PRIVATE EQUITY & PRIVATE CREDIT MARKET ENVIRONMENT – 2017 RECAP/2018 OUTLOOK

PCA
PENSION CONSULTING ALLIANCE

February 2018

2017 in Review: Larger Funds, Fewer Deals & More Credit

2017 was a great year for PE fundraising, particularly for large funds. The **big got bigger** – and the mega buyout funds became more mega. But the deal volumes declined and fewer exits occurred as dry powder rose.

Most major equity indices (Dow Jones, Nasdaq Composite, S&P 500) **hit new records** in 2017, and many fundraising records were hit (annual total PE fundraising, annual private credit fundraising, annual middle market fundraising, global venture capital fundraising). Other **more cautionary** records included: total PE dry powder, purchase price multiples for buyouts and covenant-lite new issuance. PCA believes, as do many market participants, that an uptick in **distressed opportunities** may be on the horizon.

The **Tax Cuts and Jobs Act** (TCJA) became law in late 2017, providing the most significant overhaul of the US tax code in more than 30 years.

Largest PE Deals

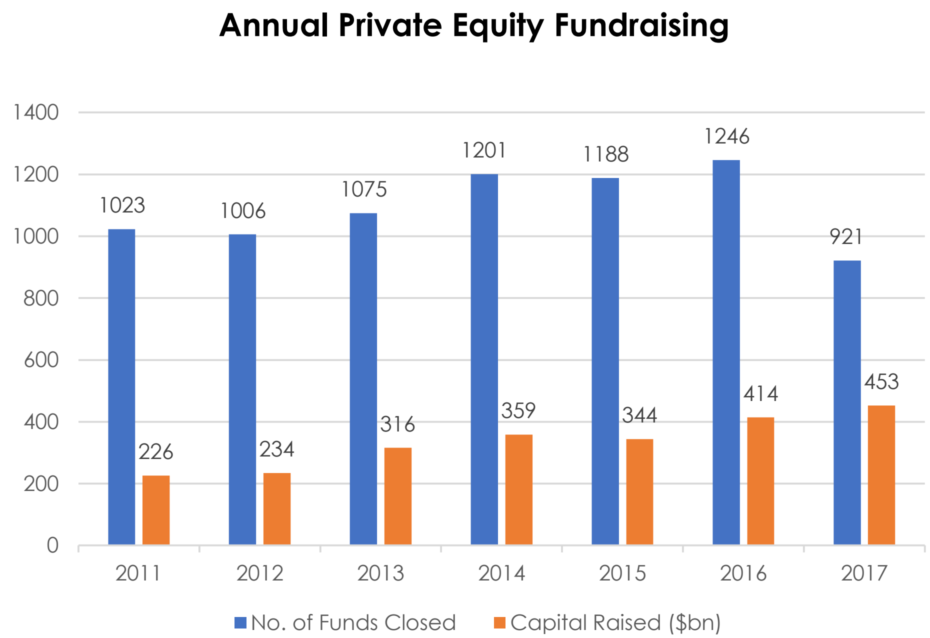
Panera Bread	$7.2B buyout (BDT Capital Partners/JAB)
Staples	$6.9B buyout (Sycamore Partners)
Belle 百麗國際 International	$6.8B buyout (Hillhouse Capital/CDH)
VWR	$6.4B buyout (New Mountain Capital)
STADA Arzneimittel	$6.4B buyout (Bain Capital/Cinven)

Largest PE Exits

Logicor	€12.3B secondary buyout (Blackstone/ China Investment Corp.)
AWAS	$7.5B secondary buyout (Terra Firma & Canadian Pension Plan Investment Board/Dubai Aerospace Enterprise
quirónsalud	€5.8B corporate acquisition (CVC Capital Partners/Fresenius)
Capsugel	$5.5B corporate acquisition (KKR/Lonza)
inVentiv Health	$4.6B corporate acquisition (Advent & Thomas H. Lee Partners/INC Research)

Source: Pitchbook

Private Equity Fundraising Growth Continues Unabated



One for the record books
PE funds raised $453B in 2017, **an all-time record** for the industry.

The bulk of assets raised went to the industry's largest buyout funds. Mega buyout funds, those targeting $5 billion or more, raised $84.3 billion. **Nine of the top 10 funds raised in 2017 were buyout funds.**

Top 10 Capital Raises of 2017 ($ billions)*

Apollo Investment Fund IX	$24.7	Buyouts
Silver Lake Partners V	$15.0	Buyouts
Vista Equity Partners Fund VI	$10.3	Buyouts
Clayton Dubilier & Rice Fund X	$10.0	Buyouts
Bain Capital North American XII Fund	$9.4	Buyouts
KKR Asian Fund III	$9.3	Buyouts
New Mountain Capital V	$6.2	Buyouts
GTCR Fund XII	$5.3	Buyouts
Carylye Asia Growth Partners V	$4.5	Growth Equity
Quantum Energy VII	$4.0	Buyouts

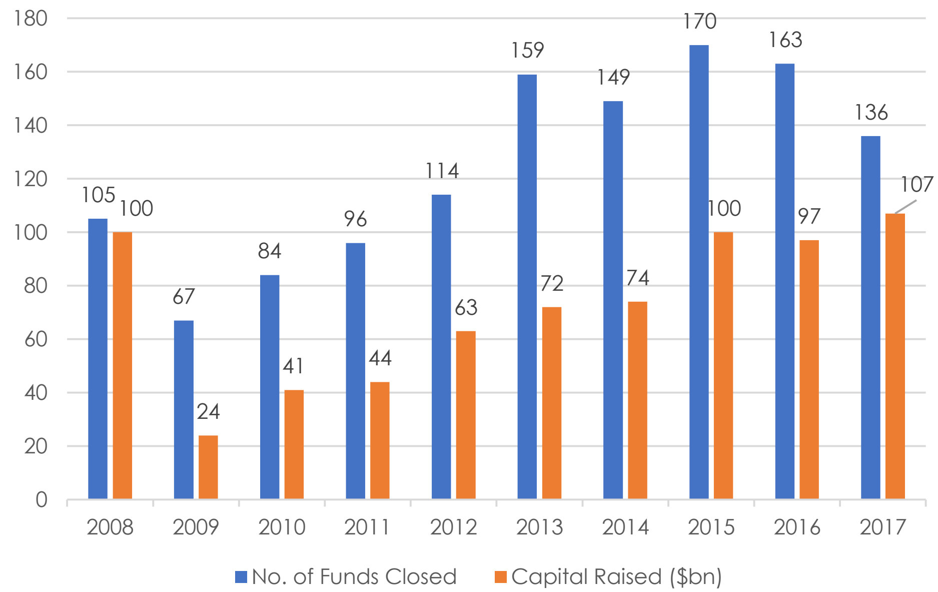
* As of December 11, 2017

…both in fundraising and dry powder.
Dry powder surpassed $1.0T in 2017, increasing by nearly $200 billion and hitting a new record high. Managers will likely feel pressure to put capital to work in an environment that many view as expensive or fully priced.

Source: Buyouts, Preqin

Private Credit Fundraising Reached New Heights

Annual Private Credit Fundraising



Direct Lending…and more Direct Lending
Over half of the private credit capital raised in 2017 was raised by direct lending funds ($54 billion).

The big got bigger
The largest 10 direct lending managers accounted for nearly 55% of the total direct lending assets raised in 2017.

More than 33 funds (as of end of Q3) each raised over $1B.

The compound annual growth rate ("CAGR") for private credit funds since 2009 is 20.5%. By comparison, the CAGR for buyout funds over the same period is 8.1%.

Source: Pitchbook, Preqin

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Buyout Deal Volume and Exits Fell

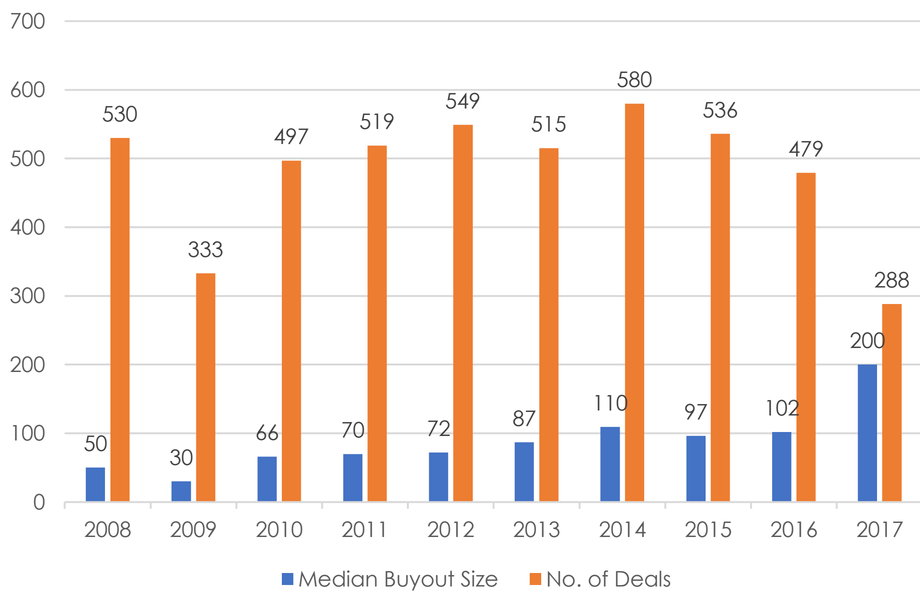
Fewer LBOs and at higher prices in 2017

Through Q3 2017, the median buyout size was $200 million, almost double the size from a year prior. The deal count, however, was on pace to be at its lowest level since 2009.

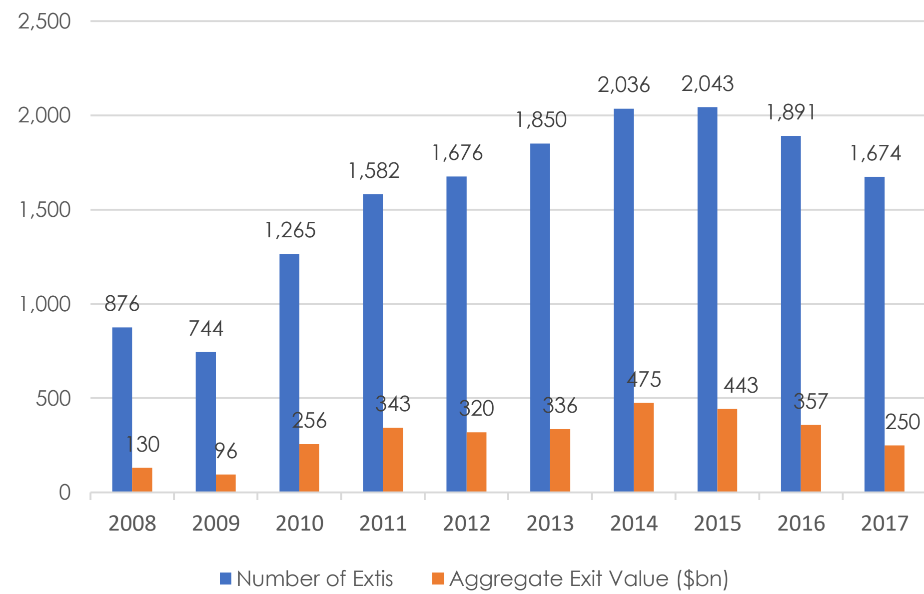
Exits (or lack thereof)

The aggregate exit value ($250B) was at its third lowest annual level since 2008. Exits were roughly half of the peak levels seen in 2014 ($475B).

Buyouts – Median Size and Count by Year



Global PE-Backed Buyout-Backed Exits, 2008-2017



Source: Buyouts, Preqin

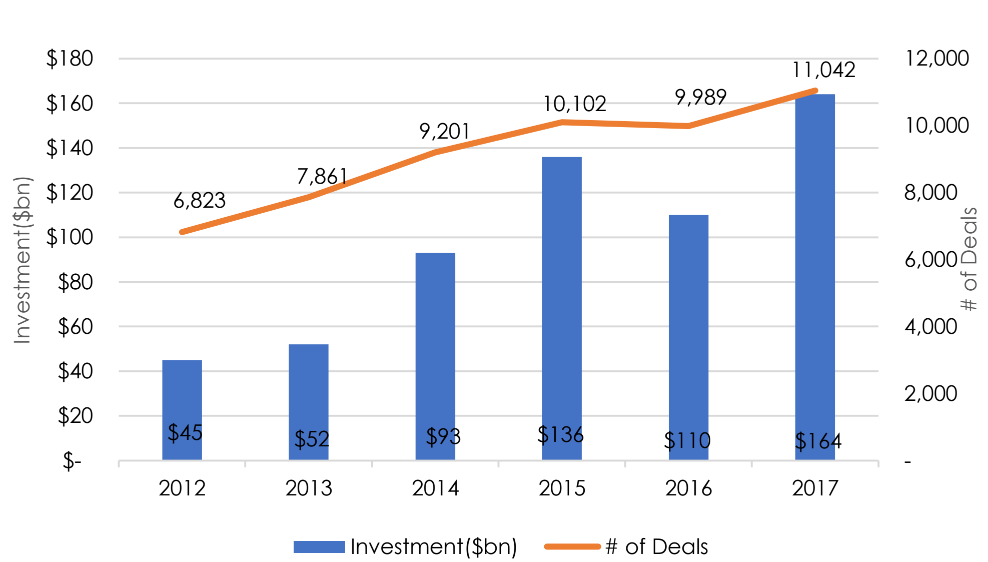
Venture Capital Funding Surged While Deals Fell

Global annual funding increased 50%
Total funding increased to over $164 billion, surging past the previous record set in 2000.

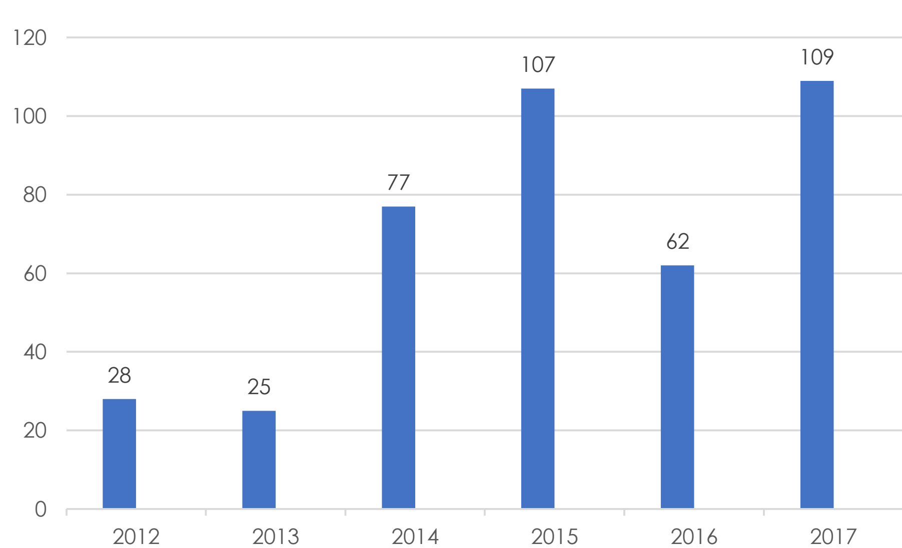
U.S. VC-backed funding eclipsed $70 billion for the second time ever, increasing 17% over 2016. While aggregate funding rose, **deals fell** to their lowest level since 2012. Seed activity continued to decline to a 5-year low.

Mega-rounds (funding levels greater than $100 million) drove the strong U.S. funding total, with 109 mega-rounds accounting for 36% of total funding.

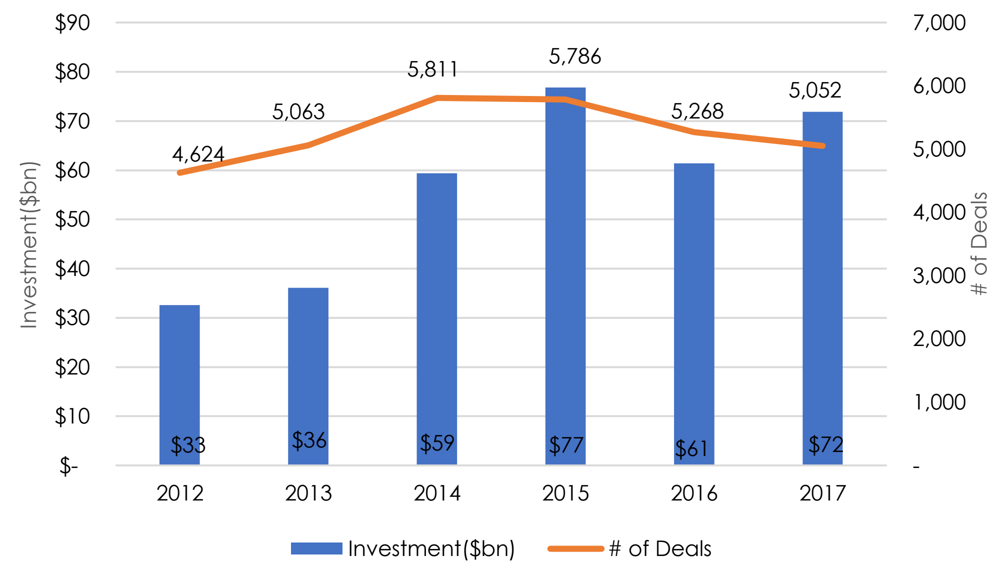
Global Annual VC Financing



Annual U.S. Mega-Round Activity



U.S. Annual VC Financing



Source: PwC Moneytree

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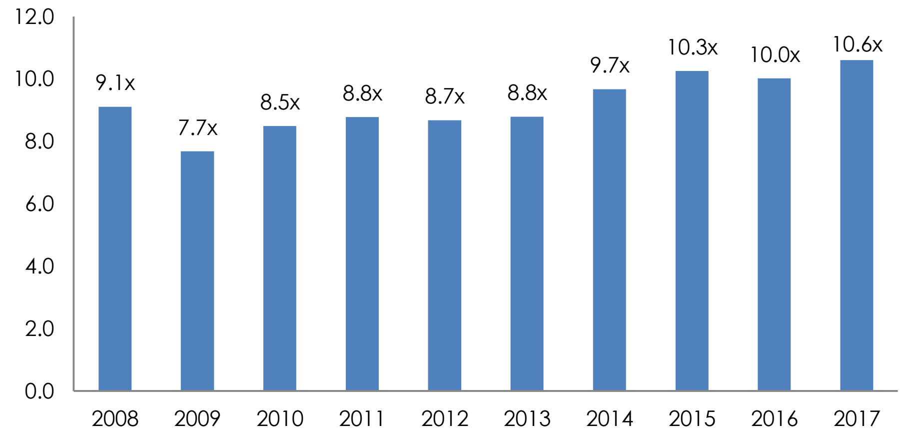
Buyout Valuations Continue to Climb

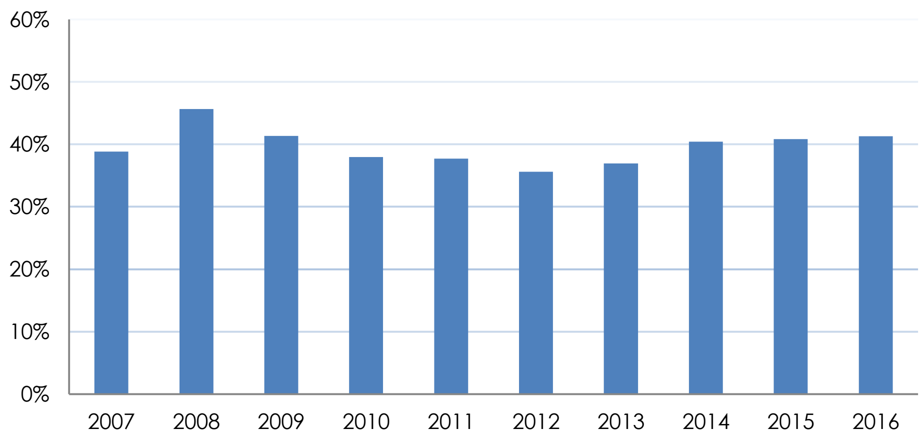
No Pricing Ease-Up
While capital was plentiful, prices remained high. Purchase price multiples for buyout transactions were consistently above 10X since 2015 and inched upward to 10.6X in 2017.

Investors are concerned. According to Preqin, **86% of LPs cited pricing/valuations as their #1 concern** facing the industry.

Average U.S. Purchase Price Multiples



U.S. Equity Contributions



Some comfort….
Equity contributions remain above pre-Global Financial Crisis levels at 41%.

Source: S&P Global

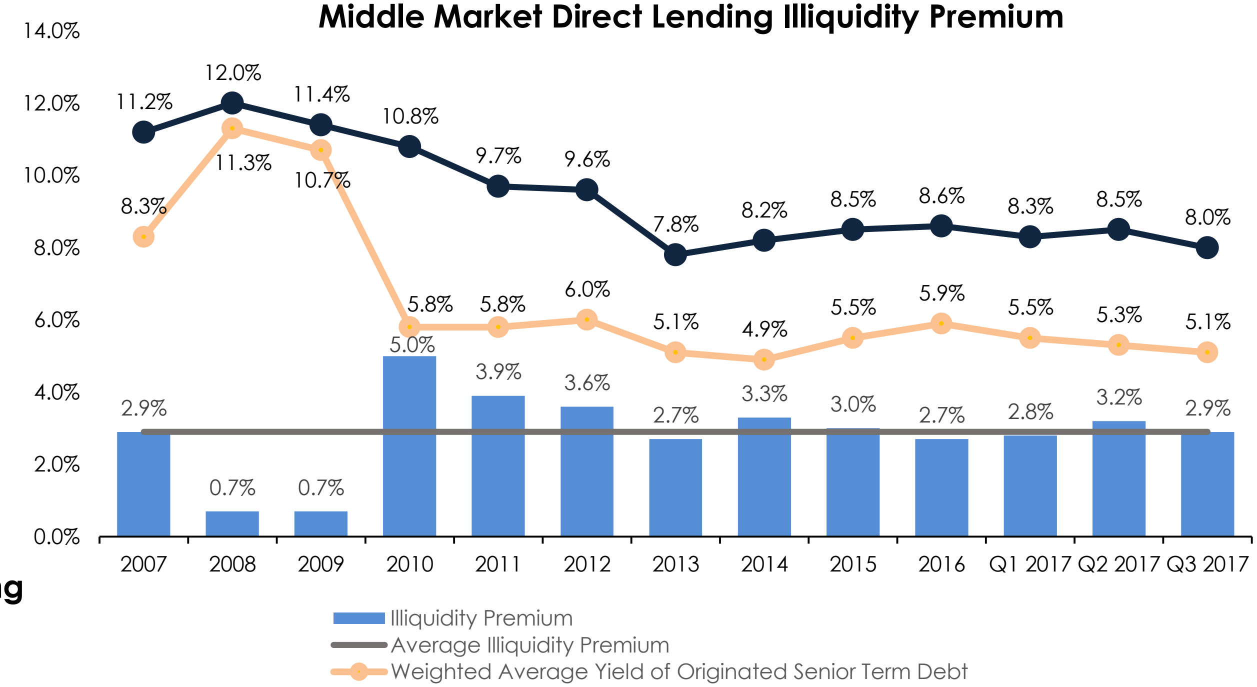
Mid Market Direct Lending Continues…..

…to draw significant capital.

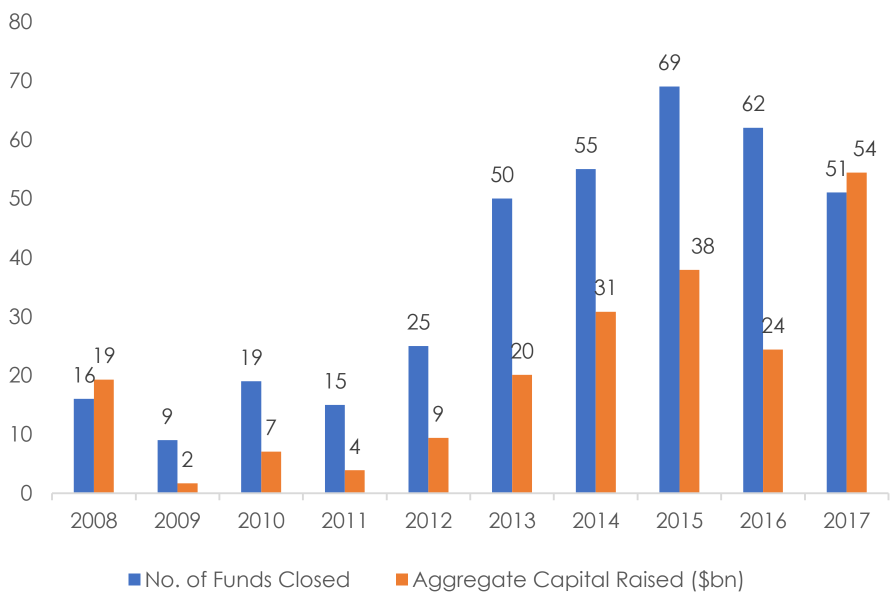
Attractive yields and a meaningful premium relative to liquid fixed income continue to draw investor interest as evidenced by the record fundraising.

- Yields did not meaningfully change, although the components did. Spreads declined but LIBOR rose.
- The **illiquidity premium remained largely unchanged** at ~3%.

Middle Market Direct Lending Illiquidity Premium



Middle Market Direct Lending Fundraising



Source: Bloomberg, Ares, KKR, Preqin

…and concern about increased competition.

Leverage in select deals ticked up and **covenant-lite** deals are getting printed as competition for deals increases, driven by record capital raising.

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Distressed: The Next Opportunity?

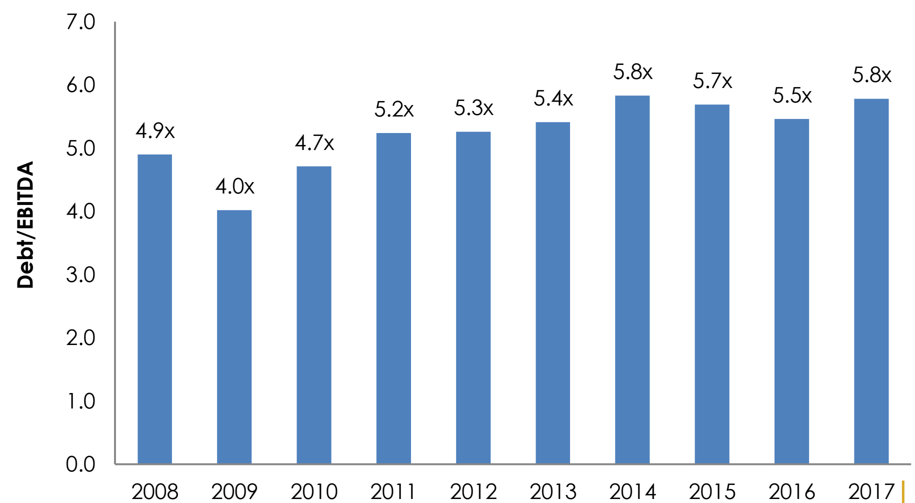
The signs of a late credit cycle abound but defaults remain low.

- Credit spreads are at post-Global Financial Crisis ("GFC") tight levels with high yield **trading close to 350bps**. The high yield CCC universe is trading at spreads less than 500 bps.
- 85% of loan deals are now considered **covenant-lite**.
- Private equity **dry powder** is at peak levels with $600 billion of buyout dry powder while multiples are near all-time highs.
- **Leverage** levels have increased to their highest levels since the GFC.
- Corporate credit defaults remain inside of 2%. Pockets of stress/distressed, however, are appearing within the retail, energy and healthcare being key sectors.

BofA Merrill Lynch US High Yield Spreads (bps)

Retail: Store Closings

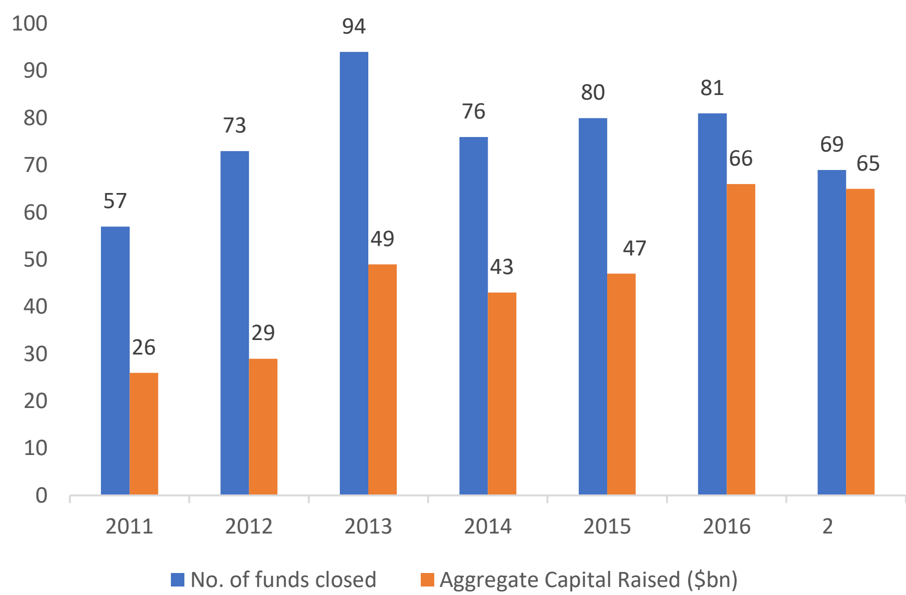
Debt Multiples – Average Large U.S. LBOs



Source: Credit Suisse: BofA Merrill Lynch/FRED; S&P LCD as of December 31, 2017

Infrastructure Fundraising Strong But Deal Volumes Down

Global Annual Unlisted Infrastructure Fundraising, 2011-2017



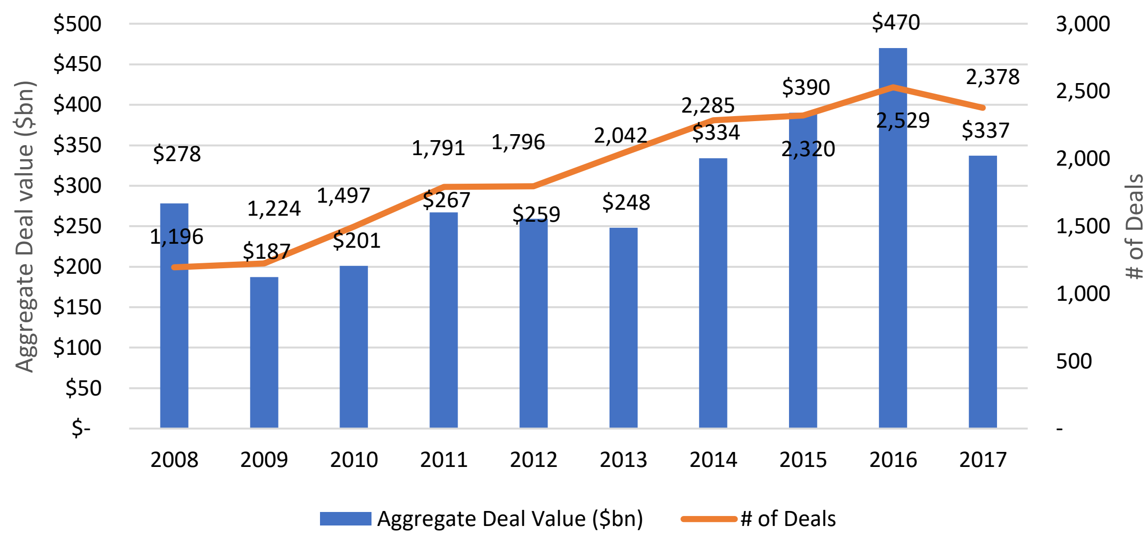
Strong Fundraising Market Continues

Unlisted Infrastructure funds raised $65B in 2017, nearly as much as 2016 ($66B).

Funds became larger in 2017, with average fund size at an all time high of $992million, while the average fund spent just 18 months in market.

- Global Infrastructure Partners III closed at $15.8B in 2017, making it the largest infrastructure fund ever closed
- Dry powder available also stands at a record of $160bn

Global Infrastructure Deals, 2008-2017



…But Deal Volume and Value are Down.

Aggregate value of Infrastructure deals in 2017 was $337B, down from $470B in 2016

Largest Deals of 2017

- Oncor: $18.8B
- Essar Oil: $12.9B
- Rosneft: $9.1B
- Canadian Oil Sands Portfolio: C$11.1B
- Veresen: C$9.7B

Source: Preqin

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Private Assets Annual Performance Since 2008

2008	2009	2010	2011	2012	2013	2014	2015	2016	YTD 2017	10 Yr
Timber 2.7%	Credit 45.5%	GE 23.7%	Upstream 39.0%	Distress 17.3%	VC 27.6%	VC 24.2%	VC 14.1%	PE Energy 19.3%	Buyout 11.1%	GE 9.9%
Upstream -5.5%	Distress 24.8%	Second 21.5%	VC 12.3%	Credit 17.3%	GE 20.3%	F-of-F 14.1%	RE 10.3%	Distress 13.0%	Infra 9.9%	Second 9.4%
Subord -10.9%	GE 19.4%	Buyout 20.7%	PE Energy 11.9%	Buyout 14.6%	Buyout 20.2%	RE 13.1%	GE 9.5%	Buyout 11.9%	Second 8.4%	VC 9.4%
PE Energy -13.2%	Buyout 17.0%	PE Energy 20.4%	Second 10.1%	Subord 12.9%	Credit 17.8%	Second 12.1%	Buyout 8.7%	Credit 11.3%	Distress 8.1%	Credit 9.2%
Infra -14.9%	Subord 16.2%	Credit 17.2%	RE 9.5%	Second 12.1%	Distress 17.4%	GE 11.3%	Infra 8.4%	Upstream 9.8%	GE 8.0%	Distress 9.1%
VC -17.3%	PE Energy 10.8%	Distress 16.4%	F-of-F 8.2%	Upstream 11.4%	F-of-F 17.0%	Subord 10.2%	F-of-F 7.9%	Subord 9.6%	Subord 6.8%	Subord 8.7%
Second -19.5%	Upstream 9.2%	F-of-F 16.0%	Subord 7.9%	GE 11.3%	Second 15.4%	Buyout 9.8%	Second 7.4%	Infra 9.3%	RE 6.7%	Buyout 8.7%
F-of-F -20.1%	F-of-F 7.3%	RE 14.5%	Buyout 7.1%	Timber 10.4%	RE 14.8%	Credit 8.3%	Subord 4.9%	GE 7.7%	Credit 6.0%	F-of-F 7.8%
GE -25.0%	Second 6.9%	VC 14.4%	Distress 6.5%	Infra 10.0%	Subord 12.2%	Infra 6.4%	Distress 3.4%	RE 6.9%	F-of-F 6.0%	Infra 7.5%
Distress -37.0%	VC 3.2%	Subord 12.3%	GE 5.2%	RE 9.2%	PE Energy 9.5%	Distress 5.9%	Timber -0.3%	Second 5.7%	VC 5.3%	PE Energy 5.1%
Buyout -30.6%	Infra 2.0%	Upstream 11.4%	Infra 5.1%	F-of-F 8.9%	Infra 9.1%	Timber 5.8%	Credit -1.3.%	F-of-F 5.0%	PE Energy 2.3%	RE 4.0%
RE -35.4%	Timber -4.8%	Infra 11.2%	Credit 1.6%	VC 7.1%	Timber 5.7%	PE Energy -2.7%	PE Energy -17.9%	Timber 2.6%	Timber 0.5%	Timber 3.3%
Credit -37.0%	RE -23.2%	Timber 7.4%	Timber -0.2%	PE Energy 6.7%	Upstream 1.7%	Upstream -13.6%	Upstream -37.3%	VC 0.9%	Upstream -4.5%	Upstream -0.7%

Key

- Venture Capital
- Growth Equity
- Buyout
- Subordinated Capital
- Credit Opportunities
- Control-Orientated Distressed
- Private Equity Energy
- Upstream Energy & Royalties
- Timber
- Real Estate
- Infrastructure
- Fund of Funds
- Secondary Funds

2017 year-to-date as of June 30, 2017; net IRR

Source: Cambridge Associates

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Tax Reform: Likely Positive for Portfolio Companies; Certainly Positive for GPs

The Tax Cuts and Jobs Act (TCJA) signed into law in late 2017 will lower business and individual tax rates, modernize U.S. international tax rules, and provide the **most significant overhaul of the U.S. tax code** in more than 30 years.

Key Changes in the TCJA Include:

- Corporate tax rate reduction from 35% to 21% starting in 2018. PE portfolio companies may have lower tax expense as a result but also reduced value of deferred tax assets and liabilities.
- Cap on interest expense reduction (new limit is 30% of the business's adjusted taxable income).

The most substantial impact may be what the TCJA *did not* change:

- TCJA does not recharacterize long-term capital gains with respect to assets with holding periods of greater than three years. As a result, carried interest allocations to the general partners of private equity funds that hold investments for longer than three years will continue to be treated as long-term capital gains.

Key Takeaways: U.S. portfolio companies will generally be winners, but highly levered businesses will lose opportunity to deduct interest expense.

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Looking Ahead…PCA Favors Complexity over Simplicity

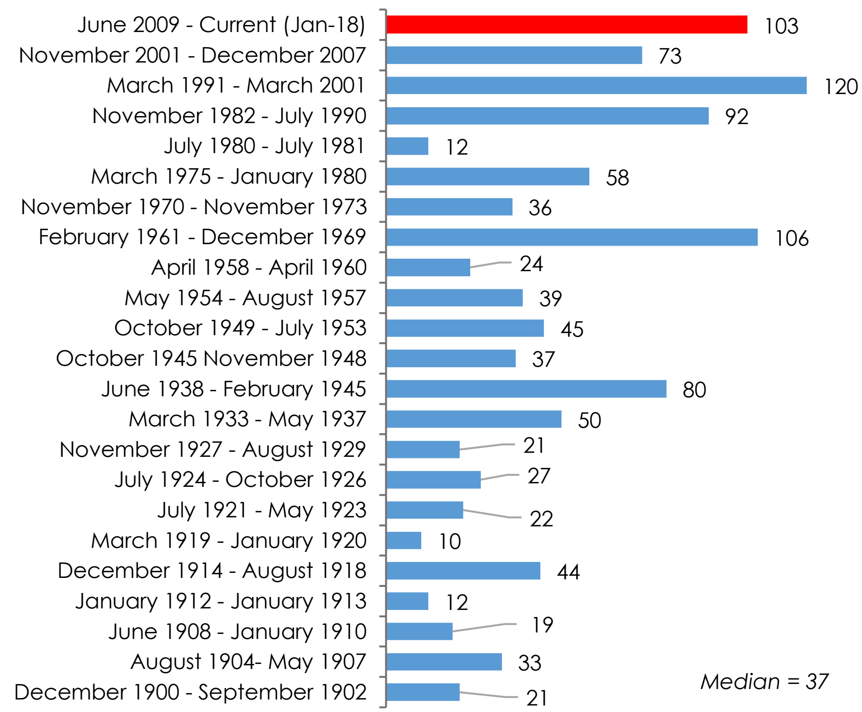
Investors are **overpaying for stable cash flows** and, based on asset flows, appear unwilling to embrace complexity – e.g., half of the capital raised in private credit in 2017 was in middle market direct lending. Opportunities stemming from capital scarcity are becoming more and more scarce.

Pricing, combined with high leverage levels and outstanding dry powder, are reasons to take a **cautionary approach to the buyout** segment of the market.

Seek opportunities that have differentiated investment strategies, with a sustainable sourcing approach, and the potential to add value through multiple avenues. Attractive but more complex opportunities include:

- Specialty finance/asset-based lending (equipment leasing, aviation finance)
- Venture capital/growth equity
- Select stressed/distressed
- Smaller, more capacity-constrained strategies and managers

Duration of U.S. Economic Expansions (Months)



The duration of the expansion appears **long in the tooth** at 103 months (versus an average of 37 months).

Source: National Bureau of Economic Research (NBER), KKR; as of January 2018

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Contact Information

Pension Consulting Alliance is one of the largest independent non-discretionary institutional investment consulting firms in the industry, advising on over $1.35 trillion in assets.

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