Hamilton Lane®

Market Overview

2017 / 2018

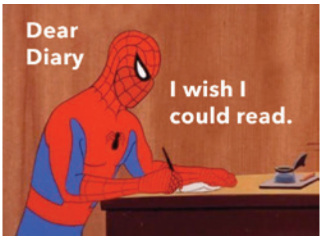
WAITING for GODOT

Keeping Clients In Sight

"There are books of which the backs and covers are by far the best parts."

- Charles Dickens, Oliver Twist

We begin this annual market overview with a healthy amount of trepidation. In this our age of rampant social media, incessant TV coverage and ceaseless commentators commentating, what can possibly be said that hasn't already been heard? How can anything possibly be said in prose when the written word itself has become an almost lost form of communication?



We struggle with such self-doubt. Yet, we press on because we know our readers are anxiously awaiting this overview's ultimately sage and insightful prognosis: The private markets are doing just fine.

Wha?? Admit it; even as you read this, you are pretty much convinced that markets are too high and really can't go higher. You're holding your breath waiting for the crack in the market that signals the beginning of the end. Anyone believing otherwise can't be credible, can they? It simply can't take this long of a book to say the end is near.

We hate to disappoint, but what you are about to read will not include a prediction as to when the market implodes; we simply don't know if or when that will be. For the last few years, we've maintained that markets were going to surprise on the upside and recent history has proven us right on that point. Hmm…seems we might either be pretty good at this prognostication stuff or we might be the proverbial broken clock that is right at least twice a day. It's hard to say which is accurate until we offer a different prediction, which we won't be doing this year.

Instead, we remain of the view that the markets will continue to surprise people: Equity markets will be okay, credit markets will not collapse, private markets will do just fine. Yes, such market dynamics might strike some as boring or stupor-inducing even. But we'd argue that they feature one important redeeming virtue: They will actually make you money.

Boom.

Okay, so now that we've given away the ending, how can we induce you to turn the page? First, we like to think we describe what is a relatively uneventful outlook with some wit and humor as well as some clever graphics and visuals. Second, much like its predecessors, this overview boasts charts, data and analysis that, immodestly, you just won't find elsewhere. We've long held the view that having the best data in the asset class only matters if you're willing to share it. And we are. Our goal here is to have us all see what is factually going on in parts of the private markets and have discussions based on those facts. (Crazy, we know, but we think having an accurate context is important to any productive conversation about investing.) As our readers, you may agree or disagree with the conclusions and inferences we draw from the data we present. We encourage that debate; it makes us all smarter.

And, while we view the current state of the private markets as decidedly ho-hum, there are nevertheless some interesting developments underway. Not all represent immediate, potential game changers; still, they're worth considering as they represent some of the variables that need to be taken into account as you consider your goals in the private markets as well as your overall investment outlook and portfolio construction plans. Is the debate over the use of credit lines overblown? How risky is your private markets portfolio compared to your public equity portfolio? What are the sentiment indicators signaling for the credit markets? For the private equity markets? For real assets?

We hope we've successfully piqued your interest and that you'll give this book at least a quick perusal. We're confident you'll find some of the analysis interesting and some of the commentary provocative, if not infuriating. You'll wish we had covered some topics in greater depth and others far less so. What's written in this overview is less important than your reaction to it and the overview's ability to have you consider a different perspective. If that happens, we will have achieved what we set out to do.

If, however, you make it to the end of this overview and decide the back and front covers really were the best parts, feel free to send it back to us. We do recycle.

This market overview will blow your mind.

Okay, not really; at least not if you're expecting breathless declarations of buy or sell, which, by the way, is how many market overviews conclude. Our best guess is they do so because the authors have little else of substance to offer. Well, readers, today's your lucky day because we believe we have a lot more to offer.

For this annual overview, we've endeavored to make our analysis of what is a relatively humdrum market landscape both entertaining and full of substance. To do so, we scoured tons of data, ran loads of analysis, connected dots and made inferences that no one else has the resources or the gumption to make. What's more, we attempted to do so with wit, erudition and (except for these particular sentences) a sense of humility and a willingness to not take ourselves too seriously. But, enough about us….

The most noteworthy feature of the private markets industry this past year may very well have been the sheer number of stories declaring that the asset class is overheated and attracting too much capital, and that investors should stay away and invest elsewhere. We think any such broad stroke assessment of the industry oversimplifies, if not blatantly disregards, many of the underlying market dynamics at work. We promise we won't waste the next 50 or so pages to reach a one sentence conclusion advising our readers to "Sell Everything Now Before It's Too Late!!!!!!" Such an extreme proclamation would not do the industry justice and is simply too challenging to defend; nor, incidentally, is that actually our recommendation.

Still, shouldn't we liven up our overview with dazzling predictions and bold prognostications? Well, we could; but you'd probably never trust our advice again, so then nobody wins.

Contents

State of the Private Markets

For those who follow the public equity markets, the topic du jour has been the VIX.

A means of measuring the implied volatility of the S&P 500, the VIX has been at record lows. A better way to describe the same thing would be stable. And stable is so *boring*.

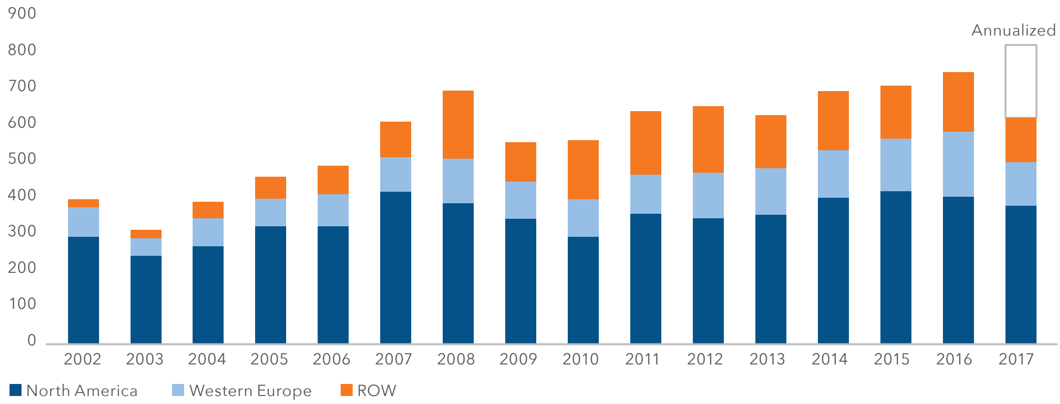
With the public markets in such an uninteresting state, is it reasonable to think the private markets would be all that different? Nope. They, too, exist in a relatively unexciting state of low volatility.

That doesn't mean there aren't some things going on, however; so, let's dig into what's happening in these private markets.

FUNDRAISING

One indicator that the private markets continue their bull market run has been the record number of PPMs that Hamilton Lane is on pace to receive in 2017 (Chart 1). Bear in mind that hope always exceeds reality, so this doesn't necessarily mean the number of funds ultimately formed will also be at record levels. But there wouldn't be a record number of PPMs if people didn't feel the fundraising market was attractive.

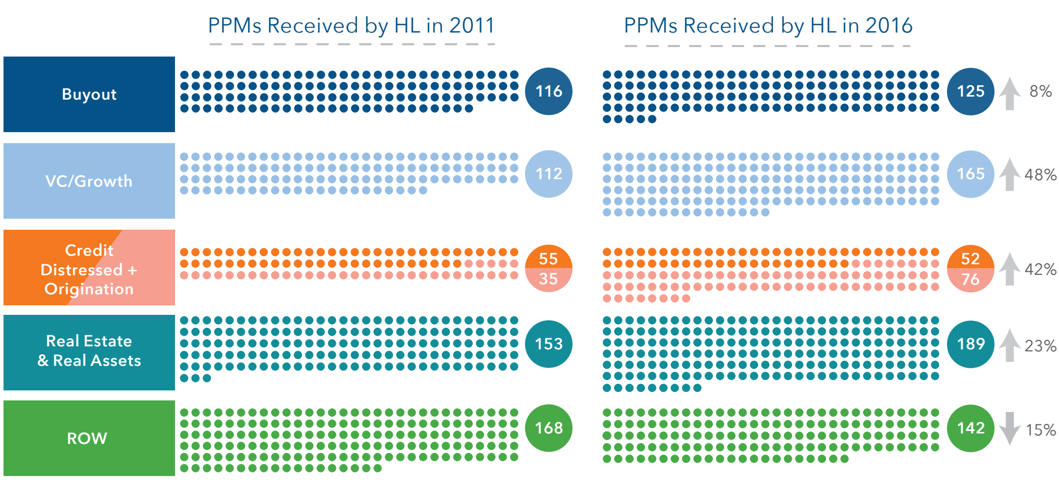
Chart 1: PPMs Received by Hamilton Lane



Source: Hamilton Lane Diligence (October 2017)

Let's take a closer look at where that supply is coming from (Chart 2).

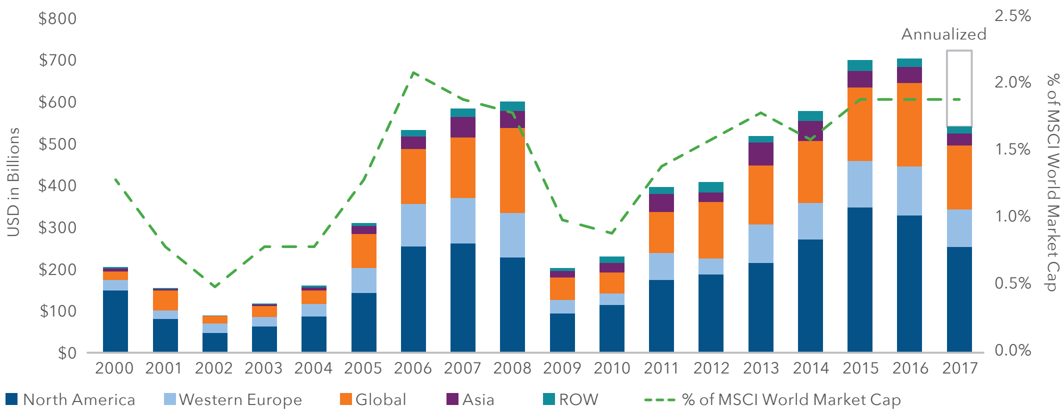
Chart 2: PPMs Received by Strategy



Source: Hamilton Lane Diligence (October 2017)

Interesting, isn't it? We expected to find that growth over the last five years was driven by ROW and buyout since those seem to be the most talked about strategies. Instead, the real story is how much of the new supply has come from VC/growth and credit, particularly from the origination side of the credit area. One couldn't find more disparate strategies to drive the increase in PPMs received. Just look at how varied the choices have become for investors to create and develop portfolios – not only is there greater selection in each of the strategies, but the strategies themselves are becoming more diverse.

Chart 3: Global Private Markets Fundraising by Geography



Source: Bison data via Cobalt. Fundraising data includes real estate, secondary funds, and fund-of-funds (October 2017).

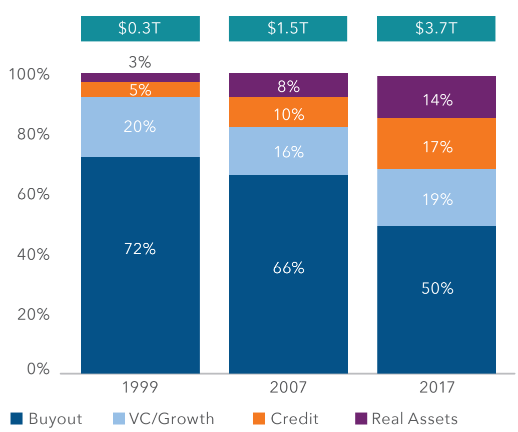
As Chart 3 demonstrates, it seems 2017 may prove a record-breaking year for private markets fundraising. Reading this, alarm bells are likely sounding in your ears, as record fundraising is certainly indicative of the bullishness in the markets. Consider, however, the percentage of the MSCI World Market Cap that private markets fundraising actually constitutes. It's averaged a measly 1.6% since 2006! The private markets ought to be viewed in the context of the broader financial markets in which they operate; from that perspective, the industry's share of global market cap has actually *decreased* since 2006. Look at how that percentage spiked and peaked at the last fundraising top in 2007-2008. Don't you just hate it when the forest looks so much less frightening than a tree or two?

Our data indicates that globally-focused funds (generally the largest buyout funds) represent nearly 30% of capital raised since 2006. Given that, it's not terribly surprising that capital raised by the 20 largest funds has increased from approximately 22% of total fundraising in 2014 to more than 30% in 2016; and we'd anticipate that trending higher in 2017. LPs love to trash talk those large funds, but apparently we love investing in them even more.

We find Chart 4, which illustrates total exposure in portfolios, to be one of the more interesting charts in this year's overview. It graphically indicates a trend that industry participants anecdotally discuss, not to mention a theme that we have been covering for a number of years now, which is the movement of LP capital away from traditional buyout into other private markets strategies, namely private credit and real assets. We have said it before and will say it again: We think this trend may have cyclical ups and downs depending on market conditions, but a shift toward credit and real assets will continue for some long period of time.

Chart 4: Total Exposure by Strategy

% of NAV + Unfunded

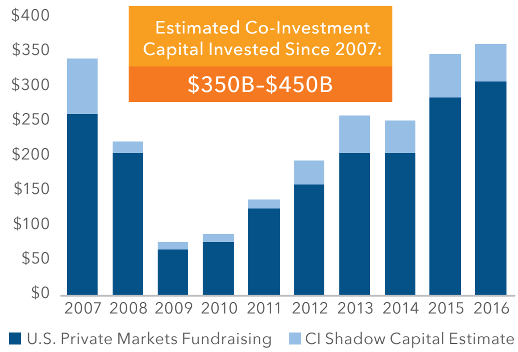


Source: Hamilton Lane Data via Cobalt (October 2017)

The final brick in the fundraising wall (sorry, Pink Floyd) is shadow fundraising. You may remember Chart 5 from prior years.

We know only fools are certain; we also know, with almost total certainty, that the industry is underestimating the amount of co-investment and separate account capital being deployed. Hint, hint: A recent study by Bain estimates that "shadow capital" will add up to 20% to annual fundraising totals, corroborating what we've been saying for years[1]. Including even a conservative estimate for CI capital, we think fundraising hit peak levels in 2016 and will do so again in 2017. If we extrapolate for what we think might be contributing to that total, we believe aggregate fundraising and spending by LPs in the private markets is probably closer to 20% above prior record levels.

Chart 5: U.S. Private Markets Fundraising and CI Capital
USD in Billions



U.S. Private Markets includes all U.S. buyout, growth equity and credit-focused funds.
Source: Hamilton Lane Data, Pitchbook, S&P (August 2017)

Let's look at our favorite market sentiment indicators related to fundraising.

Chart 6: Time Between Funds by Strategy
Median Time to Next Fund (Years)

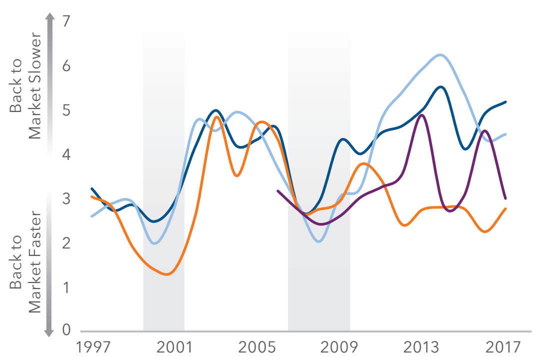
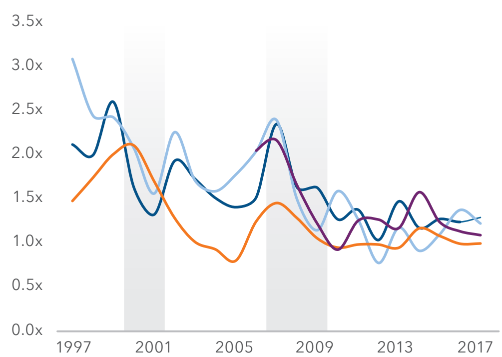


Chart 7: Fund Size Step-Up by Strategy
Median Multiple of Previous Fund Size



SMID Buyout — Mega/Large Buyout — Venture Capital — Credit

Source: Hamilton Lane Data (October 2017)

Ruh roh, Raggy. [Sidebar: how many of you knew that Shaggy's last name was Rogers? Or that his first name was actually Norville? Be honest.]

Chart 6 simply illustrates how quickly GPs are spending money and coming back to market with another fund. This indicates degrees of bullish or bearish feelings by both GPs (spending the money) and LPs (supplying the money). Recall that we signaled venture was heading toward a danger zone in 2014 and 2015 based on this indicator. Today, credit is trending toward the danger zone, so this chart continues to be one that's well worth watching over the next year.

Chart 7 is more muted and, like so many things, we have a conspiracy theory about that. The large step-up in fund sizes was widely blamed for the industry's 2007 debacle, and LPs remain wary of allowing large increases in most market segments. This is particularly true at the larger end of the market. LPs also, as we've noted, want more choice.

[1] Bain & Company Global Private Equity Report 2017

Solution? Voila: the multi-product GP. The suit-of-many-colors investor. GPs are giving LPs what they want: The flagship fund grows only somewhat, while the companion, industry-, style- or geography-specific funds sprout like mushrooms on the dampened forest floor, giving LPs the choice they so desire. Total capital may be growing, but it is not showing up in statistics about individual fund size increases for this reason.

Performance

In the end, you invest in the private markets because they outperform the public alternatives. So, how have they fared over the past decade (Chart 8)? We'd say pretty darn well. (To our millennial readers, "pretty darn well" roughly translates to "slays.") Over the last 10 years, private equity has outperformed its rival public equity benchmarks, and, in some cases, done so handily.

Chart 8: 10-Year Asset Class Risk-Adjusted Performance - As of 6/30/2017

	Asset Class	Annualized Total Return	Annualized Volatility	Sharpe Ratio
Equity	**Private Equity ex Credit and Real Assets**	**8.9%**	**14.6%**	**0.43**
	U.S. Equities	7.3%	16.9%	0.27
	Hedge Funds	3.0%	7.5%	0.04
	Global Equities	3.7%	18.1%	0.06
	International Equities	1.0%	19.8%	< 0
	Emerging Market Equities	2.2%	24.0%	< 0
Credit	**Private Credit**	**7.4%**	**10.6%**	**0.45**
	High-Yield Bonds	7.2%	11.7%	0.39
	High-Grade Bonds	6.6%	6.7%	0.59
	Municipal Bonds	4.6%	4.4%	0.45
	Government Bonds	3.4%	8.1%	0.10
Real Assets	**Private Real Estate (Non-Core)**	**2.6%**	**25.6%**	**< 0**
	Private Real Assets	**4.3%**	**16.7%**	**0.10**
	REITs	6.2%	25.2%	0.14
	Public Infrastructure	4.0%	17.5%	0.08
	Public Energy	-1.0%	23.1%	< 0

Indices used: Hamilton Lane All Private Equity ex. Credit and Real Assets with volatility de-smoothed; Russell 3000 Index; HFRI Composite Index; MSCI ACWI Index; MSCI World ex US Index; MSCI Emerging Markets Index; Hamilton Lane Private Credit; Credit Suisse High Yield Index; Barclays Aggregate Bond Index; Barclays Municipal Bond Index; Barclays Global Treasuries Index; Hamilton Lane Private Real Estate; Hamilton Lane Private Real Assets; FTSE/NAREIT Equity REIT Index; S&P Global Infrastructure Index; MSCI World Energy Sector Index. Geometric mean returns in USD. Assumes risk free rate of 2.6%, representing the average yield of the ten-year U.S. Treasury Note over the last ten years. (October 2017)

What's amazing in this cycle has been the continued interest in private equity even when the asset class has not really outperformed the best-performing asset group on Earth during the last few years: U.S. equities. It's merely kept pace. We know, we know; PE people aren't supposed to let on about that little secret. But who are we fooling, people? The jig is up.

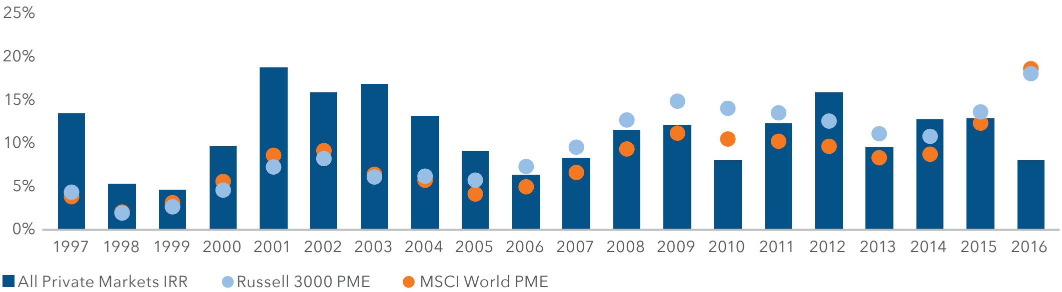
Private credit has been the real star when you consider its outperformance against any other type of credit alternative. In the credit world, outperformance by a few basis points is good. Private credit's outperformance by hundreds of basis points over certain strategies (cough, government bonds, cough) is simply outstanding.

In the real assets bucket, private real estate has underperformed compared to REITS.

> *That anyone even considers risk in the private markets should strike us all as surprising*

Comparing returns on a public market equivalent (PME) basis demonstrates why the private markets remain a core and growing part of any institutional investment portfolio (Chart 9).

Chart 9: Private Markets IRR vs. PME
By Vintage Year



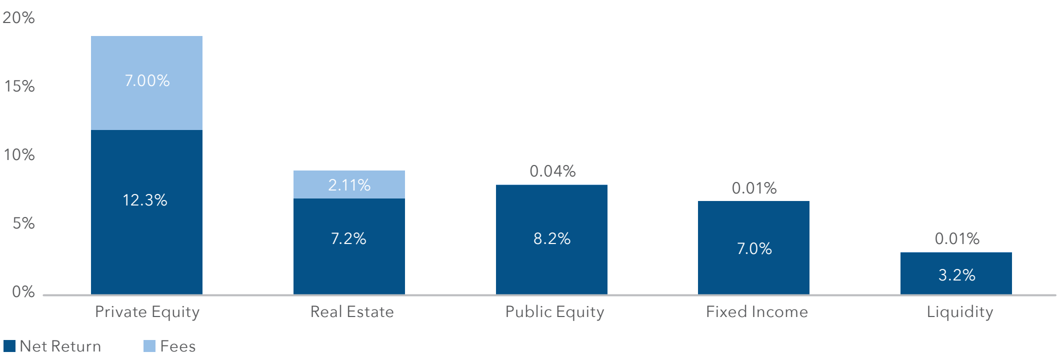
Source: Hamilton Lane Data via Cobalt, Bloomberg (October 2017)

Even against the backdrop of one of the greatest bull markets in U.S. public equity's history, the private markets hold their own. Compared to global indices, the private markets have outperformed in every vintage year save a few. We made this prediction last year and we'll make it again: When we revisit this chart in a few years after the public markets have entered a bear phase, we'll discover that the private markets outperformed in every single vintage year.

But enough talk about performance. Let's deal with the elephant in the room: fees.

We explained the reality of fees in this asset class so poetically in last year's market overview that we're going to go ahead and quote ourselves here: "Private equity is a crazy expensive asset class; I mean really, crazy expensive compared to just about any other asset class." (C'mon, you know it's deep stuff like this that keeps you coming back to our overview.)

Chart 10: Asset Class Returns - Gross vs. Net Returns
Asset Class 20-Year Historical Returns



Source: Private Equity Workshop Materials: CalPERS Investment Office (November 2015)

You'll be shocked to hear that, in our estimation, Chart 10 is one of the most notable charts in this overview. How great are the private markets? What other asset class, on a gross basis, has delivered high teens returns for so long? Simply awesome. But, that awesomeness raises some fundamental questions:

» Is private markets investing such a unique skill set that it justifies the payment of such large fees? Are there only a select few people in the world who can perform this type of investing successfully?

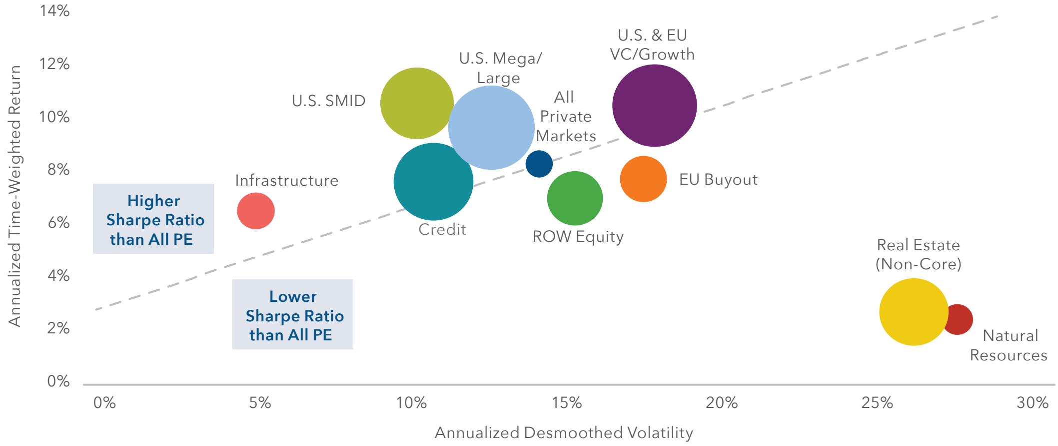
» Alternatively, is outperformance in this asset class simply a moment in time, a return captured by a few and soon to be diminished as the industry grows?

» Or, as some who are building their own investment teams believe, do the private markets simply represent a great form of ownership whereby returns can be largely duplicated at lower fees by a reasonably competent group of investors?

These are the questions that will – and should – become increasingly important elements of the private markets dialogue over the next decade. Still, what ultimately cannot be lost on any of us is that, on a net basis, even after the incredible fee load, private markets outperform their public counterparts.

As strategies continue to proliferate across the private markets, investors possess more choice than ever as to where they want to sit in the available risk/return spectrum.

Chart 11: 10-Year Strategy Returns & Volatility
Bubbles Sized by NAV



Source: Hamilton Lane Data via Cobalt (October 2017)

Does Chart 11 surprise you at all? It's okay to admit it, as some of this surprised us too. First of all, that anyone even considers risk in the private markets should strike us all as surprising. Try to remember the last time someone talked about risk (other than to explain why their performance lagged peers) and try even harder to remember the last time someone even attempted to measure it.

Commercial Break

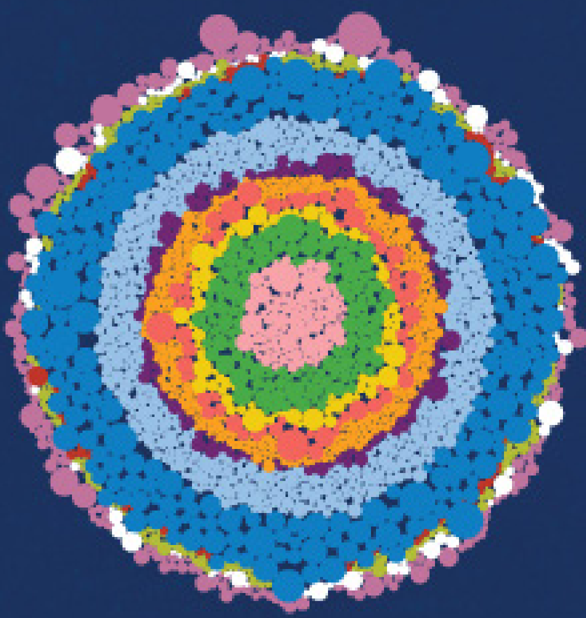
While we're on the topic of measuring (a feeble segue, we admit), we pause here for a commercial break to share a message from our sponsors about - you guessed it - data.

By now, most of you have heard us talk about our data – about how we gather it, use it, analyze it. We have some opinions (shocker) about how everyone else should be thinking about data as it relates to private markets investing.

Recall the days of early private markets data capability.

For some of you, this image may still prove representative of how you communicate about and develop your portfolios. As the asset class continued to grow over the years, the situation began to improve, analogous, perhaps, to the flip phone. It wasn't until yours truly began to take data seriously and rolled out the iPhone equivalent of a private markets database that things really began to change. (Yes, it is with only an ounce of humility that we take credit for that one.)

Hamilton Lane Fund Data Sample
By Strategy



Source: Hamilton Lane Data (October 2017)

$3.7T total fund commitments

3,400+ unique partnerships

1,200+ GPs

40 vintage years

Detailed financials

Institutional quality

Welcome to a new era of data capability.

[Did you ever in your wildest dreams think Hamilton Lane could be compared to Apple? We're completely different companies after all; Apple is in Cupertino and we're headquartered in Bala Cynwyd…]

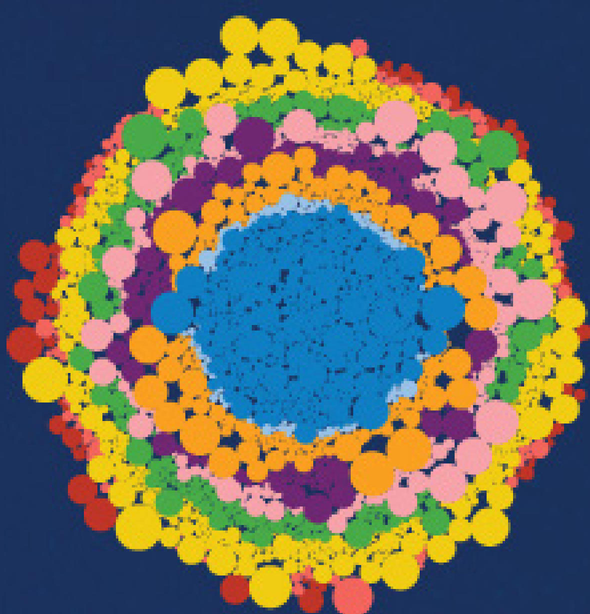
Throughout this overview – and really in any piece of content or thought leadership we produce at Hamilton Lane – the data underlying the analysis is enormous.

Our data is generated from actual financial statements, not courtesy of FOIA-derived figures or self-reported nonsense. The analytic engines built to collect and analyze this data, whether iLEVEL, Black Mountain, Deal Cloud or Cobalt, are state-of-the-art, cutting-edge systems. Our goal is and has always been a simple one: to bring more data and transparency to the private markets. It will take time and effort, but we'll get there. The information you see in this overview is representative of the power of reliable data.

The other data you will see in this overview comes from our annual GP survey. This year, we've collected input from more than 90 general partners managing more than 800 funds and spanning every geography and strategy, from buyout to venture to credit.

We end our commercial data break here and now return to our regularly-scheduled programming.

Hamilton Lane Deal Data Sample
By Sector



Source: Hamilton Lane Data (September 2017)

11,000+ deals

750+ funds

190+ GPs

38 years of data

Financials and performance

The Periodic Table of Fund-Level Returns is a regular in our overviews (Chart 12). We like it, and have heard from our readers that you do too.

Chart 12: Periodic Table of Returns

Pooled IRR by Vintage Year

1999	2000	2001	2002	2003	2004	2005	2006
Real Estate 16.2%	Real Estate 25.4%	EU Buyout 36.3%	EU Buyout 32.1%	EU Buyout 21.9%	Natural Resources 33.8%	Growth Equity 20.1%	Distressed Debt 9.6%
EU Buyout 14.1%	EU Buyout 18.9%	Distressed Debt 21.4%	Real Estate 24.2%	U.S. SMID 17.2%	EU Buyout 19.8%	Seed/Early VC 13.6%	Growth Equity 9.2%
ROW 10.9%	U.S. Mega/Large 16.7%	Real Estate 20.8%	Distressed Debt 20.3%	All PM 16.9%	Real Estate 17.6%	U.S. SMID 9.8%	U.S. SMID 8.0%
Mezzanine 9.8%	Growth Equity 10.5%	All PM 18.8%	U.S. SMID 18.4%	ROW 14.0%	All PM 13.2%	U.S. Mega/Large 9.2%	U.S. Mega/Large 7.7%
U.S. SMID 8.2%	Mezzanine 10.4%	Growth Equity 17.7%	All PM 16.0%	Mezzanine 9.8%	U.S. Mega/Large 12.8%	All PM 9.1%	Multi-Stage VC 7.2%
U.S. Mega/Large 6.1%	U.S. SMID 10.3%	U.S. SMID 16.8%	Multi-Stage VC 6.5%	Real Estate 8.5%	U.S. SMID 11.2%	EU Buyout 8.7%	EU Buyout 6.8%
All PM 4.7%	ROW 10.2%	Mezzanine 16.2%	Seed/Early VC -2.2%	Distressed Debt 7.9%	ROW 11.2%	ROW 7.9%	All PM 6.4%
Late Stage VC -2.2%	All PM 9.7%	ROW 15.8%		Seed/Early VC 2.8%	Seed/Early VC 10.6%	Multi-Stage VC 5.7%	ROW 4.5%
Multi-Stage VC -4.2%	Multi-Stage VC 2.6%	US Mega/Large 12.8%			Distressed Debt 10.4%	Infrastructure 5.6%	Seed/Early VC 4.3%
Seed/Early VC -7.1%	Late Stage VC 0.9%	Multi-Stage VC 3.0%			Multi-Stage VC 6.9%	Mezzanine 3.8%	Mezzanine 3.1%
	Seed/Early VC -2.9%	Late Stage VC 2.4%				Real Estate 0.3%	Real Estate 2.6%
		Seed/Early VC 1.6%					Natural Resources -5.1%

2007	2008	2009	2010	2011	2012	2013	2014
Growth Equity 15.3%	Seed/Early VC 18.6%	U.S. SMID 21.0%	Seed/Early VC 22.8%	Multi-Stage VC 25.7%	Multi-Stage VC 19.6%	Multi-Stage VC 22.4%	Multi-Stage VC 19.0%
U.S. SMID 11.7%	Growth Equity 17.4%	Multi-Stage VC 18.8%	Multi-Stage VC 17.5%	Seed/Early VC 21.1%	Seed/Early VC 19.4%	Seed/Early VC 17.7%	EU Buyout 16.4%
Multi-Stage VC 11.6%	US Mega/Large 14.8%	Growth Equity 13.1%	Growth Equity 17.4%	U.S. SMID 17.7%	Infrastructure 19.2%	U.S. Mega/Large 17.4%	U.S. Mega/Large 15.7%
U.S. Mega/Large 10.1%	U.S. SMID 14.3%	All PM 12.2%	U.S. SMID 13.0%	Real Estate 17.6%	U.S. SMID 19.0%	ROW 14.3%	U.S. SMID 14.5%
Seed/Early VC 9.8%	Distressed Debt 13.1%	Seed/Early VC 11.6%	Real Estate 11.8%	Growth Equity 17.4%	Growth Equity 18.2%	U.S. SMID 12.3%	Distressed Debt 14.4%
All PM 8.4%	Multi-Stage VC 12.3%	EU Buyout 11.1%	Mezzanine 10.3%	U.S. Mega/Large 14.9%	U.S. Mega/Large 17.8%	Real Estate 11.7%	ROW 13.3%
Distressed Debt 7.7%	All PM 11.6%	Real Estate 10.4%	Distressed Debt 8.6%	EU Buyout 12.9%	EU Buyout 16.1%	Mezzanine 10.9%	All PM 12.9%
Natural Resources 7.1%	EU Buyout 11.3%	Distressed Debt 9.6%	All PM 8.2%	All PM 12.4%	All PM 15.9%	Growth Equity 10.3%	Mezzanine 10.1%
Mezzanine 7.0%	Mezzanine 11.0%	Infrastructure 9.2%	EU Buyout 8.1%	ROW 9.3%	Natural Resources 15.0%	All PM 9.6%	Growth Equity 9.8%
ROW 6.3%	Real Estate 10.5%	ROW 8.0%	ROW 6.6%	Mezzanine 9.1%	ROW 12.3%	EU Buyout 9.3%	Late Stage VC 8.6%
Infrastructure 5.3%	Infrastructure 8.7%	Natural Resources -1.9%	Natural Resources -11.0%	Distressed Debt 8.0%	Mezzanine 11.8%	Infrastructure 7.5%	Real Estate 8.0%
EU Buyout 4.3%	Late Stage VC 8.1%			Infrastructure 5.3%	Late Stage VC 10.5%	Distressed Debt 4.1%	Seed/Early VC 7.3%
Real Estate 2.5%	ROW 7.7%			Natural Resources 3.1%	Real Estate 10.1%	Natural Resources 3.5%	Infrastructure 4.6%
	Natural Resources 1.4%				Distressed Debt 7.8%		Natural Resources 3.7%

☐ Negative returning strategy

Source: Hamilton Lane Data (October 2017)

Yes, manager selection matters, but so does strategy allocation. Unless you picked the best-of-the-best managers in the venture capital space every year from 2000 to 2005, you likely have a lousy portfolio in that area given strategy performance in those years. (Sadly, we could point to a number of investors who did exactly that…) The periodic table illustrates a number of things:

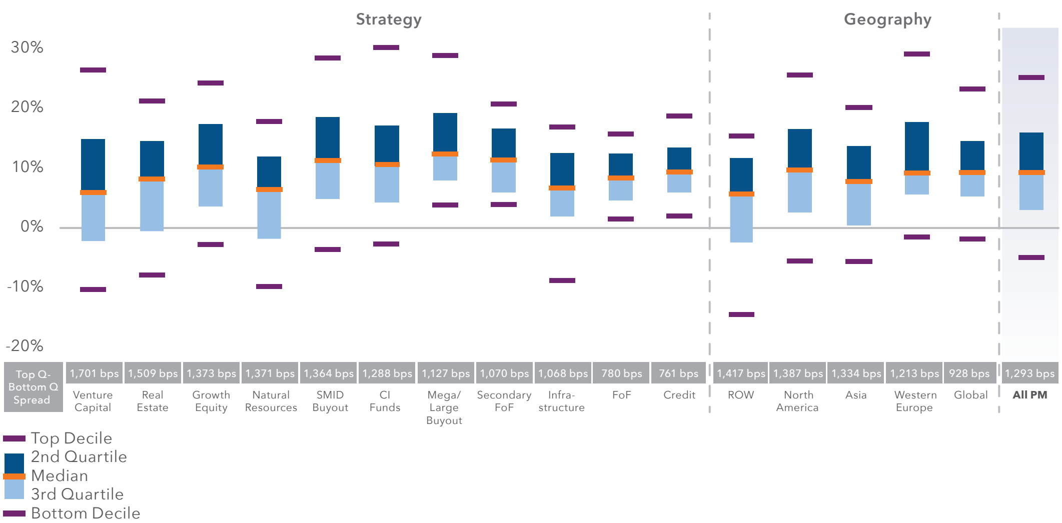
» As we mentioned, strategy selection matters a great deal. Not unlike the four new chemical elements officially added to the periodic table of elements just last winter, new private markets strategies continue to emerge year after year. (See what we did there?)

» Remember that Chart 12 maps out performance based on IRR alone. Ranking strategies by distribution amounts, for instance, would produce a very different picture. Venture, ranking near the top on an IRR basis in recent years, hovers near the bottom on a distribution basis. As the famous cliché goes, you can't eat IRR.

» Understanding what you want out of your private markets portfolio is crucial. Certain strategies, such as U.S. buyout, tend to be more consistent in their returns. They haven't historically achieved the highs (or the lows) of some of the other strategies, but they produce a more consistent portfolio. Know your goals of investing in this asset class before you determine how you want your portfolio constructed.

Let's drill deeper into some of these strategies and get a better picture of risk and return for investors.

Chart 13: Dispersion of Returns by Strategy and Geography
Vintage Years: 1979-2013; Ordered by Spread of Returns



Source: Hamilton Lane Data via Cobalt (October 2017)

We are the proverbial broken record, aren't we? It's fascinating when you start to factor in risk measured by dispersion of return (Chart 13). Did you realize infrastructure could really lose that much money? Is that something you factor into your portfolio allocation plan when you decide to allocate to infrastructure and then determine what goes into the infrastructure bucket? What about SMID vs. mega/large buyout? Would you have expected similar upside, but vastly different downside? You very well might have, but we would wager it becomes a lot more challenging to make such determinations effectively if you don't even have access to the data.

We will mimic the periodic table shown earlier for returns at the portfolio-company level. (Why, yes, we do have that company-level data as well!)

Chart 14: Sector Ranks by Deal Year

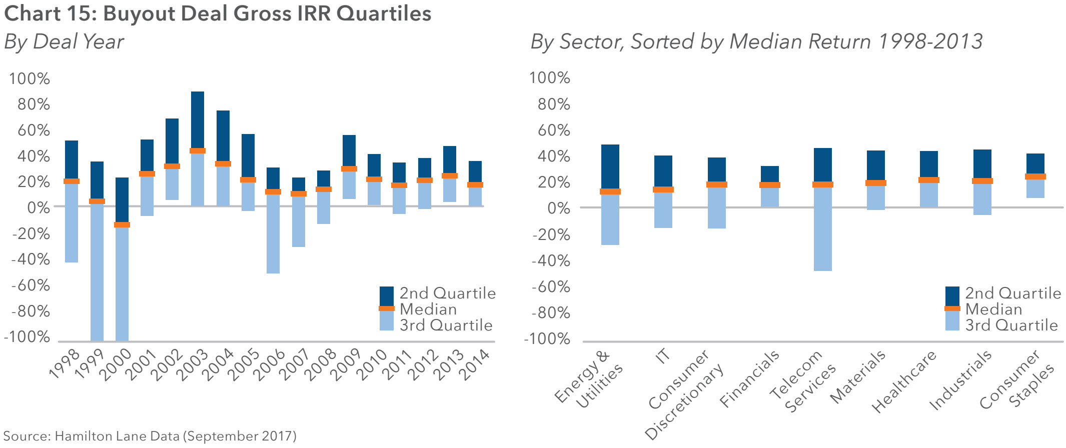
Buyout Median Gross IRR by Deal Year

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Materials 38.3%	Telecom Services 19.8%	Consumer Staples 19.0%	Consumer Staples 21.0%	Telecom Services 43.7%	Telecom Services 32.7%	Consumer Staples 29.0%	Materials 32.3%	Telecom Services 41.6%	Healthcare 28.9%
Consumer Staples 37.1%	Consumer Staples 18.8%	Healthcare 16.8%	Materials 19.4%	Consumer Staples 40.7%	Consumer Staples 30.3%	Consumer Discretionary 17.9%	Financials 27.1%	Healthcare 35.8%	Financials 22.0%
Industrials 30.6%	Healthcare 16.4%	IT 11.0%	Healthcare 16.1%	IT 38.0%	Materials 26.6%	IT 17.3%	Telecom Services 23.1%	Industrials 29.9%	Materials 21.8%
Energy & Utilities 25.0%	IT 12.1%	Materials 9.6%	Industrials 15.2%	Industrials 29.0%	IT 25.9%	Healthcare 16.6%	IT 22.7%	IT 22.1%	Telecom Services 21.3%
Telecom Services 24.5%	Industrials 11.9%	**All PM 7.9%**	IT 12.7%	Consumer Discretionary 28.4%	**All PM 19.0%**	Materials 15.8%	Consumer Discretionary 22.6%	**All PM 22.1%**	Industrials 21.2%
Healthcare 22.9%	**All PM 10.8%**	Consumer Discretionary 5.7%	Financials 12.4%	**All PM 27.7%**	Healthcare 18.7%	**All PM 15.2%**	Healthcare 22.0%	Consumer Discretionary 21.8%	Consumer Staples 19.4%
IT 21.2%	Financials 8.8%	Financials 5.4%	**All PM% 12.1%**	Financials 21.8%	Industrials 18.4%	Telecom Services 13.2%	Industrials 20.5%	Financials 19.6%	**All PM 14.9%**
All PM 19.4%	Consumer Discretionary 7.2%	Industrials 2.7%	Consumer Discretionary 10.4%	Healthcare 20.9%	Energy & Utilities 16.0%	Industrials 12.6%	**All PM 19.0%**	Materials 19.4%	Consumer Discretionary 14.1%
Financials 18.2%	Materials 6.7%	Energy & Utilities 2.0%	Telecom Services 4.7%	Materials 9.2%	Financials 16.0%	Financials 10.5%	Consumer Staples 18.0%	Consumer Staples 9.7%	IT 11.9%
Consumer Discretionary 12.2%	Energy & Utilities 4.3%	Telecom Services -14.1%	Energy & Utilities -12.9%	Energy & Utilities -7.3%	Consumer Discretionary 14.5%	Energy & Utilities 0.9%	Energy & Utilities 0.0%	Energy & Utilities 7.4%	Energy & Utilities 0.0%

Source: Hamilton Lane Data. Median Gross IRRs as of 6/30/2016 (September 2017)

As it turns out, our GPs also add tremendous value by getting the sectors right (Chart 14). Unlike fund-level returns, there is not nearly the consistency of middle-level performance across certain industries, meaning generalist managers have to get both the company and the industry right to maximize performance. When we look at the return spread at the portfolio-company level, we get another snapshot of the varying risk-return profiles across the different sectors (Chart 15).

Chart 15: Buyout Deal Gross IRR Quartiles



Source: Hamilton Lane Data (September 2017)

> *Why, yes, we do have that company-level data as well!*

We hope at this point in your reading of this overview that we've managed to impress you with our data and analysis. Or, at a minimum, impress upon you that we have the data and are willing to use it. While the bulk of it is ours, some we glean from other sources. In fact, one of our intrepid research analysts, whilst poring over the papers of Sir Isaac Newton at the University of Cambridge, happened upon a monumental discovery that we are proud to share with you here for the first time.

Behold Newton's long-lost Fourth Law of Motion, which he kindly set out in its entirety:

> **For every action in the private markets, there is a vastly unequal, and greater, unintended reaction.**

It seems Sir Isaac was working on *principia applicatas* of his Fourth Law, but failed to complete them. Hence, we have taken the liberty of completing a few.

The First Application of the Fourth Law of Motion

Looking upon the array of choices emerging in the private markets, we must consider what corollary developments we are likely to face:

» As LPs make more choices around geography, style of investing, type of investing (i.e., through partnerships vs. more direct), do they have the infrastructure to analyze and monitor those portfolios? Is the propagation of choice in the private markets, with the illiquidity surrounding bad choices, going to be a healthy path in a bear market?

» As GPs develop multiple lines and products to meet LP demand, will their infrastructure be able to keep up? How will allocations be made? How will information be shared?

» What do quartile rankings mean in a world of so many more choices? As we saw in the periodic charts, the areas move regularly in top and bottom rankings. As sector-specific or geography-specific funds proliferate in portfolios, does quartile ranking of a fund mean very much? Can a generalist fund ever be top-quartile in that world? Should it matter? How will that impact not only LP choice, but also GP decisions on which funds to form and in which to invest?

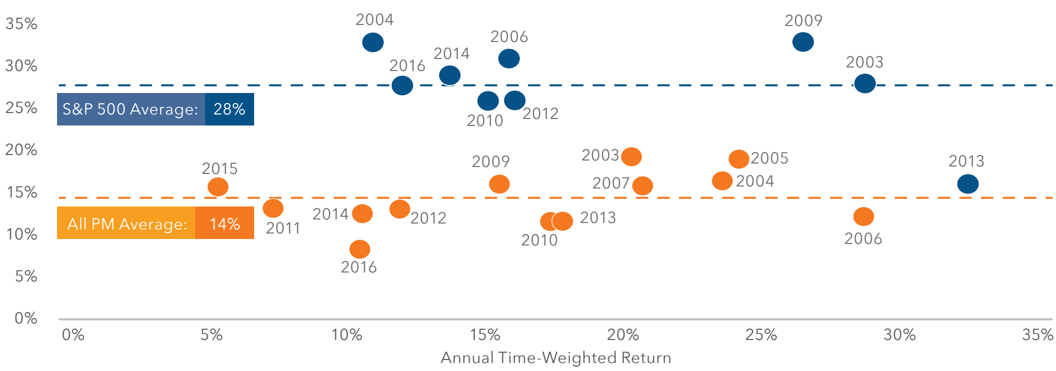
A "Pause" for Risk

Amid all this discussion of performance, let's take a moment to speak a little about risk. Yes, we know, in the land of private markets generally, and private equity particularly, the term "risk" tends to evoke a universal reaction. "Come again?"

We believe risk is irrelevant to most private markets practitioners for two reasons. First, few have the data to make any reasonable risk measurements. Second, even fewer care. It's too much work. It's easier to ignore it. We acknowledge the data accessibility issue and, as we've noted, are spending time and resources to help solve that problem. In the interim, we won't ignore the data we have, and we believe risk matters.

Let's look at some interesting risk metrics with respect to overall portfolios.

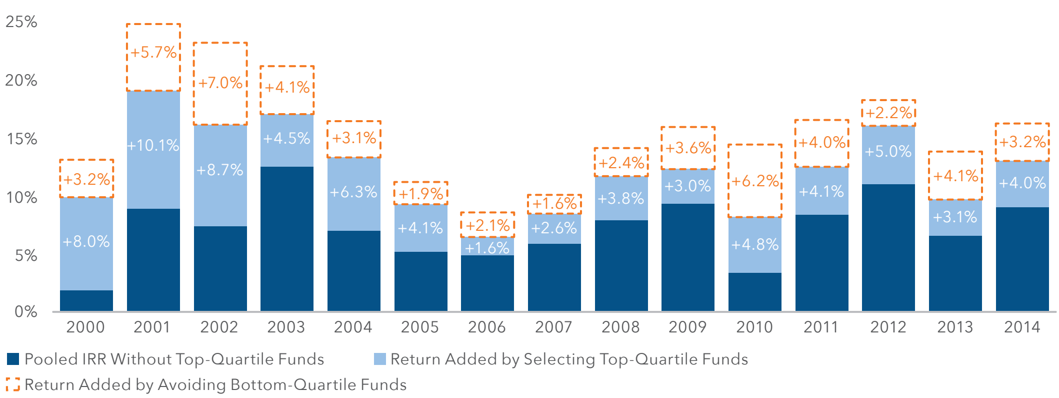
Chart 16: Percent of Return from Top 10 Performing Stocks/Funds
Years with Annual Returns Above 5%; 2003–2016



Source: Hamilton Lane Data, FactSet, Bloomberg (October 2017)

We heart Chart 16. What it tells us, and hopefully you, is that a huge chunk of the gain in the public markets comes from the top 10 performing holdings. That is simply not true in the world of private markets where the impact of the top 10 performing holdings is **half** of what it is in the public world. That seems like pretty good information to know if you are, say, a CIO of a pension fund. What else might surprise you?

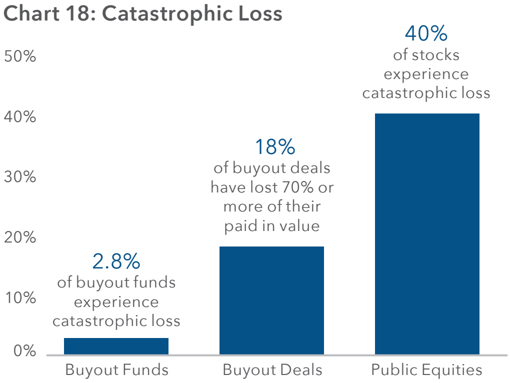
Chart 17: Impact of Top- and Bottom-Quartile Funds
All Private Markets by Vintage Year



Source: Hamilton Lane Data (October 2017)

While avoiding bottom-quartile performers is important for returns, capturing outperforming funds generally has a larger impact on a portfolio (Chart 17). Why? Our best guess is that most investors are focusing on the wrong risk in the private markets because they simply don't or can't measure it. When investors grapple with how "risky" this asset class is as an investment option, they're typically using that as shorthand for "downside risk." Amazingly, what continues to be lost is that very few private markets funds have lost money historically.

Chart 18: Catastrophic Loss



Source: Hamilton Lane Data (October 2017), FactSet, J.P. Morgan Asset Management

Consider the downside risk in private equity compared to that of the public markets (Chart 18). The risk of a catastrophic loss – defined as a 70% or greater decline in peak value with minimal recovery – of a buyout fund is *less than 3%*. Even looking at the underlying portfolio companies, the risk only rises to 18%. (Here we'd note, albeit parenthetically, that we're not sure co-investment programs are factoring this risk into their portfolio equations.)

Now take a look at public market stocks. According to an analysis by J.P. Morgan, the risk of catastrophic loss jumps to 40%. That's more than 13x riskier than a buyout fund and more than twice as risky as a PE portfolio company. Yowsa.

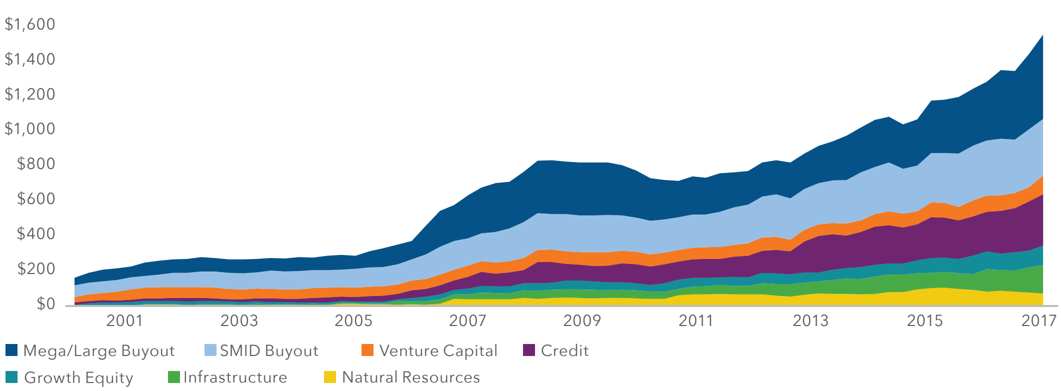
Yes, my friends, we remain convinced: The downside risk in private markets portfolios is vastly overstated. The risk that is genuinely under appreciated is the failure to capture the upside. Many investors are simply looking the wrong way.

Press "Play" to Return to the Overview

Investment Activity

GPs and LPs seem to be happy with performance, and since everyone is happy to raise and commit capital, what are the GPs doing with it exactly?

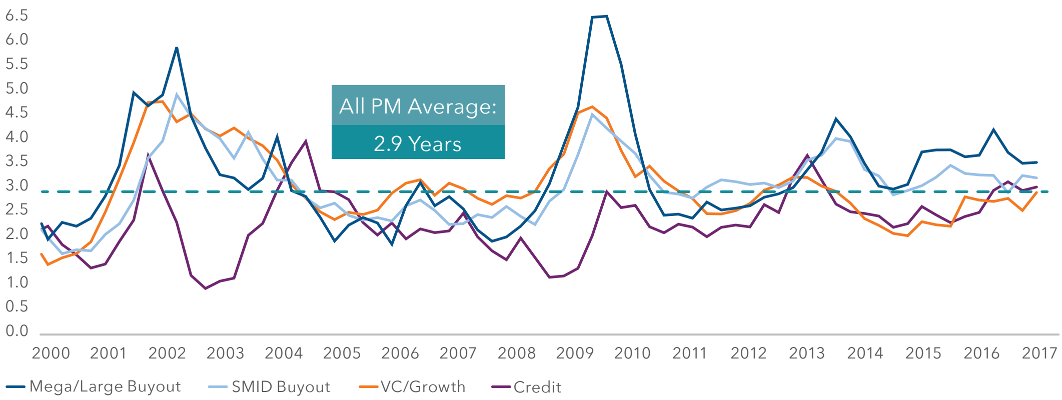
Chart 19: Private Markets Unfunded Capital
USD in Billions



Source: Hamilton Lane Data via Cobalt (October 2017)

You've likely been hearing about the lethal impact of the capital overhang since 2008; how it was going to drive down returns and create enormous dislocations in the market. It certainly hasn't to date. Still, the amount of available capital continues to increase across all categories of the private market with the exception of natural resources (Chart 19). So, how concerned should we be about this capital?

Chart 20: Time to Deploy Capital Overhang
Years at LTM Pace



Source: Hamilton Lane Data via Cobalt (October 2017)

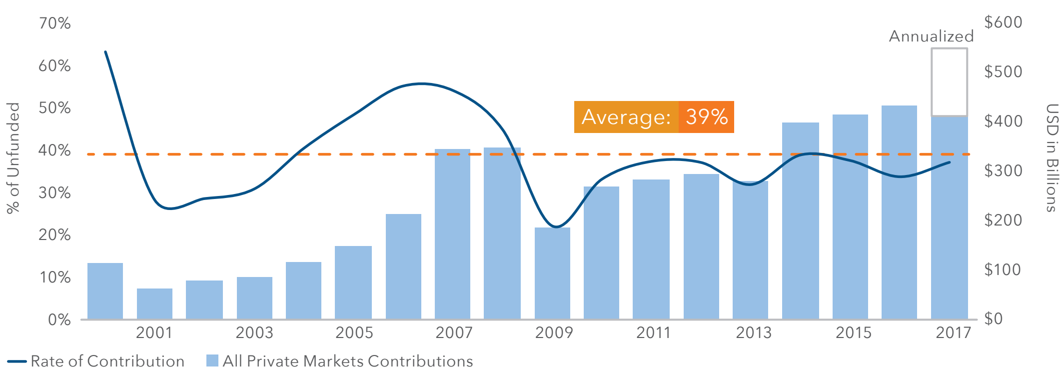
First, the fact that liquidity in the private markets is high should be viewed in the context of a world awash in liquidity, so it stands to reason that the private markets wouldn't be much different. It's a sign of a healthy, vibrant market well-integrated into global economic flows. More importantly, Chart 20 indicates that, at current levels of deployment, the capital overhang is at roughly historical average levels. Which brings us to…

The Second Application of Newton's Fourth Law of Motion

When the time to deploy is at the highest level – in other words, when the rate of contribution is statistically at its lowest and everyone is flipped out about it – *that is the time when you most want to invest!* Interestingly, the converse is also true. At market bottoms, when everyone is freaking out, deals aren't getting done. It's the pace of deployment that goes down and causes the overhang to increase. GPs and LPs (and sellers) are all pulling back. When you see this line move up, it's time to move in.

How are capital call levels doing across the industry?

Chart 21: Annual Private Markets Contributions



Source: Hamilton Lane Data via Cobalt (October 2017)

Contributions are at record levels on an absolute basis, but the rate of contribution is slightly below the long-term average (Chart 21). GPs continue to exhibit discipline in pacing investments. We've often noted how one would expect record-shattering levels of investments in an environment of ample liquidity and low rates, but it just hasn't occurred.

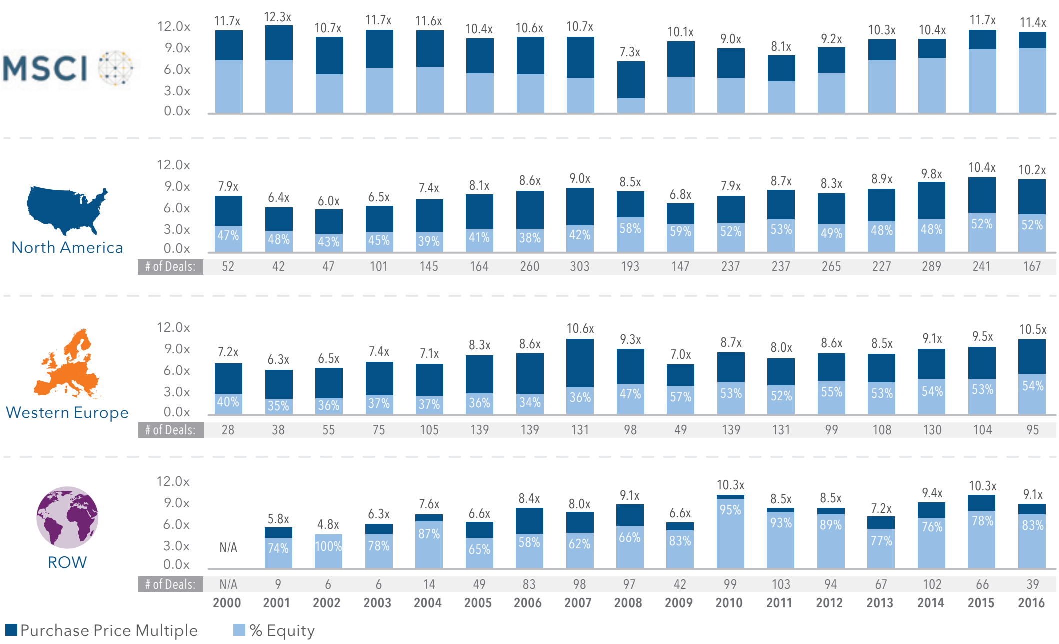
Here's a fun fact to mention to anyone droning on about how the industry has become too big: At the time of publication of this humble treatise, aggregating all private markets contributions made in 2016 would have enabled you to buy 50% of Apple stock. Half. Doesn't seem quite so big, does it?

One noteworthy feature of the drivers of industry contributions is that the world of large buyout continues to increase its share. Given our earlier illustration of those funds' growing presence on the capital raising side, this isn't surprising. Another interesting data point is that, despite anecdotal claims to the contrary, the pace of capital calls for recent vintage years is very much in line with historical averages. Ignore the pundits asserting that the remarkably slow investment pace is an indication of too much capital in the market.

What are GPs paying for the assets they're buying?

Chart 22: Purchase Prices

EV/EBITDA and % Equity, Median by Deal Year

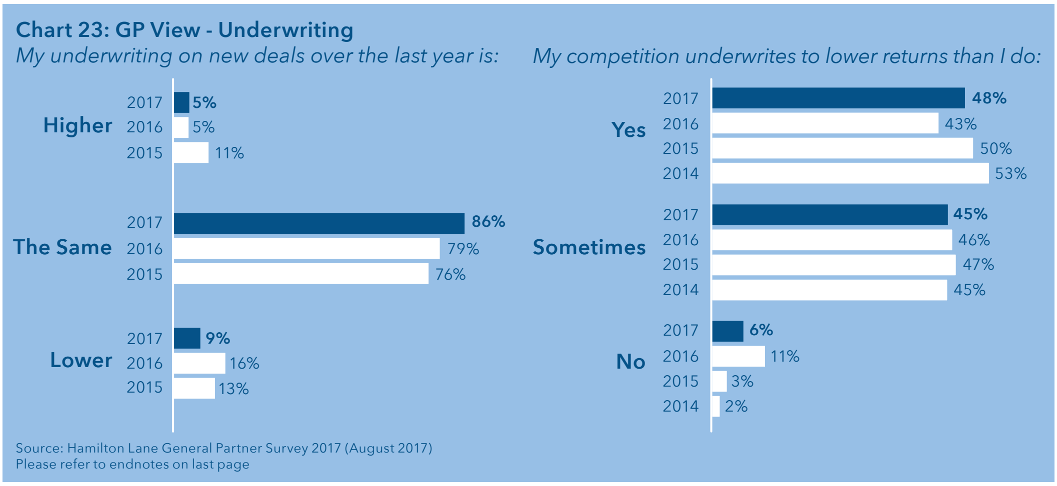


Source: Hamilton Lane Data, Bloomberg (September 2017)

Damn, that's a lot.

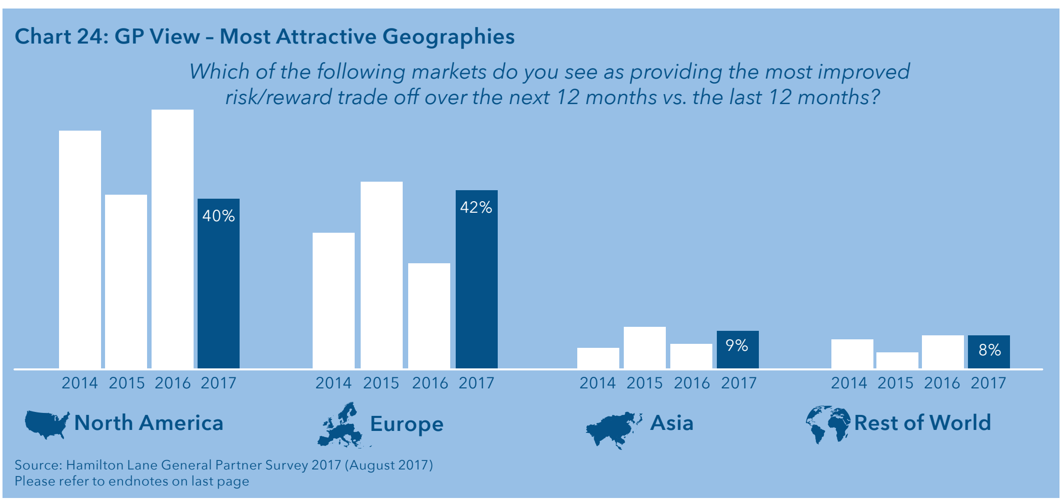
Prices are high, but perhaps not as high as some might expect, particularly given the levels of liquidity, low interest rates and multiples in the public markets (Chart 22). Prices at these levels concern us a great deal, but we continue to be amazed at the general amount of caution being exercised by GPs. Equity contributions, in fact, remain well above where they were at pre-crisis lows. We believe that a market top is unlikely to occur in the private markets until we've seen capitulation on the GPs' part in the form of record-breaking purchase price multiples coupled with chatter that "this time it's different" and it's okay to pay record high prices. We aren't there yet, but don't mistake our view as saying all is clear; after all, these multiples are flashing very bright amber warning signs.

What are GPs doing and what do they think their competitors are doing?



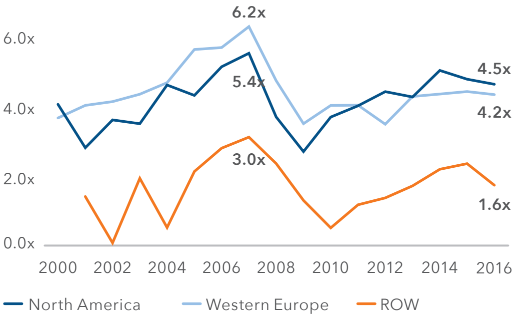
Interestingly, we have seen GPs claim little change in underwriting standards for the last few years and little change in their view of what competitors are doing (Chart 23). This offers further substantiation that the market is showing a discipline that is both noteworthy and comforting from an LP perspective.

Where are GPs seeing the most improved value proposition? Europe is back in favor, whereas the U.S. has lost a fair amount of support (Chart 24).



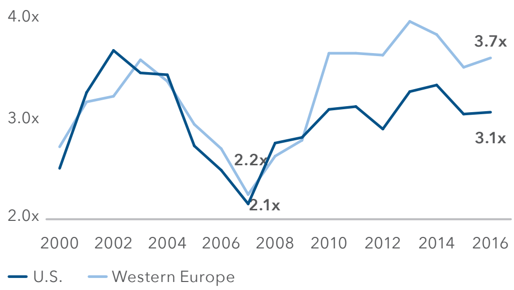
One interesting difference about today's market from prior peaks is leverage (Chart 25). You might expect leverage multiples to be well above record levels with today's liquidity and interest rates, but it's not the case. Part of this is a result of bank regulations. Since this is somewhat of a government-imposed limitation on leverage levels, we're hesitant to ascribe this one to GP discipline.

Chart 25: Leverage Multiples at Acquisition
Net Debt/EBITDA



Source: Hamilton Lane Data (September 2017)

Chart 26: Coverage Ratios at Acquisition
EBITDA/Cash Interest Expense



Source: S&P LCD (October 2017)

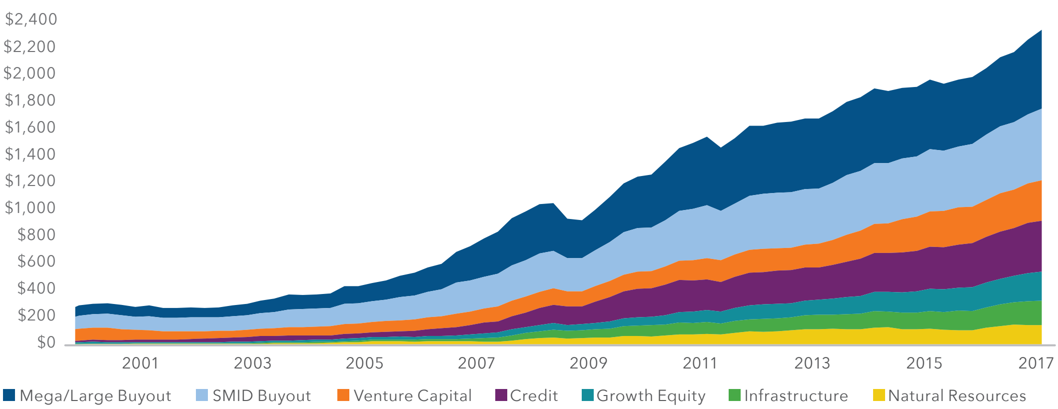
The coverage ratios show a decidedly healthy state of portfolio companies (Chart 26). Contrary to the claims of over-levered, dividend re-capped companies littering LP portfolios, we see debt coverage ratios at or above historical averages. Much of this reflects the low levels of interest rates.

One of the questions we are asked is how much of this debt is at floating rates, since rising rates would then imperil the companies. Data we analyzed indicates that, over the last 12 months, 86% of sponsor-backed deals used floating rate loans[2]. However, we can't determine how much has swapped into fixed rates, which would mute the negative impact somewhat should rates rise meaningfully from current levels.

Liquidity

Next, let's turn to the LP side and see what's going on with their portfolios. No surprise here; good public markets means good private markets performance, leading to increasing exposure to private assets (Chart 27).

Chart 27: NAV by Strategy
USD in Billions

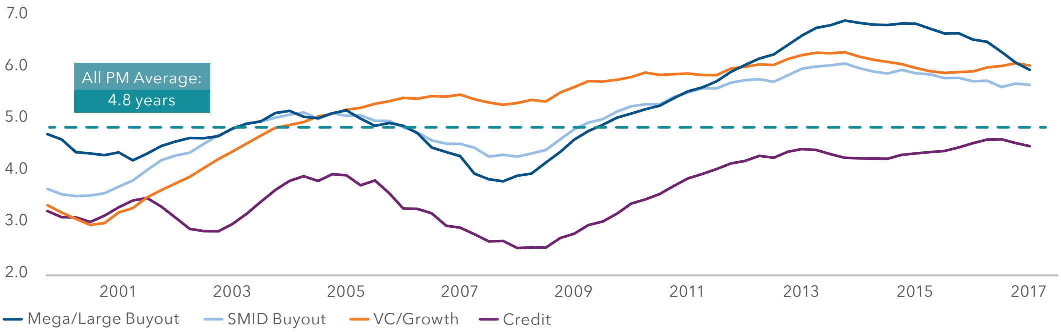


Source: Hamilton Lane Data via Cobalt (October 2017)

NAV continues to grow in portfolios. Consistent with the exposure chart we showed earlier, significant growth over the last five years has come from real assets, growth equity and credit. NAV is not just about traditional buyout or venture capital anymore.

[2] UBS data

Chart 28: Age of NAV
Years, Weighted Average



Source: Hamilton Lane Data (October 2017)

Looking at the age of NAV in a historical context yields some interesting observations (Chart 28):

» With the exception of credit, holding periods remain well above average levels. Our Spidey sense is telling us those average levels will continue to rise up to meet current holding periods rather than the other way around.

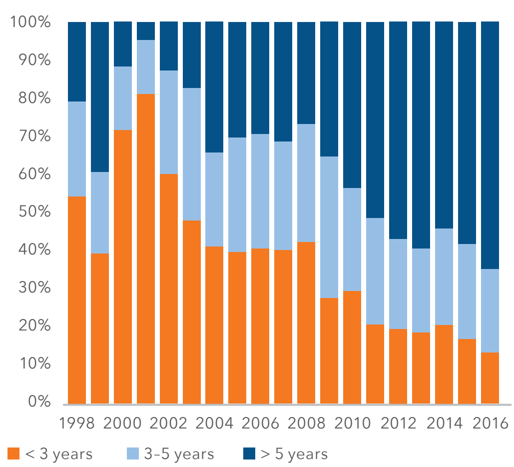
» The age of NAV for the large buyout funds has been trending down quite a bit, as crisis-era funds liquidate their holdings.

» The age of SMID NAV has held steady. A little-noticed aspect of the buyout world from the crisis era, middle-market funds also had their share of struggling companies. Many remain in portfolios and are actually being liquidated more slowly than those in the larger funds.

Chart 29 is important and illustrates that holding periods for underlying portfolio companies also continue to lengthen. In 2003, half of all exits were of companies held fewer than three years; by 2010, that figure had dropped to about 29%. In 2016, only 13% of exits were of companies held fewer than three years while more than half were companies held more than five years. Holding periods are increasing against a backdrop of the most favorable and long-lasting exit environment in private markets history. Think of what might happen in a more challenging exit environment. This has real implications for IRRs, which are significantly impacted by time. This factor alone will account for a large part of what we expect to be lower overall returns for the private markets over the next few years.

Don't misinterpret this as us saying the private markets stink. After all, we expect that medium- and long-term returns will continue to outperform the public markets handily. It's just that we also expect the overall level of absolute returns in all asset classes, including the private markets, to trend downward.

Chart 29: Holding Period of Exited Buyout Deals
% of Deal Count by Year of Exit

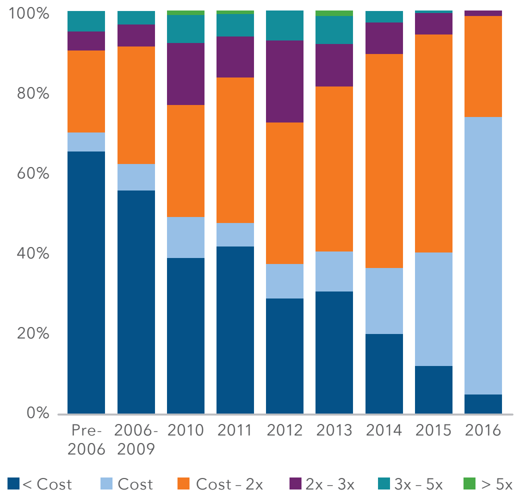


Source: Hamilton Lane Data (September 2017)

Despite producing lower IRRs, these older companies nevertheless retain a great deal of value for LPs (Chart 30).

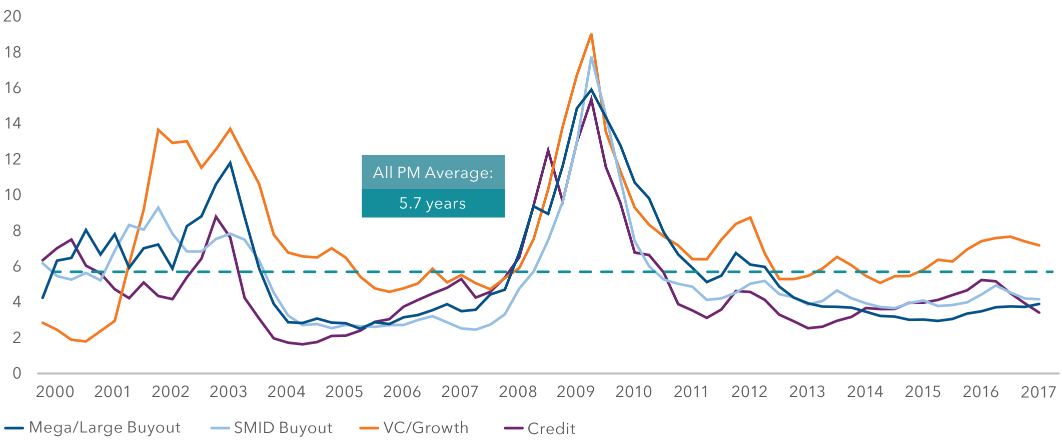
Roughly half of the remaining pre-2009 deals are held at or above cost. Around 10% are held at more than a 3x. That's a lot of cash waiting to come back to LPs. What remains as a percentage of total deals done in those years has come down significantly and is not nearly as much as it had been when we looked at this data over the last several years. Still, roughly 30% of 2006-2009 deals remain unrealized. We can debate why some of these companies are still in portfolios (are they really going to grow at 15% rates of return to justify their continued existence?), but the value embedded in those companies is real.

Chart 30: Unrealized Buyout Deals by MOIC
% of Deals by Year of Investment



Source: Hamilton Lane Data (September 2017)

Chart 31: Time to Liquidate NAV
Years, at LTM Pace

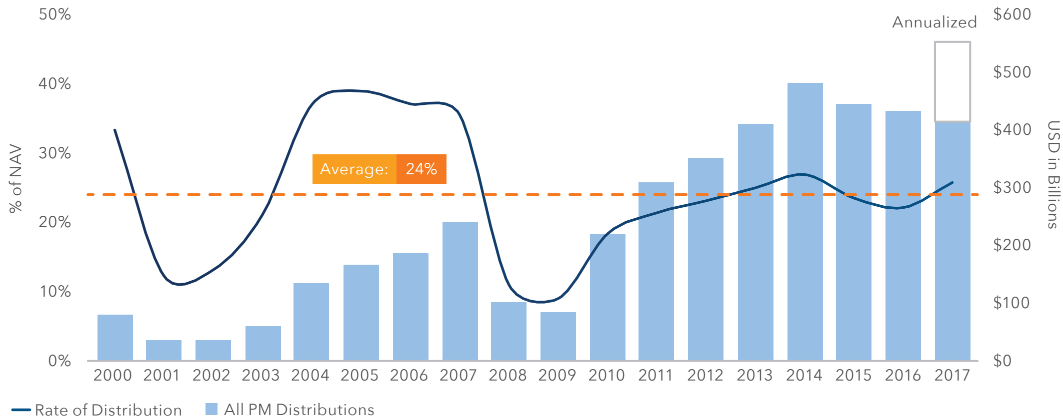


Source: Hamilton Lane Data via Cobalt (October 2017)

The time required to liquidate portfolios remains well below long-term averages for all segments of the market, except VC/growth (Chart 31). This reflects the high levels of distributions that LPs have been receiving for years in this robust capital markets environment. Again, the only exception is in VC where capital continues to be locked up in unicorns that have had trouble generating consistent liquidity.

> "Don't misinterpret this as us saying the private markets stink"

Chart 32: Annual Private Markets Distributions



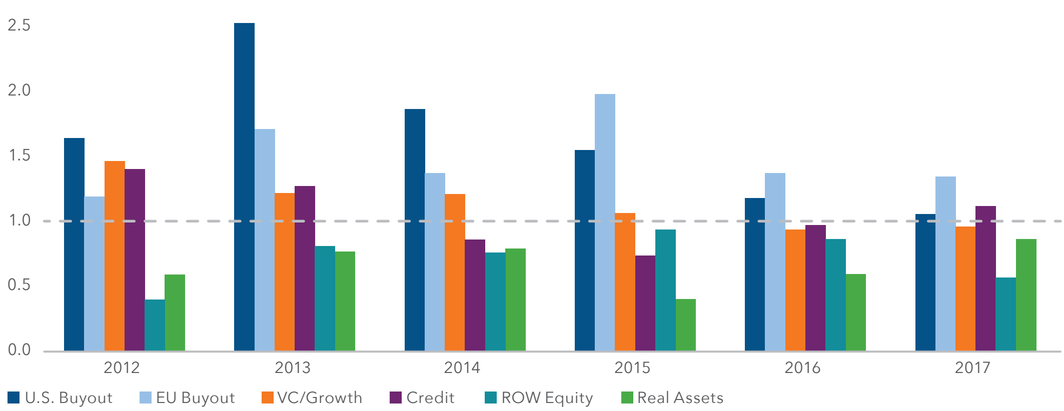
Source: Hamilton Lane Data via Cobalt (October 2017)

Take a look at these distribution levels (Chart 32). Distributions dipped somewhat in 2015 and 2016, but they remained high on an absolute basis and near average levels on a relative basis. We estimate that 2017 could see a move back to record levels for the industry. (Here's another tidbit to put the size of our asset class in perspective: If you aggregated all distributions received by LPs in 2016, it would roughly equal the aggregate dividend amount from the S&P 500 for that year.)

Nearly 25% of these distributions comes from some of the pre-crisis funds as they slowly liquidate those holdings. Another development that is consistent with the growth of the private markets is the shift in strategies responsible for those distributions. Fifteen years ago, buyout and venture constituted 90% of distributions. Now? Less than 70% as strategies like credit and real assets become more important portfolio components.

What about the strategies contributing to liquidity?

Chart 33: Annual Liquidity Ratio
Distributions/Contributions



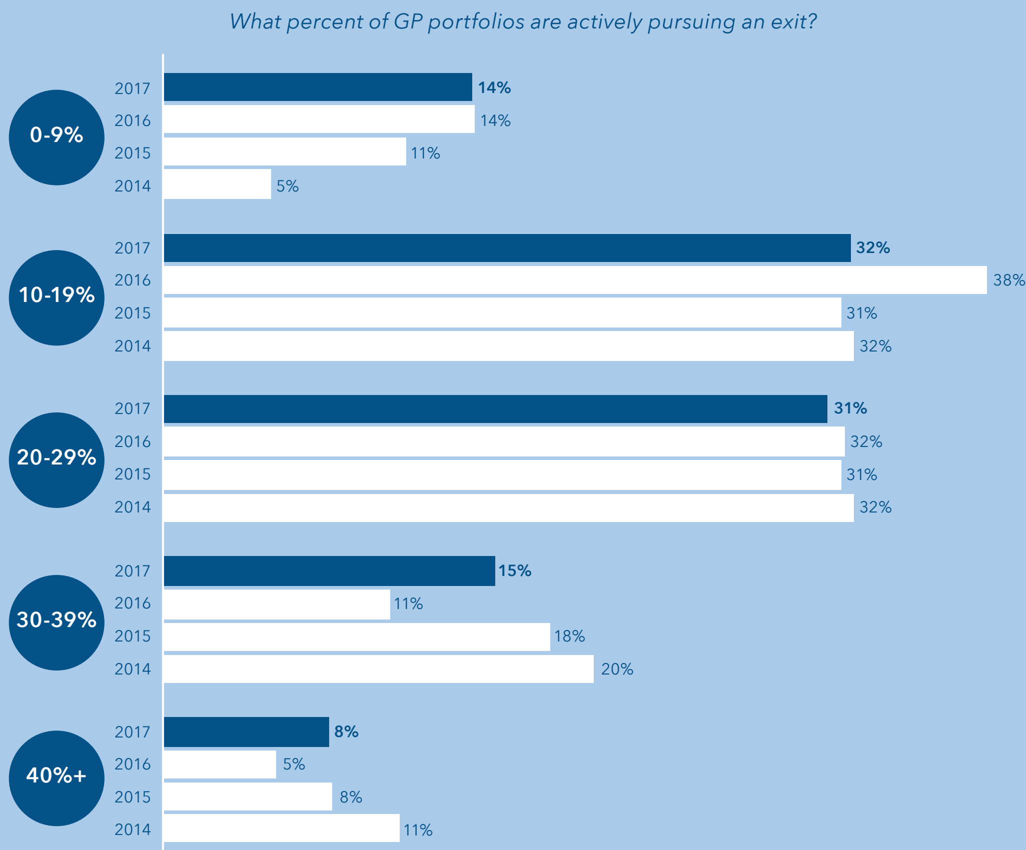
Source: Hamilton Lane Data via Cobalt (October 2017)

You want to be above 1.0 in Chart 33; investors want money returned to them (well, not all, but we'll discuss that in more detail later). U.S. and EU buyout have continued to provide liquidity around their holdings, but we remain concerned that ROW has failed to do so. Real assets have also failed to return capital. Yes, we know the argument that you invest in real assets for the long-term income and appreciation, but we also know those arguments have not, in fact, actually proven true for large portions of those investments. There's a point at which investors in strategies failing to provide liquidity wonder if their cash has checked into the roach motel of the private markets: Cash checks in, but never checks out.

We mentioned earlier that contribution pacing for current vintage year funds is in line with historical averages. Distribution pacing? The 2009-2011 vintage funds had the highest level of distributions in the industry's history. Well, the 2012-2014 vintage years are exceeding that level.

Despite these record levels of distribution activity year to date, GPs haven't necessarily changed their views on what portion of their portfolios they expect to exit (Chart 34).

Chart 34: GP View - Exits



Source: Hamilton Lane General Partner Survey 2017 (August 2017)
Please refer to endnotes on last page

the PRIVATE MARKETS HOT 100

What's really cooking in the private markets these days? What are the hottest hits shaping investment programs? Let's take a look.

Lines of Credit

When an industry phenomenon has reached a point where ILPA makes pronouncements, it's the equivalent of a record hitting gold or platinum status. But what exactly is a line of credit (or LoC) in the world of the private markets, and why has it reached the point of Beatles-level hysteria?

Simply defined, a line of credit is a revolving credit account where capital can be drawn against a predetermined loan balance in lieu of calling LP capital. It is secured by the unfunded commitments of the limited partners in the fund. Why, you ask, would a general partner ever want to use a line when it has all that capital available from the LPs? The simplest answer is efficiency. (Note: We said it's the simplest answer, not the *only* one.) When a general partner calls capital for a transaction, it's never certain how much is required and the advance notice required by LPs is typically 10 business days. The variables at play - price changes, fee increases, etc. – typically make it prudent to call more. Although the excess can be returned after closing, this is an inefficient process for all parties and leads to unnecessary flows of cash back and forth between the fund and its LPs, and managing these flows can be costly for both sides. A line of credit allows the transaction to close and the exact capital call to be made from the limited partners once the precise capital needs are known.

Chart 35: Line of Credit Usage

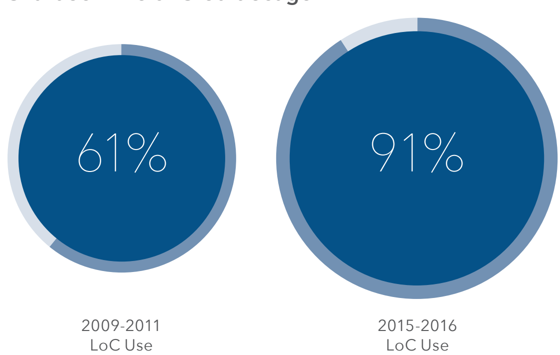


Chart 35 illustrates that line usage has definitely expanded and, as such, we would assume this increased usage must be attributed to ease and efficiency, correct?

OF COURSE NOT!!!!!!!!!!!!!!

Intrepid general partners figured out that using credit lines for lengthier periods of time, especially in a bull market with low interest rates, resulted in higher IRRs. How much higher? Well, it depends on a whole host of factors, but, for simplicity's sake, let's play out a scenario that's in line with the current market. (For a full explanation of assumptions, please refer to the 22 million lines of disclaimers printed at the tail end of this digest.)

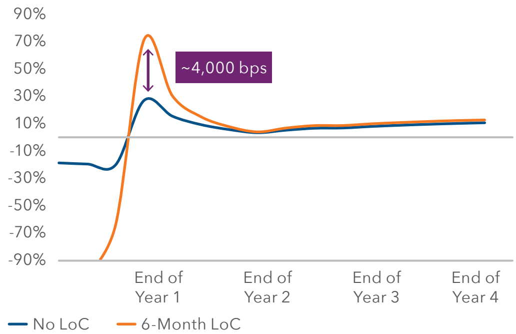
If there is no mark up in the portfolio, then using a line early on in the fund's life actually *reduces* the net IRR due to interest expense. Well, that's a bummer. No one wants a lower IRR, so that can't be what's happening. What about when we mark portfolio companies up after one year (Chart 36)?

That's it! Marking those assets up 1.4x results in an increased IRR at the end of year one by 4,000 basis points.

Holy watch the rush for my next fundraise, Batman!

Chart 36: LoC Impact on Net IRR - Early Mark Up

20% Gross Returns; Initial Mark Up to 1.4x at Year One



Hypothetical model for illustrative purposes only
Please refer to endnotes on last page

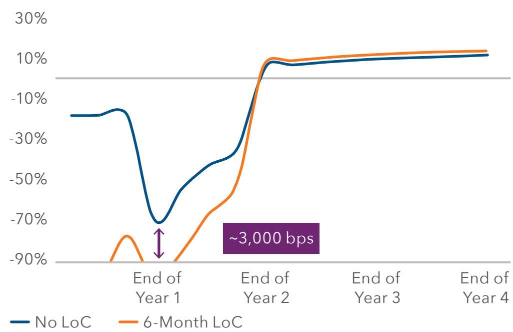
I use the line of credit in lieu of a capital call, mark the company up, and repay the line of credit after the mark-up. It's very simple math: My borrowing cost is less than my investment return, and that difference helps to add to my IRR. We simulated a fund portfolio, and our estimate is that using a line improves IRR by approximately 190 basis points after four years (incidentally right around the time of the GP's next fundraise) and by roughly 120 basis points over the life of the fund. Those aren't insignificant numbers.

There is a decent amount of debate, particularly among investors and in the media, around the incredible risk being added to portfolios with these types of credit lines. We believe that is simply wrong. Usually, the investor or reporter is intentionally or unintentionally confusing line of credit borrowings with fund-level debt, which is a very different facility and generally far riskier, because it increases the investable capital base. It's important that we all recognize they are different vehicles intended to accomplish different things. If you don't understand that, we'd suggest getting out of the private markets as quickly and as quietly as practicable.

What is the risk with a line of credit? No practical default risk exists, since the general partner simply makes the capital call it would have made anyway; the lines are not cross-collateralized and have no impact on any other portfolio company. Certainly there is a risk of assets being marked down after one year. Then what happens?

Chart 37: LoC Impact on Net IRR - Early Mark Down

20% Gross Returns; Initial Mark Down to 0.7x at Year One



Hypothetical model for illustrative purposes only
Please refer to endnotes on last page

Credit lines do tend to work against you when asset prices are going down, and the private markets are no exception (Chart 37). A markdown to 0.7x in year one reduces your IRR by approximately 3,000 basis points. Fundraising for the next one just got a lot tougher, didn't it? Lucy, you got some splainin' to do…

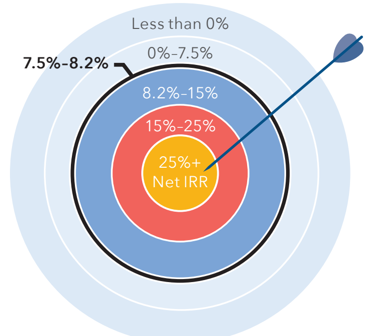
But, good GPs understand the math involved in using a line of credit. They also have better insights into their marks than anyone else. Which means what, exactly? An LoC is a double-edged sword, meaning returns are magnified for better or worse, with mark ups and mark downs. While a line of credit will still magnify the negative impact of a mark down, we would expect to see GPs working to minimize that impact once they saw the writing on the wall. How would they do that, you ask? For starters, GPs can simply call down capital earlier than planned and use the lines of credit for shorter periods of time. In addition, we'd also expect that most GPs would call capital before the mark down is officially released in order to minimize the issue of LPs paying cost for impaired assets.

Ok, so what happens if interest rates go up? We simulated a 350 bps rise in rates – our attempt to get back to a "normal" rate of about 5% [see Chart 46]. The IRR increases from the base case, no LoC scenario by about 60 to 80 bps after four years and by about 60 bps at the end of the fund's life. Not quite as meaningful, but an increase nonetheless.

Okay, so if risk isn't the reason for the LP outrage (we won't even attempt to understand the media outrage, since this is one in a slew of topics where they don't let facts get in the way of a good story), is it instead the potential for GPs to be paid more carried interest than they earned through any real blood, sweat and tears? Lines of credit come with associated costs, meaning overall profit - and carry - is reduced when the fund outperforms the preferred return and gets through the catch-up phase of the waterfall.

We ran several simulations, which ultimately produced a band of scenarios that resulted in higher carried interest payments. The mathematical permutations are beyond the scope of this overview, but the gist is this: It is only when GPs achieve returns in the 7.5%-8.2% range that they collect more carry because of the line of credit. As you can see illustrated in Chart 38, that's a fairly narrow band - about 4% of historical outcomes for buyout funds - and unlikely the range of returns that GPs are actually targeting.

Chart 38: Carried Interest Impact



If this is still confusing, call someone at Hamilton Lane for a better explanation. Or, better yet, get in touch with Sheldon from The Big Bang Theory; that guy seems to know everything.

It appears the outrage over the usage of credit lines has nothing to do with risk and very little to do with any carried interest calculation. No, the real outrage stems from the feeling that it's not a real IRR and it isn't fair. The GP has tricked everyone with financial chicanery. Here we have:

The Third – and Final - Application of Newton's Fourth Law of Motion

When LPs purportedly only care about IRR, GPs will find a way to improve IRR.

A First GP, a Second GP and an LP walk into the Casablanca Due Diligence Bar. The First GP says to the LP, "My IRR is 30%." The Second GP says, "My IRR is 20%." The bartender looks at the LP and says, "You need anything else?" The LP responds, "Nope, I have all I need and more. I'm investing with the First GP."

LPs, by and large, only care about one thing: IRR. That's all. They don't care about MOIC, risk, duration, nothing. Meghan Trainor might be all about that bass, but investors are all about that IRR. That is how LPs measure their portfolios; that is how many LPs are compensated; that is how LPs obtain additional allocation to invest in this asset class; that is how LPs sleep easier at night. All the feigned indignation over credit lines being used to increase IRRs is almost laughable.

As an LP community, we express outrage that GPs would find ways to inflate IRR and make pronouncements dictating what to do or not do with credit facilities. We create rules under the shelter of some limited partner organization. (Indeed, ILPA, I'm looking at you.) It's all hypocrisy. LPs want higher IRRs and GPs are simply responding to that desire. If LPs emphasized measures other than IRR, usage of lines might change. Even more telling, if LPs bothered to adequately analyze portfolios and adjust for the difference that lines of credit actually make – *and, gasp, perhaps even make investment choices based upon that analysis!* – usage of lines might change.

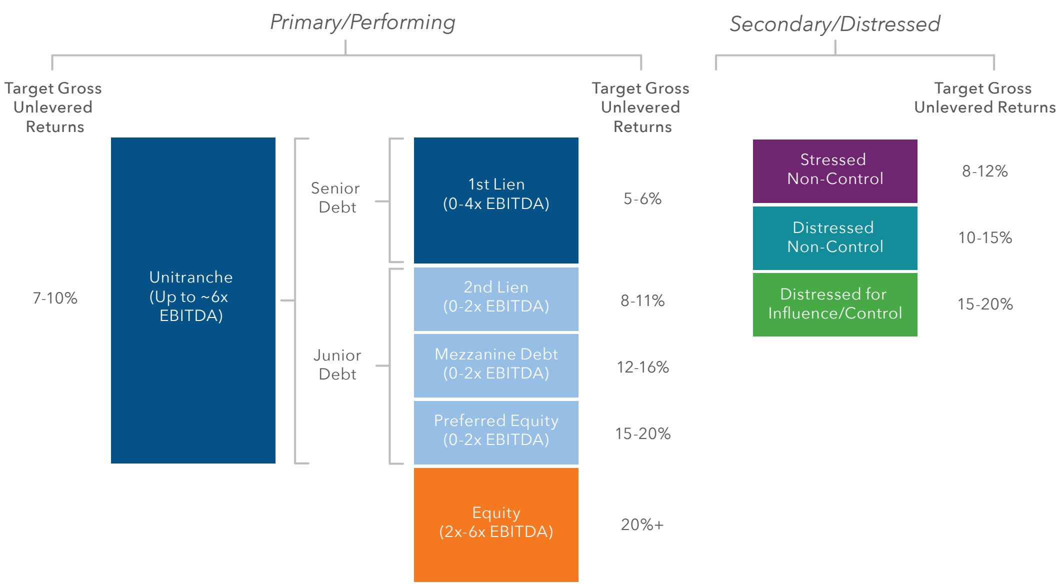
Don't hold your breath. You'll be dead long before that happens.

We end the discussion of credit lines with a few last, provocative questions: So what if GPs use lines? What's the big deal? What's so wrong with the intelligent use of lines of credit to enhance returns? After all, the risk of a write down is almost non-existent since the GPs would see it coming and would pay off the credit line before the IRR takes a hit. If presented with an almost riskless way to increase return by 100 basis points over 10 years, would investors really say no?

Private Credit

Private credit has been a chart-topper for a few years now, and we suspect its reign will continue for some time. Since private credit now encompasses a wide variety of instruments and risk/return profiles, we've attempted to outline the basics (Chart 39).

Chart 39: Private Credit Overview

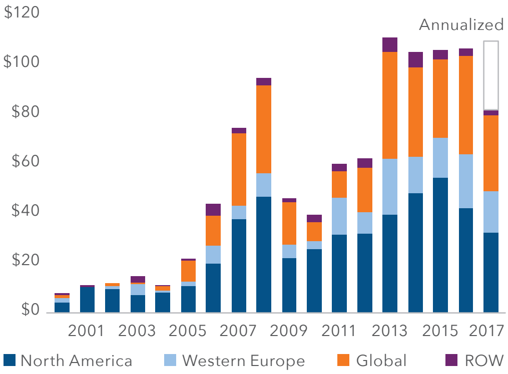


For illustrative purposes only

"Don't hold your breath. You'll be dead long before that happens."

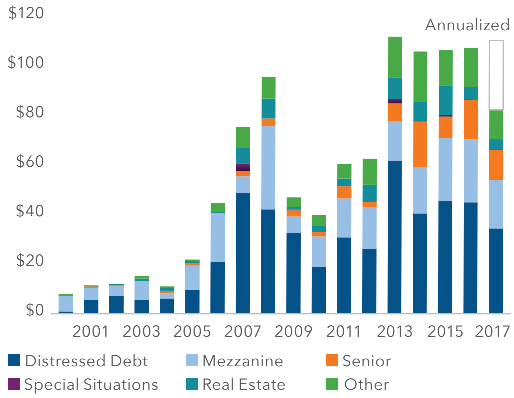
Plenty of options exist as to where you want to be in the capital structure – whether it's providing that credit directly or buying it from someone else who originated the loan. The private credit landscape continues to grow rapidly, increasing from $207 billion of NAV in 2010 to $374 billion of NAV in 2017. That's an annual growth rate of 8.8% and represents expansion across both distressed strategies and origination strategies; it also encompasses existing GPs' expansion into these arenas and new GPs formed specifically to invest in these strategies. Demand comes from all investor types, whether family offices or large sovereign wealth funds. A recent survey[3] concluded that most investors were only about halfway to their target allocations for private credit and more than half planned to increase their allocation to the area.

Chart 40: Private Credit Fundraising by Region
USD in Billions



Source: Bison data via Cobalt (October 2017)

Chart 41: Private Credit Fundraising by Strategy
USD in Billions



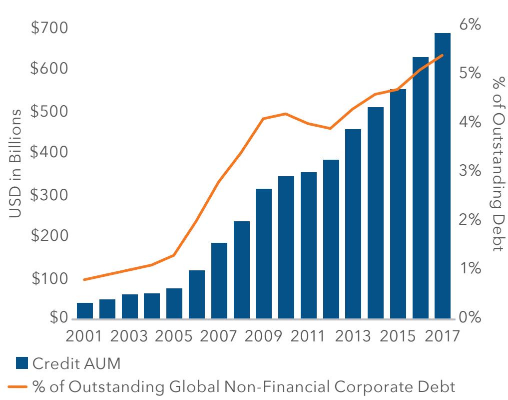
Source: Bison data via Cobalt (October 2017)

It shouldn't surprise anyone that private credit fundraising has been as robust as it has. Fundraising has largely been concentrated in North America and in globally-focused funds (Chart 40). Despite the reduction in distressed debt fundraising, since reaching a peak in 2013, overall credit fundraising has remained at record levels through the growth of credit origination strategies (Chart 41).

We hear a great deal of grumbling about how the private credit space has grown too big and good deals are nowhere to be found.

Private equity buyout AUM stands around 4.5% of the MSCI World Market Cap. Credit exposure (NAV plus unfunded) is only a marginally higher percentage of global corporate debt (Chart 42). The debt markets are far different from the equity markets and there is plenty of room for private credit to assume greater market share. It's been a well-covered development that banks are moving away

Chart 42: Credit AUM vs. Corporate Debt

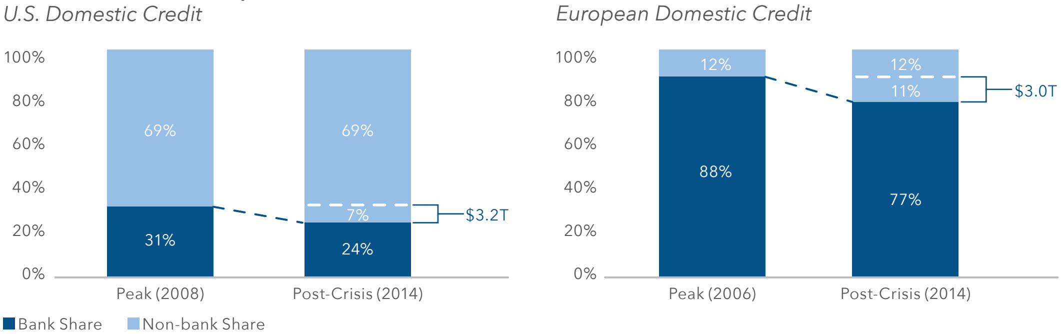


Source: Hamilton Lane Data via Cobalt; includes all credit-focused funds, Bank for International Settlements (October 2017)

[3] Preqin

from vast portions of the lending landscape, particularly in the middle-market lending area. Consider these numbers in perspective (Chart 43).

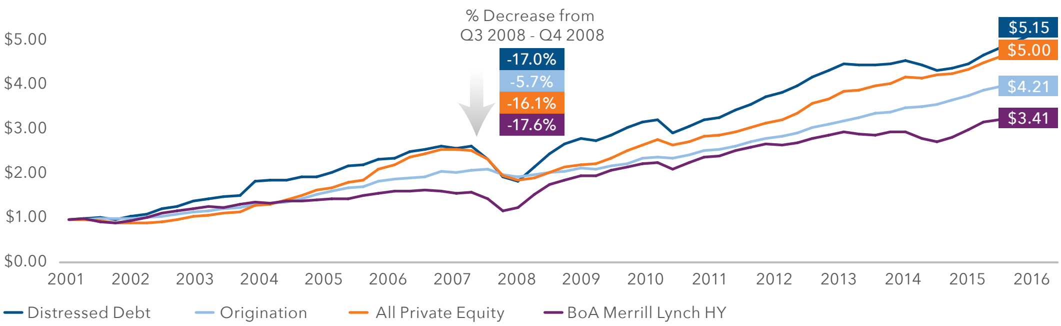
Chart 43: U.S. and European Domestic Credit



Source: World Bank

The trillions of dollars in the U.S. credit market are comprised of private credit, BDCs and CLOs. However, two of those sources are declining or unable to grow continuously with the market opportunity. U.S. CLO volume has steadily decreased, and the ability of BDCs to increase their share is a function of their share prices being above or below book value, so that's highly episodic. Increased volume, instead, will come from private credit structures and strategies. Has performance matched the opportunity?

Chart 44: Growth of a Dollar Invested in Private Credit vs. Benchmark

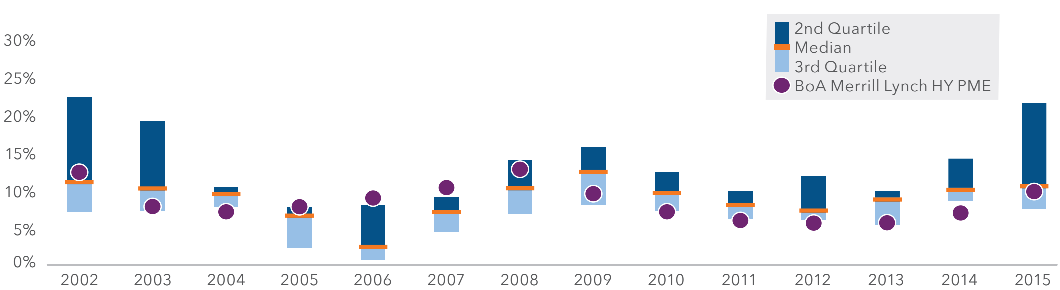


Source: Hamilton Lane Data via Cobalt, Bloomberg (October 2017)

Yep. Chart 44 is why investors are upping their allocation to private credit. Recall Chart 8 regarding performance of the various private market investment areas. It is hard to debate that private credit has been the best and most consistent outperformer compared to public market counterparts.

Chart 45: Private Credit IRR Quartiles

By Vintage Year



Source: Hamilton Lane Data via Cobalt, Bloomberg (October 2017)

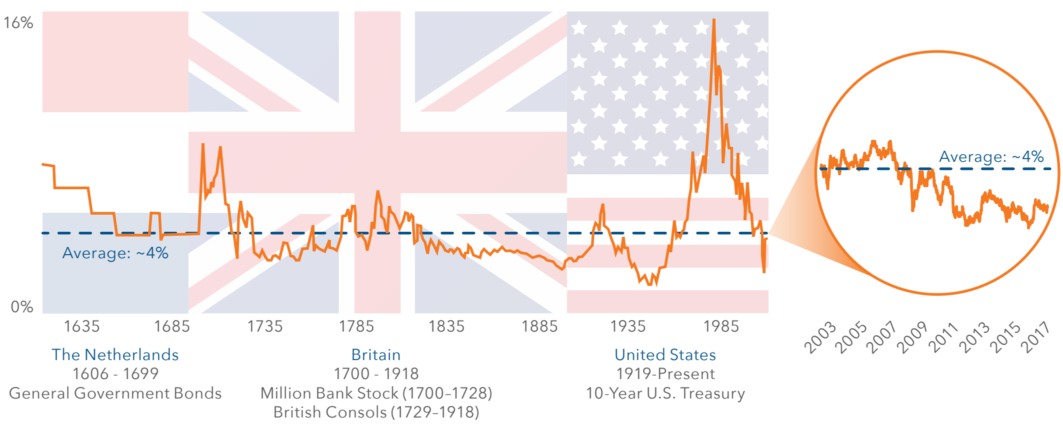
Private credit's performance on a PME basis in the early 2000s holds a somewhat mixed record (Chart 45). Since the financial crisis, however, private credit has consistently outperformed the high-yield benchmarks. We'd argue that this pattern reflects the growth and expansion of these strategies into new credit areas. Just as equity general partners have shown an ability to pick the right sectors and geographies to create return, we believe the better credit general partners will find the right spots in the capital structure, the right blend of primary versus secondary and the right industries to generate returns.

A "Pause" for Interest Rates

You'd be disappointed in us if we didn't acknowledge that debt and credit are the spheres most often characterized as being in a bubble state. Daily, we read warnings to investors to get the heck out of credit. Rates are going up, defaults are imminent, recession is close, disaster looms. It's Armageddon.

It would be easy to pick on Bill Gross here, but we've been there, done that. Plus, he's been bearish on bonds for most of our lives and will have to be proven right someday, so we'll find another market sage to skewer. In July of 2017, Alan Greenspan said, "By any measure, real long-term interest rates are much too low and, therefore, unsustainable." They are? Is that even historically accurate? Take a look at Chart 46.

Chart 46: World Interest Rates



Source: Global Financial Data (October 2017)

Ummm…awkward. It looks like interest rates can, in fact, stay pretty darn low for pretty long periods of time. Perhaps rates are unsustainably low. Or, perhaps they were unsustainably high for the period most of us regard as "normal." We don't pretend to know for sure. All we can do is use history as a guide and grant that maybe, just maybe, rates will stay low for longer than people expect, and that private credit will continue to provide a measure of outperformance over public credit alternatives. We will have cycles and we will have downturns, but we will have a strong secular backdrop.

P.S., In December of 1996, Mr. Greenspan made a now-famous remark that the public equity markets were irrationally exuberant. Had you invested at that "market peak," you would be up 400% with an average annual gain of more than 8%[4]. Facepalm.

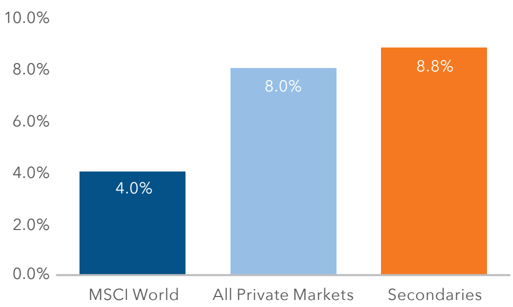
[4] Bloomberg, as of September 30, 2017

Secondaries

Also making a repeat appearance on this year's Hot 100 chart is the secondary market. And you know what? It should. After all, it's been arguably the best-performing market arena on Earth for the last decade (Chart 47).

Not surprisingly, such meaningful returns have attracted a fair bit of capital, resulting in a 22% annual increase in secondary market dry powder over the last few years and bringing that figure close to $120 billion today.

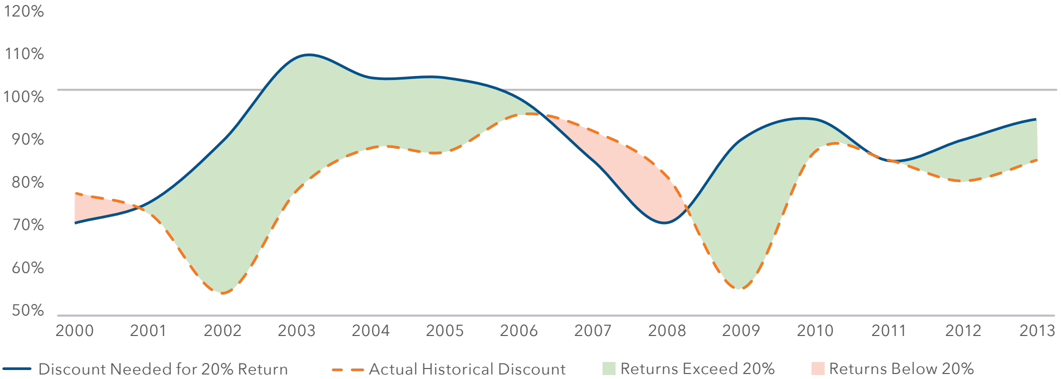
Chart 47: 10-Year Time-Weighted Return



Source: Hamilton Lane Data via Cobalt, Bloomberg (October 2017)

Chart 48 is busy, but what it indicates is that the secondary market only "mis-prices" the discount needed to achieve a 20% return at market peaks (2000 and 2007-2008). On average, however, the discount has been 10-20%. Discounts are trending toward par today, and the question for investors becomes whether a combination of asset price appreciation, leverage and deal structuring will result in a future return of 20%.

Chart 48: Price Needed Relative to Par For 20% Return
By Year of Secondary Purchase; Price Relative to Par

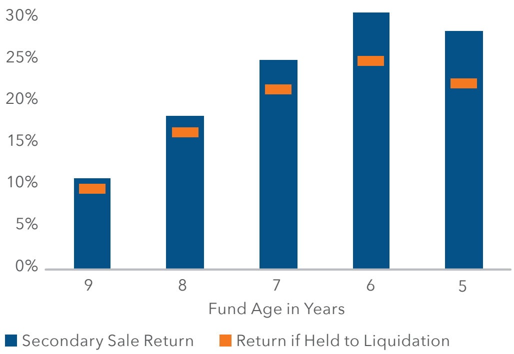


Source: Hamilton Lane Data; Historical discount data from Lexington Capital Partners. (May 2017)
Simulation where all mature buyout funds (5-9 years old; RVPI > .3x) were bought each year at the discount needed for 20% return

Let's shift the focus of our discussion of the secondary market a bit. All investors wish they could time every market, and private markets investors are no exception. Let's look at the seller's dilemma today. Forgetting re-investment risk for a moment, should some NAV be sold as a way to lock in the gain in a portfolio?

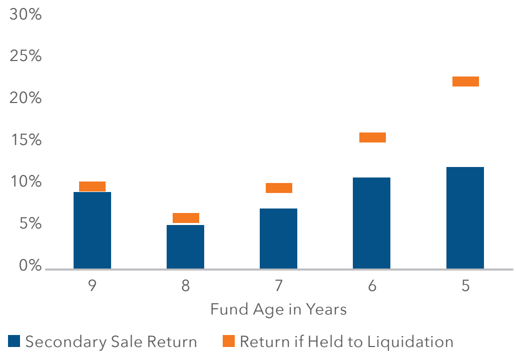
> *"Alas, as we've bemoaned over and over, ours is an asset class in which data doesn't matter"*

Chart 49: Selling & Reinvesting at a Market Peak
IRR of Sale on 12/31/2007 at 10% Discount with Reinvestment



Source: Hamilton Lane Data (October 2017)
Please refer to endnotes on last page

Chart 50: Selling & Reinvesting Two Years Before the Peak
IRR of Sale on 12/31/2005 at 10% Discount with Reinvestment

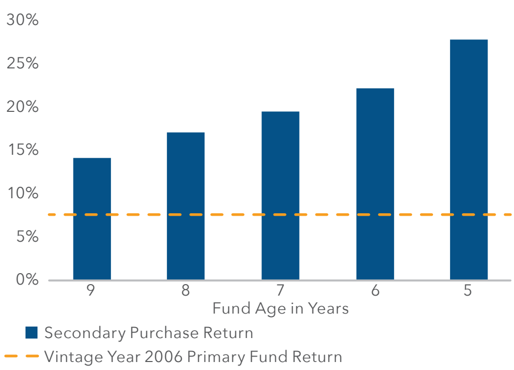


Source: Hamilton Lane Data (October 2017)
Please refer to endnotes on last page

Regardless of fund age, it's pretty clear: If you know with certainty that this year is the market peak, then you should sell as many five- to nine-year-old private markets exposures as you can, even at a discount of 10% (Chart 49). Ah, but here's the rub: If you're off by two years, you have left a great deal of return on the hypothetical table (Chart 50).

Consider it from the buyer's perspective. If you knew we were at a market peak, should you buy a secondary position or a primary position? That answer seems somewhat obvious, and it is. Our research shows you are better off making a primary commitment; those funds are buying in the downturn and unencumbered by any holdings that lose value.

Chart 51: Buying Two Years Before the Market Peak
IRR of Purchase on 12/31/2005 at 10% Discount



Source: Hamilton Lane Data (October 2017)
Please refer to endnotes on last page

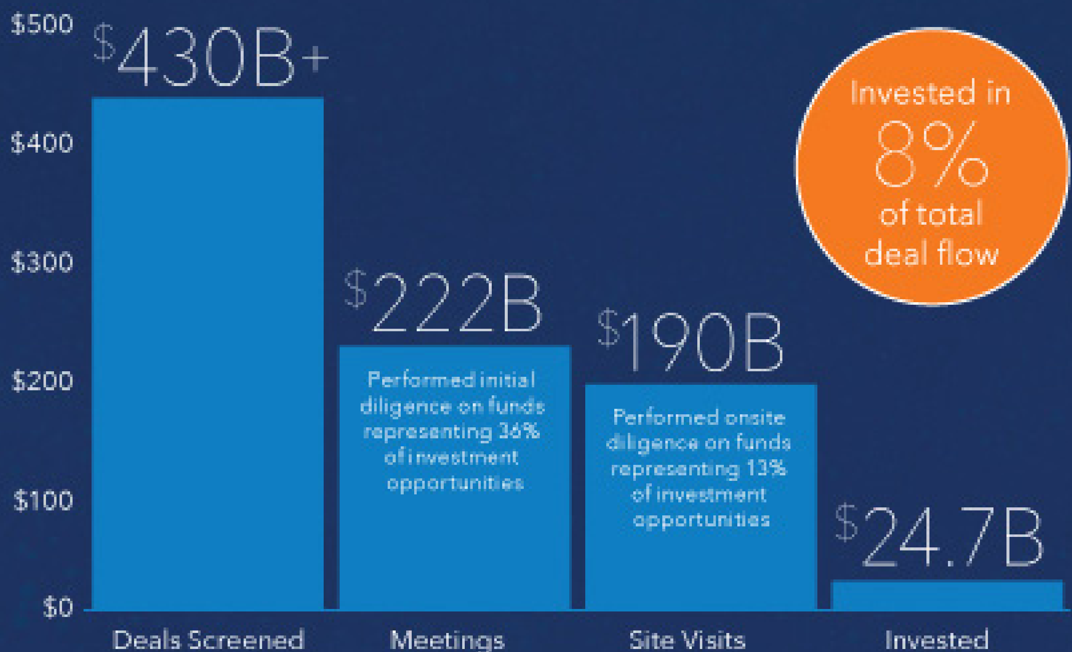
At the end of the day, however, timing is everything. Two years before a market peak, you are better off buying a secondary position than a primary position (Chart 51). The downturn in NAV in the secondary does not impact performance as dramatically as the downturn in NAV of the primary fund that is investing into the late stages of the bull market. The fact that you have avoided the early fee drag of a primary when you buy that secondary is also a big differentiator. If the 2006 vintage is any indication, the difference in return is rather dramatic.

It's analysis like that in Chart 51 that makes us wonder when we hear investors tell us that they won't make any secondary investments because the market is too expensive. It's expensive, yes, but data suggests that the secondary market may withstand that expense better than other investment arenas. Alas, as we've bemoaned over and over, ours is an asset class in which data doesn't matter. (Insert audible sigh of frustration here.)

Hamilton Lane Builds Portfolios Designed to Outperform

Concentrated

In 2016, Hamilton Lane screened more than $430B in primary deal flow, yet invested in only 8%



The 2016 capital allocated includes all primary commitments for which Hamilton Lane retains a level of discretion and all advisory client commitments for which Hamilton Lane performed due diligence and made an investment recommendation. This amount excludes secondary and co-investment commitments. (December 31, 2016)

Diversified

Investments Across Multiple Sectors

Energy

Growth Equity

SMID

Credit

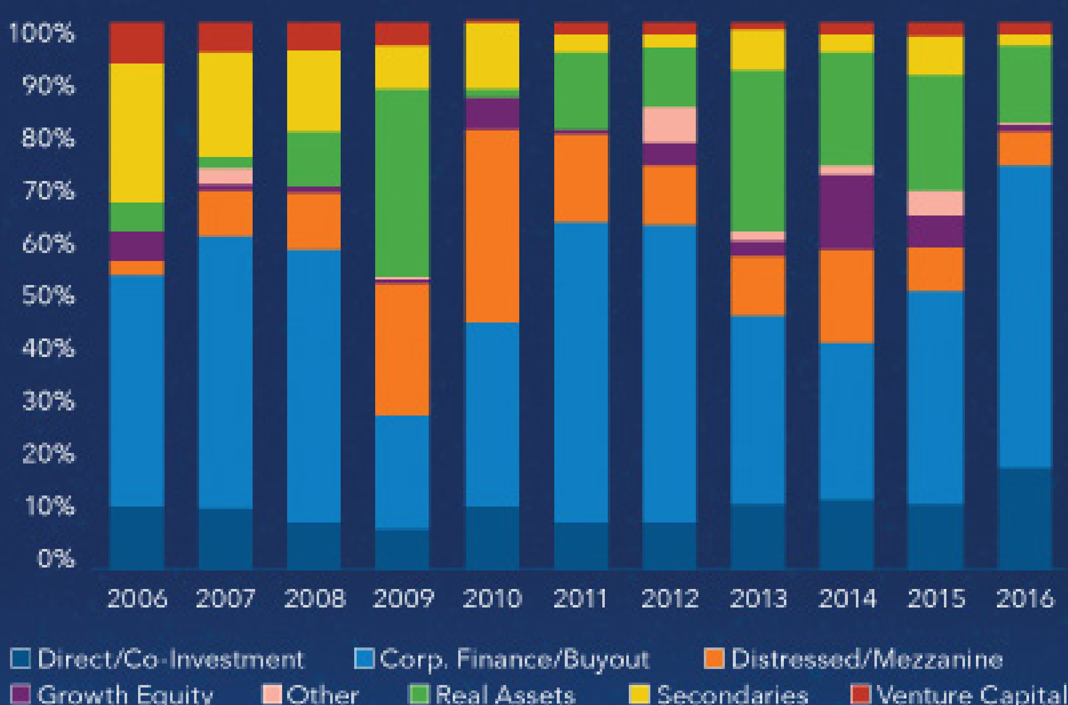
Selective Deployment

Deal Flow by Strategy	Primaries	Secondaries	Co-Investments
# of Opportunities	703* Funds	296* Transactions	317* Companies
Total Dollars	$426B*	$34B*	$10.8B*
Investment Rate	6%**	2%**	11%**

* Total opportunities reviewed in 2016
** Invested as a % of total opportunities reviewed

Tactical Allocations

Hamilton Lane Discretionary Commitments by Type and Vintage



Source: Hamilton Lane Fund Investment Database (June 30, 2017)

the Market TOP

WINTER IS COMING

Industry participants spend an inordinate amount of time debating whether we are at a market top.

The sub-text of the conversations, of course, is that it *must be true*. How many discussions feature comments such as "the stock market is too high," "interest rates can't get any lower," "stocks are historically overvalued," etc.? In the private markets, we usually look for market tops in the behaviors of the general partner community, and as we've explored previously in certain indicators throughout this overview, we don't perceive signs of a market top in GP behavior. Some indicators, such as purchase price multiples, are high, while others, like the pace of capital calls, are tracking at below average levels.

Curious. Could it be, then, that we're looking in the wrong place?

Maybe we should be turning our attention to LP behavior instead. After all, LPs are faced with a real dilemma in their private markets investments. As their asset base increases with public market gains, they need to deploy more capital. As the record pace of money returned to LPs continues, they need to deploy more capital. We have seen the GPs react to record liquidity with some discipline, but how are the LPs faring? We would argue that there are worrisome trends on that side of the horizon.

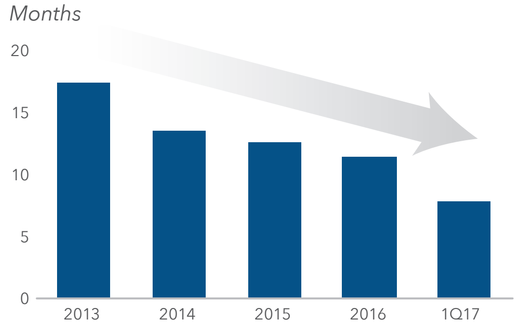
In fact, we've identified four such trends that give us pause, cause us worry and suggest that some real caution is warranted in today's markets.

1. Faster Fundraises

Fundraising is speeding up. Well, no shit, Sherlock. What's most striking is that the pace at which funds are holding a final close has been cut by more than 50% over the last five years (Chart 52). Five zero percent.

We surveyed our GP group on this topic: 90% of them believe fundraising is happening more quickly compared to their prior fundraises, and 100% contend it's easier to raise capital in today's environment compared to when they were last in market.

Chart 52: Buyout Funds - Average Time to Final Close
Months

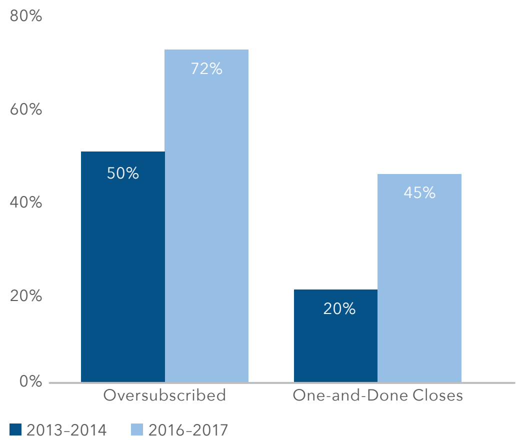


Source: EY, Preqin (April 2017)

Looking at the percentage of funds that are closing oversubscribed and/or are holding one-and-done closes offers another more telling measure of how near frenzied LP behavior is becoming around capital commitments (Chart 53).

These may be straws in the wind, but this kind of data strongly suggests that due diligence, analysis, judgment and portfolio construction are getting far less attention than they deserve. That is on the LPs for willfully allowing the GPs to be the happy beneficiaries of this trend. When LPs complain about a one-and-done close, they have no one to blame but themselves.

Chart 53: Oversubscription & One-and-Done Closes
% of Funds Reviewed by HL Legal



Source: Hamilton Lane Data (August 2017)

2. The First-Time Fund to End All First-Time Funds

Boy, it's usually tough to point to a single fund as the "tell" on the state of the market, but this one is too special to be overlooked. Here's the pitch:

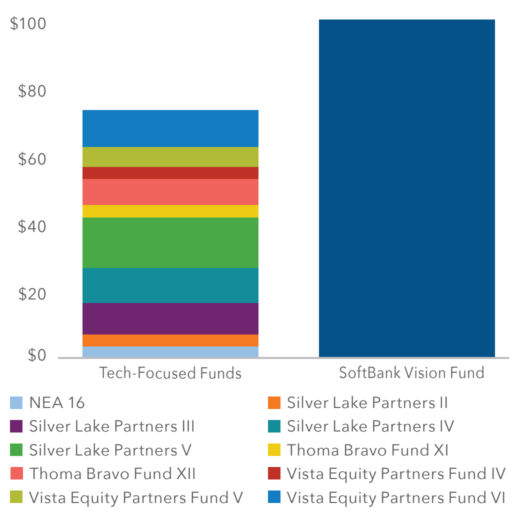
"I plan to raise the largest fund the world has ever seen. The fund will be based on the vision and skill of one man. It will be the first fund I've ever raised, so there is no need to concern yourself with inquiring about fund experience related to operations or fiduciary duties – there isn't any. I want the fund to be sponsored by a strategic company that I run and that may or may not have conflicting goals and interests with this new fund I'm raising. I want the ability to invest in public or private companies, minority or majority positions, anything that strikes my fancy, really. The fee structure will be that of private equity fees and carry whether I'm investing in public or private companies. Oh, and I want this to be in the technology area because I'm after the highest returns. The fund will be structured with debt and equity, but my money is only in equity whereas LP capital will be a mixture of the two. (That should really keep us adequately aligned, don't you think?) I'm sure I'm forgetting some details, but that should be enough to raise…

(Wait for it.)

$100 Billion Dollars."

As an asset class, we toss around the term 'billions of dollars' like it's nothing. But this is not nothing; this is something.

Chart 54: SoftBank Vision Fund vs. Top 10 Largest Tech-Focused Funds
USD in Billions



Source: Bison Data via Cobalt (October 2017)

> "Well, this sure feels like a clear sign of a market top"

In fact, this is far greater than the 10 largest private markets tech funds ever raised (Chart 54). We're talking about groups with track records, with some history. Eh, who needs it? Apparently not many LPs, considering the fact that this fund is four times the size of Apollo's latest, largest buyout fund. This is epic. This is "yuge."

We are not proclaiming today that the SoftBank fund won't make money or achieve its goals. Perhaps it will and, for the sake of many large investors, we hope it does. What we are saying is that this is the type of LP behavior that falls neatly into the category of "Well, this sure feels like a clear sign of a market top."

3. Core Equity Funds

The responsibility for the emergence of long-term, or core equity, funds, we place squarely at the door of limited partners. They pushed for them, they caused their creation and they will live with the consequences. Okay, fine; a blanket statement of "they" may be too broad a term since it's really a smaller group of large investors that is ultimately liable.

The long-term fund structure began with some investors (yes, we're talking to you, big guys) making the fateful determination that the private markets presented some structural problems:

» These investors possess large sums of money that they're looking to invest for very long periods of time; way too much money, in their view, for the traditional private markets.

» The private markets have been returning the money five or six years after investing in a portfolio company, meaning these investors had to re-invest this capital on top of an already gushing stream of capital to invest.

» This particular group of investors didn't require the promise of 20% returns. Twelve percent was just fine for them. Heck, 10% may be fine for them.

» Fees in the private markets are too high.

» Conducting diligence on a fund every few years is tedious and tiresome with limited resources.

» Many portfolio companies bounced around from GP to GP or from GP to public and back again, generating fees and carry each time.

How, oh how, to solve these issues? My friends, we all know nature abhors a vacuum.

And who in the universe knows better how to fill such a vacuum than general partners? Behold the advent of the core equity fund. What promises does this fund entail?

» Longer duration (we're talking portfolio companies held for 20+ years)

» Lower fees

» Lower target returns

» Blue chip companies with more stability and in less need of transformational change than traditional private markets portfolio companies, and

» Managed by the same team that manages the firm's traditional buyout fund

Problems solved. What's not to like here? Make no mistake; these funds are created by some of the best investors in the private markets – Blackstone, Carlyle, CVC – and they may ultimately prove successful. Perhaps. Let's ponder it a bit and ask some inconvenient questions:

» How does a GP discern whether a company will be a lower-returning, longer-lived asset prior to investment? We'd argue it really can't be done, except by driving the price high enough to ensure that, at a minimum, the lower-returning part of the equation holds true.

» In a more concentrated portfolio, will GPs really have a lower loss ratio? Or will they start to resemble a lot of mediocre mezzanine funds in which there's never enough upside on good deals to make up for the lousy ones?

» Will LPs really be happy with the inability to re-examine their investment judgment about a fund manager and its deal team for 20+ years? Does that make sense to all of us?

We saved the most important question for last: Is this really the skill set that GPs possess? As a strategy, private equity buyout has been sold, accurately, on its ability to buy a company, transform it and sell it. There is no history of the private markets having the ability to buy a company, do very little with it, hold it for 20 years and compound return at double-digit rates. True, we've seen the one-off examples in the pitch books, but those are examples only after the fact. We've also heard the references to Warren Buffett and how he has managed to do this successfully for decades. He has. But, remember, folks, there is only one Warren Buffett. Does anyone really believe there are dozens of others like him lurking around the the private markets landscape? That's a tough wager to make. Besides, if we don't like what Warren Buffett is doing, we sell his stock. No such escape valve exists here.

As with SoftBank, we genuinely hope the the core equity fund strategy succeeds for all our sakes. Succeed or not, this is a set of funds clearly fueled by too much capital in LP hands. It's indicative of behavior caused by too much money sloshing around LP portfolios in a bull market. As we observe these trends play out over the next many (many) years, it may benefit us all to keep in mind a nugget of wisdom offered by Warren Buffett himself: "A fat wallet is the enemy of high investment returns."

"But, remember, folks, there is only one Warren Buffett"

4. GP Investment Funds

At last we come to it: The pièce de résistance. Nothing screams market top more clearly than funds that invest in GP stakes. Here's the pitch:

» We will take minority stakes in high-quality general partners, and do so without any governance rights. (No, I'm not kidding; we'll have none.)

» We will derive a cash yield through the management fee and carry participation our stake gives us. Depending on who you talk to, that cash yield could be anywhere from 5% to 12%.

» There is no exit plan. (No, really, none.)

» Our team has never done this; we have no track record or history of any exit. (That last point is probably moot since there's no exit plan anyway.)

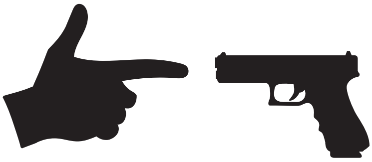
» Potential conflicts of interest exist because we run a funds business that invests with some of these managers. Well, that one's not really your problem per se; we just hope our product investors don't focus on it too much. But, don't worry; we'll continue to support these managers regardless of performance because we now own a piece of them.

How great is this? This is the perfect way to have a stake in the unlimited growth potential of the private markets. It solves so many problems. It takes care of duration risk because it can last forever; it takes care of fees being too high in the private markets because you are now sharing in the benefit of those fees. Nirvana! Investors are putting, quite literally, billions of dollars to work in these strategies.

Psst, we know what you're thinking… "Stop being so salty, Hamilton Lane. You're just taking shots because you can't raise the funds to do this. You're dying of envy."

Guilty on one count. We are indeed envious. We would love to raise this type of fund simply because they are so lucrative, long-lived and simple to do. We have the relationships and we have the inside scoop. But, we simply can't do it. We can't figure out how to raise this kind of fund and sufficiently address the conflict in our core business. We can't figure out how to own a stake in GP X, recommend that our clients invest in GP X's new fund and maintain that our ownership stake has no bearing on that investment advice.

Once again, we genuinely hope this strategy works. The funds in which investments have been made are certainly high-quality managers: Providence, Silver Lake, Vista, KPS, TSSP. But, it's worth thinking for a minute about what side of the table you want to be on in this deal: The side with arguably the best GPs who negotiate as well as anyone in the world and who are negotiating about their own money in this scenario, or the other side of that trade?



Where Are We Now? Where Are We Going?

We are private markets people.

Surprisingly, the part of this overview that gets the most attention is our view on the probabilities of recession in the U.S. over the next year. Despite having taken a great deal of flak for it, we're rather proud of our predictions that the chance of recession in 2015 was zero and that the chance in 2016 was less than zero. (Fine, so we failed statistics, but we were still right.)

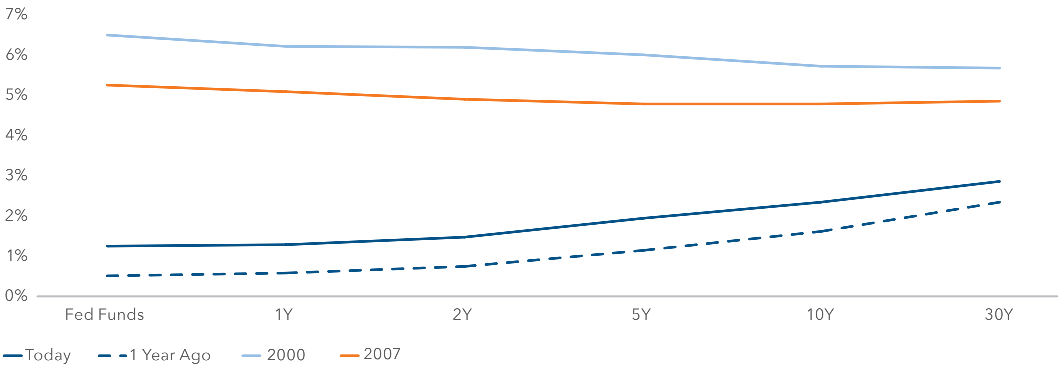
Will we ever change our view? What's our prediction this year?

0

Zero

What's bringing us to this conclusion? We need only point to our favorite recession likelihood indicator (Chart 55). (It's a technical term.)

Chart 55: U.S. Yield Curve

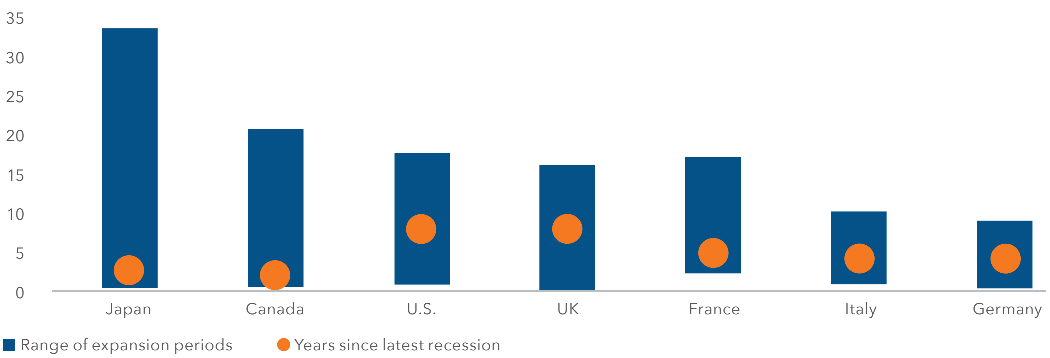


Source: Bloomberg (October 2017)

As long as the yield curve stays positive, we don't foresee a recession in the U.S. We have read (strike that, we've actually *studied*) all of the analysis maintaining that central bank behavior has made the yield curve useless as an indicator of future recession. We've seen the analogies to Japan. We don't buy it. Even if we did buy it, we'll stick to our belief that it's better to follow something that has worked almost 100% of the time than something that relies on "this time it's different."

The leading economic indicators show no sign of recession either. The length of prior expansionary periods in various economies offers a counter argument to the oft-stated idea that this recovery is long and unprecedented and must be nearing its end.

Chart 56: Intervals Between G7 Recessions
Number of Years



Note: Pre-1991 Germany = West Germany; Data = 1960-latest
Source: Capital Dynamics (August 2017)

No, we are not stretching the limit of prior recoveries (Chart 56). We are at or below the mid-point in most economies.

> *A new set of change agents is in town*

(One very important note: Saying we don't believe we're going into a recession any time soon is not the same as saying stock markets around the world will continue to rise. While our view is that capital markets will continue to surprise people on the upside, a few months of down price patterns would be normal and not necessarily a precursor to a more general economic downturn.)

There is one major difference underlying our prognosis this year compared to any other year, however. Historically, we have been confident in our predictions when the major drivers of economic activity globally were central bankers. People like Bernanke, Yellen, Draghi and Zhou Xiaochuan provided a stable backdrop against which to make macro judgments.

The world has changed. No longer are the central bankers the sole drivers of macro policies. A new set of change agents is in town.

Today's macro environment is far more uncertain and unpredictable than it has been in recent history. We would not be terribly shocked if one or more of these politicians took some unforeseen action that triggered a recession.

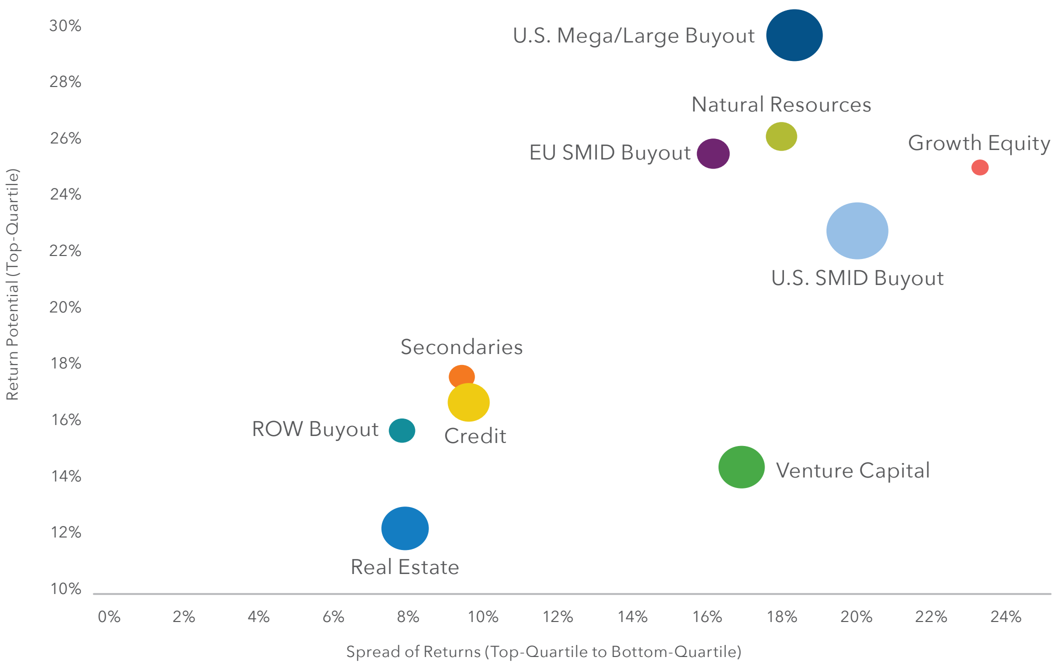
Considering that these are the players in places of power all over the world, we actually toyed with moving the probability of recession up to one or two percent. But, that's just hedging, isn't it? That's not what you want from us.

Private Markets Investing in Cycles

Private markets' return characteristics vary greatly depending upon when in a market cycle investments are made.

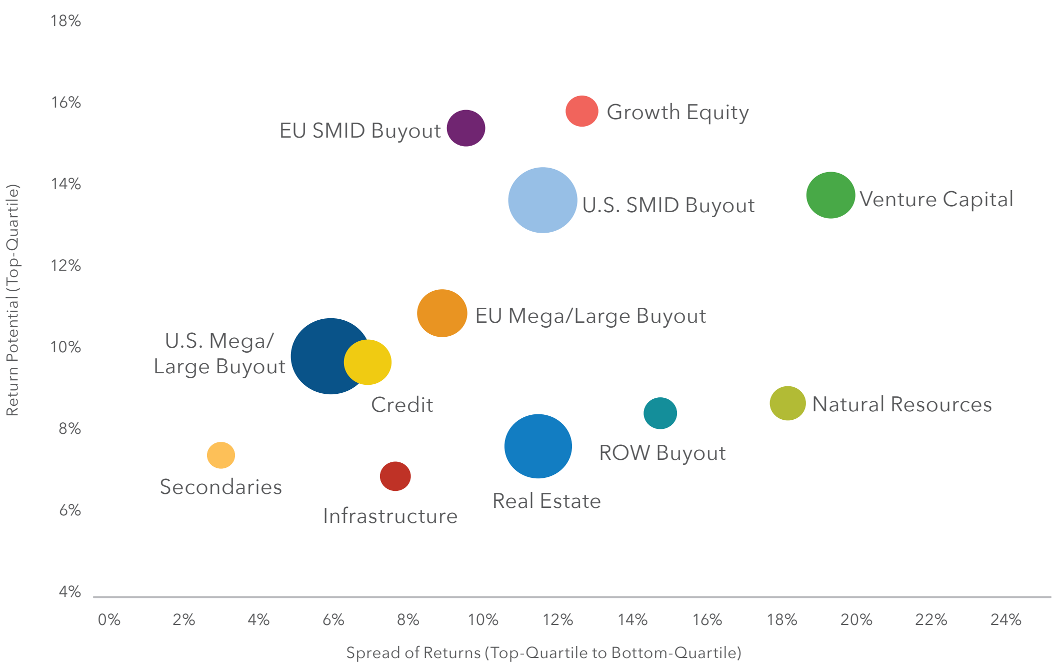
Thinking about recession probabilities, it's interesting to analyze the difference in returns generated by various strategies that invest prior to a market peak.

Chart 57: Potential Returns and Dispersion of Returns
Four Years Before Market Top (1995-1996 & 2003-2004)



Source: Hamilton Lane Data via Cobalt (October 2017)

Chart 58: Potential Returns and Dispersion of Returns
Two Years Before Market Top (1997-1998 & 2005-2006)



Source: Hamilton Lane Data via Cobalt (October 2017)

"What if (as most say they won't do, but many actually will) you stop investing when the markets crater?"

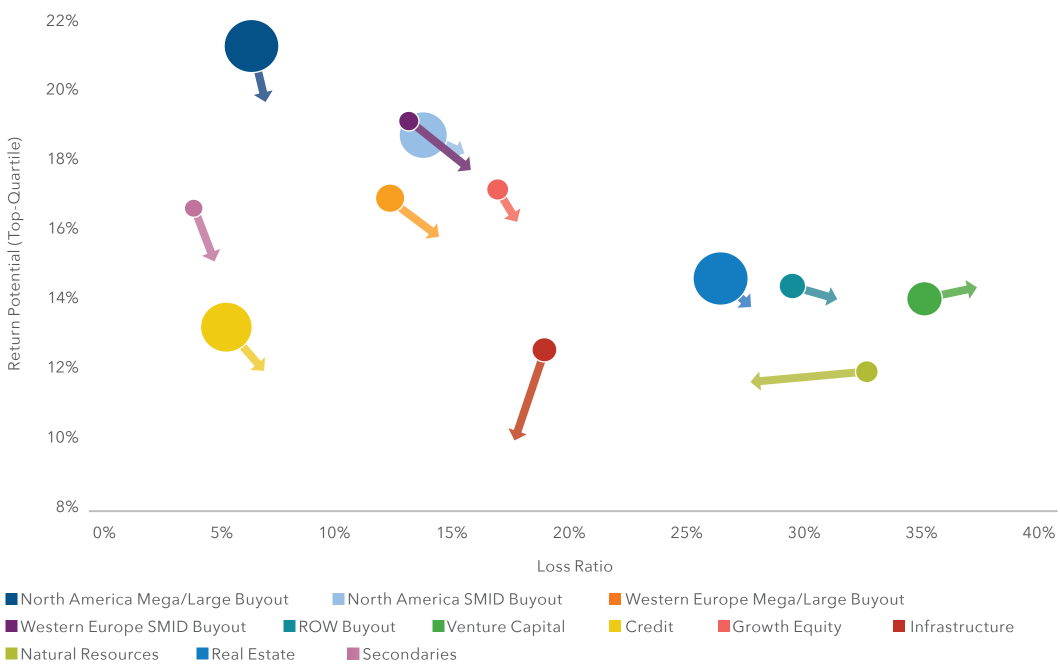
Amazing what good data allows you to uncover, isn't it?

Four years out from a recession, investors are well rewarded by keen manager selection (Chart 57). If only two years away from a market top, the return dispersion has typically narrowed, and investors ought to be more aware of asset allocation (Chart 58). What if (as most seem to believe) we are, in fact, reaching a market peak? And what if (as most say they won't do, but many actually will) you stop investing when the markets crater?

Our data suggests that the innate, human inclination to pull back at the sight of danger and "wait it out for the right time" will only result in lower returns and, sadly, the same or slightly more risk (Chart 59).

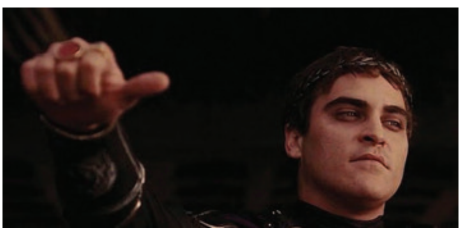
Chart 59: Potential Returns and Risk of Loss

Historical Returns With and Without Committing After Downturn



Source: Hamilton Lane Fund Data (October 2017)

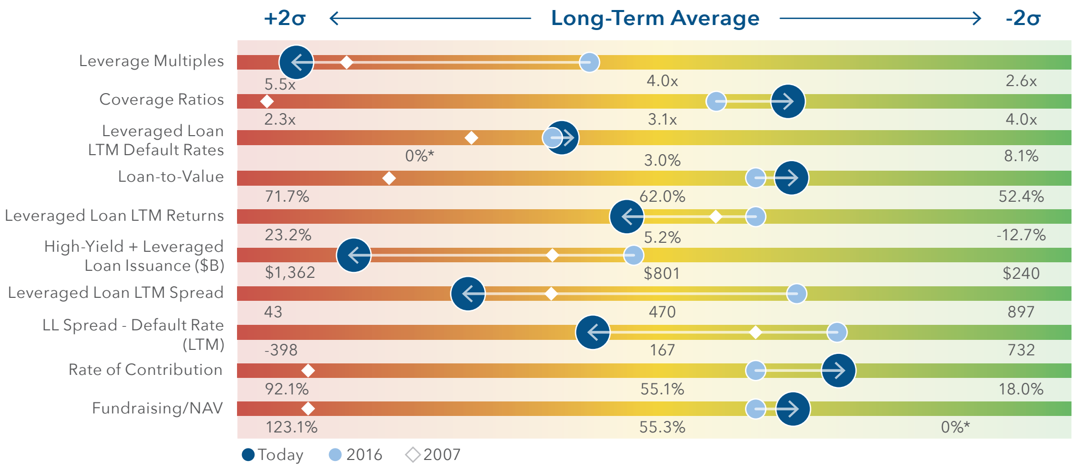
Sentiment Indicators



The private markets are as subject to fear and greed as any other market.

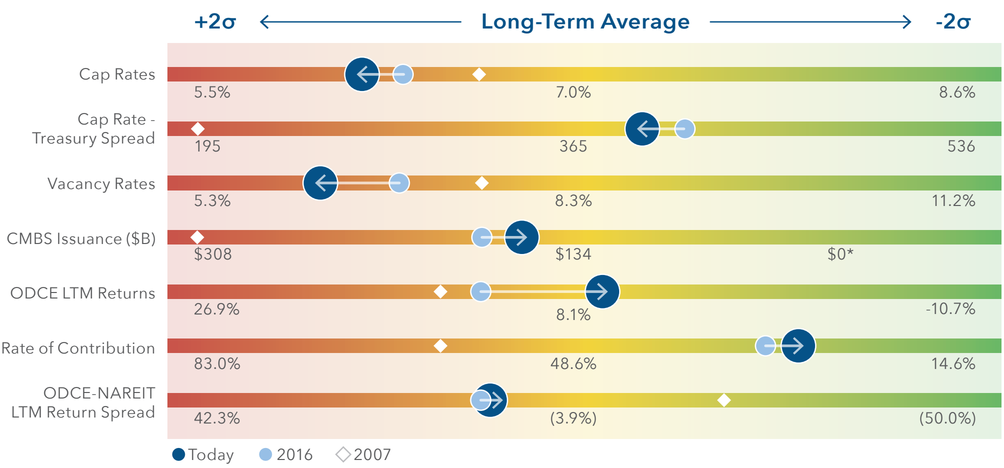
That's a big part of the reason we consider our sentiment indicators an apt way to gauge where we are and where we're headed. This year, in addition to traditional buyout, we introduce indicators for both the credit and real estate markets.

Chart 60: Hamilton Lane Sentiment Indicator - Credit



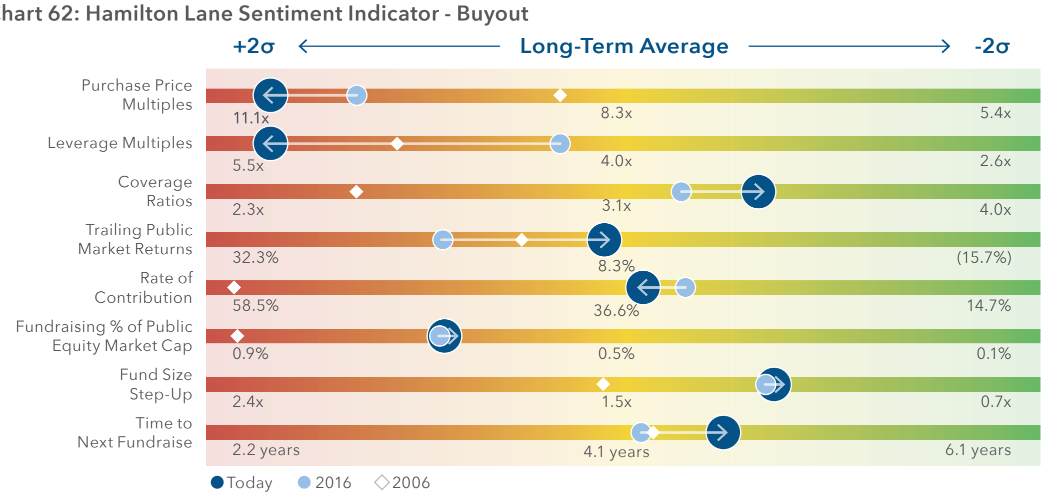
Source: Hamilton Lane Data, Cobalt, S&P (October 2017)
*Asterisk indicates zero was used as the floor for indicators that cannot be negative

Chart 61: Hamilton Lane Sentiment Indicator - Real Estate



Source: Hamilton Lane Data, Bloomberg, RCA, NCREIF (October 2017)
*Asterisk indicates zero was used as the floor for indicators that cannot be negative

Chart 62: Hamilton Lane Sentiment Indicator - Buyout



Source: Hamilton Lane Data, Cobalt, Bloomberg, Bison, S&P (October 2017)

Charts 60, 61 and 62 each plot indicators at the 2006/2007 peak and the current environment, along with movement indicators from one year ago.

On the credit side, we're admittedly out of step with consensus, as we see the credit markets in a primarily "okay" place (Chart 60). The trend over the last year has been more negative, but hasn't settled in a terribly worrisome place. In our estimation, the credit market sentiment indicators are neutral to slightly positive.

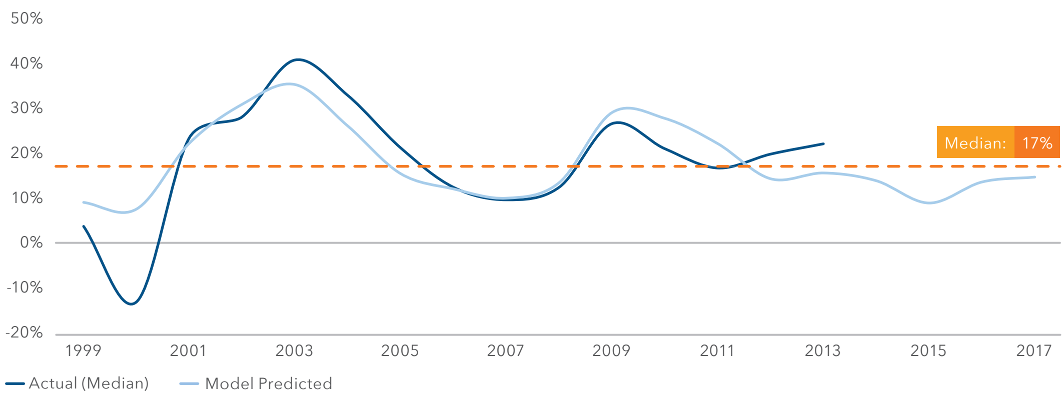
Real estate is in a different place. Movement over the past year has been mixed, with some indicators trending more positive and others increasingly negative (Chart 61). Generally speaking, the indicators are more negative and, overall, in a place more akin to the 2007 market top than we observe in the credit or buyout spheres. That is not to imply that we are at a market top or that any top will be like 2007; it is merely to say that real estate sentiment indicators are slightly negative.

Traditional buyout falls somewhere between credit and real estate from a sentiment indicator perspective (Chart 62). Despite trending more negative than positive over the last year, the indicators are not as consistently close to where they were at the 2007 top. Nevertheless, far fewer indicators reside in the "green" shades than can be observed on the credit side. We would rate the buyout indicators as neutral to slightly negative.

The last indicator we will highlight is our own predictive model (Chart 63).

Chart 63: Deal Vintage Year IRR vs. Predictive Model

Provides Indication of Current Cycle's Returns Relative to Average Deal Returns



Source: Hamilton Lane Data, S&P, Bloomberg (October 2017)

Directionally, this model has been very accurate, and that's what we're really hoping for here. It appears that 2017 is shaping up to be a slightly better vintage year than 2016. However, the model still points to what is a decidedly neutral private markets environment ahead.

We tossed around the phrase "boring" at the outset of this overview. True, we may be in a relatively boring market, but it's boring in a good way for investors and we expect that to continue into the next vintage year.


Where
to Invest

Chart 64: Sector Outlooks

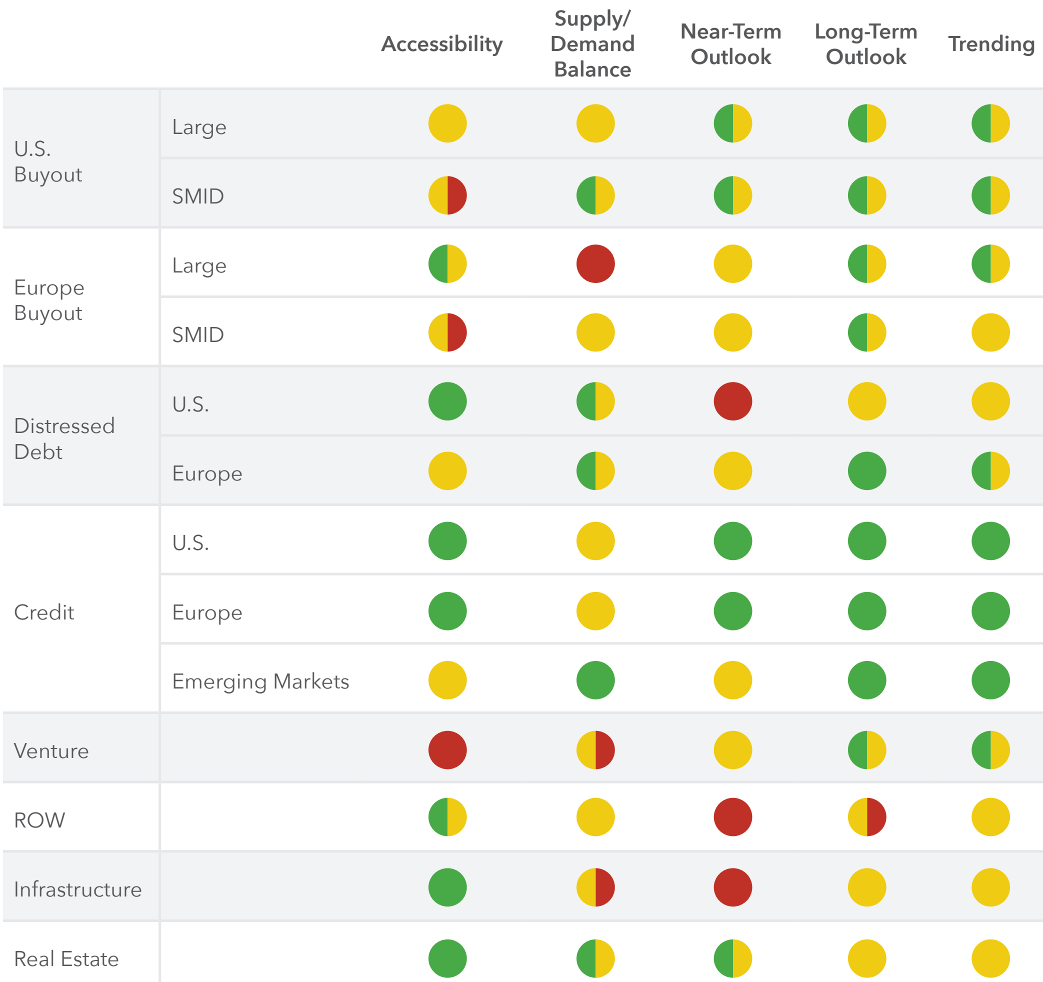


Chart 65: Where to Invest

	Overweight	Normal Weight	Underweight
Large Investor	U.S. Credit European Credit U.S. Buyout	Infrastructure European Buyout Natural Resources Real Estate Rest of World Secondaries	Venture Capital
Small Investor	U.S. Credit European Credit U.S. Buyout European Buyout	Natural Resources Real Estate Rest of World Secondaries	Infrastructure Venture Capital

Conclusion

We've almost made it to the end. We're staggering to the finish line here.

Our conclusion will not be so different from last year's, but a few new themes worth reiterating have emerged.

Rarely has the macro outlook been so uncertain, and that is largely a function of politics and political personalities around the world. Perhaps it has always been this way and we're simply more aware of it today. What's noteworthy is that with the macro so uncertain, the micro stands to be quite interesting, if unpredictable, across so many parts of the private markets.

A second theme that dovetails with the interesting micro stories is the amount of disruption occurring across industries and sectors. We anticipate this will be a much bigger theme of next year's overview. For now, every micro decision needs to consider disruptive possibilities. Are you investing in something that could be disrupted or something that will disrupt? It will become as important a question as any in conducting diligence in any market sector.

What's the 2018 checklist?

- Maintain your commitment pacing in the private markets. It may seem like bland advice, but don't stretch to hit allocation levels. If you drop below, let it go. Take a walk. Better yet, take a vacation.
- If you haven't done so already, increase your allocation to private debt. (No, really, go ahead; we'll wait.)
- Opt for safety and value when faced with an investment choice. The reach for return will probably cost you more than it's worth in most areas. Don't be the person on the conference circuit with the most incredible anecdote of the "niche-iest" spot where you found return.
- Invest in your infrastructure and your people. A dollar, euro, pound or yuan spent on appropriate staffing and resources will be better spent than one invested in yet another fund or co-investment opportunity, and certainly better than attending another conference or annual meeting.
- Continue to favor buyout strategies globally. Yes, they're rather dull; no, they are unlikely to cluster in the top-quartile; yes, they are more likely to cluster at returns comfortably north of the public market alternatives.

If you're reading this sentence, it's too late…. Just kidding. But, you have likely gotten here in one of two ways: You have read this entire overview (whether word-for-word or skipping through various parts) or you have arrived the way many read the mystery novel – you skipped to the end in search of the great reveal. We've always been amused by the notion that a conclusion of a piece like this market overview should encapsulate in a few sentences all that's been said before. If that were the case, would we have assaulted your eyes with great gobs of unassimilated prose for some 60 pages? No, we wouldn't do that to you. Instead, we'll conclude by raising more questions, because we believe considering such questions is key to making better investment decisions.

After reading this overview, how do you feel about lines of credit? Will you start thinking about risk differently? Is seeking out top-quartile funds the only way you want to build your portfolio? Do you believe investing in core equity funds is a good way to deploy your capital for the next 20 years? Is there lingering doubt that the private markets can continue to outperform the public markets? Does anyone still think having access to reliable data in the private markets is irrelevant?

We hope this year's overview provided some useful analysis and context as you continue to consider these questions and ponder several others. If you're still looking for the great reveal, we hate to disappoint, but we really weren't joking when we said we didn't have one. Well, unless this one counts: You have now reached the end of this year's market overview.

Mind. Blown.

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Our Mission and Values

We enrich lives & safeguard futures

- Do the right thing
- Integrity, candor and collaboration
- The pursuit of excellence
- A spirit of competition that inspires innovation

About Hamilton Lane

Hamilton Lane is an alternative investment management firm providing innovative private markets services to sophisticated investors around the world. The firm has been dedicated to private markets investing for 26 years and currently has more than 300 employees operating in offices around the world. We're proud to have been named a Best Place to Work by Pensions & Investments for five consecutive years.

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As of September 30, 2017

And now a word from our sponsors (and, by that, we mean Compliance) ▸▸▸

Pages 20 and 25
Please be aware that the information contained herein is based upon results of a survey conducted by Hamilton Lane Advisors, L.L.C. (the "Firm") of a number of private markets participants. The results of the survey may not necessarily represent the opinions of the Firm or its employees, officers or directors. Publication of this report does not indicate an endorsement by the Firm of the results included herein and should not be relied upon when making investment decisions.

Page 28
Note: Assumes the following unless noted otherwise; 20% gross returns growing quarterly for each investment after being held at cost for 1 yr.; 6 yr. investment period, 5 yr. average hold period, straight line investing, 2% management fee on committed capital during investment period and 2% on invested capital thereafter; 20% carried interest above an 8% preferred return; optimized size of revolver to minimize fees; revolver fees of 3% on drawn and 0.25% on undrawn; revolver used for investment period and only applied to investments; mark ups delayed until each investment is 1+ years old; in markup scenario investments made in year one grow 40% then held flat for year two with 20% growth thereafter, all investments made after year 1 grow at 20% annually.

Index Definitions
Barclays U.S. High-Yield Index – Tracks the performance of U.S. fixed rate debt rated below investment grade.
Barclays U.S. Corporate Aggregate Index – Tracks the performance of U.S. fixed rate corporate debt rated as investment grade.
Barclays Municipal Bond Index – The Barclays U.S. Municipal Bond Index tracks the performance of the long-term tax-exempt bond market.
Barclays Global Treasuries Index – The Barclays Global Treasuries Index tracks the performance of fixed-rate, local currency government debt of investment grade countries, including both developed and emerging markets.
Credit Suisse High-Yield Index – The Credit Suisse High-Yield index tracks the performance of U.S. sub-investment grade bonds.
HFRI Composite Index – The HFRI Composite Index reflects hedge fund industry performance.
Federal Reserve 30Y Mortgage Rate – Measures the contract interest rates on commitments for fixed-rate first mortgages in the U.S.
U.S. 10Y Treasury – Measures the yield of on-the-run U.S. Treasury Notes with 10-year terms.
Barclays Aggregate Bond Index – The Barclays Aggregate Bond Index tracks the performance of U.S. investment grade bonds.
FTSE/NAREIT Equity REIT Index – The FTSE/NAREIT All Equity REIT Index tracks the performance of U.S. equity REITs.
S&P Global Infrastructure Index – The S&P Global Infrastructure Index tracks the performance of 75 publicly-listed companies from around the world that represent the infrastructure industry.
MSCI All Country World Index (ACWI) – The MSCI All Country World Index measures global stock market activity through the equity returns of 2,400 companies in 47 developed and emerging markets.
MSCI World Energy Sector Index – The MSCI world Energy Sector Index measures the performance of securities classified in the GICS Energy sector.
MSCI World Net Total Return Index – The MSCI World Index is a free float-adjusted market capitalization-weighted index that is designed to measure the equity performance of developed markets with net dividends reinvested.
MSCI World ex U.S. Index - The MSCI World ex U.S. Index tracks large and mid-cap equity performance in developed market countries, excluding the U.S.
MSCI Emerging Markets Index – The MSCI Emerging Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets.
MSCI Asia Pacific Index – The MSCI Asia Pacific Index captures large and mid cap representation across 5 developed markets countries and 8 emerging markets countries in the Asia Pacific region.
Russell 3000 Index – The Russell 3000 Index is composed of 3000 large U.S. companies, as determined by market capitalization.
S&P Global Infrastructure Index – This index tracks 75 companies from around the world chosen to represent the listed infrastructure industry, which includes energy, transportation and utilities.

Strategy Definitions
All Private Markets – Hamilton Lane's definition of "All Private Markets" includes all private commingled funds excluding real estate, fund-of-funds, and secondary fund-of-funds.
Private Equity – A broad term used to describe any fund that offers equity capital to private companies.
Venture Capital – Venture capital includes any all private markets funds focused on any stages of venture capital investing, including seed, early-stage, mid-stage, and late-stage investments.
Multi-Stage VC – A venture capital strategy that provides funding to start-ups across many investment stages.
Late Stage VC – A venture capital strategy that provides funding to developed startups.
Seed/Early – A venture capital strategy that provides funding to early-stage startups.
Venture Debt – A venture capital strategy that provides debt financing to companies, rather than equity.
Growth Equity – Any PE fund that focuses on providing growth capital through an equity investment.
Corporate Finance/Buyout – Any PE fund that generally takes a control position by buying a company.
Mega/Large Buyout – Any buyout fund larger than a certain fund size that depends on the vintage year.
SMID Buyout – Any buyout fund smaller than a certain fund size, dependent on vintage year.
Credit – This strategy focuses on providing debt capital.
Distressed Debt – Includes any PE fund which primarily invests in the debt of distressed companies.
Mezzanine – Includes any PE fund that primarily invests in the mezzanine debt of private companies.
Origination – Includes any PE fund that focuses primarily on providing debt capital directly to private companies, often using the company's assets as collateral.
Natural Resources – An investment strategy that invests in companies involved in the extraction, refinement or distribution of natural resources.
Infrastructure – An investment strategy that invests in physical systems involved in the distribution of people, goods and resources.
ROW Equity – Includes all buyout, growth and venture capital focused funds, with a geographic focus outside of North America and Western Europe.
VC/Growth – Includes all funds with a strategy of venture capital or growth equity.
Real Assets – Real Assets includes any PE fund with a strategy of either Infrastructure or Natural Resources. Real Estate funds are not included.
Fund-of-Funds (FoF) – A fund that manages a portfolio of investments in other private equity funds.
Direct/Co-Investment Funds – Any PE fund that primarily invests in deals alongside another financial sponsor that is leading the deal.
Secondary FoF – A fund that purchases existing stakes in private equity funds on the secondary market.
Real Estate – Any closed-end fund that primarily invests in non-core real estate, excluding separate accounts and joint ventures.

Sector Definitions
Consumer Discretionary – Includes those industries that tend to be the most sensitive to economic cycles, encompassing both manufacturing and services businesses.
Consumer Staples – Includes businesses less sensitive to economic cycles, such as food, beverage and tobacco, as well as food & drug retailing companies.
Energy & Utilities – This sector focuses on the production and distribution of natural resources, and includes companies focused on offering services that facilitate that process.
Financials – Includes companies involved in banking, mortgage finance, consumer finance, investment banking, asset management, corporate lending, insurance and real estate.
Healthcare – Includes companies that manufacture healthcare equipment, provide healthcare services or are involved with the research and development of pharmaceuticals and biotechnology products.
Industrials – Includes the manufacture and distribution of capital goods, as well as transportation services and infrastructure.
IT – The Information Technology sector includes technology software and services, as well as technology hardware and equipment.
Materials – Involves a wide range of commodity-related industries including companies which manufacture chemicals, construction materials, glass, forest products or metals.
Telecom – The telecommunications sector contains companies that provide communications primarily through a fixed-line, cellular, wireless, high bandwidth and/or fiber optic cable network.

Other
PME (Public Market Equivalent) – Calculated by taking the fund cash flows and investing them in a relevant index. The fund cash flows are pooled such that capital calls are simulated as index share purchases and distributions as index share sales. Contributions are scaled by a factor such that the ending portfolio balance is equal to the private equity net asset value (equal ending exposures for both portfolios). This seeks to prevent shorting of the public market equivalent portfolio. Distributions are not scaled by this factor. The IRR is calculated based off of these adjusted cash flows.
Desmoothing – A mathematical process to remove serial autocorrelation in the return stream of assets that experience infrequent appraisal pricing, such as private equity. Desmoothed returns may more accurately capture volatility than reported returns. The formula used here for desmoothing is:

$$\boxed{r_D(t) = (r(t) - r(t-1) * \rho) / (1 - \rho)}$$

where: rD(t) = the desmoothed return for period t
r(t) = the return for period t
ρ = the autocorrelation

Global – Includes funds with significant exposure to multiple geographic locations across the globe.
EM Ex. Asia – Includes all funds whose principal focus is on emerging markets not located in Asia.
Asia – Includes all funds whose principal focus is in Asia.

Disclosures

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