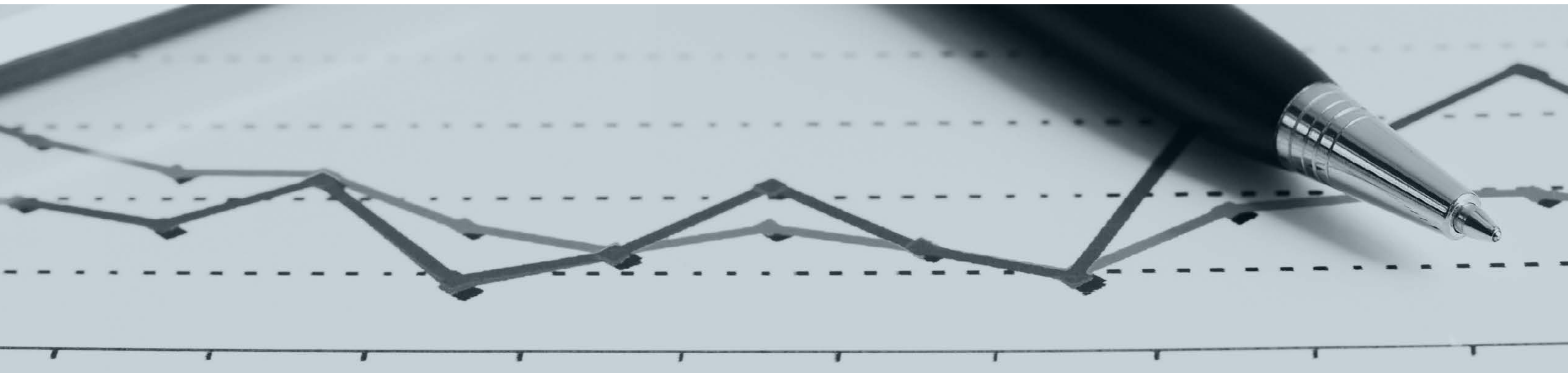
MERCER CAPITAL

Portfolio Valuation

Private Equity & Venture Capital Marks & Trends

Fourth Quarter 2018



Market Tenor

Bob Farrell was Merrill Lynch's Chief Market Strategist from approximately 1977 to 1992. His "Ten Market Rules" remain widely quoted on Wall Street today. Rule number one is: *markets tend to revert to the mean over time*.

As of the penning of this article in early December, leverage loans, high yield bonds, and publicly traded equities are under varying degrees of pressure. The Russell 2000 has fallen about 15% from its early September high; the S&P 500 is down about 10%; and the option adjusted spread ("OAS") on BAML's high yield bond index has widened over 125 bps.

Unless the sell-off reverses, the set-up will create pressure on the year-end valuation of many private equity and private credit positions. The pressure could become intense if the correction turns into a bear market (defined as a fall of at least 20% versus 10% for a correction).

However, the risk greater than marks-to-models for private equity and credit is capital flows. Liquidity is the lifeblood of markets. Many PE investments, especially those that tend toward venture, generate negative cash flow and are dependent upon new capital to roll-over maturing debt, cover deficit operating cash flows, and fund growth capex. Should the torrent of capital that has flowed into funds directly or indirectly providing the means for investors to cash-out through an IPO or sale turn to a trickle, then there could be significant pain in 2019 and maybe 2020.

The magnitude of any markdowns to private equity and credit positions in coming quarters is unknowable after years of a fabulous run, but Farrell's rule number two is: *Excesses in one direction will lead to an opposite excess in the other direction*.

www.mercercapital.com

Adjusted Earnings and Earning Power as the Base of the Valuation Pyramid

The extensive use of core versus reported earnings by public companies has been a widespread phenomenon for at least 25 years. During the past decade, the practice also has become widespread among companies (and their bankers who market deals) that are issuing debt in the leverage loan and high yield markets.

The practice is controversial. The SEC periodically will crack down on companies it thinks are pushing the envelope. Bank regulators have raised the issue of questionable adjustments to borrowers' EBITDA for widely syndicated leverage loans.

Investors are aware of the issue, too, but have not demanded the practice to stop. In mid-2017, I attended a conference on private credit. One session dealt exclusively with adjusted EBITDA. One panelist offered that adjustments in the range of 5-10% of reported EBITDA were okay, but the consensus was the adjustments were out of control. *Covenant Review* reported that as of mid-2017 the average leverage for middle market LBOs over the prior two years was 5.5x based upon the target's adjusted EBITDA compared to reported EBITDA of ~7x. The issue is no better, and perhaps worse, in 2018 judging from market sentiment.

If investors are solely relying upon company defined adjusted EBITDA, then they may be vacating their fiduciary duties when investing capital. That said, an analysis of core versus reported earnings is a critical element of any valuation or credit assessment of a non-early stage company with an established financial history.

Table 1 on page 2 provides a sample overview of the template we use at Mercer Capital. The process is not intended to create an alternate reality; rather, it is designed to shed light on core trends about where the company has been and where it may be headed.

Adjustments. Adjustments typically consist of items that are non-recurring, unusual, and infrequent. They also may entail elements for a change in business operations, such as the addition of a new product or the discontinuation of a division. This is where judgment is particularly important because we have noticed a trend among some investors to credit businesses with future earnings for initiatives such as stepped-up hiring of revenue producers in which a favorable outcome is highly uncertain.

Minority vs. Control. Adjustments considered should take into account whether the valuation is on a minority interest or controlling interest basis. An adjustment for an unusual litigation expense will not be impacted by the level-of-value; however, other potential adjustments—particularly synergies a buyer could reasonably be expected to realize would only apply in a control valuation.

Core Trends vs. Peers. The development of the adjusted earnings analysis should allow one to identify the source of revenue growth and the trend in margins through a business cycle. The process also will facilitate comparisons with peers both historically and currently to thereby make further qualitative judgments about how the business is performing.

Out Year Budget vs. Adjusted History. The adjusted earnings history should create a bridge to next year's budget, and the budget a bridge to multi-year projections. The basic question should be addressed: Does the historical trend in adjusted earnings lead one to conclude that the budget and multi-year projections are reasonable with the underlying premise that the adjustments applied are reasonable?

Core Earnings vs. Ongoing Earning Power. Core earnings differ from earning power. Core earnings represent earnings after adjustments are made for non-recurring items and the like in a particular year. Earning power represents a base earning measure that is representative through the firm's (or industry's) business cycle and, therefore, requires examination of adjusted earnings ideally over an entire business cycle. If the company has grown such that adjusted earnings several years ago are less relevant, then earning power can be derived from the product of a representative revenue measure such as the latest 12 months or even the budget and an average EBITDA margin over the business cycle.

Platform Companies/Roll-Ups. Companies that are executing a roll-up strategy can be particularly nettlesome

Table 1

	Budget	LTM	For the Fiscal Years Ended December 31				
Core Earnings Analysis	**2019**	**11/30/18**	**2017**	**2016**	**2015**	**2014**	**2013**
Units	1,474	1,445	1,390	1,321	1,223	1,267	1,221
x Average Price	$9.65	$9.55	$9.50	$9.35	$9.20	$9.25	$9.00
Reported Net Sales	$14,224	$13,800	$13,205	$12,351	$11,252	$11,720	$10,989
Adj (1) Acme Surcharge	0	(120)	(150)	(175)	0	0	0
Adjusted Net Sales	**$14,224**	**$13,680**	**$13,055**	**$12,176**	**$11,252**	**$11,720**	**$10,989**
Reported Cost of Sales	9,175	8,846	8,438	7,775	7,145	7,395	6,868
Adj (2) None	0	0	0	0	0	0	0
Adjusted Cost of Sales	9,175	8,846	8,438	7,775	7,145	7,395	6,868
Adjusted Gross Profit	**5,049**	**4,834**	**4,617**	**4,401**	**4,107**	**4,325**	**4,121**
Reported Operating Expense	2,550	2,425	2,448	2,295	2,225	2,115	2,025
Adj (3) Facility Closure	0	0	(90)	(15)	0	0	0
Adj (4) Litigation Expense	0	0	0	0	(35)	0	0
Adj (5) Rebate Settlement	0	35	0	0	0	0	0
Adjusted Operating Expense	**2,550**	**2,460**	**2,358**	**2,280**	**2,190**	**2,115**	**2,025**
Adjusted Operating Income	**2,499**	**2,374**	**2,259**	**2,121**	**1,917**	**2,210**	**2,096**
Reported Other Inc/(Exp)	(530)	(450)	(410)	(370)	(360)	(350)	(345)
Adj (6) Loss/(Gain) on Asset Sale	0	(95)	(75)	50	120	(20)	65
Adjusted Other Inc/(Exp)	(530)	(545)	(485)	(320)	(240)	(370)	(280)
Adjusted Pre-Tax Income	**$1,969**	**$1,829**	**$1,774**	**$1,801**	**$1,677**	**$1,840**	**$1,816**
EBIT, EBITDA & CapEx							
Adjusted Pre-Tax Income	$1,969	$1,829	$1,774	$1,801	$1,677	$1,840	$1,816
- Interest Income	(27)	(23)	(21)	(19)	(18)	(18)	(17)
+ Interest Expense	477	405	369	333	324	315	311
Adjusted EBIT	**2,420**	**2,212**	**2,123**	**2,116**	**1,983**	**2,137**	**2,109**
+ Depreciation & Amortization	710	690	660	620	560	590	550
Adjusted EBITDA	**$3,130**	**$2,902**	**$2,783**	**$2,736**	**$2,543**	**$2,727**	**$2,659**
Reported Capital Expenditures	780	760	730	680	620	640	600
Adjusted EBITDA less CapEx	**$2,350**	**$2,142**	**$2,053**	**$2,056**	**$1,923**	**$2,087**	**$2,059**
Adjusted Margins							
Adjusted Gross Profit	35.5%	35.3%	35.4%	36.1%	36.5%	36.9%	37.5%
Adjusted Pretax Income	13.8%	13.4%	13.6%	14.8%	14.9%	15.7%	16.5%
Adjusted EBIT	17.0%	16.2%	16.3%	17.4%	17.6%	18.2%	19.2%
Adjusted EBITDA	22.0%	21.2%	21.3%	22.5%	22.6%	23.3%	24.2%
Adjusted EBITDA less CapEx	16.5%	15.7%	15.7%	16.9%	17.1%	17.8%	18.7%
Period-to-Period Growth							
Adjusted Net Sales	4.0%	4.8%	7.2%	8.2%	-4.0%	6.6%	
Adjusted Gross Profit	4.4%	4.7%	4.9%	7.2%	-5.0%	4.9%	
Adjusted EBIT	9.4%	4.2%	0.3%	6.7%	-7.2%	1.3%	
Adjusted EBITDA	7.9%	4.3%	1.7%	7.6%	-6.8%	2.6%	
Adjusted EBITDA less CapEx	9.7%	4.3%	-0.2%	6.9%	-7.9%	1.4%	

from a valuation perspective because there typically is a string of acquisitions that require multiple adjustments for transaction related expenses and the expected earnings contribution of the targets. The math of adding and subtracting is straightforward, but what is usually lacking is seasoning in which a several year period without acquisitions can be observed in order to discern if past acquisitions have been accretive to earnings. Public market investors struggle with this phenomenon, too, but often the high growth profile of roll-ups will trump questions about earning power and what is an appropriate multiple until growth slows.

Income and Market-Based Valuation Approaches. In addition to providing insight into how a business is performing, the adjusted earnings statement will "feed" multiple valuation methods. These include the Discounted Cash Flow and Single Period Earning Power Capitalization Methods that fall under the Income Approach, and the Guideline (Public) Company and Guideline (M&A) Transaction Methods that constitute Market Approaches.

It may be obvious, but we believe an analysis of adjusted (and reported) earnings statements for a subject company over a multi-year period is a critical, if not the critical element, in valuing securities that are held in private equity and credit portfolios. Mercer Capital has nearly 40 years of experience in which tens of thousands of adjusted earnings statements have been created. Please call if we can help you value investments held in your portfolio.

Jeff K. Davis, CFA
615.345.0350 | jeffdavis@mercercapital.com

On the Call

The following is a brief compendium of quotes from 3Q18 earnings season conference calls.

Kipp DeVeer (ARCC, CEO) – "The yield market has had a much tougher year as investors are less interested in longer-duration, speculative grade credits with fixed coupons. And new issuance in this market has contracted accordingly with less investor appetite. Our view is lower-quality underwriting, higher adjustments to EBITDA that maybe make leverage levels on an actual basis higher than they might be interpreted to be on sort of an adjusted basis."

Jon Gray (BX, President) – "In terms of, obviously, the U.S. economy, where the bulk of our assets sit, revenue growth, over the last 12 months, call it, mid-single digits and EBITDA growth high single digits, and that's obviously positive for equity values. Asking our CEOs about what's happening across the range of their businesses, the two big concerns [are] finding and retaining talent and technological disintermediation."

Kew Lee (CG, Co-CEO) – "A stark example of this divergence is the difference between the U.S. public equity markets and the rest of the world, with the S&P 500 down about 1% on the year compared to the China-focused Hang Seng Index, which has declined almost 20% in the same period. This volatility affects the valuation of our fund portfolios, especially those in Asia with a higher level of public equity and foreign exchange exposure, and should current global market conditions persist, we would expect our fourth quarter appreciation to be affected as well."

Curt Buser (CG, CFO) – "As a general commentary, I would say, though, that I think the market is starting to push back a little bit, and you're starting to see spreads widen, you're starting to see more discerning reviews of credits that are in the market. So it feels to me like you're starting to see the buy side push back a little bit on issuers."

Scott Nuttall (KKR, Co-President) – "The first thing I'd point out is, outside the U.S., we've already been in bear market territories. So the EURO STOXX 50 is down about 13% in the last 12 months, China is down about 20%. To some extent, what we've seen in the last few weeks is the U.S. starting to catch up a little bit with the rest of the world. We're past the peak in earnings growth. At the same time, the Fed is tightening. And if you really just step back from it all, eight of the last eight times the Fed raised rates, multiples in the U.S. markets [contracted]."

Art Penn (PNNT, Chairman & CEO) – "At this point in time, our underlying portfolio indicates a strong U.S. economy and no signs of a recession. Our focus continues to be on companies and structures that are more defensive, have a low leverage, strong covenants and are positioned to weather different economic scenarios. We're seeing, on average, single-digit revenue and EBITDA growth as a general proposition. So a nice place to be a lender at this point in time."

Source: All transcripts obtained from SNL.

Sector Benchmarks

Private Equity

According to *PitchBook*, 3,501 private equity deals totaling $509 billion in value were completed in the U.S. during the first three quarters of 2018, which represents a 2.1% increase in volume and a 3.4% decrease in value compared to the first three quarters of 2017. Fundraising activity slowed in the first three quarters of 2018 relative to 2017, and for the first time since 2015, fund size declined, averaging $855 million in the year-to-date period, down from $974 million in 2017. While exit count in 2018 lags 2017, total exit value remains on pace with the prior year due to expanding exit size. In the third quarter of 2018, the median exit size reached a record high of $355 million.

Leverage Lending

Thomson Reuters reports that leverage lending volume through November stands at $1.1 trillion, which is down 13% year-over-year; however, November was particularly weak with loan issuances falling 48% from October to $65 billion. Institutional demand nonetheless remains strong and more in favor than high-yield bond issuance, with institutional loan volume reaching $864 billion through November in comparison to $168 billion in high-yield bonds. New money issuances picked up as refinancing activity declined and accounted for 44% of institutional loan volume in the YTD period through November.

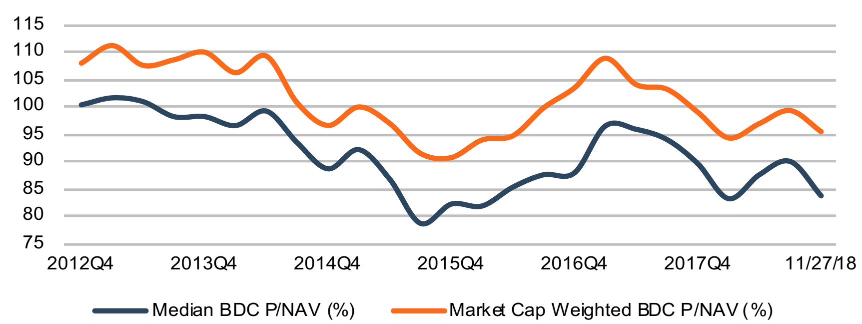
Venture Capital

With more than $100B deployed in the first three quarters, 2018 is on track for a record funding year. However, funding continues to be spread over fewer deals. When combined with higher median deal sizes and an unremarkable exit environment, the effects of "unicorn hunting" are apparent in the market. If highly anticipated unicorn IPOs for Uber and Lyft occur as planned in 2019 and are well received, investors could begin to see more exits as other billion dollar companies seek to benefit from a unicorn-friendly exit environment.

Publicly Traded Private Credit

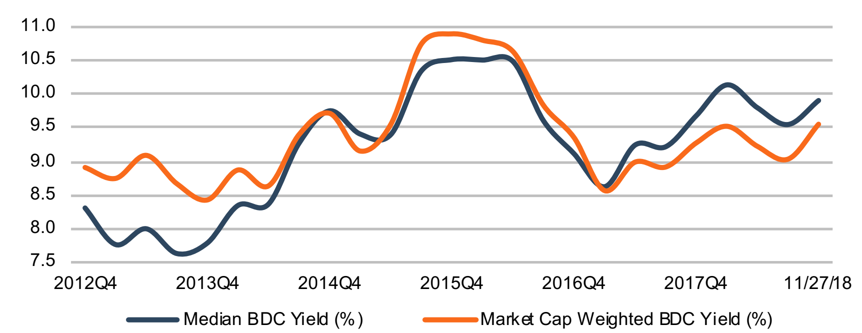
BDCs faced selling pressure in October and November as investors question whether credit quality will hold as the economy appears to be slowing and high yield credit spreads widen sharply. From the end of the 3rd quarter, the median P/NAV for BDCs has fallen from 90% to 84% while the median dividend yield increased from 9.4% to 9.9%.

Long-Term Business Development Companies P/NAV Trend



Source: S&P Global

Long-Term Dividend Yield Trend

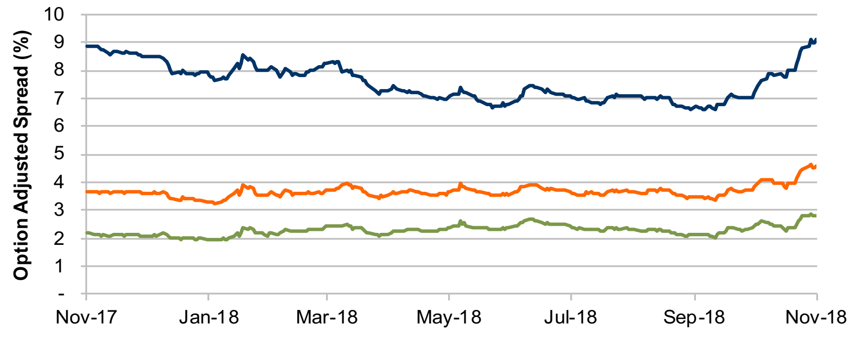


Source: S&P Global

Private Credit and Equity

Debt Investments: High Yield Spreads by Credit Rating

After a period of relative stability for much of the year, credit spreads widened in October and November. Spreads on credits rated CCC or below proved the most sensitive, widening 235 bps from the end of the third quarter, compared to changes of 112 bps and 70 bps for B and BB credits, respectively.

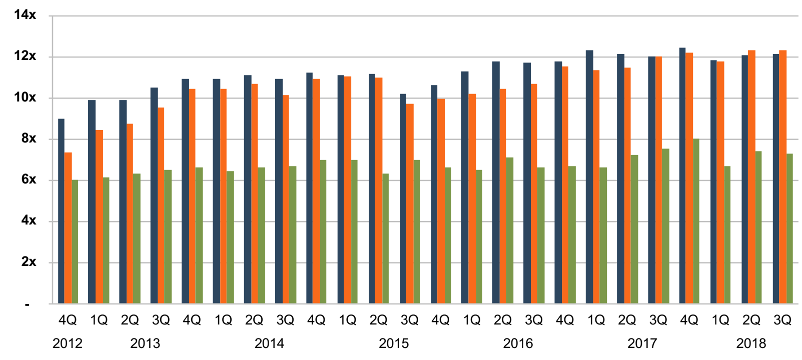


Source: BofA Merrill Lynch

Median EBITDA Multiple
Excludes financials

Equity Valuation: EBITDA Multiples over Time

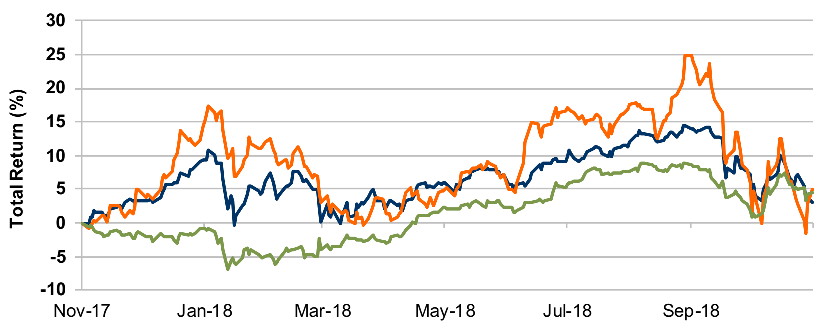
EBITDA multiples remain elevated relative to the five-year historical average but were essentially unchanged from 2Q18.



Source: Capital IQ, GF Data®
Excludes financials

Stock Performance for Publicly Traded PE Sponsors: Total Returns (Trailing Twelve Months)

Despite ongoing growth in jobs and corporate earnings and other signs that a recession isn't imminent, October (and November) lived up to its reputation as a tough month for stocks as investors worried about the Fed overtightening as interest sensitive sectors such as housing and autos have weakened.

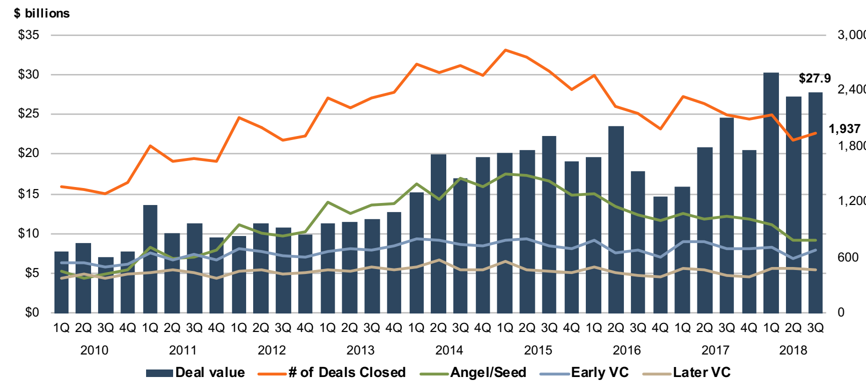


Source: SNL Financial

Venture Capital

U.S. VC-Backed Funding Activity

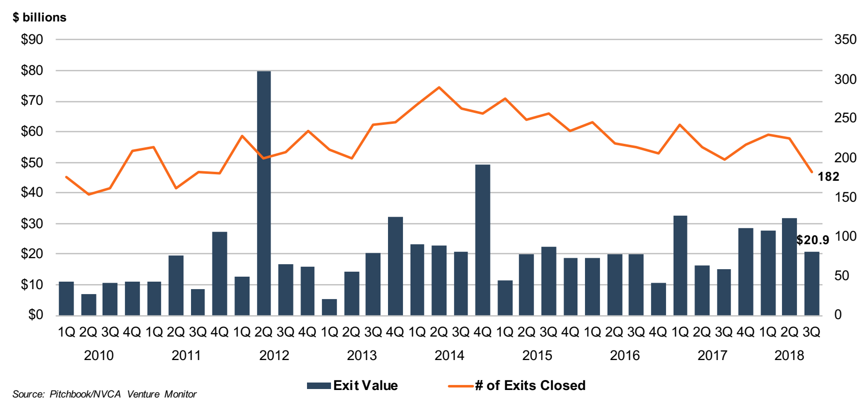
Over $25B of funding was deployed in each of the first three quarters of 2018, including a ten-year high of $30B in 1Q. However, consistent with the theme of funding going to larger ventures, seed and angel stage companies have seen the number of funded deals decline from ~1,500 in 1Q15 when "unicorn fever" was raging to just 785 in 3Q18.



Source: Pitchbook/NVCA Venture Monitor

U.S. VC-Backed Exit Activity

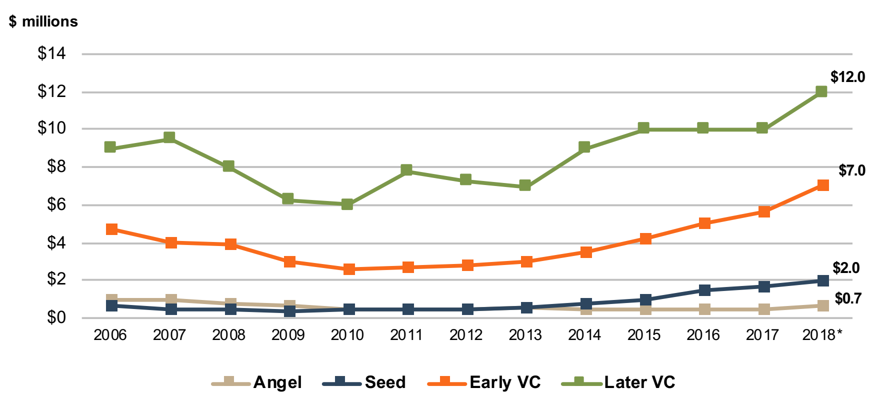
Although investors may be impatient regarding seemingly slow exit activity among VC-backed companies, the data does not mesh with the narrative. First, total value exited YTD through 3Q18 was 26% higher than the comparable time frame last year. Second, companies are not waiting as long to go public. The average time to exit for companies that had an IPO in 2018 was just under 5 years, compared to 8 years in 2016 and 7 years in 2017.



Source: Pitchbook/NVCA Venture Monitor

Median Deal Size by Stage ($ millions)

The median size of funded deals continues to grind higher. This trend is especially prevalent at the late stage. Late stage median deal size reached $12M in 2018 after hovering at $10M for the past three years.



Source: Pitchbook/NVCA Venture Monitor

* Data through the third quarter

Mercer Capital

Private Equity Firms & Other Financial Sponsors

Mercer Capital provides business valuation and financial advisory services to private equity firms and other financial sponsors.

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.

Services Provided

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

Contact a Mercer Capital professional to discuss your needs in confidence.

Contact Us

Jeff K. Davis, CFA
615.345.0350
jeffdavis@mercercapital.com

Travis W. Harms, CFA, CPA/ABV
901.322.9760
harmst@mercercapital.com

Mary Grace Arehart
901.322.9720
arehartm@mercercapital.com

Megan E. Richards
901.322.9767
richardsm@mercercapital.com

MERCER CAPITAL

Memphis
5100 Poplar Avenue, Suite 2600
Memphis, Tennessee 38137
901.685.2120

Dallas
12201 Merit Drive, Suite 480
Dallas, Texas 75251
214.468.8400

Nashville
102 Woodmont Blvd., Suite 231
Nashville, Tennessee 37205
615.345.0350

www.mercercapital.com