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Portfolio Valuation

Private Equity Marks & Trends

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How to Value Venture Capital Portfolio Investments

by Sujan Rajbhandary, CFA

The following outlines our process when providing periodic fair value marks for venture capital fund investments in pre-public companies.

Examine the Most Recent Financing Round Economics

The transaction underlying the initiation of an investment position can provide three critical pieces of information from a valuation perspective:

- Size of the aggregate investment and per share price.
- Rights and protections accorded to the newest round of securities.
- Usually, but not always, an indication of the underlying enterprise value from the investor's perspective.

Deal terms commonly reported in the press (**example**) focus on the size of the aggregate investment and per share price. The term "valuation" is usually a headline-shorthand for implied post-money value that assumes all equity securities in the company's capital structure have identical rights and protections. While elegant, this approach glosses over the fact that for pre-public companies, securities **with differing rights and protections should and do command different prices**.

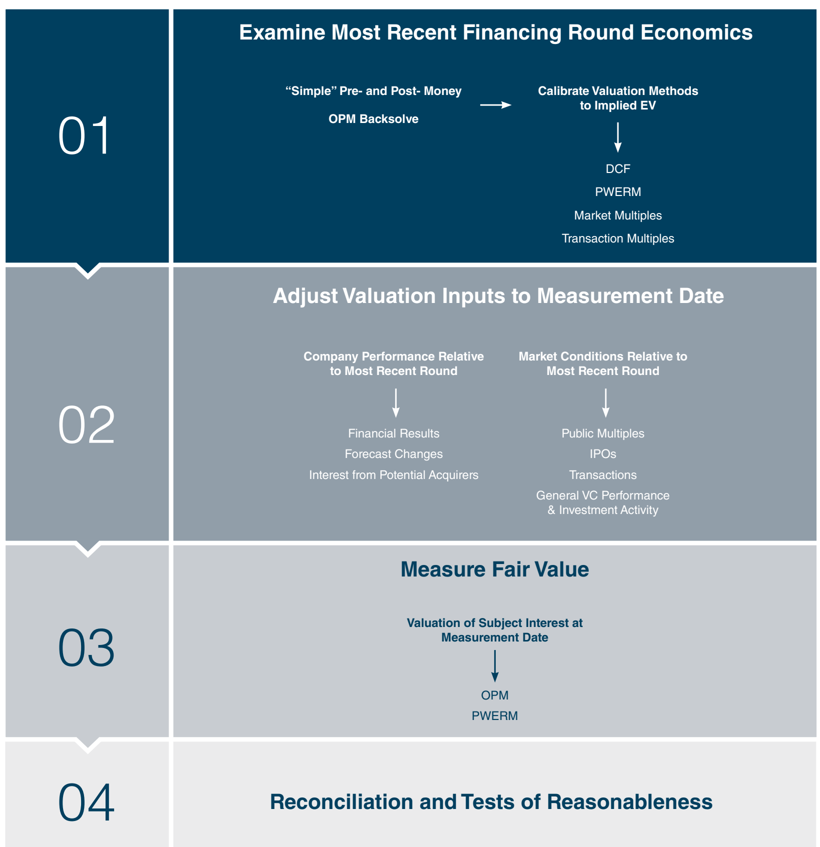
The option pricing method (OPM) is an alternative that explicitly models the rights of each equity class and makes generalized assumptions about the future trajectory of the company to deduce values for the various securities. Valuation specialists can also use the probability-weighted expected return method (PWERM) to evaluate potential proceeds from, and the likelihood of, several exit scenarios for a company. Total proceeds from each scenario would then be allocated to the various classes of equity based on their relative rights. The use of PWERM is particularly viable if there is sufficient visibility into the future exit prospects for the company.

The economics of the most recent financing round helps calibrate inputs used in both the OPM and PWERM.

- Under the OPM, a backsolve procedure provides indications of total equity and enterprise value based on the pricing and terms the most recent financing round. The indicated enterprise value and a set of future cash flow projections, taken together, imply a rate of return (discount rate) that may be reasonable for the company. Multiples implied by the indicated enterprise value, juxtaposed with information from publicly traded companies or related transactions, can yield valuation-useful inferences.
- Under the PWERM, in addition to informing discount rates and providing comparisons with market multiples, the most recent financing round can inform the relative likelihood of the various exit scenarios.

When available, indications of enterprise value from the investor's perspectives can further inform the inputs used in the various valuation methods.

In addition to the quantitative inputs enumerated above, discussions and documentation around the recent financing round can **provide critical qualitative information**, as well.



Adjust Valuation Inputs to Measurement Date

Between a funding round and subsequent measurement dates, the performance of the company and changes in market conditions can provide context for any adjustments that may be warranted for the valuation inputs. Deterioration in actual financial projections may warrant revisiting the set of projected cash flows, while improvements in market multiples for similar companies may suggest better pricing may be available for the company at exit. Interest from potential acquirers (or withdrawal of prior interest) and general IPO trends can inform inputs related to the relative likelihood of the various exit scenarios.

Measure Fair Value

Measuring fair value of the subject security entails using the OPM and PWERM, as appropriate and viable, in conjunction with valuation inputs that are relevant at the measurement date. ASC 820 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."

Reconciliation and Tests of Reasonableness

A sanity check to scrutinize fair value outputs is **an important element of the measurement process**. Specifically as it relates to venture capital investments in pre-public companies, such a check would reconcile a fair value indication at the current measurement date with a mark from the prior period in light of both changes in the subject company, and changes in market conditions.

Mercer Capital assists a range of alternative investment funds, including venture capital firms, in periodically measuring the fair value of portfolio assets for financial reporting purposes to the satisfaction of the general partners and fund auditors. Call us – we would like to work with you to define appropriate fund valuation policies and procedures, and provide independent opinions of value.

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Yes, Virginia, the Cost of Capital Really Is Low

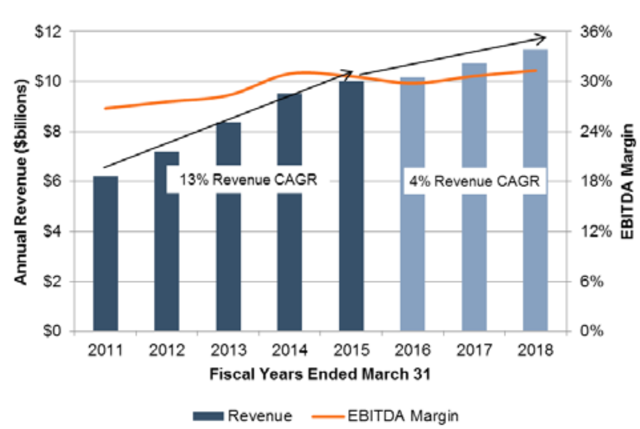
by Travis W. Harms, CFA, CPA/ABV

When Berkshire Hathaway (BRK) **announced** the planned acquisition of Precision Castparts (PCP), pundits described the $37 billion purchase price as **"hefty"**. Has Mr. Buffett forsaken his legendary **investment discipline**, or does the hefty price tag highlight one consequence of the Fed's persistent zero-interest rate policy (ZIRP)?

The heft of any particular purchase price can really only be evaluated relative to the (expected) earnings stream acquired. For public market investors, the ratio of stock price to earnings per share is the most commonly cited relative pricing measure. When entire operating companies are transacted, the common measure of relative value is that of enterprise value to earnings before interest, taxes, depreciation and amortization or EBITDA. Enterprise value, the sum of equity and net debt, represents the value of the total company, regardless of how it is financed. Similarly, EBITDA is a broad measure of earnings that is unaffected by a company's capital structure and common non-cash charges.

Comparing the reported transaction value ($37.2 billion) to the consensus estimate for forward EBITDA ($3.0 billion) yields an EV/EBITDA ratio of 12.3x. By way of comparison, Thomson Reuters reports that the average EBITDA multiple for leveraged buyouts in the broadly syndicated market (i.e., large deals) through the first seven months of 2015 was 10.2x. After peaking at 10.8x in 2008, average EBITDA multiples fell to 9.1x in 2009 and have gradually increased to current

Figure 1: Precision Castparts Corp.



Source: Consensus analyst estimates (FY 16 – FY18) from Bloomberg L.P.; Mercer Capital analysis

Figure 2: Precision Castparts Corp.

		Fiscal Years Ended March 31,					
		2015	**2016**	**2017**	**2018**	**2019**	**Terminal**
Revenue		$10,005	$10,167	$10,718	$11,273	$11,724	
Annual Growth			*1.6%*	*5.4%*	*5.2%*	*4.0%*	*3.0%*
EBITDA Margin		*29.3%*	*29.8%*	*30.7%*	*31.3%*	*31.5%*	
EBITDA		2,929	3,030	3,287	3,533	3,693	
less: Depr & Amort		325	302	330	344	350	
EBIT		2,604	2,728	2,957	3,189	3,343	
less: Pro Forma Taxes	32.1%		877	950	1,025	1,074	
Net Operating Profit After Tax			1,851	2,007	2,164	2,269	
plus: Depr & Amort			302	330	344	350	
less: Capital Expenditures			(514)	(444)	(448)	(400)	
less: Investment in Working Capital			(61)	(207)	(209)	(170)	
Cash Flow to Firm			1,579	1,685	1,852	2,049	40,927
Discounting Periods			0.5	1.5	2.5	3.5	3.5
Present Value Factors	8.2%		0.9616	0.8890	0.8220	0.7600	0.7600
Present Value of Cash Flows			1,518	1,498	1,522	1,557	31,105
Indicated Enterprise Value		**$37,200**					
EV / Fwd EBITDA		*12.3x*					

Source: Consensus analyst estimates (FY16-FY18) from Bloomberg, LP; Mercer Capital analysis

levels since then. So, relative to the average multiple, the EBITDA multiple of 12.3x paid for Precision Castparts is high.

While more informative than absolute price, an EBITDA multiple still fails to communicate the prospective return anticipated by investors. If a forecast of future earnings and cash flows is available, one can derive the prospective return on a transaction. As a hitherto publicly-traded company, consensus analyst estimates are available for PCP.

Historical revenue growth as shown in the preceding chart was buttressed by a series of acquisitions representing an aggregate investment of over $8 billion. The forecast results do not contemplate additional acquisitions, so the projected revenue growth of approximately 4% corresponds to an organic growth rate. Augmented by a small amount of margin expansion, the growth rate in projected EBITDA is 5%. Projected cash flows are derived by deducting taxes and net investment in fixed assets and working capital from EBITDA, as shown in Figure 2 above.

Comparing the projected cash flows to the purchase price yields an internal rate of return of 8.2%. This is the unlevered return on the aggregate purchase price. From the perspective of Berkshire Hathaway shareholders, the use of debt financing increases the prospective equity returns. Berkshire is reportedly financing the purchase using $23 billion of cash reserves and borrowing the balance.

	$billions	% of Total	Multiple of Fwd EBITDA
Source of Funds			
Debt	$14.2	38.2%	4.7x
Equity	23.0	61.8%	7.6x
Total Purchase Price	$37.2	100.0%	12.3x

The implied debt in the pro forma capital structure equals approximately 4.7x EBITDA, compared to total leverage of 6.1x for large corporate LBOs in 2015 (per Thomson Reuters). From that perspective, the financing mix is conservative. Although the cost of the acquisition debt has not been disclosed, Thomson Reuters reports that the average first-lien institutional spread on large corporate leveraged loans during 3Q15 has been 388 basis points. Using this average rate as a proxy, the after-tax cost of debt (on a fixed-equivalent basis) is approximately 4.2%, implying a levered equity return of 10.6%.

	% of Total	Capital Costs
Source of Funds		
Debt	38.2%	4.2%
Equity	**61.8%**	**10.6%**
Total Purchase Price	100.0%	8.2%

So the "hefty" price implies a return for equity investors in excess of 10%. As with absolute price, absolute return is less meaningful than relative return. Comparing the prospective equity return of 10.6% to the return on long-term treasuries (approximately 2.5%), the implied equity risk premium is in excess of 8%. By way of comparison, most estimates of the market-wide equity risk premium are in the range of 4% to 7%.

Because of the wide availability of low-cost debt, even a "hefty" purchase multiple does not necessarily obliterate prospective equity returns. Berkshire Hathaway's purchase of Precision Castparts provides a timely illustration of the practical effect of the Fed's accommodative monetary policy on corporate costs of capital and valuation multiples.

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Erickson Partners Merges with Mercer Capital

Mercer Capital, a national business valuation and financial advisory firm specializing in Corporate Valuation, Litigation Support, Financial Reporting Valuation, and Transaction Advisory Consulting, and **Erickson Partners, Inc.**, a Texas-based Valuation and Litigation Support firm, announce their merger effective July 1, 2015.

"Combining with Mercer Capital, we will now be able to offer new or expanded services that complement our existing services, as well as additional industry expertise," said **Bryce Erickson**, Managing Director of Erickson Partners. "In addition to our sports franchise and energy industry concentrations, we will be able to offer deep industry concentrations in construction and building materials, agribusiness, manufacturing and financial institutions, which includes depository institutions, insurance companies, fintech companies, asset management firms, and PE firms."

"The combined firm will have over 40 valuation professionals positioned in five markets throughout the southwest and southeast. Such a deep bench will provide us with a tremendous opportunity to better serve the expanding needs of our clients," said **Don Erickson**, President of Erickson Partners. "Joining with Mercer Capital gives us national resources that will benefit our clients in Texas and beyond."

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On the Call

The following is a brief compendium of quotes from 2Q15 earnings season conference calls. In general, executives are indicating that equity positions are fully valued and that the lack of yield is bringing lower-quality credits into the market.

Tony James (Blackstone) – "When we go into a deal, we assume that the buyer is going to be buying from us five years from now in a normal credit market whatever we think that may be. By comparison, in today's world that would be lower debt to EBITDA multiples that is available today at higher rates."

Bill Conway (Carlyle) – "It's clearly an easier time to sell than it is to buy."

Pete Briger (Fortress) – "I think philosophically we're in a position where we continued to harvest our credit PE portfolios. We continue to harvest our real estate portfolios. We've raise quite a bit of capital but the investment pace [is] slow."

Scott Nuttall (KKR) – "We have seen valuations in credit move up. And so we have seen the returns from this point forward go down."

Kipp deVeer (Ares) – "Over the last year, even, or two, I think we've seen a lot of lower credit quality transactions getting done by other players in the market. I think we've seen weaker structures. I think we've seen worse documentation, and I think we've seen lower spreads."

Vincent Foster (Main Street) – "It's a pretty dynamic situation. I think things were kind of stabilizing prior to the most recent leg down in at least oil prices and we'll have to kind of wait and see if that stays, what impact that might have."

Art Penn (PennantPark) – "Turning to the outlook, we believe that the remainder of 2015 will continue to be active due to growth in M&A driven financings."

David Golub (Golub BDC) – "Banks in general are continuing to retreat from middle-market leveraged lending."

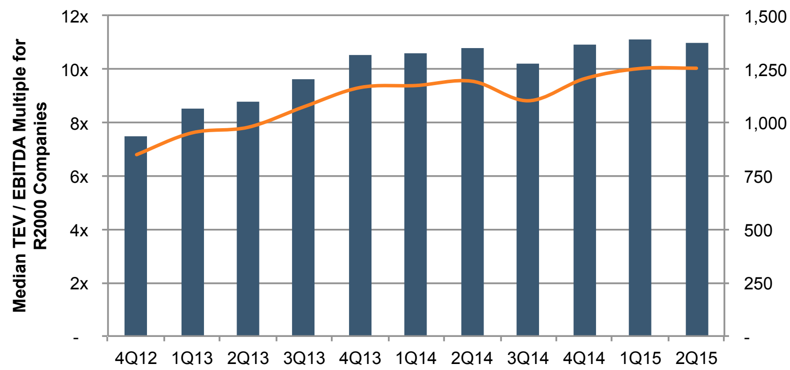
Ashton Poole (Triangle Capital) – "During the second quarter, we analyzed approximately $2 billion of new investment opportunities, which represent our second highest quarterly total in the history of our company. However, as Garland alluded to in his opening comments, the quality of transactions was noticeably lower than we experienced in recent quarters. As a result, we passed on a much higher percentage of transactions and we closed on approximately 2.5% of the transactions we analyzed as compared to our historical closing rate average of 5% to 6%."

Source: All transcripts obtained from SNL.

Equity Valuation

Russell 2000 Index Values and EBITDA Multiples

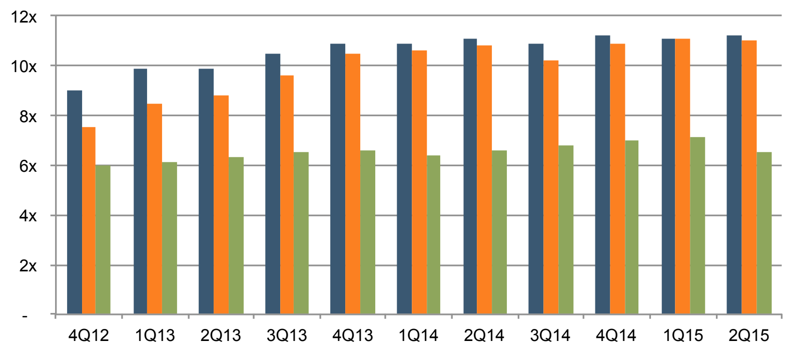
Amid sideways trading the market during 2Q15, the median public small cap EBITDA multiple decreased slightly from the prior quarter-end. Favorable market returns during 2013 and 2014 were primarily attributable to multiple expansion.



Source: Capital IQ
Financials excluded from the data

EBITDA Multiples over Time

Over the period analyzed, the gap between multiples for small cap (Russell 2000) and large cap (S&P 500) public companies has narrowed considerably. Lower middle market multiples tracked by GF Data are sensitive to available deal flow and financing conditions in addition to public market multiples.

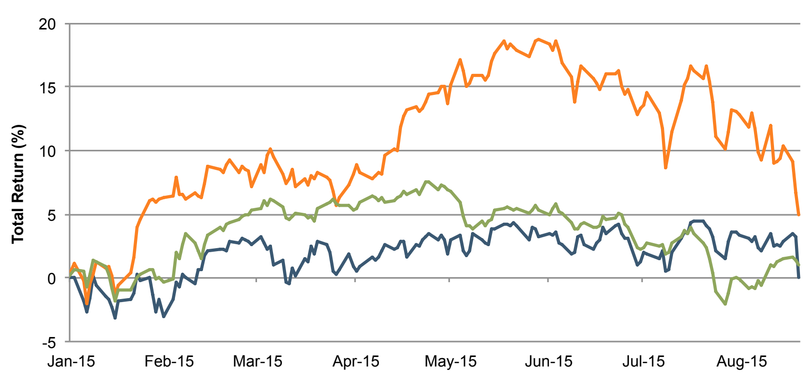


Source: Capital IQ, GF Data

Stock Performance for Publicly Traded PE Sponsors

Total Returns (Trailing Twelve Months)

Investors remain unenthused regarding BDC shares during the year, with many share prices remaining below NAV and dividend yields approaching 10%. Despite a strong start to the year, the large publicly traded PE firms have given back many of their gains in recent months.

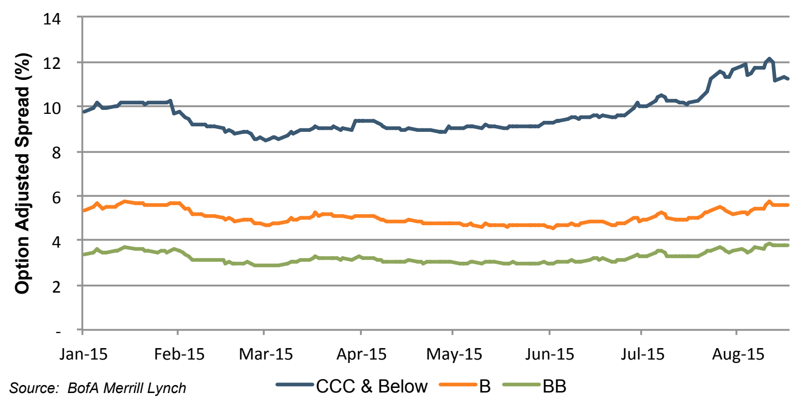


Source: SNL Financial

Debt Investments

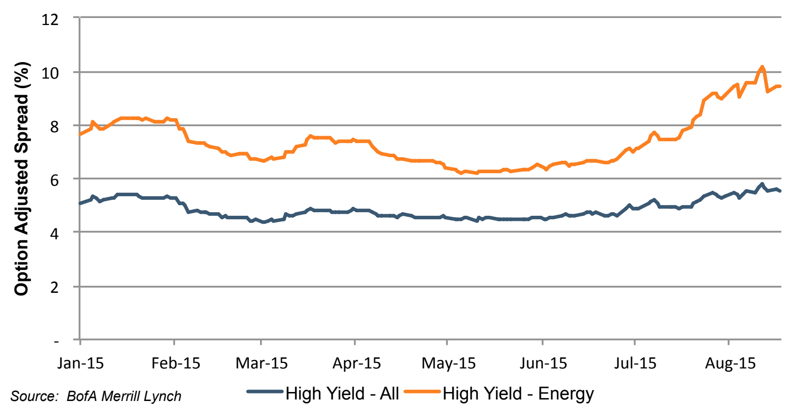
High Yield Spreads by Credit Rating

On a year-to-date basis, credit spreads have widened, reversing the spread compression that occurred through mid-2014. Riskier credits have proven more sensitive, with yields on issues rated CCC & Below widening nearly 150 bps, compared to changes of 24 bps and 42 bps for B and BB credits, respectively.



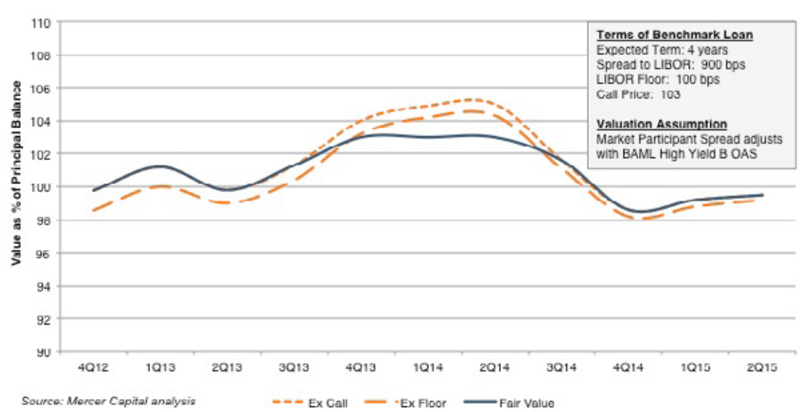
Impact of Energy Sector on High Yield Spreads

Recent turmoil in oil markets have pushed spreads on energy credits even wider, which is contributing to the overall market trend. During 2015, high yield energy spreads have increased from 764 bps to 943 bps, compared to just 48 bps of widening for the overall market.



Fair Value of Benchmark Debt Instrument

There was little movement in the fair value of our benchmark loan during the quarter as the yield curve and credit spreads remained anchored to prior levels.



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Mercer Capital provides financial and advisory services to help our clients minimize risk and maximize value. For financial sponsors providing debt and equity capital to the middle market, Mercer Capital provides a comprehensive suite of financial advisory services.

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- Solvency Opinions
- Fairness Opinions
- Purchase Price Allocations
- Goodwill Impairment
- Equity Compensation / 409(A)
- Buy-Sell Agreement Valuations

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