Boston, MA 02110
  t: 617.535.7785

Consistent & Transparent Valuation of 'Unicorns'

By **Ian Blance**, Managing Director, Voltaire Advisors

Readers will be aware of - and may indeed have received - a letter from the SEC last year relating to so-called 'Unicorn' valuation. Voltaire Advisors recently ran a webinar on the topic on looking at the SEC's concerns and how to deal with them, best practices and audit considerations when it comes to private equity valuation and appropriate methodologies to ensure compliance with these standards.[1]

What is a 'Unicorn'? Unicorns are private (usually tech) companies without much of a performance record who have an estimated valuation of $1bn or more. Fortune currently lists 174 unicorns[2] including such widely held investments as Uber, Airbnb and Spotify. Notably, many of them are Chinese companies.

Interest in venture capital as an investment vehicle is growing. Large U.S. mutual fund providers, including Fidelity and T. Rowe Price, have started investing in unicorns, and the past three years has seen a 10-fold increase in VC-backed investments. The rise of third-party equity marketplaces has allowed mom-and-pop investors to join the game as well. And in Silicon Valley, many young workers take small salaries and large stock options, betting on a successful IPO.

SEC Disquiet

As a result, concern has been brewing at the SEC about valuation of these interests for a couple of years. The Commission started asking questions in late 2015[3] and their concerns were highlighted by the then SEC Chair Mary Jo White in a speech in March 2016.[4] White noted the crowding of VC and PE investment into 'hot' companies with a willingness of investors to sacrifice disclosure for access.

There was also cultural pressure to grow quickly, increase valuation at each financing round to achieve the "prestige associated with reaching a sky high valuation fast". In terms of oversight, the boards of these companies tend to be overweight founders and VC's and underweight in public company governance experience.

This concern was thrown into much sharper focus with the 'sweep' letter to registered investment companies in late 2016.[5] This is consistent with SEC's broad effort understand how funds value unlisted securities, and the Commission sees connections between valuation and other priorities such as liquidity and investor suitability.

The letter came in the wake of widespread reporting that valuations for these types of private investments vary significantly between different fund groups and even between different funds within the same group. The WSJ reported Airbnb shares held in mutual funds as valued anywhere from $73 to $119 and Cloudera was valued at $27.83 per share in one fund and $13.10 in another fund on the same date.

Private funds remain a focus in 2017 OCIE Examination Priorities and there are good reasons to expect tech startup valuation to come up in exams and inspections. Increased mutual fund ownership of 'unicorns' means that these investments are more likely to impact retail investors. PE funds, as early-stage participants, may have information to uncover overpricing before it can have widespread impact in the retail investor base.

Valuation Methods

There is no denying that it is inherently difficult to value an early-stage startup, especially when the firm derives its value from a unique and/or disruptive technology. Most of these firms are fast-growing and unprofitable, and have complex financial structures (raising funding in multiple rounds, offering investors different restrictions and protections).

The issue is complicated further by there being a number of different approaches to valuing these companies, the choice of which are often subject to a high degree of judgment and subjectivity. Valuations of investments of this kind can be influenced by highly subjective assumptions in key variables and calibrations.

There are three generally accepted approaches to valuation deployed for private equity: the cost approach, the income approach, and the market approach.

The ***cost approach*** estimates the fair value for an asset based upon the capital necessary to create an equivalent. This is most appropriate for highly capital-intensive businesses like real estate or energy. It is not appropriate for 'unicorns'.

The ***income approach*** produces a fair value based on the present value of the future earnings. A commonly applied valuation methodology within the income approach is the discounted cash flow ("DCF") method. Using DCF, expected future cash flows are estimated and then discounted to present value at an appropriate required rate of return.

This is a sound method in many circumstances, but for 'unicorns' and other early-stage startups it presents some challenges. Cashflows need to be estimated without any historical evidence to draw upon – making it highly conjectural. Furthermore, how does one determine an appropriate discount rate for often unique companies. If the income approach is used, it should be done so with caution.

These shortcomings mean that the ***market approach*** is the one most commonly deployed in 'unicorn' valuation. This relies on actual transactions in the equity of the company or similar firms. If completed at arm's length between willing parties this can represent the best estimate of fair value for such investments.

One problem here is that if such transactions are not observed or do not take place, then the valuation of the investment remains static.

[1] http://www.voltaireadvisors.com/unicorn-pricing.html
[2] http://fortune.com/unicorns/
[3] https://www.wsj.com/articles/regulators-look-into-mutual-funds-procedures-for-valuing-startups-1447796553
[4] https://www.wsj.com/articles/secs-white-warns-silicon-valley-on-valuations-1459471580
[5] https://www.wsj.com/articles/wall-street-cop-asks-money-managers-to-reveal-silicon-valley-valuations-1481305082

This is unlikely to be a sound conclusion when there are changes occurring in the overall market and the relevant industry all the time. Furthermore, static and stale prices are a red flag to regulators and auditors when looking at fund valuation policies and procedures.

A method of resolving this is to consider a guideline public company ("GPC") approach, in which public companies with financial and operating characteristics similar to the enterprise being valued are used as proxies. These comparable firms can be used to derive metrics and multiples (for instance in company earnings, EBITDA, revenues or book value) for the asset under consideration (appropriately adjusted for specific circumstances).

Still Getting it Wrong?

Recent research from Stanford University suggests that, despite the best efforts of internal and external valuation teams, funds are still overvaluing 'unicorns' by an average of 51%.[6] This results principally from applying the price from the most recent transaction to all stock classes, regardless of their rights.

The average unicorn, the researchers note, has eight stock classes for different types of investors, including founders, employees, venture capitalists, mutual funds, and others. Some of these shares get preferred treatment, which can make the common stock worth much less.

The authors created a model that could take into account the terms of each stock class. Applying this model to Square, a payments startup that was valued at $6 billion, they estimated a value of $2.2 billion. The company went public in 2015 at a pre-IPO value of $2.66 billion.

The study looked at 116 unicorns founded after 1994 that had raised a round after 2004. Interestingly, 53 of the 116 firms lost their unicorn status when the model was applied. **All** the companies were overvalued, and 13 were overvalued by more than 100%!

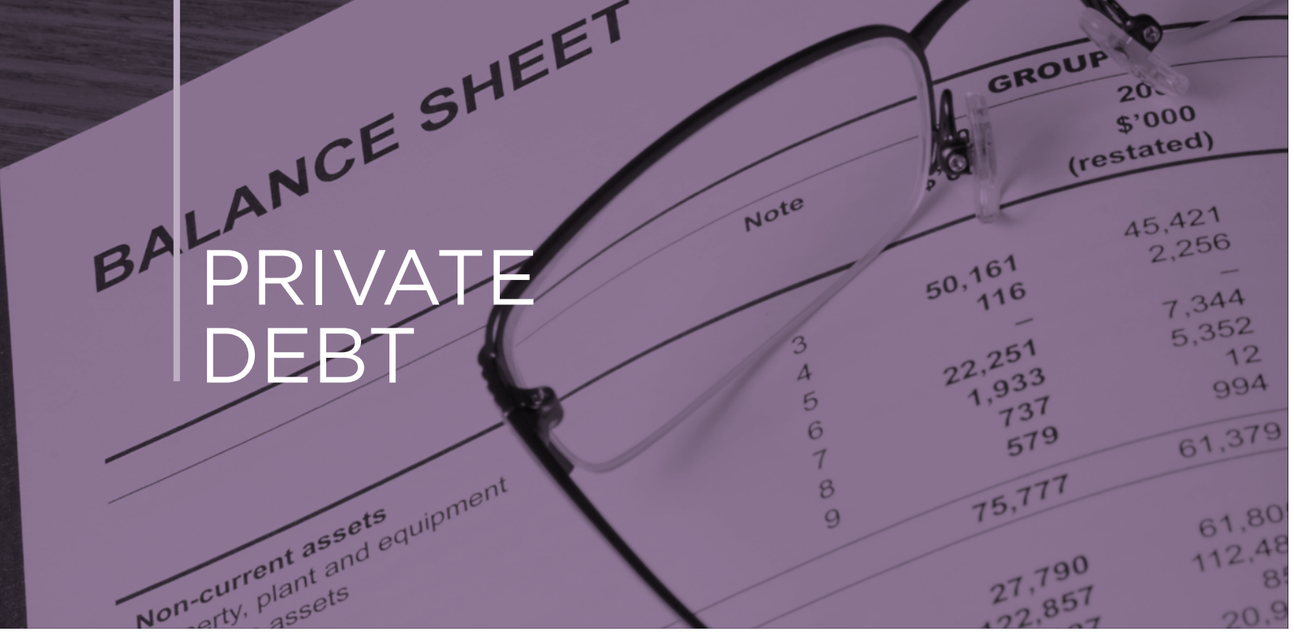
Conclusion

In valuing 'unicorns' there is unfortunately no panacea. Some of the standard techniques are not appropriate and even some of the most sophisticated market professionals equate fair value and post-money valuation.

The key to ensuring a robust and defensible value is to have a clear and transparent policy and procedure in place to produce this. Furthermore, all assumptions and calibrations should be fully documented and justified to avoid any suggestion of 'cherry picking'.

We believe that the SEC have only just started looking at this issue, and if any enforcement actions derive from last year's sweep then industry practices will come under even more scrutiny.

[6] https://www.gsb.stanford.edu/insights/silicon-valleys-unicorns-are-overvalued



PRIVATE DEBT

MODERATOR

Ian Blance

Ian Blance is Managing Director of Voltaire Advisors. Ian has over 30 years' experience in the financial markets focused on research and valuation of securities and derivatives. He is a regular commentator on valuation and risk issues in the media and a frequent conference speaker.

In his earlier career Ian developed and ran securities valuation operations for two of the major information vendors and has provided consulting services for the others. Ian spent 4 years as Head of Evaluated Pricing for SIX Financial Information, based in Zürich, Switzerland and 12 years with Interactive Data Corporation, setting up and building their fixed income valuations business in London and subsequently becoming Managing Director of the market leading Evaluated Pricing unit in New York. Before Interactive Data, Ian was an economist and senior bond strategist in investment banking.

Justin Burchett, CFA, PhD – Managing Director, BDO Consulting Managing Director

Justin Burchett is a BDO Consulting Managing Director in the firm's New York office, supporting the Valuation & Business Analytics practice. He has over 15 years of professional experience as a capital markets participant and financial advisor. Justin manages valuation, litigation support and advisory engagements and specializes in the fair value measurement of complex and illiquid financial instruments.

Justin manages valuation, litigation support and related financial advisory engagements, specializing in the valuation and analysis measurement of complex and illiquid financial instruments. He has led engagements pertaining to the valuation of corporate debt, mortgage-backed securities, mortgage loans, asset-backed securities, collateralized debt obligations, commercial loans, over-the-counter (OTC) derivatives and privately held corporations. Clients served include investment banks, hedge funds, private equity funds, business development companies, commercial banks, real estate investment trusts (REITs), specialty finance companies, law firms and federal government agencies.

Prior to joining BDO, Justin held leadership roles an independent investment bank and a global accounting firm. Earlier in his career, he held front office roles in the alternative asset management sector where he was responsible for the analysis and origination of structured credit products.

Lawrence Freundlich – Partner, KPMG

Lawrence is a Partner in KPMG's Economic and Valuation Services practice in New York. He specializes in the valuation of loans, debt, options and other financial derivatives. Additionally, he has extensive background in the valuation of equity, businesses and intangible assets for financial reporting, tax and other purposes. Lawrence has performed significant services related to financial modeling, economics and transfer pricing.

Ryan McNelley, Managing Director, Duff & Phelps

Ryan McNelley is a managing director in the London office of Duff & Phelps, and part of the Portfolio Valuation service line within the Alternative Asset Advisory business unit. Ryan's clients primarily include alternative investment managers, including private equity funds, hedge funds, infrastructure funds, real estate debt funds, in both Europe and in the U.S.

Ryan specializes in the valuation of illiquid ("hard-to-value", or Level 2) investments, typically under the IFRS 13, ASC§820 or other local GAAP Fair Value standards used by alternative investment managers. Ryan's experience includes the valuation of the following asset types:

• Senior, subordinated and mezzanine debt; revolving lines of credit, delayed draw facilities, asset backed loans • Common equity, preferred equity, convertible preferred equity and hybrid instruments • Non-performing loans and loan portfolios • Litigation claims • Fund management companies and limited partner interest

Ryan's other experience also includes the valuation of businesses and intangible assets for a diverse range of corporates, including satellite manufacturers, fixed satellite services operators, telecommunications companies, industrial manufacturers, car and equipment rental companies, as well as numerous other companies for tax and financial reporting purposes under the guidelines of U.S. accounting standard ASC §805 (formerly SFAS 141) and ASC §350 (formerly SFAS 142).

Ryan's past experience includes seven years in various finance and business management roles at Maxim Integrated Products, a Silicon Valley semiconductor company. Ryan received his B.S. in Business and Economics from Saint Mary's College of California in 1997, and his M.B.A. with a specialization in Corporate Finance from Cornell University in 2006.

He completed a business major, with a minor in finance at Eastern Mediterranean University, took classes in banking, finance, the stock market and investment and portfolio analysis, and completed his undergraduate program with the outstanding high honour degree in the year 2000.

Keith D. Smith, CFA - Managing Director, Empire Valuation Consultants

Keith is a Managing Director of Empire Valuation Consultants and a Chartered Financial Analyst (CFA).

Keith has extensive experience in financial consulting and business valuation. He has valued the equity, debt, derivatives, liabilities, and NOLs of publicly and privately held businesses for acquisitions, divestitures, estate and gift tax reporting, liquidation, financial reporting, and general corporate planning purposes.

In addition, Keith has valued specific intangible assets including technology, in-process research and development, trademark/trade names, customer and subscription lists, on-line audiences, covenants-not-to compete, inventory, workforce, and co-marketing agreements/alliances, as well as hardware and software maintenance contracts. He has a significant amount of experience in valuing technology, telecommunications, internet and finance companies, and early stage businesses.

Prior to joining Empire Valuation, Keith worked for PricewaterhouseCoopers LLP in Los Angeles as a Manager in the Valuation Services business. He was a Senior Technical Analyst with Management Consulting & Research, and served as a Captain in the U.S. Air Force.

PANEL SESSION:
PRIVATE DEBT VALUATIONS

Ian Blance (IB) – Private debt is a fast growing asset class in the alternative investment sector, with the likes of Business Development Companies (BDC's) heavily involved in this in the US. In terms of valuation standards, however, private debt methodologies appear less well developed than those for private equity and real estate, both of which have been established for a longer period.

I would first like to ask about the differences between intrinsic valuation of private debt holdings versus fair value.

> ***Private debt methodologies appear less well developed than those for private equity and real estate*** Ian Blance, Voltaire Advisors

Keith Smith (KS) – My initial comment is that from the outset it is important to understand the investment thesis. Many of our clients invest in distressed assets and in these cases there is often a scenario where the intrinsic value may not be fully reflected in the fair value of the position today. If the investment thesis is correct then over time the gap between intrinsic and fair value should close. So what you're trying to do initially is try to set up some understanding of what are some key milestones or particular sort of parameters that you can track to see that to see where that gap is happening over time.

In some cases our distressed clients actually buy assets and we have had to actually mark them up because they were so far under fair value, but for the most part it's usually a gradual process over time. So one of the key things that we do is track that and then include this story as part of the overall analysis and allow the investment thesis of the investor to drive where the analysis goes, then bring independent data in to either support - positive or negative - with how the thesis is playing out. When the thesis is not playing out, the question becomes at what point we have to mark the investment down.

> ***...from the outset, it is important to understand the investment thesis.***
> Keith Smith, Empire Valuation Consultants

Ryan McNelley (RM) - I would concur with Keith. We spent a lot of time looking at the original transaction trying to understand the context and questioning whether it was an arm's length transaction done at fair value or whether it was an off market deal. We apply a higher threshold of proof if it wasn't an arm's length transaction.

Considering companies in distress, a lot of market participants are going to be very wary about the situation and they're going to reflect the price they're willing to pay that reflects the risk in the in the business and turnaround possibilities that's not quite as apparent in just looking at the numbers. You have to spend a lot of time understanding this and plot it out the various scenarios of recovery and rates of return.

IB – This brings us neatly to the key parameters driving the debt valuation process. Some of this has already been alluded to, but can we look at this in more detail?

Justin Burchett (JB) - Keith made a good point in that the valuation of private debt involves a combination of understanding the investment thesis, the investment context and capital structure and then going to the next step which involves the analysis of market data and fundamental credit information. The process includes: benchmarking to the original transaction, evaluating changes to the credit quality of the underlying company, analysis of current market conditions, consideration of the debt instrument's enterprise value coverage and the other credit fundamentals of subject debt instrument and comparative debt instruments.

But I think with private debt that you don't want to dive right into the analysis by looking for a comparable yield and doing the DCF calculations. You have to understand the context of the original transaction and whether that is a good indication of fair value. Next, roll forward to the measurement date: look at what's changed in the company, what are its credit fundamentals like, where is it going in the story, what do the measurable financial statistics look like? The changes in the subject credit can then be mapped to comparable instruments and the market in general where are base interest rates, where are credit spreads for this instrument, what are levels of the benchmark credit indices?

IB – You referred to the various methodologies deployed to go about valuing this kind of instrument, but what do all those terms mean?

Larry Freundlich (LF) - For fair value the key points are the market view as well as thinking about the exit possibilities and here there are certain aspects of certain types of debt instruments that are considered very differently. Convertibility, for instance, and how that's handled (not just if it's deep in the money). Some companies will just assume everything's converted which may be their investment thesis but it may or may not always be completely rational

In terms of methodology, for debt we typically would want to see that there is enough coverage as the first step - where you do an enterprise value make sure that a tranche of debt has sufficient coverage for a payoff. Then think about the various yields, so if it's a debt instrument that was relatively recently issued you may want to think about a yield calibration approach. Where was the yield when they bought it or when it was issued? Is tied to a major index or a particular credit rating? How has its own credit changed over time? Making that type of adjustment and doing a DCF based upon that type of yield calibration.

When something's a bit further off, you may want to develop a shadow rating or use an off the shelf product from Moody's or S&P, or use some standard ratio.

> ***For fair value the key points are the market view as well as thinking about the exit possibilities.*** Larry Freundlich, KPMG

Continued overleaf

PANEL SESSION: **PRIVATE DEBT VALUATIONS (CONTINUED)**

KS – That approach tends to work for performing loans, but when you're dealing with nonperforming you really have that look at the underlying collateral which gives you some idea of what the overall value would be. Then look at recovery scenarios (for instance, we have some clients will actually just buy the debt and then go after the underlying real estate) and also take into consideration the other stakeholders.

We're actually getting into a scenario analysis and assessments of payoff probabilities. What we do is sit down and talk with management on their assumptions and then collect market data or market indicators that would either support or not support the specific outcomes and probabilities of payoffs that they have provided.

IB – That's an interesting point. Coming, as I do, from the perspective of publicly issued debt valuation, here there is very much a hand's off approach from the investor. What I am hearing from you folks today is that, in private debt the investor has a significant involvement in the process. How does this fit with independence of the valuation provider?

RM - I think what we're all talking about here are situations where we're valuing instruments that have nothing really all that comparable – private direct lending where this is one issuer and one, maybe two, lenders. They don't trade at all and all the terms and conditions are negotiated in a bespoke transaction – specific covenants, specific to the company and the investment thesis, with features that are often unique to the loan in question.

Meanwhile there is no private debt index - that just doesn't exist, obviously because it's private. There are some syndicated loan indices and bond indices, but those are not the best comparison because their constituents are structured under different contexts and designed to be traded. I suppose this is why there are people like us on the stage because we have to use judgment.

So your question was about governance and I would say that there is no way to remove the investment manager from the valuation process. The nature of the transaction means that there are so many disclosures and unique features, you need to get the investors input. This is especially so in distressed credit where you know from day one that there's going to be a recovery strategy requiring a lot of negotiation and potentially litigation.

There's no way to do this without input from the manager, but that said, it behooves us as experienced valuation firms to exercize a degree of skepticism and a sense of integrity where we take on board what the manager says but apply our independent judgement to come up with what we think is an appropriate value.

> ***...it behooves us as experienced valuation firms to exercize a degree of skepticism.*** Ryan McNelley, Duff & Phelps

IB – Obviously, the more complex the transaction the more difficult this becomes, right?

LF - You now have a large number of features ranging from PIK's, convertible, callable, mandatorily redeemable, or convertible into different types of shares. There may be a complex capital structure with various kinds of debt senior to the deal and you have to try to figure out what will be matters and in your particular case.

IB – Is there any kind of standard, or each one a unique case?

KS – I don't think that there are any standard cases for debt, there are general ones for equity, but the debt types are primarily the types we've been talking about here. I think that the most important differential is between performing debt' where you're really dealing more with yield type analysis, and non-performing or distressed deals, where you're doing more of a recovery basis.

In this case if you set up a model in the first place with the payoffs and probabilities of the payoffs then it becomes easier as time goes on and as events change to make adjustments. A lot of the upfront work initially is just setting out the framework.

IB – What kinds of tools do firms use for this process? Are they all in house models?

JB – The approach of creating a synthetic credit rating does typically involve an in-house model. These models use the inputs from the issuer to come up with a rating that can then be benchmarked against observed public issues with the same rating. Once a rating and yield are determined, the DCF calculation is pretty straightforward.

One of the big challenges is where to obtain appropriate benchmark yields. As mentioned, for private debt there is often not a directly comparable observable instrument that trades frequently, and so we also try to get data on new issuance, for instance from BDC's (who are some of the largest issuers of private debt). As is the case with private equity, just because you don't see secondary market trades for private debt, that doesn't mean that the fair value should not change in line with the overall market.

IB – Looking at market data, it is sometimes difficult to get enough to be able to adequately value even publicly issued debt. For private issues, is this event more of a challenge?

RM – Yes that's correct. I think that there is a move afoot to put better standards around private debt valuation, which is why I am pleased that most of us on the panel are in accord when it comes to some of the methodologies used. Let's be honest, valuation standards across the industry are sometimes not as robust as we all expect, and it is good to see organizations like the AICPA in the US and AIMA and InvestEurope in Europe looking to put out more guidance on private debt valuation standards.

IB – We have talked a little bit about distressed debt already, but are there any points that we specifically need to highlight here?

LF – Yes, when we get into deeply distressed scenarios we are really looking at different types of recovery probabilities and are a long way from considering yields.

KS – The key thing with distressed debt is to value the underlying collateral and then consider how the various stakeholders will be dividing up their stakes.

IB – If we now look at consumer lending, this is the real Wild West, right? It must make regular private debt valuation look positively robust in comparison!

JB – Yes, we have seen some clients get involved in consumer loans and peer to peer lending. Here we see a deployment of some of the techniques used for pooled vehicles, such as estimating defaults, prepayments, etc. The loans are mostly unsecured with consumer borrowers and we frequently take a portfolio level or pool level approach, rather than an instrument level approach to valuing these debt instruments.

Continued overleaf

PANEL SESSION: **PRIVATE DEBT VALUATIONS (CONTINUED)**

KS – That is a good point that we haven't touched on. When you have a portfolio of loans you can segment this into those large ones which have the most influence on value. In a perfect world you want to value every single asset but usually what happens in the end is an analysis of what's the most significant value drivers which have a lot of potential for moving the value of the portfolio and focus on those versus spending too much time on those which do not have a material influence.

Audience Question – What happens when the manager and the valuation firm come to a widely differing conclusion on the value of a holding? Do they just side pocket it?

KS - The only case where I ran into that was for a non-material assets, but we would hope that the data we are providing to support our valuation would help to reconcile the difference with a manager. At the end of the day though, that is part of our independence and part of the service that investors are paying for. If we state that the value imputed by the fund manager is outside our range of fair values, we say so.

RM – Ultimately, the manager is responsible for their NAV. It is not uncommon when looking at a portfolio of 20 loans, for us to initially be out of range in 3-5 of these. It is then important for us to discuss these and see why these differences exist and whether there is something we might have missed or something they missed. However, we still may end up with 1 or 2 where we simply can't agree. I don't think that side pocketing is the answer in these cases, but that depends on the situation.

JB – Putting on my audit hat, I observe difference in practice here. Some firms largely determine fair values using an internal function and consider the third party to serve as a check on management's process. Other firms want to completely outsource the valuation process. Best practice falls somewhere in between the two extremes. Management cannot absolve themselves from the process, as they are ultimately responsible for financial reporting. On the other hand, management cannot just ignore the independent third party indications of value.

It is best practice to have a documented process for reconciling these disputes, since your audit firm will need evidence to be able to state that the concluded value is reasonable. One suggestion is to establish an independent valuation committee with senior level representation.

> ***Management cannot absolve themselves from the process, as they are ultimately responsible for financial reporting.*** Justin Burchett, BDO

Audience Question – Does it happen that funds go 'shopping' for the valuation they want to see amongst different valuation firms?

LF – There will always be differences of opinion on this between different appraisers, since there is a lot of judgement required in the process. Whether funds go 'shopping' to get the right result, I am not so sure. Auditors would certainly notice if one firm was used one year and another the next, and there were constant changes of valuer.

JB – Yes auditors like to see consistency in the valuation process. That doesn't mean that inputs, methods and assumptions cannot change, but this needs to happen within the context of the stated policies and procedures and within the agreed upon process.

RM – I think that this is common in Level 2 assets, where they may be a range of broker quotes out there and it is easy to dismiss the ones you don't like. In terms of Level 3 assets, there is a cost to perform the valuation and it is unlikely that a manager would pay for multiple valuations and then choose the one most suitable for them. Where it could happen is in the onboarding process, where a range of questions get asked during the pitch for business. You can usually see from the questions that the manager is looking for a valuer who sees things the same way as they do.

This is where integrity comes in. Investors want to know that the deployment of a third party valuation firm is part of a credible process, not just a rubber stamping exercise.

IB – To finish up I would just like to give all the panelists the opportunity to gaze into their crystal balls and give us a flavor of what we can expect in the future in terms of private debt valuation.

LF – It is really a balancing act between running all the analytics and understanding how the real market for this works. I feel that maybe we have swung a little bit too far towards the analytics, and maybe in the future we will move back towards a more transactional view – at what level would this instrument really transfer ownership?

KS - I think that the key thing is to think about the overall story of the investment, and how the numbers tie in to the story and that really goes back to the thesis aspect that we talked about initially

JB – I agree, one theme of today's panel is to first understand the investment context: for example, why the private debt investment was made. It is also important to know the role of the investor holding the debt instrument – are they going to be driving future developments for the enterprise (control), or are they merely along for the ride (minority stake).

IHS Markit™

The Rise of Private Debt

By **Leon Sinclair**, Director: Private Equity, Debt and Alternatives

The rise in demand for private debt has been aided by an ultra-low yield environment and bouts of extreme volatility in Europe's public bond markets in the years since the financial crisis. A short-term freeze in bank lending to the real economy in the crisis of 2008/9 was followed by a prolonged period of retrenchment by banks, particularly from longer-dated or riskier lending, in order to deleverage and meet stringent new capital requirements imposed by CRD IV. The post financial crisis shift from traditional bank funding models towards alternative lenders has been particularly rapid in the mid-market as SMEs continued to need fresh capital to refinance their existing loans and raise new ones to fund their business growth, hence a dislocation and funding opportunity presented itself.

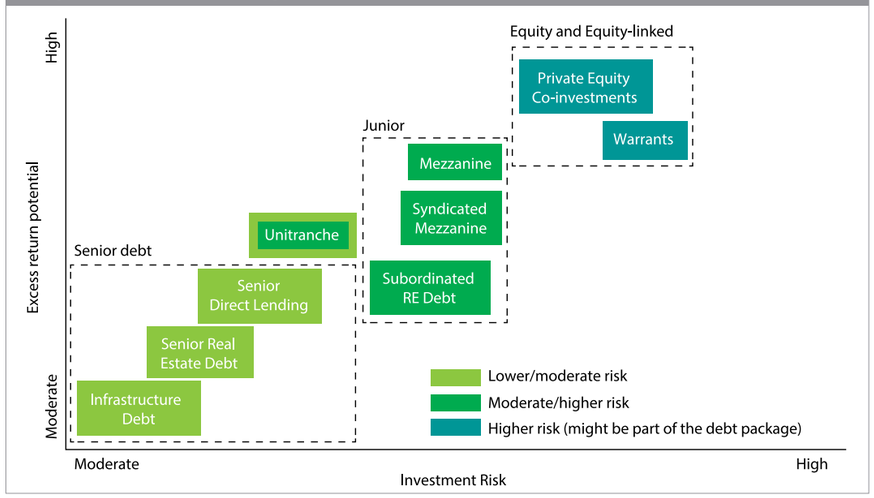
Europe is heavily reliant on small to medium sized enterprises (mid-market companies) for economic growth, which makes maintaining a robust funding environment for the midmarket crucial for the region. However, lending to the mid-market has its practical challenges due to lack of quality data and underdeveloped evaluation and credit scoring methodologies.

Private lending market landscape

Private debt funds come in numerous forms and pursue a wide range of strategies with different risk/return profiles. Such funds extend loans or specialise in the purchase of already existing positions, provide senior secured lending, subordinated and unsecured financing instruments or mezzanine lending. Alternatively, unitranche lending defines a single block of financing by a private debt fund across various layers in the capital structure, from first lien to subordinated, hence potentially making the private debt fund a single source of debt financing to a business. At the high end of the risk/return spectrum private debt funds may apply distressed-for-control-strategies, or invest in other complex enterprise strategies.

The multiple types of strategies and their common risk/return profiles are described below:

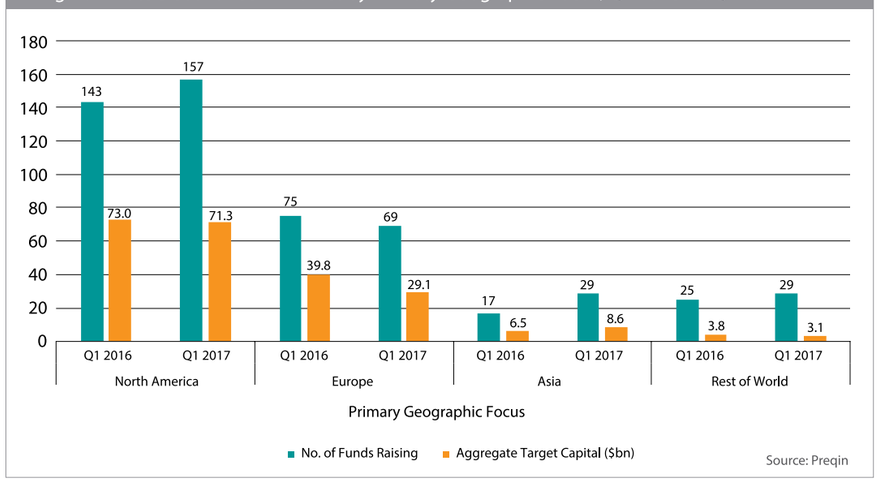
Fig 1: Common Debt Strategies and Their Risk/Return Profiles



Growth drivers in private debt markets

The benefits of private debt extend beyond higher risk-adjusted returns. These debt instruments and funds can play a variety of roles in an institutional investor's portfolio and act as a good diversification tool due to historical low correlation benefits. The asset class also has a number of other merits, such as natural credit enhancements, relative appeal versus traditional debt, for example High Yield, and its position as a hybrid / cross-over asset.

Fig. 2: Private Debt Funds in Market by Primary Geographic Focus, Q1 2016 vs. Q1 2017



Natural credit enhancements

Direct lending offers a significant degree of structural protection. Before a loan is made, a detailed due diligence process is undertaken, and various scenarios are envisioned and tested to evaluate how the company might perform in differing market conditions, including whether they would

still be able to meet all of their financial obligations. The access to company information and management facilitates very informed decision-making about credit risk.

The loans themselves have a tailored set of terms and covenants, and they can have a charge over the assets of the company that protect investors in the loan from the risk of loss with priority over other unsecured investors.

Relative appeal to more traditional debt asset classes

This form of debt is also the beneficiary of two inadvertent consequences of changes in mainstream bond market structure since the financial crisis.

With reduced liquidity in bond markets resulting from of lower sellside inventories and the restrictions on their proprietary trading since the financial crisis, there has been a material increase in the time it takes to unwind bond portfolios without incurring material price impact. This in itself has led to multiple regulatory consultations globally. These changes in the broader bond market structure have led certain asset managers to find relative appeal in private debt, which can compare favourably with bonds, especially if the liquidity profile of the two asset classes is less distinct.

Cross-over asset class

Private debt as a cross-over asset is particularly compelling after the multiple equity bear markets of the last decade turned conventional theory on its head as:

- Buy-and-hold investing struggled as equities were outperformed by bonds over a long period
- Actual returns diverged markedly from expected returns for most asset classes
- Diversification became less easy to achieve, as the correlation between historically lowly correlated asset classes continued to increase. These weaknesses have, in turn, promoted innovations in institutional investors' approach to asset allocation in pursuit of broader and more realisable diversification.

These factors combine to make it attractive for pension plans, insurance companies and other institutional investors to consider increasing their strategic asset allocations to alternative investments, including private forms of lending, which compensate for factors such as illiquidity and complexity and can serve as a valuable source of risk adjusted returns and diversification.

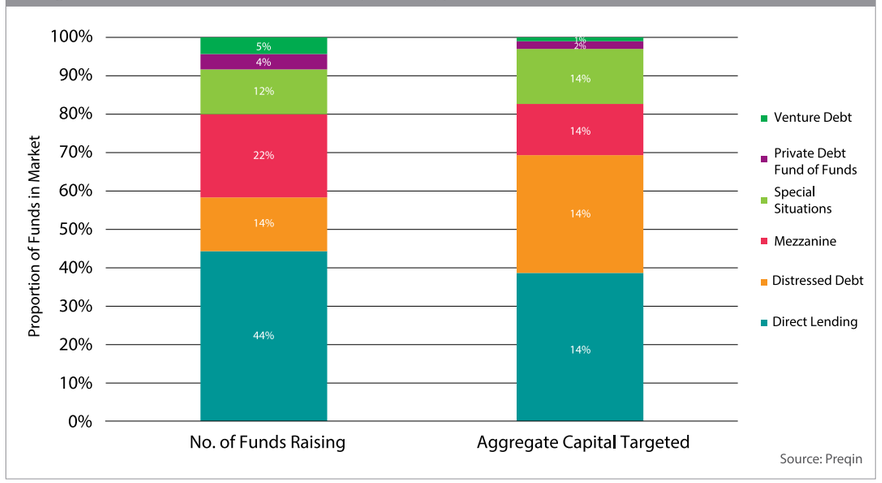
Pricing credit across the capital structure

Given the current limited nature of the secondary market for private debt, it is vital that the asset manager fully evaluate and price the credit risk associated with the borrower's risk/ return profile. They must also be able to illustrate this is correctly balanced on an ongoing basis via timely client reporting.

A significant influx of institutional capital into direct lending strategies over recent years has increased competition among lenders in parts of the market. This has led to pressure on transaction structures and margins, as well as a heightened prospect of mispricing risk, especially as leverage multiples rise. A fund with fixed return expectations is more likely to accept weaker structural protections or higher leverage multiples.

At the same time, certain areas of direct lending remain underserved and offer attractive value in comparison. Figure 3 below indicates the popularity of particular strategies.

Fig. 3: Private Debt Funds in Market by Fund Type



Regulatory appreciation of the importance of the European SME market

With all this said, is there long-term political and regulatory support of the private debt marketplace?

Political initiatives such as the European Commission's Capital Market Union (CMU) are squarely focused on SMEs, with the key aims of CMU being elimination of barriers to crossborder investments and reduction in the cost of funding.

In its Action Plan for (CMU), the European Commission noted that bank lending accounted for 75 per cent of SME funding, while venture capital represents only 1 per cent of SME funding (versus 8 per cent in the US). Further, 35 per cent of SMEs did not get the financing they applied for. Hence, SMEs are one of two groups of funding recipients focused on in the

Action Plan for CMU (the other group being infrastructure-related undertakings).

National regulatory bodies have also played their part in liberalizing markets. In April 2016, the Autorité des Marchés Financiers, France's financial watchdog, published proposals for a framework that will allow certain investment funds to grant loans directly to non-financial companies. At the same time, amendments to existing rules have allowed French insurance companies to increase their allocations to private debt.

Similarly, changes to the pension rules in the Netherlands have also enabled pension plans to increase their allocations in pursuit of uncorrelated absolute returns, which has led them to increase their allocations to private debt and start new activities such as direct residential mortgage lending.

Whilst the above clearly demonstrates US non-bank lending market is much larger, the prevailing belief is the European credit cycle is at a much earlier and hence more favourable stage to the US.

Regardless of size and the strategy of the fund, firms engaged in private debt must employ best practices and follow key principles established by AIFMD and accounting protocols within their valuation processes or employ a third party valuation advisory firm to establish a robust framework for Fair Value, Negative and Positive Assurance or Impairment testing.

Valuation considerations (data, model infrastructure, expertise and efficiency)

All firms have valuation policies that outline the methodologies followed for a given asset class and an overview of their governance structure which enables them to meet their stated valuation objectives. This leads to common practices such as calibrating the transaction price to appropriate valuation methods and comparators. However, the way firms execute this in practice is extremely varied.

AIFMD Spotlight:

Independent valuations for internal valuation teams

Under AIFMD L1 article 19.4(b), valuations performed by the asset valuer, must be functionally independent from the portfolio management team and have a separate remuneration policy.

The asset valuer generates and delivers valuations to the valuation reviewer, who makes the final determination of asset values based on the manager's valuation policy. Final valuations are delivered to the valuation committee for approval.

Under AIFMD L22 article 71.3(d), the valuation committee defines and revises the manager's valuation policy. This should include the requirement to review individual asset values and compare these with values generated by an independent valuer. Under

AIFMD L1 article 19.10, the valuation committee is responsible for ensuring that assets are properly valued, and that only approved valuations are used in NAV calculations.

External Valuer Framework

Under AIFMD L1 article 19.4(a), valuations are calculated by an external valuer, independent from the fund manager. The external valuer uses data obtained from the fund's administrator or from the fund manager.

The external valuer performs valuations and makes the final determination of asset values based on the valuation policy agreed with the manager's valuation committee. Final valuations are delivered to the administrator for input into the NAV calculation process.

Under AIFMD L1 article 19.10, the valuation committee is responsible for ensuring that valuations are performed in line with the manager's valuation policy and that these values are used in the calculation of the fund's NAV.

Providers of external valuer services also carry unlimited liability for any material losses caused by failure to perform or negligence.

Whilst IPEV guidelines and accounting standards are longstanding and hence generally understood, AIFMD is in its infancy and could change materially (both in technical amendments and practical implementation). However, the presence of AIFMD has definitely increased the acceptance in the industry of the use of third party valuation providers. The most common role of a valuation agent is to provide valuations into an internal validation process as governed by AIFMD. As execution of valuations must be formally segregated from the deal team or anyone remunerated by performance of the fund, those performing valuations need assistance. This is normally in the form of positive assurance or independent valuation. To do this well without the assistance of an independent third party is challenging even for funds with seasoned valuations analysts. Most firms have internal guardians of this valuation policy in the form of the internal valuation committee that challenges the valuation movements, approaches and rationales between valuation dates. Members of the committee are common touch points for third party valuation agent.

Governance and capital attraction

Many overseas real-money accounts view the AIFMD External Valuer policy as the highest standard of valuation governance and push the manager to seek an External Valuer to the fund.

Though regulation compels people to change processes, business is clearly responsive when change delivers a commercial advantage to those who act and in this case that can manifest itself in being more attractive to overseas capital.

The vigorous governance expected under the directive is now seen by investors as a blueprint for good governance on the topic of valuation, even for firms that fall outside AIF classification.

Firms should spend a significant amount of time documenting approaches, authenticating assumptions and adjustments—both quantitative and qualitative—behind the valuation provided by the third party. This is to the benefit of internal stakeholders, investors, auditors and regulatory bodies where applicable.

Valuation challenges

For asset valuations that would be considered level one or level two under, for example, IFRS 13, it's relatively easy to build a valuation approach, especially if there are regular transactions or volume behind firm bids and offers associated with an asset at a certain point of time. But with level three assets (such as private debt) one naturally has to incorporate different techniques in order to build a robust valuation process for the asset due to the transactionless nature of the assets (in secondary terms). Hence observed transactions are mostly in additional rounds of funding (new debt issuance), recaps or proxies to the portfolio company asset.

Various techniques and sources of market data could be used to create proxies for a particular mix of risk attributes which form a Bespoke Beta very comparable in terms of aggregate risk to the portfolio company debt. Even then it's possible the valuer still needs to employ specific adjustments to best reflect the risks embedded in the deal structure. This could include sub-sector adjustments, credit ratings adjustments, duration adjustments, region of risk adjustments, etc. Bespoke Beta is normally achieved via tailored baskets of referenceable assets. Alternatively, it can be done using curves generated by multi-variant factor curves or term structures of comparable entities and then adjusting for the points of difference. All these techniques really act as mechanisms to incorporate a variety of views to create a robust valuation which draws on best available data and techniques in capital markets.

For senior mid-market loans, often the best place to find suitable discount factors is among syndicated or more visible mid-market loans. Alternatively, for mezzanine loans and distressed debt, methodologies may include Enterprise Valuation based on a market approach (multiples) or an income approach (DCF) to establish if the value breaks into the debt capital structure and if so how deep is the value break. If there is sufficient value in the equity classes and no break into the debt, the valuation agent (and fund policy) may choose to use a market approach again on the debt to account for dynamic credit risk reflected via the spreads of comparable assets. Within a given approach, the best practice is to corroborate multiple techniques and assumptions to gain a point of centrality to the valuation or justify the chosen methodology through a range of values. Having the ability to view asset valuation from multiple vantage points is clearly a benefit of Fair Value.

It's important to note that the key difference when dealing with private debt valuations is the heavily analyst-driven approach to valuation. Valuations analysts in the private debt space must have the aptitude to understand legal documentation of the deal, corporate finance theory, analysis of financial statements and disclosures and modelling skills to ensure these are appropriately captured at inception and throughout the life of the deal to assess divergence and degradation of performance. Due to the heterogeneous nature of investments, this requires significant access to the correct market data, model infrastructure, people and control oversight.

Although investment strategies change as attractiveness of the private debt investment continuum evolve and access to the market becomes easier, firms that are committed to quality of process and independence use third party valuation services.

Interview: Leon Sinclair, IHS Markit, and Mike Anderson, Head of Investor

Relations, Pemberton Asset Management

(LS) Why is valuation such an important topic to Pemberton?

(MA) Establishing a reliable, consistent and rational methodology for valuing the underlying investments of our funds is extremely important to us. The methodology must be defensible to our regulators and our funds' auditors, but above all explicable and acceptable to our institutional investor base, which is increasingly focused on the transparency of valuations of the funds in which they invest.

Our private debt funds are all regulated funds in Luxembourg and have therefore adopted IFRS and value their investments at their fair value. As the funds invest in private loans which are not traded and for which there are no directly

observable valuation inputs, we have to apply valuation techniques, essentially DCF, to value them.

To that end, it's essential to establish from the outset a rigorous and consistent approach to modelling the loan cashflows and, crucially, to the estimation of a discount rate for each asset, that would take account of the credit characteristics of each investment and link it to relevant market benchmarks. We were concerned to ensure that the methodology we adopted would reflect the characteristics of an asset class we felt was fundamentally stable in value terms, but would also capture asset-specific changes in credit quality and broader trends in the credit markets.

It was also essential for us to identify an independent valuation agent for our funds which could offer access to the broadest possible range of relevant OTC market data and research as well as in-house credit expertise and infrastructure, hence we partnered with IHS Markit.

(LS) How does this assist you in your interactions with investors whether it be in the form of governance benchmarking or fundraising?

(MA) We believe the combination of the sophisticated Advanced Internal Ratings model that we use to determine the initial (and subsequent evolution of) credit ratings of the assets in which we invest and our valuation methodology is a key source of differentiation for Pemberton compared with other private debt asset managers.

Our rating model is highly sophisticated, back-tested annually and is significantly more granular than equivalent public rating scales. Our investment case is intimately linked to the quality and accuracy of our internal ratings, so in turn sensitising our valuations to idiosyncratic risk via the valuation agent given their ability to track broader spread trends through independently sourced loan market data. The methodology is consistent but able to adapt to take account of additional emerging factors, such as possible effects of Brexit on UK/ GBP denominated loans.

The combination of the two enables us to articulate the valuation policy, methodologies and approaches employed by IHS Markit in a way which is clear, intellectually sound and readily defensible, which clearly differentiates us in the market from some of our peers that don't do this.

(LS) What are the potential opportunities you see to the real-economy and what are the potential hurdles you see in sector achieving its potential?

(MA) Pemberton believes that bank deleveraging in Europe presents a significant investment opportunity. This has been clearly observable in capital flows of the European banking system.

Notably cross-border lending has declined by about 4tn EUR since 2008 and Pemberton believes that the mid-market companies' reliance on banks, coupled with the reduced crossborder bank lending activity, will provide an attractive opportunity for non-bank financers.

(LS) But it would also be correct to say you work very closely with local banks?

(MA)That's certainly the case. Despite the decreased cross border lending, middle market lending remains attractive in European banks domestic markets. To tackle this Pemberton has set up an Origination Team that has strong relationships with banks active in the European mid-market. This enables Pemberton to source opportunities to invest alongside Europe's leading mid-market banks, rather than in competition with them.

(LS) How responsive have corporates been to taking on a nonbank lender, are there any common areas of pushback?

(MA) Midmarket European corporates typically have longstanding ties to their banks and are not used to being exposed to alternative financing sources. Pemberton's approach to working with banks across the region facilitates corporate borrowers understanding to alternative financing by being introduced to a direct lending fund by their bank contact.

Corporates, especially continental corporates, are very focussed on the background and pedigree of the non-bank lender that will be providing them with capital. They want to know how they are likely to behave in difficult circumstances and to understand the quality of their underlying investor base. Assuming that they can get comfort in these areas, corporates are pragmatic, and are usually happy to borrow from a non-bank lender, albeit the timelines can usually be longer than those experienced on private equity transactions.

(LS) Do you feel the industry has the correct level of political support or do you feel this is something that needs to evolve over time to support the industry?

(MA) Access to financing has been restricted for mid-market companies since 2008. Despite political pressure and a range of government initiatives to encourage corporate lending,

European banks consistently tightened credit standards and loan terms from 2007 to 2013, with standards easing only very marginally during 2014.

Pemberton's view is that the political landscape for alternative financers have improved lately as the conversations have moved from talks about shadow banks and instead moved to different ways of financing SMEs outside the standard bank route. Two specific examples of this are the British Business Bank and EIF who has financed several fund managers that lend to SMEs.

(LS) So essentially the tone has changed?

(MA) Yes it's changing. Over time, we believe that the regulatory and political landscape will remain favorable for non-bank lenders given the increasingly important role that they will have in supporting middle market corporates. With this non-bank capital being provided from long-term funding sources in the form of 7-10 year locked-up funds, the quality of the discussion with regulators will continue to become more positive over time.

(LS) How do you see the regulatory environment evolving with regarding to Risk and Valuation?

(MA) Valuation is already key area of focus for us under AIFMD and we can only expect the focus of regulators and investors will increase in the years ahead. We are extremely comfortable that we will be able to meet whatever additional requirements we need to as the market evolves.

About Private Equity Services from IHS Markit

IHS Markit is known for robust cross–asset valuations services and our innovative solutions in financial technology. We offer a range of services for the alternative market including:

- Independent valuation for privately held investments across the capital structure specifically hard to price, level 3 assets
- AIFMD external valuation service
- Negative and Positive Assurance
- Credit Assessments
- Suspended Share valuations
- Policy Advisory

Our unique approach combines our technology and analyst expertise, enabling us to deliver an efficient and scalable analyst led service. Our experienced analysts offer exceptional customer service providing succinct and transparent valuation reports to enhance our customer's valuation credibility at a competitive rate.

PEMBERTON
Connecting Capital Across Europe

About Pemberton

Pemberton is a diversified asset manager, backed by one of Europe's largest insurers, Legal & General Group PLC.

Pemberton is focused on delivering attractive risk-adjusted returns for global investors and longterm capital for European borrowers, which provides growth capital for the wider economy.

Built upon a strong combination of banking and asset management expertise, Pemberton's skill lies in its ability to originate, select and manage diverse credit exposures through its pan-European platform. With an approach focused on risk transparency, Pemberton aims to bring clarity to complex credit markets for investors, borrowers and banks.

For more information, please visit our website at www.pembertonam.com

Key Regulatory Issues in the Loan Market and Prospects for Reform

By **Tess Virmani**, Senior Vice President & Associate General Counsel

Introduction

Founded in 1995, The Loan Syndications and Trading Association (LSTA) has become the leading trade association for the US corporate loan market. Since inception, its mission has included the development of best practices, market standards and trade documentation. These initiatives increase the transparency, liquidity and efficiency of the loan market. In addition, the LSTA spearheads education efforts through speaking engagements and publications, such as The LSTA's Complete Credit Agreement Guide. Since the financial crisis, the LSTA's scope of activities has expanded to include advocacy for the loan market. Initially, the regulatory issues facing the loan market predominantly resulted from new regulations implementing the Dodd-Frank Act, but in the post-crisis environment of heightened regulatory scrutiny, the LSTA has responded to a host of new regulatory issues for the loan market as well as for key drivers of demand in the loan market, such as CLOs and loan mutual funds.

This article will explore three important regulatory issues with which the loan market is grappling. It will also examine the prospects for regulatory reform and whether market participants can expect any relief on these issues in the near and mid-terms. We will look first at the Leveraged Lending Guidance; second, Dodd-Frank's risk retention rules; third, the SEC's new Liquidity Risk Management Rules. Before looking at each issue in turn, we begin by level setting the current U.S. political environment and the paths regulatory reform could follow.

The election of Trump and Republican majorities in both houses of Congress has set the stage for financial regulatory reform, but that road appears longer than many hoped after the November elections and still uncertain. The new administration can impact change by issuing executive orders and appointing new heads of the federal financial regulatory agencies. To that end, Trump issued an executive order on February 3rd articulating "Core Principles for Regulating the U.S. Financial System" ("EO") which stated that financial regulation under his administration must be consistent with "Core Principles" which include, among others, fostering vibrant financial markets and making regulation efficient, effective and appropriately tailored. The EO also charged the Secretary of the Treasury with reporting to the president on the extent to which the existing regulatory scheme is consistent with the Core Principles and identifying the rules, regulations and guidance that are inconsistent. In mid-June, Secretary Mnuchin released the first of a number of reports responsive to that EO, a 150 page report focusing on the banking sector. While the EO does not have legal import on its own, it signals that the administration intends to direct the agencies to enforce regulations with a lighter touch. Moreover, over the next two years Trump will have the opportunity to replace the leaders of all of the major financial regulatory agencies whose terms have either already expired or will expire by the end of 2018 (and most by the end of 2017). He has already appointed and confirmed a new Treasury Secretary and chairman of the SEC and identified a new chairman for the OCC. But, as of this writing many other appointments, including senior political appointments of financial regulators below the agency heads, have been very slow in coming. The speed of appointments is directly related to how quickly we can expect action. Alternatively, Congress can enact legislation (subject to the president's approval) to roll back or even repeal laws that regulate financial institutions. Or, finally, the regulatory agencies can affect the regulatory environment by either issuing new rules that are more benign or simply interpreting old rules in a more favorable way.

Leveraged Lending Guidance

The Leveraged Lending Guidance ("LLG") has had a significant effect on banks that underwrite loans and on the market generally. The LLG has until now not been considered a rule but many have observed that it has been largely applied as such by the US banking regulators – the OCC, FDIC and the Federal Reserve – since implementation in 2013. In addition to rigorous reporting and monitoring requirements, the LLG identifies certain criteria to be considered in developing an institution's "leveraged lending" definition, including whether a loan's leverage exceeds 4X total debt to EBITDA. It further restricts banks from originating – defined broadly to include amendments and refinancings - a non-pass credit. While noting in the LLG that loans with a leverage ratio of greater than 6X raise concerns, the regulators' focus has been on whether a company can show the ability to pay back half their debt from free cash flow in five to seven years. In the years following the LLG's release, the banks have endeavored to comply with the LLG and as conformance took hold, the loan market saw banks retreat from deals for which there was market demand, but which would not pass regulatory muster. This bank retrenchment has created opportunities for unregulated lenders and direct lenders have been writing bigger checks and playing in the large cap space. The LLG has certainly changed bank behavior in the U.S. and we will see if those changes are observed in Europe now that the European Central Bank has published final guidance on leveraged lending transactions. The timing of Europe's step toward increased regulation is in contrast to the shifting regulatory sentiment in Washington, DC.

In March, Senator Pat Toomey asked the Government Accountability Office ("GAO") to determine whether the LLG actually was a "rule" in guidance's clothing subject to Congressional review (and revocation) under the Congressional Review Act ("CRA"). The GAO accepted the request to make a determination and it seems likely the GAO will conclude that the LLG is a "rule" based on the breadth of the definition and precedent. It is more difficult to predict whether then Congress will pass a joint resolution revoking the rule. If it does, and President Trump signs the resolution, not only would the LLG be immediately null and void, but under the terms of the CRA, the banking agencies would be prohibited from proposing rules that are substantially similar to the LLG. Secretary Mnuchin identified the LLG as an area that needed attention in the first installment of his response to Trump's EO. The report expressed concern with the ambiguity of the definitions in the LLG as well as a lack of clarity around penalties for noncompliance. Moreover, the absence of clear compliance rules appears to have resulted in fewer leveraged

loans being made by banks – but not necessarily fewer loans in the system. Instead, leveraged lending migrated to less regulated non-banks, "a dynamic which makes it far less clear that the guidance actually diminished risk to financial stability…" The report recommends, among other things, that the LLG should be re-issued for public comment and refined. In light of that, a third scenario could be that the federal banking agencies, under new leadership, would either reissue the LLG for comment or work with Congress on a compromise that would reduce the burdens of the LLG and possibly give banks more discretion on how they underwrite loans.

What would these scenarios mean practically? The complete nullification of the LLG would likely mean that banks would no longer have to comply with its onerous reporting requirements – a welcome result. What it would mean for bank underwriting of leveraged loans is not as clear. While the LLG is a roadmap designed to constrain bank behavior in underwriting loans, the federal agencies would still be mandated to ensure the safety and soundness of banks; the agencies' bank examinations under the Shared National Credit program could be expected to continue to reflect that mandate even without the LLG. Therefore, the shift in tone at the agencies once the remaining appointments have been made may prove to be the bigger source of relief, especially if Congress does not act.

Risk Retention

Section 941 of the Dodd-Frank Act mandates "risk retention" for sponsors who initiate securitizations. Specifically, Section 941 required the adoption of regulations requiring the "securitizer" of an asset-backed security to retain at least 5% of the credit risk of the assets collateralizing the securitization. The final risk retention rule provides that a sponsor or a majority-owned affiliate of the sponsor must retain an economic interest in the credit risk of the securitized assets in one of (i) a vertical slice in each class of interests issued equal to 5% of each tranche issued by the securitization, (ii) a horizontal first loss interest equal to 5% of the fair value of the interests in the securitization or (iii) a combination of vertical and horizontal interests. In the CLO context, the rule requires CLO mangers to retain risk despite many comments from market participants that risk retention should not apply to CLO managers because (x) they do originate the assets that are sold to securitizations and (y) requiring retention of 5% of the fair value of a CLO (rather than 5% of the credit risk, as mandated by the statute) was excessive and unduly burdensome. On this point the LSTA has been engaged with the agencies for years, both before and after the final risk retention rule was published, and these efforts continue today. While the final rule only became effective in December 2016, the CLO market had already reacted because investors were reluctant to invest with managers who could not demonstrate that they could comply with the future rule. Issuance in 2015 and 2016, once the final rule was released, dropped dramatically from 2014 levels as did the number of managers who were able to issue. Post effective date, CLO formation rebounded in early 2017 after a slow January, but the business model for most CLO managers has fundamentally changed. Indeed, some CLO managers that are either naturally capital rich or have restructured themselves to have access to risk retention capital may affirmatively like risk retention because it provides a competitive advantage. Other managers have found ways to make risk retention work, either by working with a capital rich partner or using vertical financing or both. While this group functions in a post-risk retention world, it is often at great cost, requiring them to pay away a component of their fees to make their deals work. A third group of managers has not yet found a sustainable risk retention solution and have been unable to issue. It is for these second and third groups that the LSTA continues its efforts for risk retention relief for CLO managers.

In connection with the EO, the LSTA submitted a letter to Treasury Secretary Mnuchin suggesting easy fixes for the application of risk retention to CLOs. It is widely believed that the next installment of his report will cover risk retention and hopefully recommend relief. Of course such a recommendation is a welcome step, but Treasury cannot fix this on its own. Instead, the SEC, now under new leadership, would have to be persuaded that the risk retention rule should not be applied to the CLO managers it regulates. With the anticipated change in tone at the SEC, there is a chance, but no guarantee. Simultaneously, the LSTA is pursuing a legislative fix. The LSTA is targeting the CHOICE Act which is working through the House, the Crapo/Brown-led efforts in the Senate or whatever combined financial reform bill carries the day. Finally, in 2014, the LSTA sued the Federal Reserve and SEC on their (mis)application of risk retention to CLOs and their conflation of "fair value" with the statutorily mandated credit risk. Last December, the DC Circuit Court's ruled in favor of the agencies. The final ruling on the LSTA's appeal of that decision will likely emerge in early 2018.

Liquidity Risk Management Rules

The latest regulatory challenge to hit the loan market is the SEC's Liquidity Risk Management Rules. The rules, which were published in final form in October 2016, are designed to address the SEC's growing concerns about trading liquidity. The rules have not yet come into force, but they will affect all open-end funds, including loan mutual funds. Because loans may have longer than standard settlement times, it was feared the final rules would adversely impact loan mutual funds. Fortunately, however, the final rules appear workable for the industry and loans remain permissible investments. While the rules will require written liquidity risk management programs and extensive board responsibilities and reporting requirements (both public and confidential) which are considerable changes, importantly loans are still permissible investments for open-end mutual funds.

In assessing its liquidity risk, a fund must divide its assets into one of four categories: i) Highly Liquid Investments (which can be sold and settled in three business days), ii) Moderately Liquid Investments (which can be sold and settled in four to seven calendar days), iii) Less Liquid Investments (which can be sold in seven calendar days, but settlement may take longer) and iv) Illiquid Investments (which cannot be sold in seven calendar days without significantly changing the asset's value). Institutional loans generally appear to be in the "Less Liquid Investments" category. Once funds have categorized the liquidity of their investments, they need to determine their minimum "Highly Liquid Investments". In general, a fund with a greater amount of "Less Liquid Assets" would, ceteris paribus, likely need a larger Highly Liquid Investment minimum. On the other end of the liquidity spectrum, funds are prohibited from acquiring more than 15% illiquid assets. (This is why it was so important that loans avoid the "Illiquid" classification.)

Although the SEC makes clear that it is wary of loan settlement times and managers and boards should take settlement times into consideration when forming open-end mutual funds, the SEC does recognize that certain risk management tools – like lines of credit and expedited settlement arrangements – are legitimate liquidity risk management tools. This is particularly significant for loan mutual funds, because while loan mutual fund AUM has undergone substantial swings due to fund flows, funds have never missed redemptions. As the LSTA's research and comment letter to the SEC reported, this is due to funds' liquidity management procedures, including stress testing, funds holding a median 3.5% in cash plus 6.1% in T+3 securities, as well as having substantial lines of credit to bridge any gap between the sale and settlement of loans.

These rules generally take effect on December 1, 2018 for funds with more than $1 billion in net assets and June 1, 2019 for funds with less than $1 billion. At the time of writing, no regulatory reform efforts have been undertaken with respect to these rules. However, we will see if Treasury's report on asset management addresses any aspect of the rules – and whether this would lead to the rules being reopened.

Conclusion

As described above, there are many regulatory headwinds facing the loan market. How much regulatory change market participants can expect, and when, remains the question. Without Trump's political appointments in place it will be very hard to get traction on his regulatory goals in the short term. Over the medium to longer term, however, it is reasonable to expect that there will be very significant changes from the past eight years in financial regulatory posture and tone.

MURRAY DEVINE

Special Pricing Challenges of Lower Quality, Private and Illiquid Securities

By **Jordan Barnett**, CFA
Director at Murray, Devine & Co., Inc.

Introduction

Over the past few years, the private debt markets have grown rapidly driven by reduced participation of traditional banks and increased demand for yield from investors. As a result, the private debt market has seen an influx of alternative finance providers and an increased need for fair value estimates.

FASB ASC Topic 820, Fair Value Measurement and Disclosure, defines fair value 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."

While it has been an exciting time to work with asset managers in a growing market, the valuation of illiquid loans can be challenging due to a lack of transparency. When working with level 3 assets, or securities that have no observable market price info, professional judgement becomes a significant component in the valuation process.

Maintaining accuracy and consistency in the application of valuation assumptions is important when working with large loan portfolios on condensed timeframes. A robust valuation analysis requires proper research and analysis to identify the appropriate facts and reach a supportable conclusion. Adding to the complexity in these limited scope engagements are lack of direct contact with management of portfolio companies, detailed industry studies and various other procedures that might otherwise be performed in a full scope valuation.

The following commentary highlights some of the special challenges Murray Devine encounters as valuation specialists with significant exposure to lower quality, private and illiquid loans. An illiquid security is identified based on the ability to exit the position and typically includes any security which cannot be disposed of promptly in the ordinary course of business without taking a reduced price.

From a high level, our process, as it relates to the valuation of illiquid loans, can be broken into three major buckets:

- **Collecting independent market data**, such active market yields, broker quotes in non-active markets and spreads on newly issued loans;
- **Reviewing client information**, such as investment memos, credit memos and financial statements of the subject companies; and
- **Concluding on loan values** based on the prior two steps.

Issues with market data – Lender Survey

The largest issue in valuing private debt is a lack of transparency in the underlying market. Regular communication with lenders play an important role in the process to incorporate market participant feedback. One way to facilitate this communication is to conduct a lender survey. The goal of the survey is to talk with deal teams about what they are encountering in the current market place.

A few sample questions to consider when discussing the private debt markets include:

- Are you observing an increase or decrease in new deals?
- What is the composition of your loan pipeline?
- Have you noticed material changes in spreads or coupons?
- Have you observed any material changes in deal structures relating to OIDs, upfront fees, leverage ratios and/or covenant levels?

A consistent survey over extended periods will help identify a shift in trends. When changes occur, this identifies areas for further research.

Issues with market data – Yield Matrix

Another approach in dealing with the lack of market transparency is the compilation of a market yield matrix. This will allow for the aggregation of various data sources, improving the consistency of decision making by providing a framework for selecting assumptions. A commonly used matrix plots the relationship between a financial metric (i.e. total leverage ratio or loan-to-value) to an appropriate market yield, a key assumption in a loan valuation.

It is important to build a matrix that is highly supportable by specific independent data sources. Example of relevant data points to consider are yields on newly issued loans segmented by facility type (i.e. 1st lien vs. 2nd lien) or market type (i.e. middle market vs. large corporate or sponsored vs. non-sponsored).

It is important to address any outliers and understand why a specific observation falls outside the matrix parameters. For middle market loans, pricing is highly deal specific. Pricing, or deal terms, can vary depending on the size of the deal and sophistication of the borrower/lender. The following is a sample yield matrix for selection of yields utilized in the valuation of private debt. *(The table displayed below is for discussion purposes only and does not reflect current market data)*

Sample Yield Matrix (For discussion purposes only)

	Credit Metric		Market		
Asset Type	**Leverage**	**LTV**	**Large**	**Middle**	**Small**
1st Lien Term Loan A	2.5x-3.5x	35%-45%	3%-5%	5%-7%	7%-9%
1st Lien Term Loan B	3.5x-4.5x	45%-55%	5%-7%	7%-9%	9%-11%
Unitranche	2.5x-5.5x	35%-55%	7%-9%	9%-11%	11%-13%
2nd Lien Term Loan	4.5x-6.0x	55%-70%	9%-11%	11%-13%	13%-15%
Sub / Mezz	6.0x+	70%+	11%-13%	13%-15%	15%-17%

Issues with market data – Broker Quotes

Another common issue with market data relates to broker quotes for loans that are not actively traded. The challenge relates to reconciling a quoted price to the price derived from a valuation model. If there is a large discrepancy between the two prices, additional questions should be raised to determine the quality and usefulness of the quoted price.

Examples of relevant questions related to broker quotes for illiquid debt include:

- How many brokers are providing a quote?
- What is the range of quoted prices?
- Are the quotes actionable?
- Does the quote incorporate all recent/ relevant info?

MURRAY DEVINE

The answers to these questions should lead an analyst towards an accept/reject decision in deciding when to rely on a broker quoted price as an indication of fair value. If the quoted price is determined unreliable, the valuation report should acknowledge the data point and ensure the reader of the report is aware why it was ultimately not used.

The quality of a broker quote can change over time for a specific loan. Sometimes we value investments that relied on broker quoted price that is no longer available or static for several quarters. In this case, it would be appropriate to change the methodology to a price derived from a valuation model. This can also work in reverse where previously there were no quoted prices available but then the loan becomes active. In this example, the quoted price would take precedent over a calculated price derived from a valuation model.

As highlighted in the example below, the utilization of broker quotes can result in different firms concluding on different values for an identical security. Working with service providers, like Advantage Data, we track cross holdings for securities held at multiple funds. When alerted to the discrepancy in pricing, we discuss with our client to ensure we have all relevant information. In this example, a deeper dive into the data revealed that only one broker was quoting the loan, which was at a depressed price looking to draw a buyer into the market. Based on the information available to us, we did not consider the quoted price reflective of fair value and, therefore, we did not change our conclusion.

Example: Valuation Issues with non-active broker quotes

Subject Company:	Manufacturer
Security Valued	2nd lien term loan Held by various funds
Issue:	Broker quote inconsistent with fair value (DCF) No material change in credit profile to support lower quote Further due diligence indicated quote was not actionable
Impact:	Different funds with different pricing/volatility for identical security

Issues with client info – EBITDA Adjustments

A key input in the valuation of a loan is the calculation of a borrower's EBITDA, which is commonly used as a proxy for earnings available to service debt. In the private debt markets, deals are highly competitive and lenders compete on the ability to tailor credit documents to facilitate transactions. This often results in complex calculations of EBITDA that allow for adjustments for certain expenses used in covenant ratios to test for compliance. The increasing allowance for EBITDA add-backs typically occur in a borrower friendly market.

According to a recent article published by LevFin Insights, EBITDA adjustments, as a percent of total EBITDA, increased during 2017 representing nearly 33% of reported EBITDA through May 2017, compared to 22% for the fourth quarter of 2016.

Several valuation issues come into play when a large portion of EBITDA relates to adjustments. In particular, it raises concerns around the quality of earnings and the favorable impact on financial ratios used to measure credit risk. If available, the valuation analyst should review EBITDA calculations and relevant adjustments.

Questions to ask relating to EBITDA adjustments include:

- What does the borrower's operating income look like on a normalized basis?
- Does the borrower have sufficient liquidity to service fixed charges (i.e. principal and interest payments associated with funded debt)?

EBITDA adjustments are commonly used when the initial transaction involves the combination of two companies. In the example shown below, we were engaged to determine the value of 2nd lien term loan issued to partially fund the merger of two business process-outsourcing companies. The bank model utilized to underwrite the credit included add backs totaling ~25% of EBITDA. The adjustments related to unrealized synergies from the combined company, such as cost savings from overlapping operations expected within 2 years following the merger. When excluding the unrealized synergies the total leverage ratio increased by 1.0x, indicating greater credit risk than the initial underwriting case suggested. As part of our valuation analysis, integration risk was identified as a potential risk with the achievement of synergies tracked against budget in future analyses.

Example: Valuation Issues with EBITDA Add-Backs

Subject Company:	Merger of two business process-outsourcing companies.
Security Valued	2nd lien term loan
Issue:	Adj. EBITDA included unrealized synergies.
Impact:	Leverage ratio impacted by 1.0x when excluding synergies. Integration identified as key credit risk. Monitor realized syngergies compared to plan.

Issues with calculating values – Distressed Debt

Difficulties with the valuation process can arise when the borrower's operations become distressed. In this instance, future cash flows of the portfolio company become highly uncertain, raising concerns about the borrower's ability to meet scheduled debt service payments.

A distressed company can trigger a change in valuation approach. For a typical performing loan, values are usually derived from a discounted cash flows analysis incorporating a risk-adjusted market yield. In a distressed situation, it is common to utilize a liquidation approach with the value of the loan dependent on the sale of the company or liquidation of the underlying assets.

When utilizing a liquidation approach, the valuation needs to consider a waterfall of the liquidation value based on the priority of creditor claims. The analysis should also consider the willingness of equity holders to support the business. In the leveraged loan market, private equity sponsored firms are typical market participants. Sponsors rely heavily on the debt markets to finance portions of their acquisitions. In periods of distress, Sponsors could be called on to support the business through an equity cure or sponsor guarantee of the portfolio's debt. When this happens, the value of the underlying loan can be greater the liquidation value.

Additional due diligence for distressed debt should consider feedback from the lender group leading restructuring talks, review of cash flow estimates from turnaround consultants and possible strategic alternatives. Additional documents to request at this point could include 13-weeks cash flow forecast to monitor liquidity, wind-down / divestiture plans, or internal memos detailing pre-packaged bankruptcy expectations.

As highlighted in the example below, one common issue we typically see with the application of the liquidation approach is a large range of values for the underlying debt. This is particularly true if the subject company has a highly leveraged capital structure, which can result in residual values being highly sensitive to changes in recovery expectations. It is difficult to determine the appropriate width of concluded values for distressed debt. In our experience, the range of values with regard to performing debt investments is typically 1% to 5% depending on time to maturity. For underperforming assets, the range on debt can widen to 5% to 20%. With distressed debt, or equity-like investments, the range can be much larger and dependent on the amount of leverage with a 10% range in enterprise values potentially leading to a 15% to 100% range in value for a security deep in the capital structure.

Continued overleaf

Example: Valuation Issues with Distressed Debt

Subject Company:	Oil & Gas Exploration
Security Valued	First Lien Term Loan
Issue:	Bankruptcy - company to be liquidated. Value based on net assets. Value of debt based on waterall of value and senority of debt.
Impact:	High uncertain outcome. Large range in values due to uncertainty of asset values.

Firm Overview

Murray Devine specializes in valuation and valuations only. Since 1989, we have provided a wide array of valuation services that include financial opinions, financial and tax reporting and entity, or asset, valuations to private equity and venture capital firms, hedge funds, private and public debt funds, banks and corporations. Murray Devine has the professional sophistication required to provide reliable analyses in every situation.

Author Biography
Jordan Barnett, CFA
Director

Jordan Barnett joined Murray Devine in 2007 as an analyst, learning the fundamentals and intricacies of the valuation profession. He is a Director and an active member of the firm's management team where his day-to-day responsibilities are centered on project execution and business development. Jordan serves as lead professional working across a broad range of clients, industries and engagement types conducting financial analysis, research, and due diligence related to the valuation of business enterprises, complex securities, intangible assets, corporate debt and a variety of other valuation needs related to tax planning and financial reporting.

Leveraging his strong credit background, Jordan is a key member of Murray Devine's portfolio valuation practice assisting asset managers, such as BDCs and other private debt/equity funds, comply with valuation requirements under FASB ASC 820, Fair Value Measurements and Disclosures.

Prior to joining Murray Devine, Jordan worked as a Portfolio Manager with Sovereign Bank, managing a loan portfolio focused on the healthcare and education sectors. He was responsible for several aspects of the underwriting process and portfolio maintenance in connection with the financing of various capital projects related to hospitals, health systems, nursing facilities, colleges and private schools.

Jordan received a Bachelor of Arts degree in Economics from the University of Vermont in 2001 and a Master's in Business Administration with a concentration in Finance from Villanova University in 2007. Jordan holds the right to use the Chartered Financial Analyst (CFA) designation.

AdvantageData

AdvantageData

Sourcing and Utilizing Market Data for The Valuation of Middle Market and Illiquid Loans

By **Alex Buzby,** Director Business Development, Advantage Data

In this summary Advantage Data aims to highlight the challenges faced in sourcing and utilizing market data for valuation of illiquid and middle market loans. We will consider the overall methods of aggregating and applying data to loans in this space and how the issues surrounding the lack of readily available information can be overcome.

First, we must understand that the valuation process for illiquid, direct, and middle market securities differs greatly from their liquid counterparts.

Even in markets where established data infrastructure is limited, such as syndicated loans, reliable sources of data that are indicative of a liquid security's value are available through market data vendors and broker quotes. When evaluating illiquid securities like middle market or directly originated loans, the effort of data aggregation becomes much more difficult and is often assumed to be an exercise in futility. We would disagree.

The hunt for data on loans with limited liquidity begins in the same place as their liquid counterparts - searching for recent trades or broker quotes. Initial sourcing efforts, however, need to go beyond tapping bulge bracket trading desks for individual prices to include desks focused on middle market or illiquid securities and databasing all runs daily. Trading desk quotes are valuable secondary observations on the specific security being evaluated but also, as we will see later, are integral in the creation of benchmarks and indices used in evaluating other securities as well. For this reason, we aggregate all trader runs rather than polling desks for individual quotes. Don't pull an individual needle out of a haystack of valuable data points. Grab the whole stack and use it later.

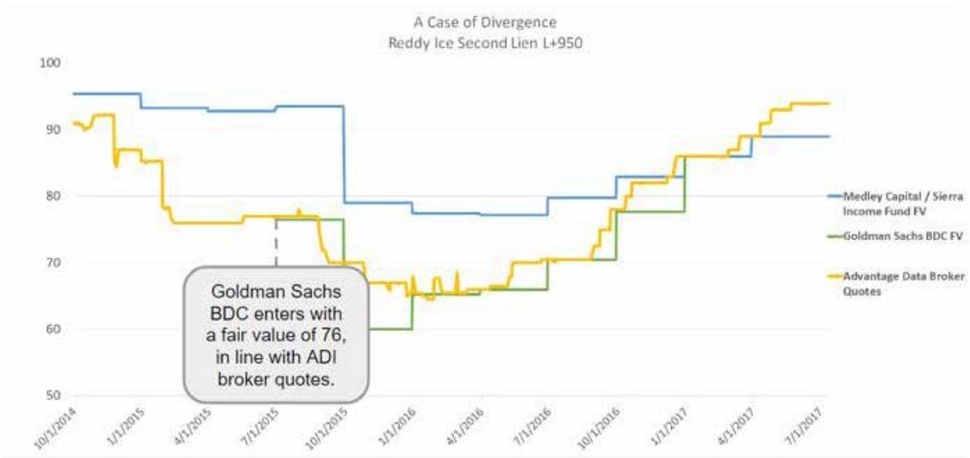
Trade and origination data can also be difficult to find as this information is not public however this data can often be extrapolated from public filings such as BDC quarterly releases. By databasing BDC investment history and back-testing previous quarters, ADI identifies newly entered positions and can back out primary or secondary market activity for a given security. To put it simply, when a new position is identified we have either a newly originated loan or an entry on the secondary market to use as a data point.

Most of these filings are released weeks after their valuation date, so why is this helpful in the valuation process?

When evaluating these securities with limited to no liquidity, there often arises a disconnect between a broker quote and an appropriate fair valuation. This is caused by skepticism on whether these quotes are in fact actionable and indicative of fair value. Similarly, when a loan originated directly or by a small club of lenders meets the secondary market it is often the result of stress for either the holder or issuer which may cause the quote to not be truly indicative of fair market value. Adding historical fair valuations from multiple parties gives us contextual data in the form of primary and secondary market activity to either bolster or discredit the broker quote in question.

An example of this can be seen by comparing BDC valuations and broker quotes on the Reddy Ice Second Lien L+950.

Pictured below is a time series of BDC fair value marks and aggregation of broker quotes from Advantage Data on a Reddy Ice Second Lien Note. Given the limited liquidity in this name, an evaluator will have a degree of skepticism when looking at any individual broker quote and will need to validate the prices received from these desks. When compared to Medley and Sierra (blue) there is a widening gap from origination through 2015. In Q2 2015 this loan appears in Goldman Sachs BDC (green) public filing for the first time marked at 76. We infer that this is a purchase on the secondary market and thus validates our broker quotes as actionable. Leveraging the full history of broker quotes allows us to corroborate the current desk marks in ways we couldn't before by simply polling desks for single prices on the valuation date. The incorporation of the Goldman Sachs BDC entry solidifies the desk quotes in the 70's and gives color to the valuation process.



What if there is no secondary market activity and broker quotes are non-existent?

The approach then shifts to harnessing the primary and secondary market data we've gathered to provide specialized model inputs tailored based on asset type, industry, and other characteristics of the security.

All the aforementioned middle market new issuance and broker quote data can be brought together to form specialized indices, benchmarks, and other inputs only using data of like securities. This is where the focus on middle market data aggregation proves most beneficial. The broader the initial data set, the more specialized the benchmarks and matrices can be while maintaining an adequate sample size.

Below is an example of how a broad data set of middle market loans can be adapted to produce granular benchmarks on opaque niches of the market. Despite apparently sparse information, benchmarks can be made of private loans in the lower middle market using this aggregation method. Data that is generally unattainable outside of in-house databases such as leverage multiples is now available, even for unitranche.

Lower Middle Market Loans

			Leverage						Yield	
		Dealflow (# of deals)	Average	Range	Tenor	Floor	LIBOR Spread	OID	Average	Range
First Lien	Last 30 Days	30	4.3x	1.0 - 8.5x	4.4	1.10%	535	99.5	6.61%	2.25 - 15%
	Last 90 Days	85	4.2x	1.0 - 8.5x	4.3	1.05%	525	99.2	6.65%	2.25 - 15%
	Last 6 Months	165	4.2x	1.0 - 8.5x	4.3	1.00%	575	98.5	7.23%	2.25 - 15%
	Last 12 Months	300	4.0x	1.0 - 8.5x	4.1	0.98%	600	98.2	7.35%	2.25 - 15%
			Leverage						Yield	
		Dealflow (# of deals)	Average	Range	Tenor	Floor	LIBOR Spread	OID	Average	Range
Unitranche	Last 30 Days	15	4.8x	1.0 - 8.5x	5.4	1.10%	735	100.0	8.50%	5.5 - 17%
	Last 90 Days	25	4.6x	1.0 - 8.5x	5.3	1.03%	725	99.5	8.55%	5.5 - 17%
	Last 6 Months	60	4.6x	1.0 - 8.5x	5.3	1.00%	775	98.5	8.90%	5.5 - 17%
	Last 12 Months	95	4.5x	1.0 - 8.5x	5.1	0.95%	800	98.0	8.95%	5.5 - 17%
			Leverage						Yield	
		Dealflow (# of deals)	Average	Range	Tenor	Floor	LIBOR Spread	OID	Average	Range
Second Lien	Last 30 Days	10	4.7x	1.0 - 8.5x	5.1	1.10%	750	99.0	8.93%	5.5 - 16%
	Last 90 Days	20	4.6x	1.0 - 8.5x	5.1	1.04%	745	98.8	8.89%	5.5 - 16%
	Last 6 Months	50	4.5x	1.0 - 8.5x	5.0	1.00%	780	98.5	8.90%	5.5 - 16%
	Last 12 Months	85	4.5x	1.0 - 8.5x	4.9	0.97%	810	98.0	8.95%	5.5 - 16%

Source: **Advantage**Data Middle Market Loan Database

Why make these benchmarks out of difficult data sets instead of using the lower end of the liquid market? When comparing these specialized benchmarks to broader market indicators that include large cap, liquid loans it becomes obvious that they do not necessarily move in parallel (and sometimes not even directionally) with the illiquid and middle market loan indicators.

Similarly, dislocation from broader market trend is a cornerstone of the pitch for the direct lending asset class, so shouldn't it also be a part of the valuation process of those supposedly uncorrelated securities?

To put this claim in perspective, we'll compare yields of liquid syndicated loans and middle market loans over the last year. The credit market as a whole has transformed in the last twelve months to an environment dominated by yield/spread compression. These broad trends, however, do not apply to all markets and all credits equally. According to Advantage Data's syndicated and middle market analytics engine that tracks 7,500+ loans, the decreases in yield seen in syndicated and middle market loans were not parallel. This is most apparent when comparing the yield premium of syndicated and middle market loans today to one-year prior.

AdvantageData

One year ago, the difference in average yield between Baa2 syndicated loans and Baa2-rated middle market loans was 82bps. That gap has narrowed to only a 15bps premium today. In this case we've seen more compression in middle market loans than syndicated loans of the same rating. On the other end of the ratings spectrum, we can see an increase in the premium between middle market and syndicated loans over the last year in the Caa2 rating category. The difference between the yield of a middle market and syndicated loan increased from 142bps to 193bps over that same period.

This data illustrates that while a broad sweeping trend such as spread compression certainly impacts both syndicated and middle market loans however these forces do not always result in parallel movement.

Large liquid loans and smaller illiquid credits react at different rates with varying magnitude. When using indices and benchmarks from internal databases or external market data sources, it is crucial to not let uncorrelated market movement bleed into valuation models. To put it simply, lower-rated liquid loan data is not a suitable substitute for sparse illiquid inputs.

Spread Between MM and Syndicated Loan Yields

Rating	Current	1 Year Ago
Baa2	15 ↓	82
Ba2	150 ↓	186
B3	159 ↓	191
Caa2	193 ↑	142

REAL ESTATE

MODERATOR

Ben Elder, FRICS - Global Director of Valuation, RICS

Ben is responsible for delivery of the RICS Global Valuation Strategy which has a key role to play in securing global financial stability through participation by the RICS in the development and application of International Valuation Standards. Ben is well qualified for this role as an Economist and a Chartered Surveyor and he has a particular interest is the interface of the economy and property markets.

Ben's has been a practising valuer and respected academic holding senior positions at Nottingham Trent University and The College of Estate Management. Ben joined the RICS as Global Director of Valuation in 2011 having served on various RICS Boards including International Governing Council as an elected World Representative.

In recognition of Ben's expertise in 2016 he was selected to Chair the IVSC Tangible Assets Standards Board and be a member of the overarching IVSC Standards Board. This appointment follows influential periods as a member of the Global Advisory Forum for The Appraisal Foundation in the USA as well as the Advisory Forum Executive to the International Valuation Standards Council.

David Eidman - Senior Manager, Empire Valuation Consultants

David is a Senior Manager of Empire Valuation Consultants, where he has worked since 2005.

He has over 15 years of experience and has been involved in the valuations of a variety of debt and fixed income securities, real estate, derivative instruments, intangible assets, equity interests, and bankruptcy and trade claims across a variety of industries and global locations for diverse purposes. He has worked with many major private equity firms, hedge funds, publicly traded companies, and closely held companies.

David has experience in valuations for a variety of purposes including hedge fund and private equity reporting, financial and Securities and Exchange Commission (SEC) reporting including ASC 718 Accounting for Stock Based Compensation, ASC 805 Accounting for Business Combinations, ASC 350-20 Goodwill and Other Intangible Assets, ASC 360 Accounting for the Impairment or Disposal of Long-Lived Assets, and ASC 820 Fair Value Measurements, litigation, estate and gift tax reporting, matrimonial matters, employee stock ownership plan (ESOP) formation and administration, stock option granting (IRC 409A), lending, and other corporate planning purposes.

Prior to joining Empire Valuation Consultants, David worked in the retail and commercial segments of the banking industry through his employment with Lyons National Bank. Here he served in numerous and varying capacities, most recently as a Commercial Credit Analyst & Bank Officer, where he was responsible for underwriting, analyzing, and evaluating the creditworthiness of companies from a broad range of service, manufacturing, and agricultural industries.

Mark Godfrey, Senior Managing Director, Valuation & Advisory Services, CBRE

Mark Godfrey is the Senior Managing Director of the Valuation & Advisory Services Group's Tri-State/NYC valuation practice. He has over 20 years of real estate appraisal, consulting experience and portfolio management throughout the United States. His primary geographical focus is New York City and the surrounding suburban markets.

Mr. Godfrey has extensive experience providing real estate appraisals, portfolio management, consultations, reviews, arbitration and litigation support. His clients include financial institutions, government entities, private and corporate property owners, developers and attorneys. His appraisal experience encompasses a wide variety of property types including office buildings, retail condominiums, regional malls, shopping centers, apartment buildings, condominium complexes, mixed use development projects, educational institutions and industrial facilities. He has extensive experience with multifamily residential developments and office studies, as well as portfolio and multi-property assignments.

Mr. Godfrey is a Designated Member of the Appraisal Institute (MAI), a Member of the Royal Institute of Chartered Surveyors (MRICS) and is a Certified General Appraiser in New York and Connecticut. He manages a team of professionals that focus on New York, New Jersey and Connecticut. He was consistently recognized as a top national producer within CBRE throughout his career and was named as regional Valuation Professional of the Year on multiple occasions

Keenan Vyas, Director, Duff & Phelps

Keenan Vyas is a Director in the London office of Duff and Phelps where he leads the Real Estate Advisory Group in the UK. Keenan has over 10 years of experience valuing and advising across all real estate asset classes for a variety of clients including private equity firms, hedge funds, pension funds, developers, and real estate investment trusts throughout North America, the UK, and Europe. His work includes valuation and consulting for financial reporting purposes under both local GAAP and IFRS, transaction opinions, and investment property portfolio tracking for assurance testing. Keenan also has experience advising on issues surrounding site selection and market value determination for re-alignment and closure of property holdings.

Keenan holds a Bachelor of Science in International Relations with an emphasis on Global Financial Markets and Economics from the University of California, Davis.

He is a Practicing Affiliate of the Appraisal Institute, an Associate of the Urban Land Institute, a member of the Commercial Real Estate Development Association, and an Associate Certified Commercial Investment Member.

PANEL SESSION:
REAL ESTATE VALUATIONS

Ben Elder (BE) - The World Bank estimates that between 60 and 75% of any nations wealth is held in its land and real estate. We've got a really important job in putting values to those assets so that other people can make better business decisions. The better the information that we can provide to decision-makers the better those assets can be used in the rounds.

The first question I would like to look at is how professionalism is maintained in such a competitive real estate market. The standards around real estate valuation are well established and we operate within those bounds - probably more so than some of the other asset classes. We are probably the only independent party in many of the transactions that occur. How do we maintain this professionalism and this independence?

> ***The World Bank estimates that between 60 and 75% of any nations wealth is held in its land and real estate. We've got a really important job in putting values to those assets so that other people can make better business decisions.*** Ben Elder, RICS

Mark Godfrey (MG) - I think it starts with having the right qualified people who have either the RICS standards behind them, a member the Appraisal Institute or state licensed professionals who by their certifications require them to be independent. You've got a whole level of ethics that they're following away from the transaction separating them from someone who's incentivized in the transaction and where they can give their honest opinion.

BE - It's that independence in a way but then if that transaction party is paying the fees how's that maintained?

MG - You must have a firm that stands behind you and really knows the markets that you're in like the larger firms where there's a diverse number of employees that are specialized in each one of these markets. I can have my opinion as a valuer but I can also go to our network of brokers and support all of our conclusions with individual data points, assumptions, pieces that make sense. It's not just some asset manager who's arguing with us that it must be higher or an acquisitions person must be higher, we've got the support that lets us really defend our conclusions.

David Eidman (DE) - When we're marking on subsequent periods after the origination or the initial deal funding, the process can maintain a lot of independence nut that doesn't mean that it isn't collaborative. The investment managers themselves, the GPs, the portfolio managers can often provide a lot of great insights on the position itself that they may or may not necessarily document through the process or looked at the appropriate or relevant market benchmarks filled with support depositions. That's when we can bring value to that process.

Keenan Vyas (KV): I would say within the industry itself not being afraid to collaborate amongst what we would say are typical competitors. Obviously in the valuation space you want the work from the clients, you don't ever want to give jobs away, but you should demonstrate to your client that you're not afraid to work with firms who are effectively your competitors in the market to try and get it right. Not being afraid to share information and work together when you need to.

MG - Collaborating even it's not just between ourselves but also with the asset managers to understand their vision as well, because there's a lot of assets that are transitional in nature, that are being purchased based on a certain set of assumptions, "We're going to invest X, we're going to change this use from here to there," again, you can't be accurate without give and take from both sides, without understanding the full picture.

BE - Do the standards which already exist in our area like IVS and the Red Book from RICS provide the framework for that co-operation?

MG - I think it does. It provides a very regimented framework the way you must document all your communications, all these points like that really help you maintain your independence and there's guides to go back to if you question what you should do.

DE - Unlike private equity investments, in the real estate sector there's a lot more governance, a lot more guidance as to appropriate methodologies and the applications thereof to the underlying asset itself. There's less guidance available as it relates to how you take that value and might allocate it through a post promoter capital structure that includes a multiple tranche choices of debt and equity perhaps. There is some still disparity in practice however we do have a much greater abundance of guidance that could lead us to methodologies, approaches, assumptions etc.

BE - With the ever-present threat of the court case behind you, does that help maintain the independence of the third-party valuer in these processes. In other words, whose taking risk? Somebody might be paying the fee but who's taking the risk?

DE - Well, as we'll learn later at least in the US the SEC is increasing its focus on valuation, particularly as it relates to the overvaluation of assets. We try to certainly be mindful the regulatory or legal situation in the case, however ultimately the goal when we're doing the mark-to-market work is to find that fair value of which there is a reasonable range in most cases. It does entail a lot of subjectivity and a lot of opinion and a lot of telling the story, but also in the current environment with greater focus on the documentation of those assumptions.

On the real estate side, there's a lot of guidance on how we document that and what information was set forth which is extremely helpful. However, if there is a threat of a lawsuit that may impact some of the motivations behind the documentation, perhaps.

KV - I think after 2008, there were spats of lawsuits for property firms throughout Europe and a lot of firms learned the very hard way, maybe they don't exist anymore of were gobbled up by other companies. Going forward, I think there's a lot of care now. It's not a situation anybody ever wants to be in again.

BE - Yes, absolutely. The structure of the standards are principles, they're not rules-based because as soon as you produce rules then the market shifts and you can find that the rules are hindering the market.

KV - In my experience, it's not even necessarily that the value was wrong. Let's to be honest, especially in real estate these can be subjective since it can be a very emotional asset class. What we need to be able to say - I think we'd all agree on – is did the procedures and methodologies that we use make sense? Was it clearly outlined, "This is what we did."? Or was there something that was skipped that was crucial to the overall conclusion? The numbers, you can always argue could it be plus or minus 10% since it is an estimate, but if we can't demonstrate that proper care and procedures were followed that's where people get in trouble.

Continued overleaf

PANEL SESSION: **PRIVATE DEBT VALUATIONS (CONTINUED)**

MG - The key is following the steps to come up with the appropriate value and documenting what you did. There's no number that's bulletproof but you just do your job, you go through the right procedures and you can question a little bit of judgment but you're not doing anything wrong.

> ***The key is following the steps to come up with the appropriate value and documenting what you did.*** Mark Godfrey, CBRE

DE - The documentation can become the key in all this process. We have many money managers who we work with who have very reasonable reliable indications of value that would be defendable. However, what they're failing to do is document why their cap rates are reasonable, what market benchmarks or third-party evidence they see that is consistent with some of the market participants and very well supported.

There's plenty of evidence out there and we can observe cap rates and yields in the marketplace to a certain extent. We can find price per square foot. Sometimes for alternative investment managers they're utilizing those assumptions but they're not documenting it. They're not proving that they've looked at these market benchmarks and that's where external service providers can provide additional support.

BE - It is not being scared to put an uncertainty assessment into the process, isn't it? You're making those judgments but articulating how certain those numbers are. Just for example, following Brexit, suddenly we moved from a known area to an unknown area. The comparable evidence was before the event and all transactions stopped on the next day - just when all the big funds moved to weekly valuations.

As a valuer how do you deal with that uncertainty process?

KV - After Brexit, we saw many things being done that didn't make any sense to me. The referendum was the 23rd of June and a lot of funds had to report 30th of June numbers. RICS came up with a pretty good statement saying just to wait and see, let transactions transpire.

Talking to other valuation firms, we saw people taking five percent premiums to five percent haircuts and everything in between. It was kind of a mess.

Now we're sitting here in February 2017 and a lot of people feel quite foolish about those initial overreactions. They jumped to conclusions and started really playing with numbers. Unless you can actually prove that that five percent haircut makes sense I'd be really hesitant to just start doing things like that. I think the uncertainty in the market can cause an overreaction and people might do things that seem foolish in hindsight.

BE - My next question is whether valuers provide the right information to clients. One of the key areas both in the IVS in the RICS standards, is understanding your clients purpose for the valuation. Unless we can understand the purpose then we can't provide the right information. Do you find it a challenge in establishing the purpose of the valuation in more complex funds?

MG - From our perspective, whenever we set up a contract with the client we're always defining the intended use and the intended user. We're able to work through ahead of time how this is intended to be used. Now that doesn't always mean that as we go down the path, these circumstances change and a whole new set of intended use and users are needed. We adapt and identify those - when we can, we service that need and when we can't we say, "I'm sorry, you'll have to go to another party to satisfy that."

I think it's just communication and engagement process that really lets you make sure you can take care of your clients.

DE - Certainly, appraisal standards require us to identify what we're valuing and who the intended users are. There's no question about that. When it comes to mark-to-market accounting, identifying the proper unit of account also becomes paramount. Are we marking at the underlying asset level or are we marking a particular equity position within that capital stack of a JV or SPV that owns a particular interest in the real estate asset. How you define the scope of the engagement can often define the account as well as the likely exit market.

KV: I completely agree. That's one thing about the real estate industry - we have been doing this for a very long time. If you don't understand the unit of account you're not going to get anywhere. That's something that some people could miss quite easily but again it's usually quite defined.

BE - Do you think we are providing the information which our clients really need? Are we too keen on giving a number which is market value or fair value or an equitable value? Do you think clients might be looking for that extra amount of information from advisory service point of view?

DE - I think in terms of some of the clients that I've had exposure to, what we've seen on the course of the last 10 years is improvement of the process. They will leverage some of the information that we provide to them and incorporate that into the valuation of some of their other positions and improve their documentation on some of the positions where they're not using external valuation.

KV - Not just on the asset pricing side of things too. I was here for a client December, and one question they asked me is where do we rank in terms of our internal procedures and processes on the scale of one to 10 compared to the other funds we work with. I was quite honest and told them "You guys rank three or four."

The fact that we know what other funds are doing sets the best practice since we can advise on what they need to do to get better, and to be able to be more competitive. I think that certainly is a value add.

> ***The fact that we know what other funds are doing sets the best practice since we can advise on what they need to do to get better, and to be able to be more competitive. I think that certainly is a value add.*** Keenan Vyas, Duff & Phelps

DE - We see many funds allocating more resources towards the valuation process under regulatory scrutiny and due to LP encouragement, it's been great to see, whether those resources are in-house, through maybe more personnel dedicated to the valuation process or through use of multiple external valuation providers. It's been a nice trend to see in the industry.

MG - We're seeing more participation, even if we're not providing full reports. More requests coming back to us for support of their internal opinions with data points, or trends. We're not giving an opinion but we're helping them form their own opinion and document this.

Continued overleaf

PANEL SESSION: **PRIVATE DEBT VALUATIONS (CONTINUED)**

BE - That leads me to my next question about the challenge of creating appropriate internal mechanisms and where we need the external touch points to bring validity to the process. That is the real key, and is what the regulators are looking for.

MG - I think it must start with independence again. It keeps going back to that. You must have someone internally who has enough separation from that asset and enough control over the asset manager that they can accept a free and clear evaluation without pressure.

BE - One would hope that should secure the value in the market place of that fund? I don't think we're there yet.

MG - Right. I think that's there's still some gray area in how they get from the independent number to what they report.

BE - From the real estate side, the reporting process is quite clear in the standards that is acceptable to take client information and adjust your valuation but you must be able to demonstrate why you've made those adjustments. This must be a part of the reporting process.

DE - I think it's trending that we're seeing less money managers using two inputs to determine where their NAV should be! They are putting together more comprehensive analysis that could lead to more dependable, reliable and credible values for their positions.

BE - Moving on to more methodology type questions now. How valuable is the cost of approach valuation? Perhaps looking at international funds where this approach is still the predominant method in a particular country. Do you find that a challenge?

DE - If we see a fund holding at cost over an extended period, that's clearly a red flag. However, generally speaking, if the cost basis was founded in a third party negotiated transaction that recently occurred and there has been no material events, certainly cost kind of be a reliable indicator value.

However, we encourage the use of at least one corroborative methodology such as the income approach or the market approach to provide some added substantiation.

KV - Yes. I completely agree. We never want to see somebody say we're holding this investment at cost. That's not to say that fair value might not be approximate to the cost. But we'd like to see whether there's some diligence around that, how do you get to comparables, how do you look at the market transactions.

MG - Yes, cost can be spot on and cost can be wrong!

DE - Another question at least over the past few years when asset values have been appreciating is when do you recognize the gain? Certainly, there's a debate whether you defer the gain and recognize the loss or whether that doesn't necessarily conform to fair value standards. Obviously when you're working in a fair value world, you need a fair value.

BE - My next question is around DCF and some of the implications that occur at the current time particularly in a world of negative interest rates. I guess you guys are going to say it's one of the methods which we adopt and depends on the asset?

DE - Certainly, it's a preferred approach. In many cases I am looking at DCF often becomes the reliable or the most credible indicator of value.

Also, there's consistency in methodology, consistency in approach and consistency of disclosure in terms of level three fair value inputs.

KV - For most investors and properties it would be the preferred method. Obviously it can be the crystal ball exercise, if you're trying to predict what rates and inflation will be over a 10 year holding period, but if you can always take it back and try to just keep in mind what the investment is. Try to mimic to the best of your ability what the actual business plan and asset management plan is with that investment. Then you've done 90% of your job already.

MG - Yes, I agree the DCF is what we use for anything aside from multifamily probably. It's unique in that it lets you address each individual circumstance. You can address a certain tenants' likelihood of rollover, you can address how you think rents are going to change in a certain year, how taxes are going to change, etc.

DE - When you're striking an NAV in equity position in a highly leverage commercial real estate asset and you're using a current cap rate, a change in that rate by 50 basis points can literally have a 50 or 100% swing. Is that extreme level of volatility appropriate or not? Maybe, it's hard to tell without looking at the facts and circumstances specific to the valuation. However, with the DCF perhaps you can negate some of that noise if it's appropriate and consistent in fair value of course.

BE - Again, it's one of those judgment calls that we must make. The methodology of DCF allows you to articulate that point clearly. It's what helps that process, is that a fair summary?

DE - Yes, if the inputs are again supported using market-based evidence. An asset managers plan to reposition a property certainly can be one indication of the right set of cash flows to use. However, to the extent that there is a disconnect between how other part market participants or other developers or other asset managers may look at that type of position, those need to be documented, reconciled and explained.

KV - It's okay to have sensitivities as well. One thing that we do a lot of is we try to sensitize the analysis as much as possible in a what if scenario.

BE - We have talked about documentation and transparency and what we are all saying is that it is essential that another qualified valuer can pick up your file and follow your thought process through to how you've got to your conclusions.

DE - Yes, it's hard to imagine SEC coming in and questioning whether six and a half percent is the right cap rate! What they're looking for is, do you have an investment policy in place, are you following that policy. Are you adequately documented and are you not simply ignoring market indications of value that may disconnect from your NAV or from your estimate of fair value?

BE - There are lots of good valuers out there, but sometimes we don't record our thought process because it is integral to what we do. Do you find that perhaps a challenge with some of the new recruits?

MG - Yes, absolutely. We're constantly bringing up new people within the industry. We have just such a large network of appraisers, we need to have new blood all the time and getting them to document everything - every contact that dictates an assumption or where you're given any kind of guidance from someone - you just have to have that record-keeping role. It very defined here in the US what you need to keep track of and educating our staff as to what's necessary and how to do that properly and efficiently is important.

Continued overleaf

PANEL SESSION: **PRIVATE DEBT VALUATIONS (CONTINUED)**

BE - Do you think that's the same for some of the smaller firms?

MG - I'd like to think it is. There's always going to be flaws somewhere. As a valuer, you know so much about what's going on in the market you might not always make that notation in terms of your thought process. Not having a reference if you're audited is a problem. You need to keep that log.

DE - Documenting it and explaining the why. That's a weakness that we've seen in a lot of places. The story may very well be there but it isn't very well documented.

> ***Documenting it and explaining the why. That's a weakness that we've seen in a lot of places. The story may very well be there but it isn't very well documented.*** David Eidman, Empire Valuation Consultants

KV - I'd say, based on my work experience both in the US and in Europe it depends on the geography as well. The US is pretty advanced from a regulatory standpoint in the real estate valuation space. You've got use path which obviously provides all the guidelines of how these reports is supposed to be written but also you've got the state certification process for appraisers and signing reports. That's not necessarily mimicked elsewhere in the world, believe it or not. Germany is quite far ahead and UK's is probably more comparable as well but there are some markets where it just seems like there is a huge lack of that kind of standard.

BE - What do you folks think is going to happen to the regulatory space around real estate valuation? Do you see things changing?

KV - Well, speaking from a European I'm getting a lot of questions from clients about independence and objectivity. Interesting questions about the role the valuing firm and if they're involved in other aspects for the client. If you're providing evaluations for a client but if you're also involved in the brokerage, maybe asset management, maybe the leasing, whatever, is there an inherent conflict of interest and then risk with that. There's not really a regulatory requirement to have those tasks separated between different firms. That is a question I'm getting asked quite a bit recently. Is does that raise objectivity in independence issues.

MG - As CBRE we run into that all the time. We are investment brokers, debt brokers, appraisers, leasing, property manager - we cover all aspects of real estate services. To separate ourselves, we really have to decide whether this is a situation that we can truly do it in or whether we're going to have some sort bias and as a firm – even if it is unintended. We have a lot of internal controls and a lot of looking down from above to make sure we're handling that properly.

A lot of that's dictated by our clients as well, there's lending institutions that if we're on any side of the deal besides the appraisal side we can't participate. There's clients that are happy or involved in the sale when they're hiring us to hopefully get the deal done. We take those situations on based on whether we think we can be independent or not.

DE - In the US for registered investment advisers, we know the SEC is out there collecting data processes and procedures as it relates to fair value estimates and the striking of the NAVs and we anticipated that there is going to be more regulatory, scrutiny and hurdles and, you know, where that process will take us it's hard to tell just there's obviously been some more high-profile cases in the news over the last few years as it relates to establishing for a value. We'll learn more about that shortly but we don't see that phenomenon going away whether it's on a commercial real estate position or on a private equity position or otherwise at any time soon.

BE - Thank you gentlemen. To sum up about the regulatory framework, we've heard about the CEIV credential and RICS have been involved in creating that process which we think it will be international. It is focused on the US at the moment but with the number of US firms operating elsewhere, we see it as a global requirement. We also think the mandatory performance framework (MPR) which is part of that process will affect all valuation.

MPR is focused on this particular area of financial reporting but I can see the first court case with a bright barrister on the other side on a tax case or some other mortgage case or securitization process turning around and saying, if you'd apply the MPR, would your number have been different? If you say, yes, then you won't have acted professionally and if you say, no, you're going to have to explain why. I think it's going to have a really big impact across the valuation sector world.

RICS Red Book 2017 – A Risk Management Framework for all Asset Valuation Work

By **Ben Elder**, BA BSc FRICS ACIArb
Global Director of Valuation, RICS

July 1st 2017 was the implementation date for the RICS Valuation – Global Standards 2017 (commonly referred to as the RICS Red Book). Since the first edition ion 1976 the The Royal Institution of Chartered Surveyors (RICS) Red Book has developed from a UK centric set of valuation Standards for the Real Estate industry into a truly Global product that incorporates the International Valuation Standards (IVS's) set by the International Valuation Standards Council (IVSC) and reaches across all asset classes that require a valuation function.

To some the breadth of valuation work now undertaken by RICS members comes as a surprise. Traditional RICS members focused on the valuation of Real Estate (Commercial and Residential) and of Machinery and Business Assets (Plant and machinery), but over the life of the Red Book this has evolved into Valuation work being carried out in relation to a wide range of assets and a wide range of purposes. The 2017 Global Red Book has sections that cover the:

- **Valuation for inclusion in financial statements**
- **Valuation of interests in real property and other tangible assets for secured lending**
- **Valuation of businesses and business interests**
- **Valuation of intangible assets**
- **Valuation of individual trade related properties**
- **Valuation of plant and equipment**
- **Valuation of personal property, including arts and antiques**
- **Valuation of real property: Matters evident**

Consistency, objectivity and transparency are fundamental to building and sustaining public confidence and trust in valuation. In turn their achievement depends crucially on possessing and deploying the appropriate skills, knowledge, experience and ethical behaviour, both to form sound judgements and report opinions of value clearly and unambiguously to clients and other valuation users.

The globally recognised high level valuation principles and definitions are now embodied in the IVS's and RICS has long been a supporter of the development of such universal standards, and not only fully embrace them itself, but also proactively support their adoption by others around the world.

But acceptance alone is not enough, effective implementation is the key. If confidence and public trust in the valuation process is to be achieved, standards must not only be uniformly interpreted and consistently applied but also actively monitored and enforced.

That is the rational that underpins the RICS Red Book. The Red book formally recognises and adopts the IVS by requiring all RICS members to follow them by providing a framework to be followed. This approach is reinforced by RICS professional standards regarding ethics, skills and conduct; and is assured by well-established systems of regulation where the work of RICS members is pro-actively inspected for compliance through Valuer Registration. Valuer Registration requires RICS members who are carrying out any written valuation work to register with RICS on an annual basis what types of valuation work they have undertaken and where that work has been undertaken. All RICS Registered Valuers are subject to their work being inspected by the RICS Regulation. RICS is an independent arm of RICS that employs full time members of staff to undertake the inspection work. Sanctions for valuation work that falls below the standards required include potential disciplinary action that can lead to fines or membership expulsion.

The aim is simply stated, it is to engender confidence in, and to provide assurance to, clients and recognised users alike, that a valuation provided by a RICS qualified valuer anywhere in the world will be undertaken to the highest professional standards and be compliant with the IVS's.

Ben Elder, BA BSc FRICS ACIArb
Global Director of Valuation, RICS

Ben is responsible for delivery of the RICS Global Valuation Strategy which has a key role to play in securing global financial stability through participation by the RICS in the development and application of International Valuation Standards. Ben is well qualified for this role as an Economist and a Chartered Surveyor and he has a particular interest is the interface of the economy and property markets.

Ben's has been a practising valuer and respected academic holding senior positions at Nottingham Trent University and The College of Estate Management. Ben joined the RICS as Global Director of Valuation in 2011 having served on various RICS Boards including International Governing Council as an elected World Representative.

In recognition of Ben's expertise in 2016 he was selected to Chair the IVSC Tangible Assets Standards Board and be a member of the overarching IVSC Standards Board. This appointment follows influential periods as a member of the Global Advisory Forum for The Appraisal Foundation in the USA as well as the Advisory Forum Executive to the International Valuation Standards Council.

ALTARETURN

Back Office challenges for Real Estate Fund CFO

By **Robert Shaw**, Manager – Head Of Real Estate Consulting, AltaReturn

A number of current trends in private equity real estate are creating both opportunities and challenges for real estate fund managers. Powerful shifts in regulation, investor attitudes and deal opportunities are bifurcating the industry into those managers that will be able to capitalize on these dynamics and those that will fall behind. While most attention is usually given to the fundraising and investment landscape, it is the back office that could ultimately provide the path to growth. GPs still bogged down by manual, spreadsheet-driven accounting and reporting processes expose themselves to undue risk, poor scalability, lost opportunity and security threats. The best investment teams, back office, and IR personnel in the world can easily find themselves playing catch up without having the proper operational foundation from which to work.

Complex Fund Structures

- Provide scalable infrastructure to support firm growth - new funds, JVs, co-investments
- Increase efficiency among teams with shared data
- Support better decisions with accurate and timely data

Transparency for LPs

- Facilitate operational due diligence
- Reduce reporting errors
- Respond more quickly to LP's questions

Regulatory Reporting

- Facilitate reporting across complex fund structures
- Implement controls and processes to address regulators' requirements
- Create audit trails to facilitate SEC exams

Security Threats

- Control the flow of data outside the organization
- Address investor concerns around cyber-pre paredness
- Reduce reliance on unsecure email

1. The world of fund accounting and reporting is growing exponentially more complicated

Real estate funds today look very different from those of just a few years ago. Driven by an increased interest from international investors along with the demand by LPs for more co-investment opportunities, GPs are facing more complexity in their overall fund structures. A more diverse client base, coupled with the investor community's desire for greater direct investment opportunities, the need for more blockers, JVs and other entities has created significantly more layers to the fund model. In addition, as GPs survey investor attitudes about the real estate landscape, they naturally look to bring new funds and strategies on board to capture allocations, adding to the expanding operating complexity. It's probably no surprise, then, why, in a recent survey, over half of real estate managers expressed improvement to their systems as a top priority.[1] For fund managers facing growing complexity in their back office model, two themes have emerged: the need for more automation, and better tools for information extraction.

Many GPs still find themselves in a spreadsheet-driven world. The advantages for using Excel are rooted in its low learning curve, affordability and widespread use. The most attractive feature, though, lies in its flexibility to model an infinite number of scenarios and relationships. This, however, can also be its greatest detriment. As a GP brings in more entities and relationships, the risks in maintaining control and consistency in governing the information grows exponentially. Links break, calculations are hard to keep track of, duplicative data entry occurs and errors inevitably multiply. Maintaining allocations across investing entities, particularly around underlying transactions, can be a vexing problem. Codifying these types of calculations, at various detail and summary levels, can pose significant challenges when using spreadsheets as a fund accounting platform.

Another challenge being faced across many real estate fund managers is the attempt to convert the plethora of data that resides across various applications into high-value information, not only for investor reporting, but internally across the firm. There are numerous cross-department benefits in having immediate and flexible access to such information. Investment teams, compliance, investor relations, finance - all can gain advantages in the decision making process in terms of portfolio analysis, risk management, client reporting and controls. However, it is notoriously difficult to extract meaningful insight from data that lives in variety of spreadsheets and applications. While a GP can turn to the myriad data warehousing and business intelligence (BI) services available, these applications are built for general corporate activity, not for the industry-specific needs of private equity and real estate managers, limiting their usefulness. A more optimal solution often involves incorporating an underlying technology than can provide the intelligence functionality of a BI service that "sits" on top of a single data source. In this scenario, various teams all work with the same information, minimizing redundancy and errors, while streamlining information sharing and decision making.

2. The new age of LP transparency means more detail and quicker turnaround times

It's been well documented that institutional investors are looking for more transparency from their private equity and real estate managers. In fact, when private equity managers were recently surveyed as to the biggest operational trends they are seeing, the highest response, at 76%, was the request from their investors for more transparency.[2] It's easy to assume this trend extends to private equity real estate as well.

As private capital becomes a larger part of investors' portfolios, the information expectations from the asset class are being evaluated much in the same way as their public securities counterparts. Investors are increasingly looking at their portfolios in totality across allocations, exposure and attribution. Risk management is now being extended into the private markets, so that investors can have a holistic view across the entire portfolio of where their exposures lie in terms of geography and sectors. For example, in the summer of 2016 when the UK voted to leave the EU, many publically traded REIT's with UK holdings traded down significantly. Given this new found attention of understanding portfolio-wide risks, no asset class was spared in having to answer

investors on their exposure to the UK market. Direct real estate investments, being a non-liquid asset, limits managers' ability to adjust their portfolios in the same manner as a public REIT, but, nonetheless, investment committees are looking across their entire underlying holdings to better manage risk.

When a GP struggles to turn around investor information requests in a timely manner, it creates fractures in the GP-LP relationship. Perhaps this is why operational due diligence by investors is taking a greater role in the manager evaluation process. Institutions are looking for more insight into a potential manager's valuation, risk, operations and reporting processes. Due diligence questionnaires are incorporating more back office-related topics than ever before. More granular information on underlying companies and properties - tenant data, debt levels, operating metrics - are no longer "nice to have," but are requirements. The problem becomes compounded when investors also ask for specific, one-off information requests above and beyond standard reporting schemas. LPs will now look closely at a potential manager's ability to provide this information in a timely manner and will benchmark their abilities in this area vs. other managers as part of the evaluation process.

For managers that still rely on spreadsheets or disparate applications to house their data and processes, this represents not only goodwill risk but also opportunity costs, as investors expect "institutional-quality" back offices to meet their reporting and information needs. Maintaining "application silos", where fund accounting, CRM and reporting processes are not integrated across the firm, inevitably hampers the process to transform raw data to the useful intelligence that investors are now requiring.

3. The importance of security and information control cannot be overstated

Across corporate America, business leaders are facing a growing and increasingly sophisticated series of threats from hackers and bad actors. Network penetration, unsecured mobile devices, email phishing, malware, ransomware - all pose a significant risk to a firm's privacy, security and, most notably, reputation. With recent headlines in mind, one could think that it's only the largest of businesses that come under threat. But, in a recent survey posed to the private fund manager community, over half responded that they have experienced some form of cybe r-attack.[3]

One of the biggest exposures a GP faces in addressing their various security threats is in using email as a communications platform, as it is easily compromised by phishing and ransomware programs. Email is inherently an unsecure communications channel for GPs to use when information needs to be disseminated outside the organization, whether it be to investors, prospects, administrators, or other related parties. It is because of this weak link in the security ecosystem that many GPs turn to an investor portal to report to outside entities. Implementing a portal solution greatly reduces the reliance on email and can therefore help minimize two of the most prominent types of security threats - phishing emails and ransomware, where malevolent attachments are disguised to the recipient as being trustworthy.

4. Changes to U.S. regulations and tax laws can be a moving target but need to be operationally addressed

There have been significant changes to the regulatory environment in the investment management industry in the past few years. The private capital markets are no exception. AIFMD, FACTA/OECD, and Form PF are just a few examples of how regulatory bodies have been imposing new reporting and disclosure requirements on GPs. The SEC has also been stepping up their examinations of private equity and real estate managers. Notable areas of examination have included disaster recovery, cyber security, anti-money laundering, compliance procedures, custody arrange ments, valuation practices, internal controls and marketing practices - to name a few. Potential changes in the tax laws, particularly around carried interest, is also another point that bears watching.

An important factor GPs need to consider when addressing these challenges is the state of their data management and ability to extract information at various levels in the fund operating layer. The most robust data repository is of little use unless key information can be pulled from it - quickly and easily and without error. The SEC and FCA are rarely keen about delays.

Spreadsheet-based back offices run significant risks in maintaining the data, control and processes looked for by auditors. When information sits in various applications, without the ability for straight-through processing, it becomes notoriously difficult to build the controls and reporting procedures to meet compliance standards. Moving to an integrated technology platform should provide the following attributes to address regulatory requirements:

- Flexible reporting capabilities to provide any information necessary as per the request, in a timely manner
- The ability to extract and subsequently download the underlying data should it be necessary
- An audit trail for both client and prospect communication
- An adaptable system to address changing rules and regulatory requirements
- The ability to implement necessary checks and balances while adhering to internal workflows

Summary

It's become increasingly clear that maintaining the "operational status quo" for real estate managers is going to cause challenges for firms looking to grow their businesses. As GPs look to expand their investor base through new types of investors and co-investment opportunities, fund structures will only grow in complexity. Transparency and reporting demands will certainly add to the effort.

Regulations, compliance and cybersecurity risks will continue to pose challenges, particularly for those firms without a cohesive and scalable underlying technology solution. Many GPs will need to re-think how their information architecture can provide support across the firm - from the investment team to the back office to investor relations. Leveraging a proper technology solution can go a long way in managing these opera tional risks.

Robert Shaw,
Manager – Head Of Real Estate Consulting

Robert Shaw joined Vertice Technologies in 2015 and is focused on building the Real Estate vertical for the company. Robert has 27 years professional experience, 23 focused on managing finance, accounting, reporting and operations, including third party administrators and joint venture partners, at large global private equity real estate investment funds Morgan Stanley Real Estate and Silverpeak Real Estate Partners (formerly known as Lehman Brothers Real Estate Partners). Robert is a Certified Public Accountant, received a Bachelor of Science degree in Business Economics and Accounting from the State University of New York at Oneonta.

[1] PERE CFO and COO 2016 Forum

[2] 2016 SEI Private Equity Survey

[3] "Cybersecurity in Private Equity" Private Funds Management, January, 2016

Voltaire
ADVISORS

Voltaire Advisors

14 Wall Street, New York, NY 10005, USA

No.1 Poultry, London, EC2R 8JR, UK

t: 1-800-317-1932
e: info@voltaireadvisors.com
w: www.voltaireadvisors.com