



Hamilton Lane
Market Overview

THE
BEAST
IN THE
JUNGLE



KEEPING CLIENTS IN SIGHT

OUR MISSION & 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

Remember the day when a new Harry Potter novel would arrive in bookstores?

(For those too young to recall, bookstores were physical buildings where people would travel to purchase printed books. The OG Kindle, if you will.) Remember the anticipation you felt or, if you're like me, that you witnessed your child feeling? Standing in line, looking in the store window and seeing that cover. You just knew it was going to be beyond epic.

Sure, it may not be "Harry Potter and the Prisoner of Azkaban" – and there's far less make-believe in our story – but we've been told that some consider this the most eagerly anticipated market overview in the industry. ("We'd like to thank the Academy for this honor...") We're quite proud of the reputation our overview has built over the years, even if the hype has as much to do with our pop culture references as it does our industry insight and analysis.

In all seriousness, our guess is it has a lot to do with our data. Throughout the course of this overview, we'll talk *ad nauseum* about data. In an industry where many don't have it and most don't bother to use it, we revel in it. More than that, we like to think that what our readers value is our willingness to share this data, take clear positions and engage in a healthy debate that hopefully leads to all of us making better decisions.

What we hope you'll also find is an acknowledgment that while we certainly don't know everything, we're here nevertheless to present a data-driven assessment of what we *think* we know – and to do so with a sprinkle of humor and fresh perspective. You read enough turgid, leaden overviews to solidify the earth's molten magma core. We don't need to give you one more. Instead, our hope is that no matter the page, paragraph or sentence, our readers can see that we really enjoy the process of putting this together. We love the private markets, and we love talking about them. It doesn't hurt that more than a few of our market predictions over the years have turned out to be right. What can we say? When you got it, you got it.

The truth is, though, that this year's overview has been vexing to write. (Although the theme, which we delve into further in the book's opener, did lend itself to some truly awesome cover art.) We've rarely found ourselves in such a difficult investing environment. Many of us may find that we're asking ourselves similar questions: What's the smart way to approach today's markets? Should we keep investing with prices in nosebleed territory? With a downturn imminent, dare we push further into alternatives? The questions go on and on.

To that, we'd say keep 'em coming. As investors in the private markets, we all had better be asking ourselves these kinds of questions, especially in today's market environment. For our part, we think we have some answers, and we'll offer them throughout this overview. We'll map out a few different paths for consideration as you determine what works best for you and your portfolio.

Remember that you chose this field of investing. We did too; and we're glad we did. After all, there are plenty of opportunities still out there to be uncovered; but, as this cycle marches on, there also is danger lurking. And, the warning signs and sounds are all around. Listen! Can you hear the drum beats starting? Growing louder and louder still? Your ears are filling with the din of music echoing all around as you prepare to turn the page.



You have arrived.

**You know where you are?
You're in the jungle baby.**



“
It isn't a question of what I 'want'...It's only a question of the apprehension that haunts me – that I live with day by day.



There is a brilliant, and rather heartbreaking, short novel written in 1903 by Henry James, *The Beast in the Jungle*. It's the story of a man who believes his life is to be defined by a momentous event certain to overwhelm him, to leap at him like a beast lurking somewhere in the wilderness. "It isn't a question of what I 'want'... It's only a question of the apprehension that haunts me – that I live with day by day."

Does that strike anyone reading this as vaguely familiar? We're pretty sure that many if not all of us can relate to that sense of foreboding at this particular point in the market cycle. We believe – whether or not we "want" to believe – that an event, THE EVENT, is lying in wait like a crouching beast in the jungle, destined to define the global investment markets and the capital circulating within them.

What will the event be? A recession in the U.S.? Brexit fallout? Geopolitical incidents everywhere? North Korea? Japan and South Korea? India and Pakistan? Saudi Arabia and Iran? China and the U.S.? Trump and everyone not named Trump? We sense the creature's eyes shining in the darkness amid the leaves.

On the private markets side, the beasts are well defined, and no less ready to pounce: too much capital; too many participants; prices too steep; credit too lax; fees too high; returns too low. We hear the snarl and feel catastrophe in the air.

And what was the beast that sprang out in James' novel? If you have read this particular author before, you know the answer is an elusive one: There was no beast lurking in the jungle. Rather, the protagonist was himself the beast, a person who spent his life waiting for an event that never transpired and whose belief in the "inevitable spring of the creature" resulted in his missing the opportunity that was all the while before him, hiding in plain sight.

So let us go then, you and I, and take a walk along the path of today's private markets, being careful to look either for potential opportunities missed thanks to pointless worrying or danger signals that there is indeed a beast about to strike. If you take no other advice from this overview, take this: After you read this, go read "The Beast in the Jungle." Both are about the same length.

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STATE OF THE PRIVATE MARKETS

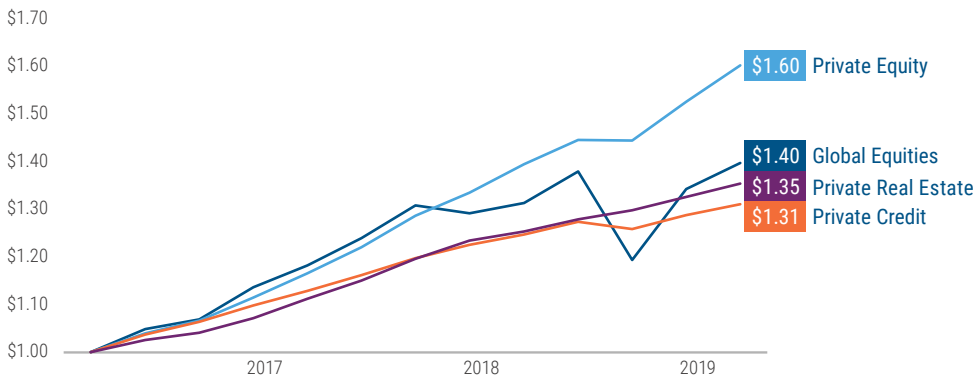
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Performance

Those of you familiar with our prior market overviews may recall that we typically begin with fundraising. And, an equal number of you may have wondered why private market overviews generally start with that metric instead of the seemingly more obvious choice, performance. Well, okay then; let's break with tradition, and kick it off with what everyone cares about the most.

How have the private markets performed, and how does that performance compare to that of the public markets?

Chart 1: What the Markets Have Done: Growth of \$1

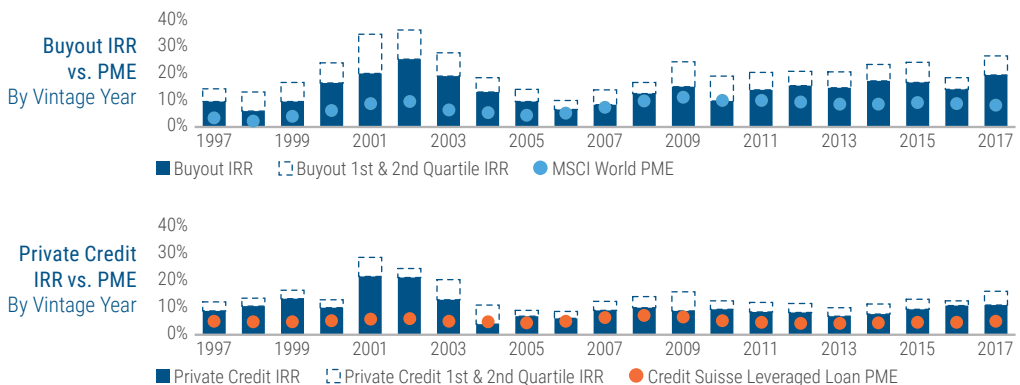


Source: Bloomberg, Hamilton Lane Data via Cobalt (October 2019)

During the past three years, all of the public markets have produced positive performance. One dollar invested at the start of 2016 is now worth quite a bit more whether it went into bonds, global equities or U.S. equities, which has been the best performing of the public market options. Still, private equity was the place to be, and where your money did best. Interestingly, with the exception of U.S. equities, the three big illiquid investment areas – equity, credit and real estate – beat every public comparable.

Reviewing performance on a vintage year basis, the story for buyout and private credit was even more impressive.

Chart 2: Pooled Returns by Vintage Year



Source: Hamilton Lane Data, Bloomberg (October 2019)

What's not to love about an investment arena where average performance outperforms the public alternatives in *19 out of the last 20 years*? (We love hyperbole, particularly when it's vaguely warranted.) That's been the case in both the buyout and private credit markets. If you happen to be one of those really, really good investors who hits top quartile consistently, then you are, in many years, achieving double the performance of the public markets. (Since we've never met anyone who hasn't told us they are consistently top quartile, we realize this goes for most of you. Clearly, this private markets investing thing is easier than it looks....)

We feel so strongly that this chart represents one of the most important data sets in private markets' analysis that we are inaugurating the first of this year's Hamilton Lane Awards (aka the HLAs), a soon-to-be coveted award recognizing an impressive array of data sets.



Accepting the award on behalf of Chart 2 is @PEExpertPrognosticator

I'd like to thank Hamilton Lane for this prestigious award, as well as buyout and private credit for their great runs these last 20 years. I'd be remiss, however, if I didn't repeat what I have said for the last 19 years: This can't last. I know that it's hard to argue against proven success over and over and through all sorts of market cycles, but I'm pretty sure I know better and have been saying so for many years. Gosh, I just know I'll be right eventually and that going against something that has worked so well and so consistently is a really smart investment strategy. But nevertheless, thank you!

For a moment, let's flip to the world in which many of us live and operate; it's a world where we are measured in prescribed time frames, quarter by quarter, year by year. We showed Charts 3-5 last year and posed what we think still remains the fundamental question about this asset class: Can the private markets continue to outperform the public markets by the margins that investors expect?

Take a minute to digest these charts; we admit they're busy, but hopefully the colors help to simplify matters. Green means the private markets have outperformed the public benchmark by the requisite 300+ basis points that most investors look for in their private portfolios. Yellow means there is outperformance, but it is less than 300 basis points. Red means the public markets outperformed.

■ Private Markets Outperforming by 300+ bps
 ■ Private Markets Outperforming by 0-300 bps
 ■ Public Markets Outperforming

Chart 3: 15-Year Asset Class Risk-Adjusted Performance

Annualized Time-Weighted Return as of June 30, 2019

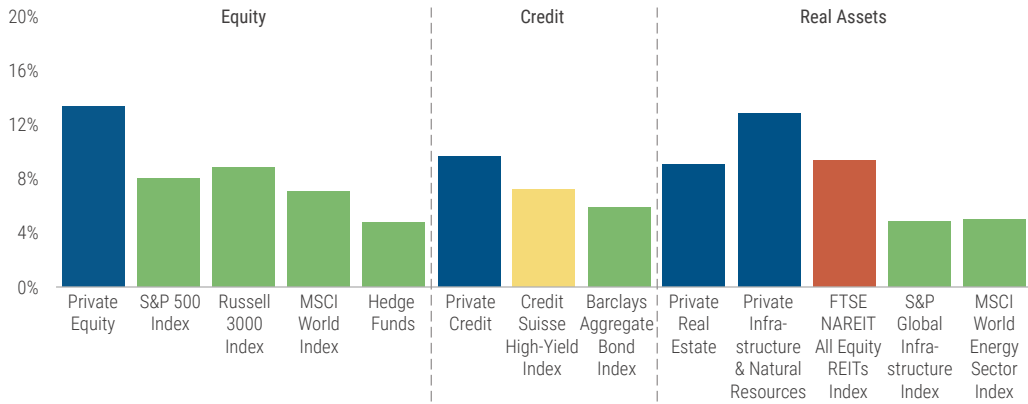


Chart 4: 10-Year Asset Class Risk-Adjusted Performance

Annualized Time-Weighted Return as of June 30, 2019

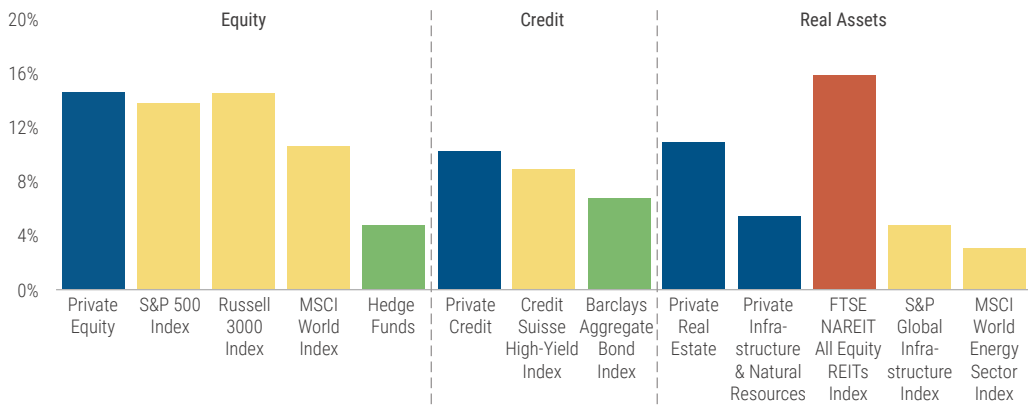
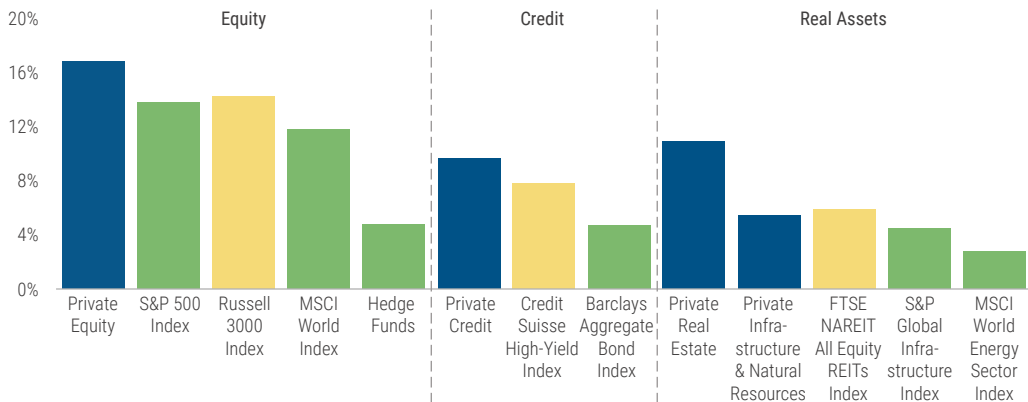


Chart 5: 3-Year Asset Class Risk-Adjusted Performance

Annualized Time-Weighted Return as of June 30, 2019



Source: Hamilton Lane Data via Cobalt, Bloomberg (October 2019)
Please refer to endnotes on last page

We'll offer a few important takeaways:

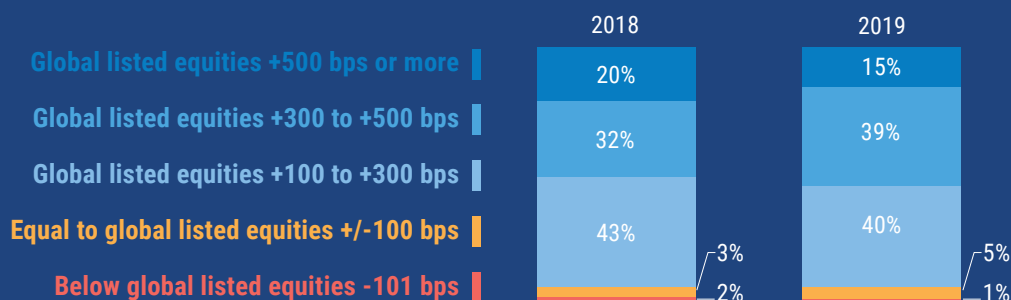
- » Why on earth does anyone invest in hedge funds? The only metric they're outperforming is the cash buried in your backyard. (That may even be too generous an assessment. At least with cash buried in the backyard, you can get to it whenever you want – it stores quite well as we learned from *The Shawshank Redemption* – whereas we've seen hedge funds gating investors when they most wanted their money back, as was the case in 2009.)
- » Focusing on one time frame leads to misleading results. Over longer-term horizons, the private markets outperform on an absolute and risk-adjusted basis (even after de-smoothing volatility). The notable exception here is private real estate, which underperforms the FTSE All Equity REITs Index in the 15- and 10-year periods; even in these time frames, private real estate outperforms the other public benchmarks. Further, it's important to remember that the 10-year performance charts captures a decade of measurement starting from almost the exact bottom of one of the greatest bull markets in history. Even in that stretch, both private equity and private credit outperformed each of their respective public market comparables. When you measure on a three-year basis, the private markets, particularly private equity, really start to demonstrate their outperformance. Adequately analyzing private markets performance requires doing so across more than one time frame, and when that time frame starts and stops tends to make a very big difference.
- » The benchmark is crucial. You can see that private equity's outperformance is far greater compared to the MSCI World Index than it is against a U.S.-oriented benchmark. Investors will experience a different level of enthusiasm about their private equity portfolios depending on what benchmark they're using each quarter.
- » We made this final point last year, and it bears repeating: It is imperative for private markets' growth that these bars remain green with only a smattering of yellow. Investors' faith in the private markets is predicated on the assumption that private outperforms public, and does so by enough of a margin to justify the fees, hassle and opaqueness. If that changes, so will investors' willingness to invest in the asset class.

How are general partners thinking about future returns?



GP View: Net Returns

Chart 6: Net returns for all private markets for the following three vintages will be...



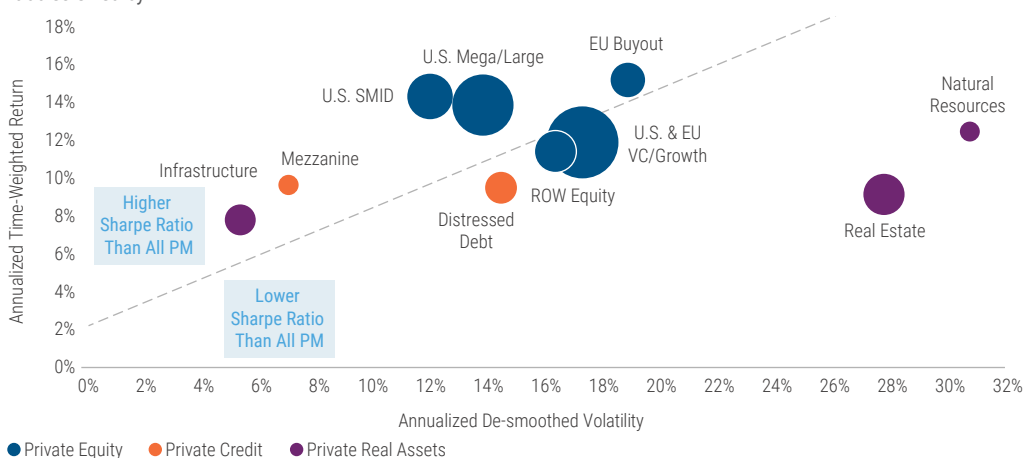
GPs appear roughly as bullish as they were last year about returns over the next three years (Chart 6). A slight majority believe returns will be more than 300 basis points higher than their public counterparts. We would note – parenthetically, of course – that general partners have tended to be a fairly optimistic group when surveyed.

You may be asking yourselves, “Who are these general partners?” Well, they are a group of 138 managers from across the globe (70% U.S./30% non-U.S.), representing all sorts of investment disciplines and strategies, with ~9,900 portfolio companies and ~\$2.5 trillion in reported AUM. They represent a huge swath of the private markets universe. I guess you could say they’re kind of a big deal.

Coming back to the topic at hand: It’s not enough anymore to look at returns on an aggregate basis and make decisions. If you have data, then use it to make the right choices when constructing your portfolio. And if you don’t have the data or, worse, don’t use it, then we subtly suggest you find a different line of work or area in which to invest.

Chart 7: 15-Year Strategy Returns & Volatility

Bubbles Sized by NAV



Source: Hamilton Lane Data (October 2019)
Please refer to endnotes on last page

Interesting, isn’t it? Chart 7 illustrates some of the many questions and considerations when it comes to building a portfolio. How much risk to take? How much return to target? How big a portion of the market to access? One of the stranger aspects of private markets is how indifferent we tend to become to huge disparities in performance. We’d bet that many people would look at this chart and say, “Well, it’s all clustered around the same return so what difference does it actually make?”

Ummm, that’s the conclusion you make when you look at this chart? As Cousin Eddie would say, “You serious, Clark?”

**Why on earth does anyone invest in hedge funds?
The only metric they’re outperforming is the cash
buried in your backyard.**

There are hundreds of basis points difference among strategies. Hundreds. Multiply that by the amount of money being invested and tell me it's all more or less the same. One of the crimes – unintentional or not – perpetrated by private equity investors is that they pay so little attention to massive differences in returns. Countless excuses have been offered – everything from “it's too hard to measure” to “it's just on paper” to “everyone presents it differently.”

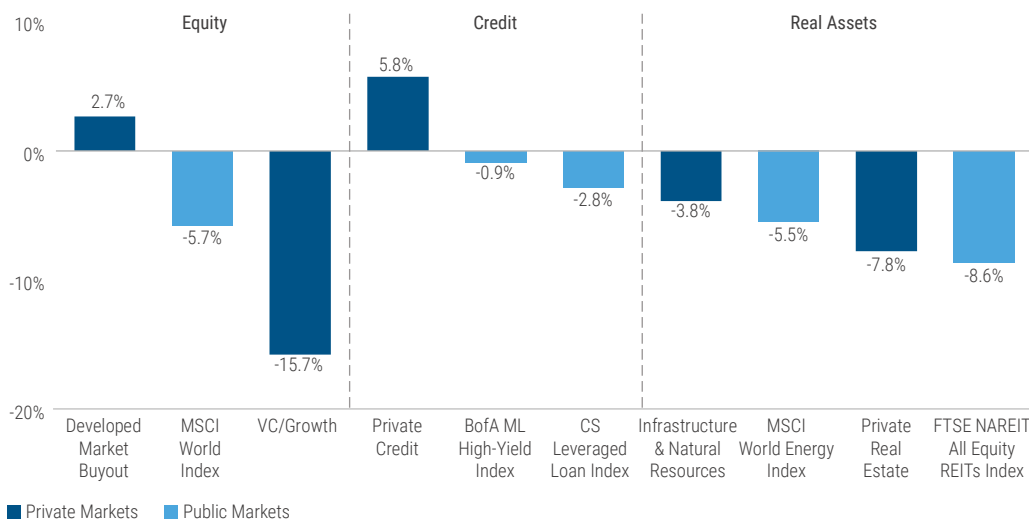
Let's put it this way: If this were your own money in your own bank account, would you ever be comfortable saying it's just too hard to measure or it's only on paper anyway? Would you be okay seeing your money presented in different ways or would you work at figuring it out on a fair comparison? We feel confident most would be in the latter camp. When it comes to adequately measuring or understanding returns, tell me you believe everyone treats their clients' or their own institution's private markets investments “as if it were their own money.”

Sure.

Let's stay on this concept of risk and return for a bit longer. Chart 8 made its Hamilton Lane Market Overview debut last year. And what happened? Heads exploded. Ka-Boom!

Chart 8: Lowest Five-Year Annualized Performance

1995-2019



Note: Infrastructure & natural resources from 1998-2019
 Source: Hamilton Lane Data via Cobalt, Bloomberg (October 2019)

We have become so accustomed to thinking of risk in private markets as the risk of loss.

**THAT IS THE
WRONG WAY
TO LOOK AT RISK IN
THESE INVESTMENTS.**

(Apologies if the all caps offended the eyes. But we really want that point to sink in.) Really look at the data in Chart 8. The worst five-year periods over the last 23 years in buyout and private credit produced gains. We repeat: produced *gains*. Too many people are looking in the wrong direction when they invest in these markets and end up making basic mistakes as a result. It's like the tourists in London attempting to cross a street who ignore the signs that say "Look This Way" and instinctively look in the direction of traffic in their home country. In investing, much like in street crossing, it helps to be looking in the right direction.



Ok, Hamilton Lane, so in what direction should such a hapless tourist be looking to get the best information?

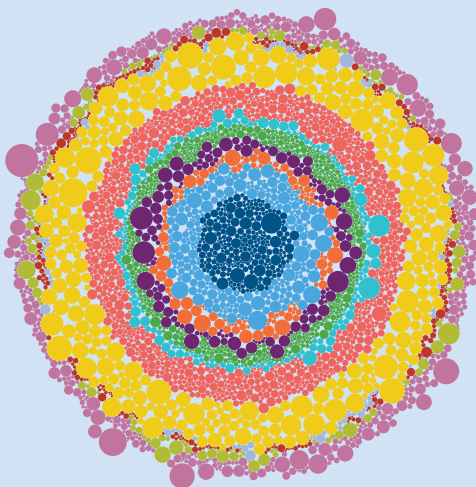
You might have guessed this part was coming. If this were a regular TV show (does anyone even know what that is anymore?), here's where you'd be taking a break to make popcorn. If you were streaming this, you'd be hitting the pause button. Since you're reading this, well, read on or skip ahead if you'd like.

**In investing, much like in
street crossing, it helps to be
looking in the right direction**

TO THE DATA DUMP

We have a ton of data – and yes, that is a technical term of data measurement. In fact, our database represents roughly 50% of the entire historical private markets universe, with **\$5.3 trillion in fund commitments, 19,000 deals and 42 years of information.** Now that we've established what a "ton of data" means, even more important is that it is verified data from actual cash flows. It's not self-reported or FOIA based; it's not fake data, which is itself a sub-set of fake news.

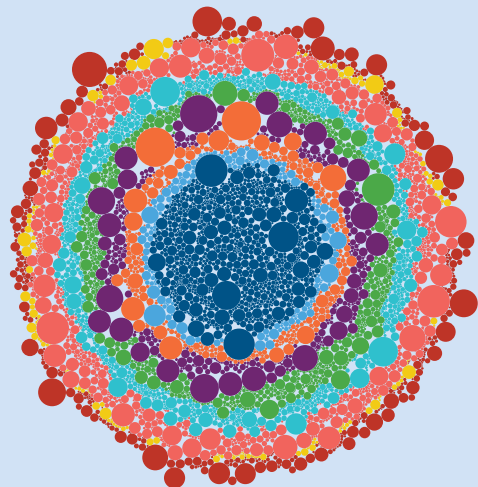
Hamilton Lane Fund Data Sample
By Strategy



- Origination
- Distressed
- Natural Resources
- Infrastructure
- Venture Capital
- Growth Equity
- SMID Buyout
- Mega/Large Buyout
- Co-Investment
- Fund-of-Funds
- Secondaries
- Real Estate

Source: Hamilton Lane Data (October 2019)

Hamilton Lane Portfolio Company Data Sample
By Sector



- Consumer Discretionary
- Consumer Staples
- Energy & Utilities
- Financials
- Healthcare
- Industrials
- Information Technology
- Materials
- Telecom Services

Source: Hamilton Lane Data (August 2019)

Just having that data may have been enough a few years ago, but it's not enough now. Thankfully, we also have spent money and time developing tools to sift through and analyze that data.

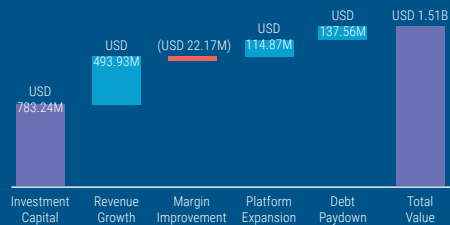
cobalt

Power Private Markets Portfolio Construction and Investment Selection

Investment Diligence

Filter Opportunities, Review Memos and Analyze Track Records

Valuation Bridge



Portfolio Analytics

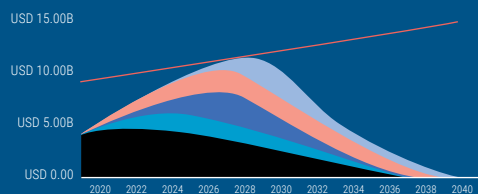
Benchmark Your Portfolios, Discover Value Drivers and Portfolio Review Report



Commitment Planning

Scenario Analysis, Manage Plans and Optimize Pacing

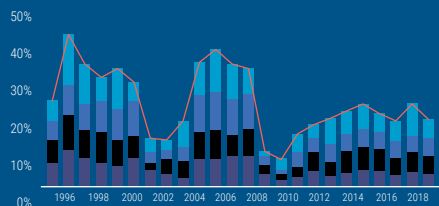
Horizon Model: Projected NAV



Market Research

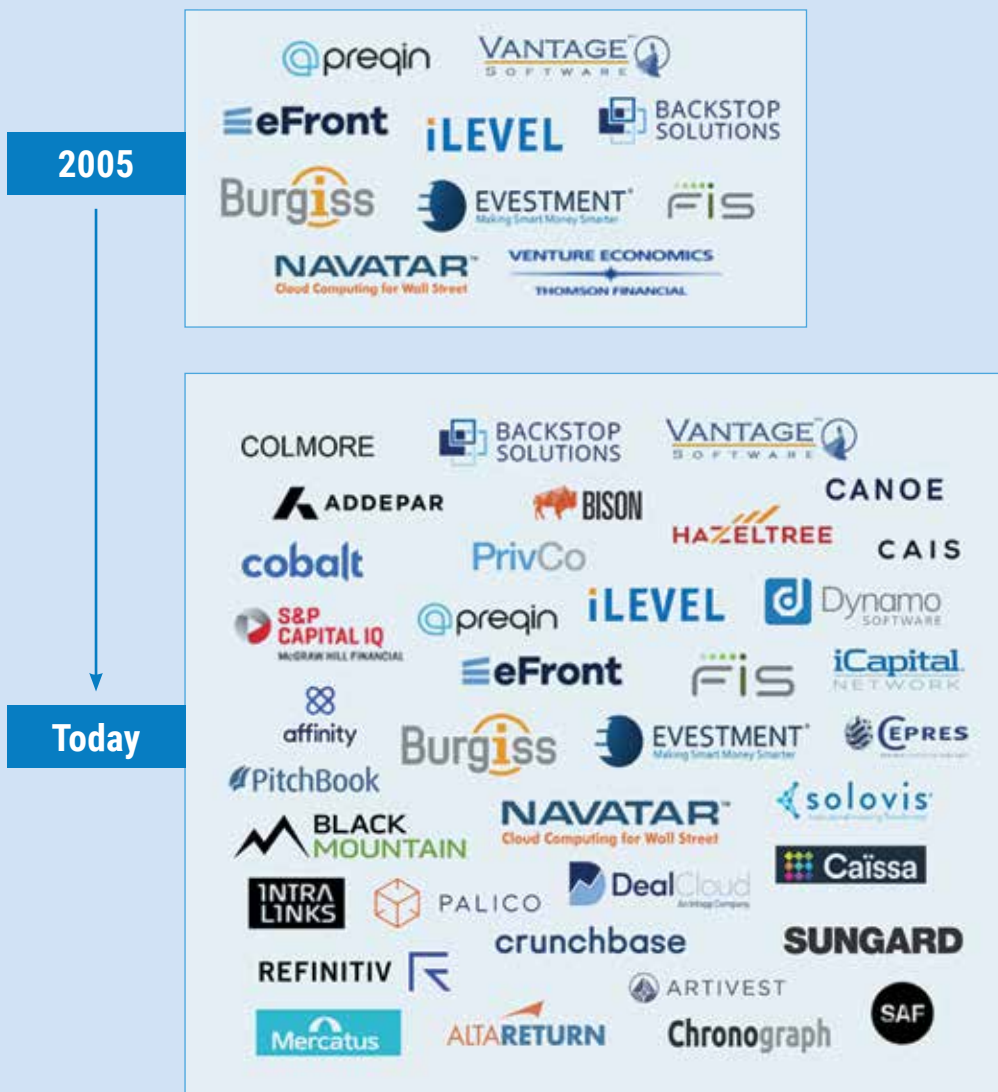
Market Insights, Index Returns and Liquidity Trends

Contribution Pace



Sure, this is a plug for our software, but we're proud of it and consider it cutting-edge, so we're taking a moment to boast. Much of the analysis that appears in this book and that we present on at industry conferences and feature in our white papers comes from the data and tools we have developed.

The proliferation of data providers may be one of the more interesting developments in the private markets over the last ten years. We've long predicted the industry would be transformed by data. We stand by that prediction. Take a look at the number of companies that are now working in the private markets space to provide and analyze data. Well, that sure escalated quickly.



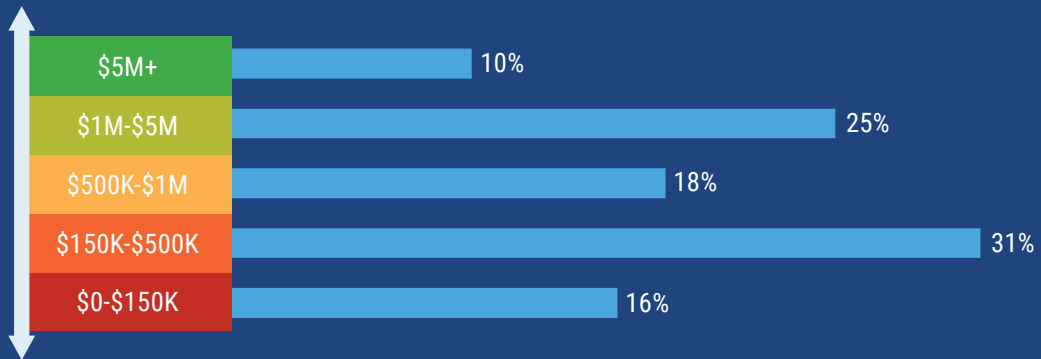
Note: All trademarks, service marks, trade names, trade dress, product names and logos appearing herein are the property of their respective owners and are being used for identification purposes only. Use of these names, marks, logos, and brands does not imply endorsement.

Many of you reading this may be thinking, “Nifty logos. But what does this have to do with me?” We’d offer that’s exactly the type of question you ought to be asking. How many of these companies’ products are you using? How many are you familiar with? What’s your budget for this kind of spending? What software and technology solutions are being utilized by your adviser, manager or consultant? We polled our general partner group to see what they’re spending (Chart 9).



GP View: Technology & Infrastructure

Chart 9: Approximately how much does your firm spend on technology infrastructure/data annually?



Source: Hamilton Lane General Partner Survey (July 2019)
Please refer to endnotes on last page

There are different sizes of GPs represented, but what does it say about an industry in which the majority of participants are spending fewer than one million dollars per year on technology infrastructure? We'll tell you what we think it says:

- » The GPs obviously need more in management fees to be able to afford this stuff.
- » Some are going to be passed by as others invest more in their infrastructure and as technology upends traditional patterns of investing and providing transparency.
- » Some are going to be completely unprepared as the industry evolves.
- » Some of those data providers are going to struggle to find clients or, if the industry ever wakes up, this is going to be one great place to invest.
- » The industry needs to wake up.

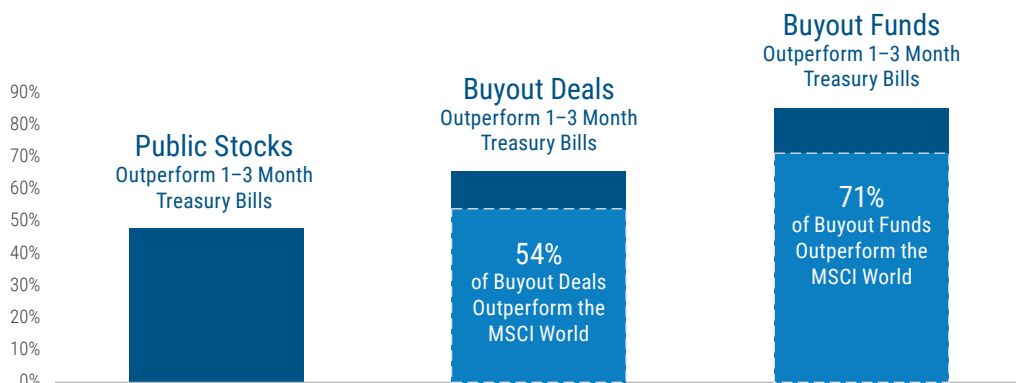
Hey, for all those general partners out there reading this, look on the bright side: The limited partner universe is spending only a fraction of what you're all spending on technology and data.

DATA INTERLUDE OVER.



Let's get back to the subject of risk. We have all heard the comment that your private equity portfolio is riskier than your public equity portfolio. Hopefully we have succeeded in demonstrating that the risk of loss in a buyout-dominated portfolio is certainly less. But there are other ways to look at this risk question.

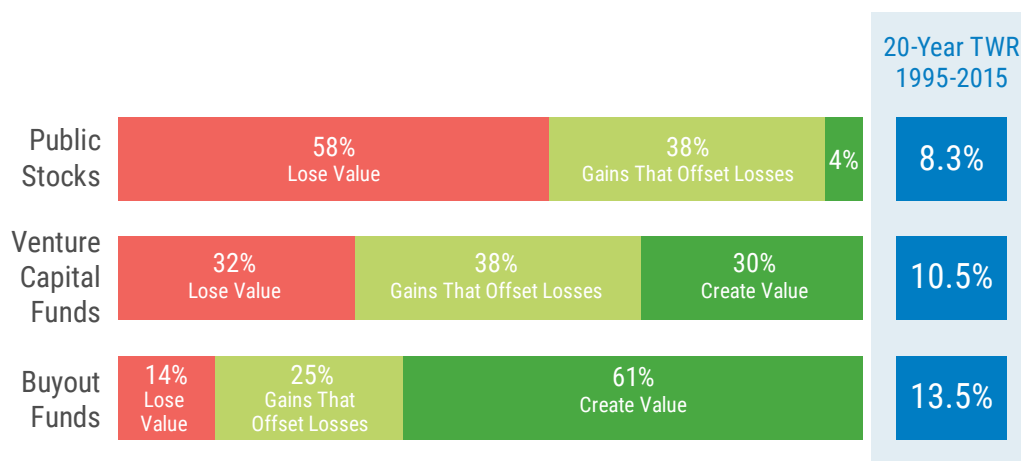
Chart 10: Public and Private Outperformance
Percentage Outperforming Treasury Bills and MSCI World



Note: U.S. public stocks considered over period 1926–2016. Buyout fund and deal vintages considered over 1995–2015. Buyout deal performance considered on a gross basis. Buyout fund performance considered on a net basis. Private market data compared to public indices by using a Public Market Equivalent. Source: Hamilton Lane Data, Bloomberg, "Do Stocks Outperform Treasury Bills?," Hendrik Bessembinder, ASU (October 2019)

Slightly less than half of U.S. public stocks have outperformed short-term Treasuries (Chart 10). We get that it's a low bar, but bear with us. More than 80% of buyout funds have outperformed that same measure. Wait, you say, that's not fair! Funds are a basket of investments, and it's an unfair comparison to individual stocks. We acknowledge your point. (You can see we are nothing if not fair on these pages and more than happy to create our own straw men.) Now, look at buyout deals: More than 60% have outperformed Treasuries. For good measure, the hashed rectangles also illustrate that the majority of deals and funds have outperformed their public benchmarks. This data has real implications as you think about the ability to capture return.

Chart 11: Stocks and Funds That Lose Value, Break Even and Create Value



Note: U.S. public stocks considered over period 1926–2016. Buyout fund and deal vintages considered over 1995–2015. Russell 3000 Total Return Index used for public market time-weighted returns.

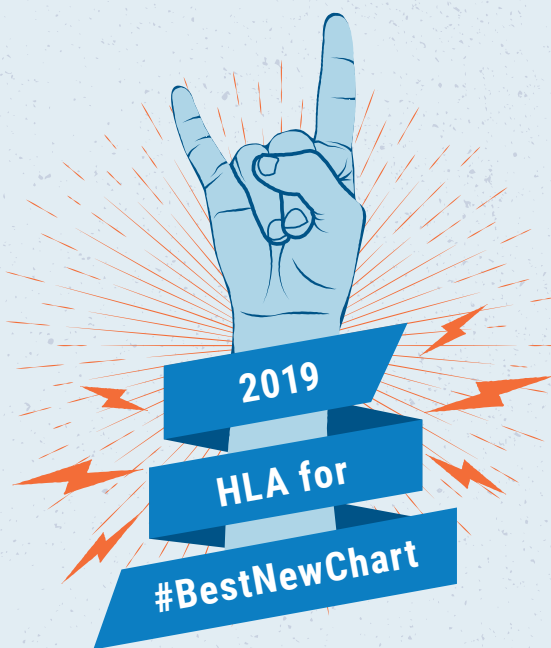
Source: Hamilton Lane Data, "Do Stocks Outperform Treasury Bills?," Hendrik Bessembinder, ASU (October 2019)

Please refer to endnotes on last page

Turn your attention to Chart 11. It's not only nice and colorful, it also happens to be incredibly meaningful. In any given public portfolio, it's basically 4% of the overall portfolio that creates the value. A full 58% loses value. That's simply not the case in the private equity world. The skew is much more favorable to investors, because there are so few losers in any given portfolio. The odds of positive performance substantially increase, since there's less pressure to make up for the majority of funds losing money. In this analysis, funds are the better measure, because most investors are making the choice of a fund rather than a series of single company investments in their portfolio.

Think of it this way: What if we came to you and presented private markets performance as public equity performance? Fifty-eight percent of your selections will lose money and your gains will be driven by 4% of your selections. What would you say? You'd say "That's too risky relative to my other options." And that would be the right answer! Unfortunately, we fear many investors have been giving the right answer to the wrong asset class.

We like Chart 11 so much that we are going to give it an HLA!



Accepting the award on behalf of Chart 11 is @SayItAin'tSoJoe

Thank you Hamilton Lane for the award. I don't have any remarks prepared since it's my first appearance in this overview and I really wasn't expecting this! It's been so hard over the years to persuade private markets investors to think about risk and reward the way they do in the public markets. I've been met with eye rolls and yawns and investors looking away. I've even had people tell me numbers don't matter! But I persisted. And now I'd like to thank the research group at Hamilton Lane for analyzing those numbers and the public stocks for having so much more risk than the private markets funds. And, of course, without those funds losing as little as they do, well, I wouldn't be up here now accepting this award, so a big thanks to them.

We fear many investors have been giving the right answer to the wrong asset class

Chart 12 is a fan favorite in our overviews every year.

Chart 12: Periodic Table of Returns: Pooled IRR by Vintage Year

1999	2000	2001	2002	2003	2004	2005	2006	2007
							Late Stage VC 14.3%	
						Growth Equity 19.1%	Distressed Debt 8.7%	Growth Equity 14.3%
EU Buyout 13.3%						Seed/Early VC 13.9%	Growth Equity 8.4%	U.S. SMID 11.8%
Real Estate 12.5%						EU Buyout 10.5%	Multi-Stage VC 7.4%	U.S. Mega/Large 10.4%
ROW 9.8%	Real Estate 23.2%	EU Buyout 36.4%			Natural Resources 25.4%	Infrastructure 10.0%	U.S. SMID 7.1%	Multi-Stage VC 10.3%
Mezzanine 9.7%	EU Buyout 21.0%	Mezzanine 22.2%	EU Buyout 32.5%	EU Buyout 21.4%	EU Buyout 19.3%	U.S. SMID 9.8%	U.S. Mega/Large 7.1%	Seed/Early VC 9.4%
U.S. SMID 8.3%	U.S. Mega/Large 16.8%	Real Estate 21.9%	Distressed Debt 22.1%	Distressed Debt 16.5%	Real Estate 16.4%	U.S. Mega/Large 9.0%	Mezzanine 6.4%	Distressed Debt 9.4%
U.S. Mega/Large 6.9%	U.S. SMID 12.8%	Distressed Debt 21.4%	Real Estate 21.6%	U.S. SMID 15.4%	U.S. Mega/Large 12.7%	Distressed Debt 8.2%	EU Buyout 5.5%	Mezzanine 8.1%
All PM 5.9%	All PM 10.7%	All PM 18.7%	All PM 21.5%	All PM 15.4%	All PM 12.3%	All PM 7.9%	All PM 5.4%	All PM 7.2%
Late Stage VC -1.7%	Growth Equity 10.6%	ROW 18.1%	U.S. SMID 19.6%	Mezzanine 10.1%	ROW 11.5%	ROW 7.1%	Infrastructure 4.6%	ROW 5.9%
Multi-Stage VC -4.2%	Mezzanine 10.4%	Growth Equity 17.7%	Late Stage VC 17.2%	Real Estate 8.7%	U.S. SMID 10.9%	Mezzanine 7.0%	ROW 3.4%	Infrastructure 5.2%
Seed/Early VC -7.2%	ROW 9.5%	U.S. SMID 16.6%	Multi-Stage VC 6.1%	Late Stage VC 2.4%	Seed/Early VC 8.3%	Multi-Stage VC 6.5%	Seed/Early VC 3.2%	EU Buyout 4.3%
	Multi-Stage VC 2.1%	U.S. Mega/Large 12.8%	Seed/Early VC -2.6%	Seed/Early VC 0.1%	Multi-Stage VC 8.2%	Real Estate 0.1%	Real Estate -0.4%	Real Estate 1.4%
	Late Stage VC 1.0%	Multi-Stage VC 3.6%			Distressed Debt 4.3%		Natural Resources -4.4%	Natural Resources 1.0%
	Seed/Early VC -3.7%	Seed/Early VC 1.6%						
		Late Stage VC -3.3%						
2008	2009	2010	2011	2012	2013	2014	2015	2016
Growth Equity 20.2%								
Seed/Early VC 17.8%								
U.S. SMID 14.5%			Seed/Early VC 23.9%	Seed/Early VC 27.3%	Multi-Stage VC 25.1%	Multi-Stage VC 22.0%	Seed/Early VC 32.3%	
U.S. Mega/Large 14.1%		Seed/Early VC 25.0%	Multi-Stage VC 23.4%	Infrastructure 17.6%	Seed/Early VC 19.0%	U.S. Mega/Large 21.5%	Growth Equity 23.8%	
Distressed Debt 13.1%		Multi-Stage VC 15.1%	Growth Equity 19.6%	U.S. Mega/Large 17.3%	U.S. SMID 16.0%	Late Stage VC 18.9%	U.S. SMID 19.3%	
Late Stage VC 12.4%	U.S. SMID 21.7%	U.S. SMID 12.9%	Real Estate 16.7%	Growth Equity 17.3%	U.S. Mega/Large 15.7%	EU Buyout 18.5%	Multi-Stage VC 18.7%	Seed/Early VC 25.6%
Multi-Stage VC 12.1%	Multi-Stage VC 15.7%	Mezzanine 10.6%	U.S. SMID 16.5%	U.S. SMID 16.9%	Growth Equity 15.5%	ROW 16.5%	Late Stage VC 18.3%	Multi-Stage VC 24.3%
EU Buyout 12.0%	Seed/Early VC 12.9%	Real Estate 9.0%	U.S. Mega/Large 16.5%	Multi-Stage VC 15.7%	Real Estate 13.5%	U.S. SMID 15.8%	U.S. Mega/Large 17.0%	Growth Equity 22.7%
Mezzanine 10.9%	EU Buyout 11.5%	EU Buyout 8.7%	EU Buyout 14.8%	Real Estate 14.4%	ROW 12.8%	Seed/Early VC 13.9%	EU Buyout 15.2%	ROW 20.2%
All PM 10.7%	All PM 10.9%	All PM 8.4%	All PM 13.5%	All PM 13.8%	All PM 11.8%	All PM 13.7%	All PM 14.8%	All PM 14.4%
Infrastructure 8.2%	Real Estate 9.9%	Distressed Debt 8.1%	Mezzanine 9.9%	EU Buyout 12.0%	EU Buyout 11.7%	Real Estate 13.2%	Real Estate 13.4%	EU Buyout 14.2%
Real Estate 6.9%	Distressed Debt 8.9%	ROW 6.1%	ROW 9.1%	ROW 11.3%	Mezzanine 10.2%	Infrastructure 12.8%	ROW 13.0%	U.S. Mega/Large 14.2%
ROW 6.0%	ROW 6.5%	Natural Resources -11.8%	Distressed Debt 8.1%	Late Stage VC 10.6%	Distressed Debt 6.5%	Growth Equity 8.4%	Infrastructure 11.7%	U.S. SMID 12.7%
Natural Resources 0.6%	Natural Resources -8.0%		Infrastructure 4.2%	Mezzanine 9.4%	Infrastructure 6.2%	Mezzanine 10.7%	Mezzanine 10.7%	Mezzanine 12.1%
			Natural Resources 1.8%	Distressed Debt 7.4%	Natural Resources 5.0%	Distressed Debt 7.1%	Natural Resources 9.2%	Real Estate 11.9%
				Natural Resources 3.4%		Natural Resources 6.2%	Distressed Debt 7.6%	Natural Resources 11.3%
								Distressed Debt 10.7%
								Infrastructure 9.4%

▣ Negative returning strategy

Source: Hamilton Lane Data (October 2019)

If we may, let us barrage you once more with factors that ought to be considered as you build your private markets portfolios:

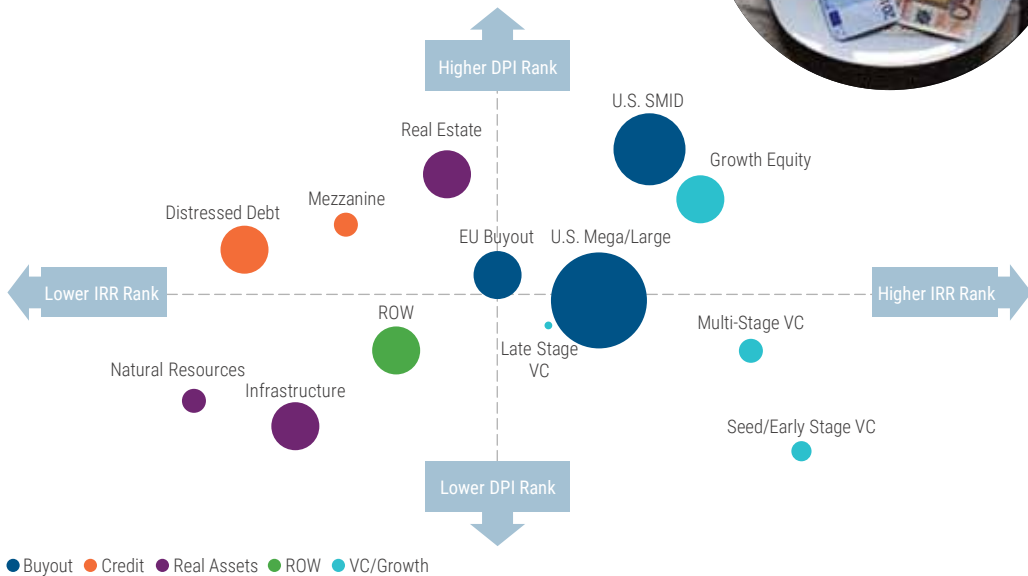
- » What are you trying to achieve? (The snarky reply would be “to make money.” Duh, Hamilton Lane.) Chart 12 tells you that the sectors within private markets that are top or bottom quartile vary widely from year to year, cycle to cycle. Do you want to aim for the highest returns, understanding that increases your risk of underperformance, sometimes for extended periods?
- » Do you want to be close to average or or slightly above average in returns? As we have summarized over the last few pages, those close-to-average returns are still pretty, pretty good and have far less risk than some may assume. If you take this route, will you build a portfolio of generally average performers, such as U.S. or European buyout, or do you want to build it with more funds across each of the different categories?
- » Look at the risk profile across the bottom of the tables. There is very little evidence of losing strategies, even in the worst vintage years like 1999, 2006 and 2007.

But you can't eat IRR, can you?

At some point, even the most patient investors would like to see some money coming back from their private markets' portfolios. The picture changes fairly dramatically when factoring in how much money the strategies have returned.



Chart 13: IRR Rank vs. DPI Rank
Average 2008-2016, Bubbles Sized by NAV



Source: Hamilton Lane Data (October 2019)

Remember those venture strategies dominating the top of the recent IRR tables? A great deal of that return is on paper and subject to everything from market swings to new financing rounds. On the other hand, strategies such as real estate and U.S. small and mid-market funds, in particular, have been stellar cash-returning investments. Investors need to decide what matters in that continuum of IRR and cash distributions and position their portfolios accordingly. (One interesting tidbit is that, over the last year, the most improved IRR has been in venture, whereas most improved DPI is shared by growth, multi-stage VC and EU buyout.)

We are realists, however. We can talk about DPI and cash returned until we're blue in the face, and we know what the reaction will be.



No need to repeat yourself.

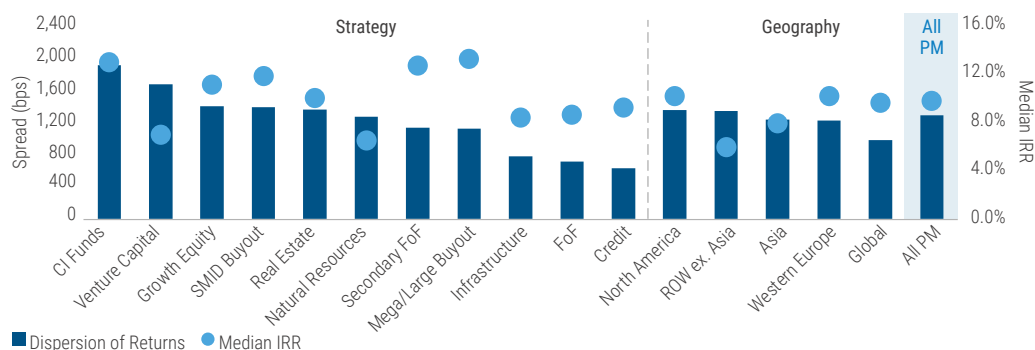
»»»»»» I ignored you just fine the first time.

We don't see a point yet where anything other than IRR will matter. It is all LPs talk about, whether among themselves, with their boards, consultants or managers, whether in secret, in public or in incoherent mumbblings. It is the basis for individual and aggregate compensation and it is the basis for all performance measurement. We suspect the 2080 Hamilton Lane Market Overview will make reference to IRR as the primary measurement tool.

Belaboring the risk aspect a moment longer, risk and return profiles vary widely across the different strategies and geographies.

Chart 14: Dispersion of Returns by Strategy & Geography

Vintage Years: 1979-2016, Ordered by Spread of Returns



Source: Hamilton Lane Data via Cobalt (October 2019)
Please refer to endnotes on last page

These dispersions are wide. Aiming for the best returns is fine if you either know you will select well, or you will prepare for the volatility and the chance that you will not select as wisely as you hoped. Let's home in on one single strategy, and make it the one that many larger investors ridicule: the maligned fund-of-funds. We've all heard the rap that high fees and over-diversification mean that fund-of-funds returns are sub-par. The data shows that is absolutely correct. On average, it is one of the poorer-returning strategies. With that said, it also has the narrowest dispersion and one of the lowest risks of downside performance. Depending on what you are trying to achieve and what the alternatives are, it's not as though this is a terrible option. If you believe you can choose better yourself and do so at a lower cost, then go for it. But you'd better be pretty damn sure.

Chart 15 looks at individual buyout deals, not funds, by sector.

Chart 15: Sector Median Gross IRR by Deal Year



Source: Hamilton Lane Data (July 2019)

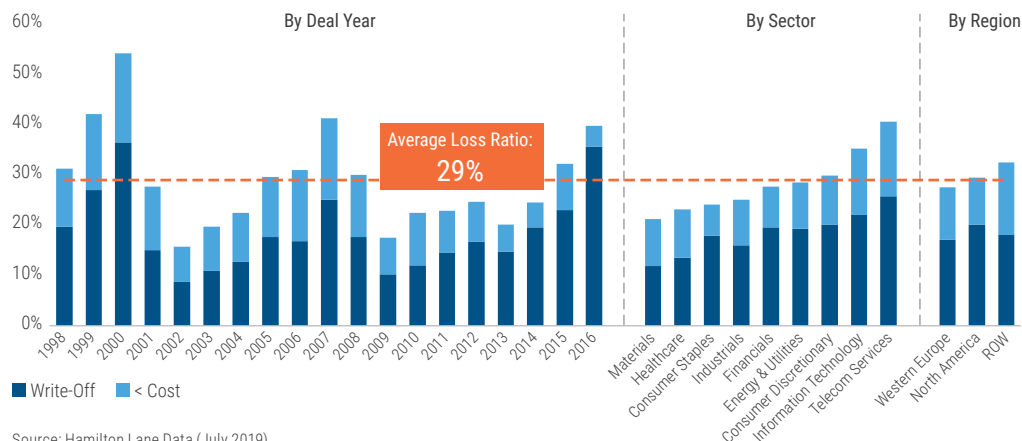


At the risk of having our compliance department shut down this overview, it is hard not to look at Chart 15 and think that private equity, at least at the gross deal level, generates returns that are simply eye-popping. More than that, it does so consistently across sectors and in every vintage year. For all the skeptics out there who say returns are coming down because there's too much money, or not enough deals, or whatever your favorite negative indicator might be, bring your attention to the white boxes and follow those numbers from left to right. Do you see a downslope, indicating declining return numbers? We don't either.

And now, at the very real risk of putting our fingers in the proverbial light socket, we'll also point out that these numbers are what drive limited partners absolutely crazy. Juxtapose (great word, isn't it?) these numbers against the net returns displayed elsewhere in this section and what do you see? You see a whole lot of return going somewhere other than the limited partners' coffers. This is an incredibly expensive asset class and there is a tremendous amount of money sloshing around general partners' pockets—very little of which, as we've seen before, is going to technology spending. Will that last? Time will tell. Limited partners continue to push to drive down fees and undertake more direct investing activities in order to capture more of that eye-popping gross return.

Chart 16: Loss Ratio of Realized Buyout Deals

% of Deal Count



Source: Hamilton Lane Data (July 2019)

At the deal level, private markets are certainly riskier than at the fund level. (All you CI aficionados, please take note.) On average, 29% of realized deals lose some money. A surprisingly high number are written off entirely. Which brings us to an interesting indicator we've not seen in some time: In 2015, the loss ratio of realized deals rose above average levels for the first time since the Global Financial Crisis. Is that an aberration or the signal of a downturn similar to what transpired in 1998-1999 and 2006-2007?



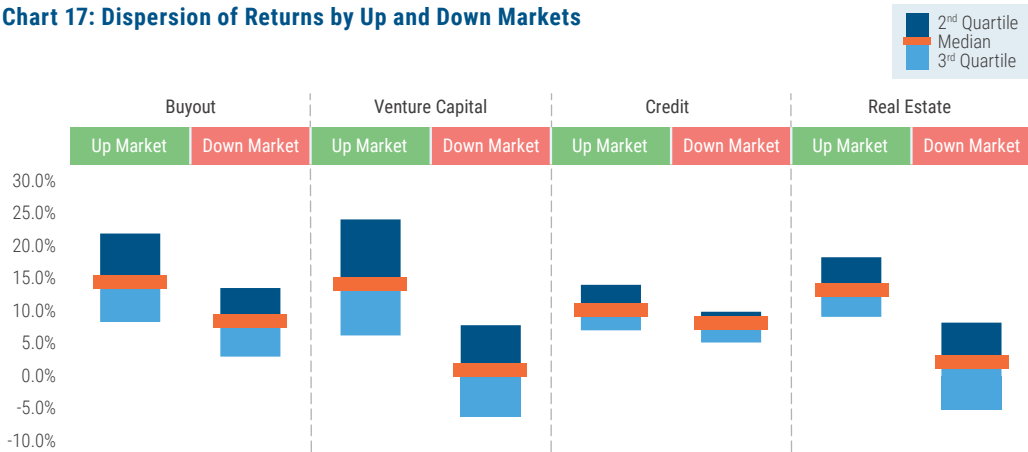
As investors, we're presented with lots of compelling reasons to commit to a fund.

- » We are top quartile.
- » We have so many operating partners, we might as well be a recruiting firm.
- » You can't say no, this is a relationship!
- » We are big and see everything.
- » We are small and no one competes with us.
- » We are big, but do small deals as well.
- » We are small and can give you co-investment so we can do big deals.
- » Did we mention we are top quartile?

One line we hear a lot is that we should invest with a particular general partner because it protects the downside better than anyone else does. How much should we really care about that?

Chart 17 illustrates an analysis of up and down markets from 1995 to 2015. We made some reasonable assumptions about what constituted up and down in terms of return thresholds to eliminate flat or average markets in the context of private market returns. What did we find?

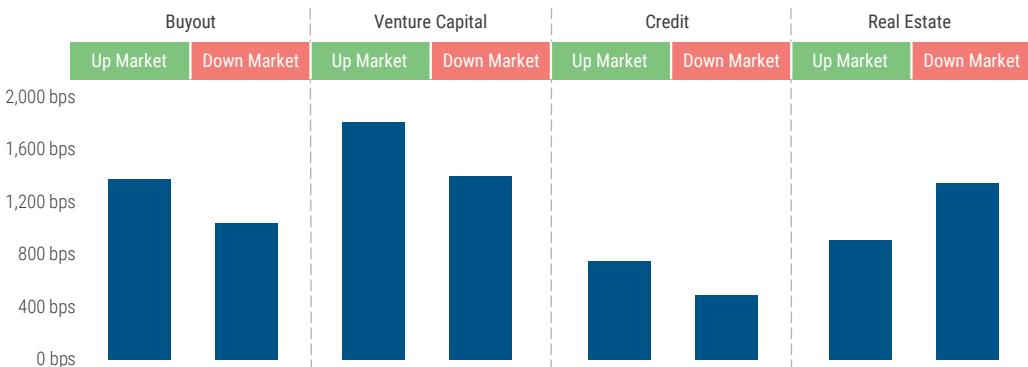
Chart 17: Dispersion of Returns by Up and Down Markets



Source: Hamilton Lane Data via Cobalt (October 2019)

Returns were higher in up markets and lower in down markets. Wow, you're thinking, Hamilton Lane is really smart. (And you'd be right to think that. We really are.) Now look a little more closely at the height of those bars in up and down markets. Notice any difference? We'll make it easier (Chart 18).

Chart 18: Dispersion of Returns by Up and Down Markets
Measured by Interquartile Range



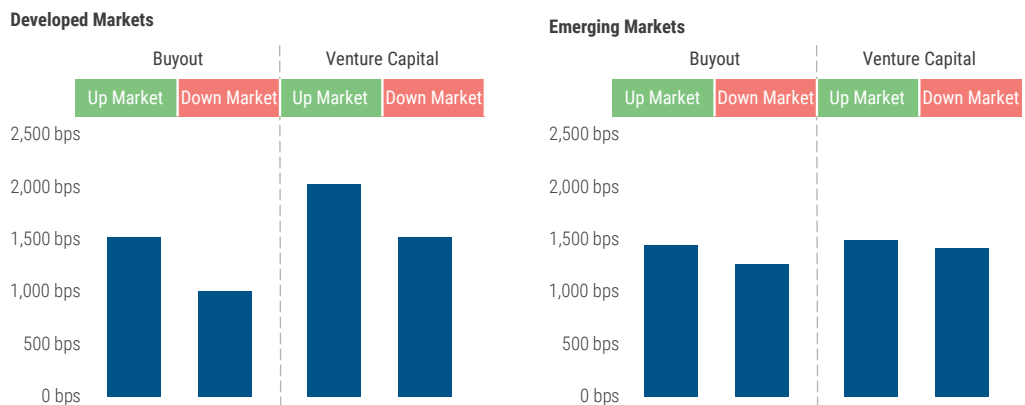
Source: Hamilton Lane Data via Cobalt (October 2019)

Ah, now we see something. In down markets, the dispersion of return is LOWER in all strategies save real estate. This may not seem like much of a difference visually, but we are talking about *hundreds* of basis points difference. That's real money. That's money you could be burying in the backyard instead of investing it in hedge funds. We would argue that, contrary to the general partner pitch, we should be less concerned about downside protection than we are about upside capture.

Most general partners do a good job of downside protection. That doesn't hold true in real estate; investors need to be very focused on downside protection there. Does geography make a difference in this analysis?

Chart 19: Dispersion of Returns in Developed vs. Emerging Markets

Measured by Interquartile Range



Source: Hamilton Lane Data via Cobalt (October 2019)

Geography seems to have little impact; although, in the emerging markets, the increase in dispersion in up markets is less pronounced than that of developed markets (Chart 19).

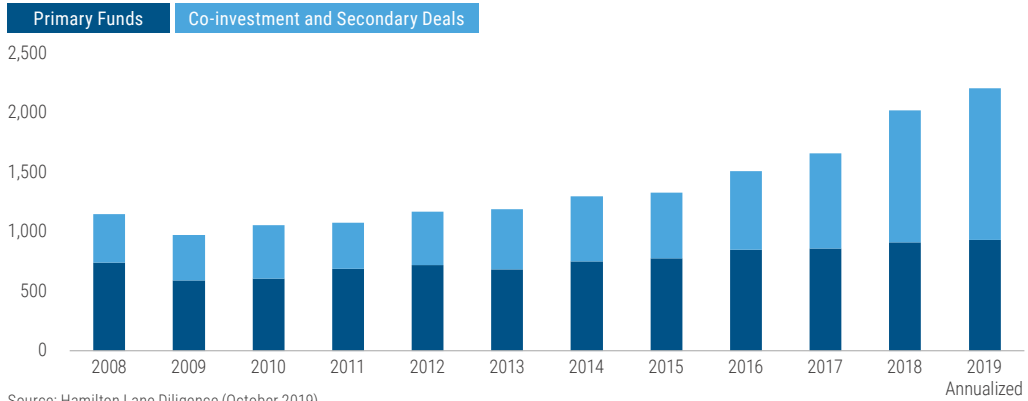
Aren't you glad we started this overview with performance? Not only is the story a very good one for the private markets, but we learned that much of what makes this asset class seem complicated simply isn't true. We know that won't stop disparaging things from being said. Then again, we also know that the ability to use and analyze data will increasingly make the people saying those things simply look misinformed, rather than intellectual. And we take some solace in that.

“
**Much of what makes this
asset class seem complicated
simply isn't true**

Fundraising

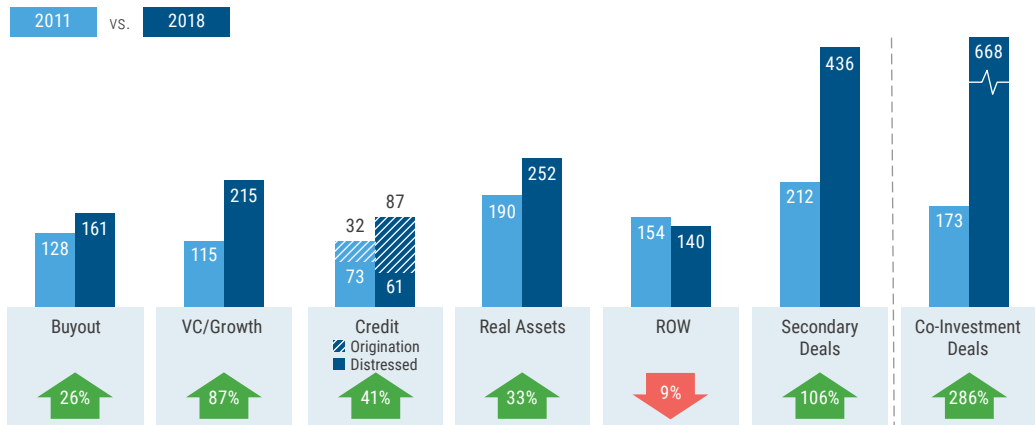
Now that we've established that performance has been good in this market, how has fundraising fared? Not surprisingly, also good, but with developments that might be surprising.

Chart 20: Opportunities Received by Hamilton Lane



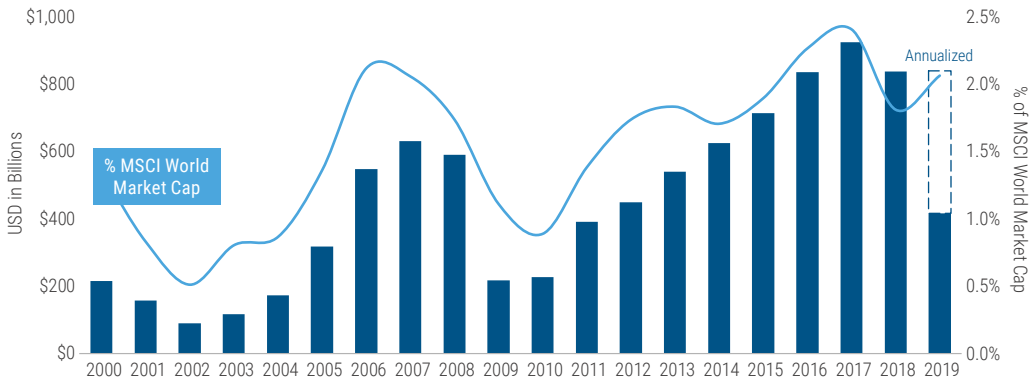
If our annualized figure is close to accurate (and we're pretty decent at multiplying), then 2019 is on pace to be another record year of opportunities screened, whether they be fund PPMs or transaction opportunities across co-investment and secondary. This gives you a sense of how much the entire range of opportunities across the private markets is growing. In fact, transaction opportunities are growing at a faster rate than fund opportunities.

Chart 21: Opportunities Received by Hamilton Lane



Over the last seven years, the growth in fund opportunities has been impressive (Chart 21). Interestingly, buyout funds have not led that growth; rather, VC/growth and credit have been the leaders in that expansion. Still, the fund numbers are dwarfed by the growth in secondaries and co-investments. We suspect that transaction opportunities will continue to grow at a faster pace than fund opportunities.

Chart 22: Global Private Markets Fundraising



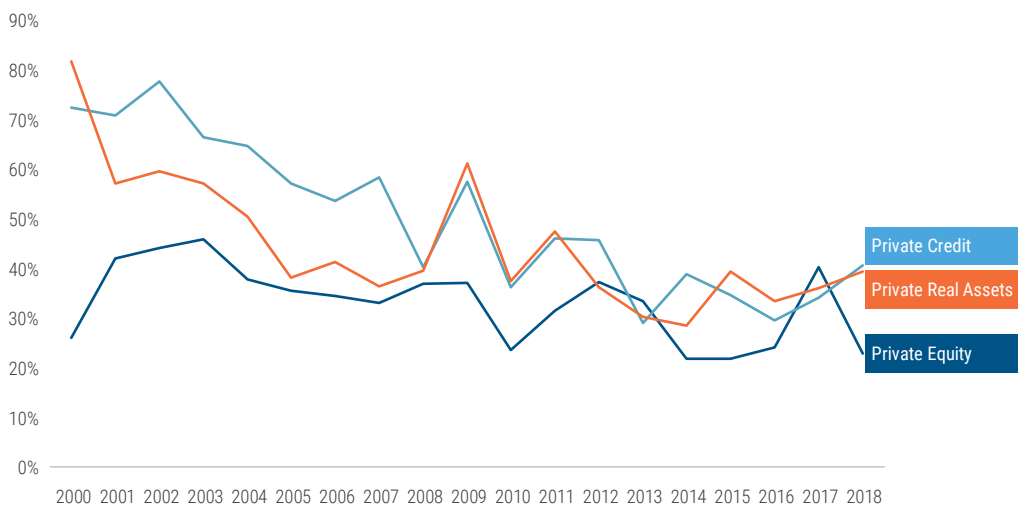
Source: Bison Data via Cobalt, Preqin, Bloomberg (October 2019)

If you're not going to cry for Eva Perón, then please don't cry for fund managers. Funds continue to gather substantial amounts of capital. Somewhat surprisingly, the numbers appear to have peaked, hovering around the same levels for the last few years (Chart 22). Why is that? One reason, we believe, is that the transaction volume reflected earlier is soaking up some of the capital that would otherwise, or formerly, have gone into funds. Another reason, again perhaps surprisingly, is that limited partners are exercising discipline around capital deployment. We're not observing the kinds of massive fundraising increases that characterized the run-up to the 2007 peak. That is an extremely positive, and overlooked, aspect of the current market environment.

Another interesting feature of the fundraising landscape is the percentage of capital raised by the largest fund managers. This figure bumps around in any given year, but has been fairly consistent over the last several years (Chart 23).

Chart 23: Capital Raised by 10 Largest Commingled Closed-End Funds

% of Respective Fundraising by Vintage Year

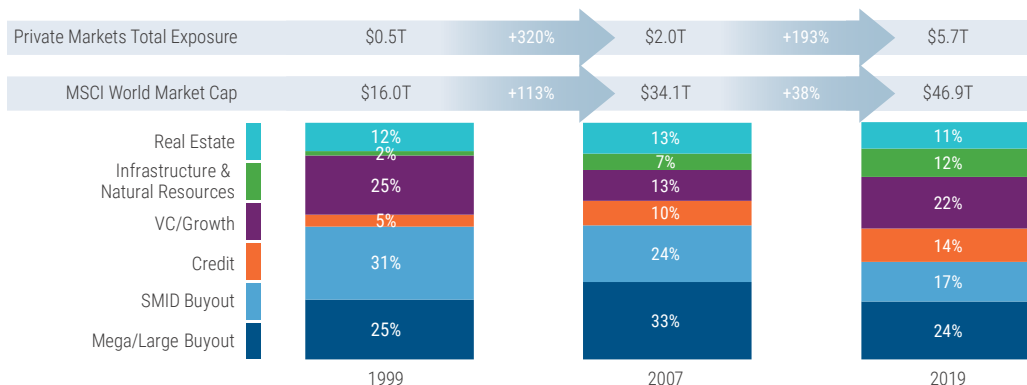


Source: Bison Data via Cobalt, Preqin (October 2019)

Stories predicting the demise of the largest funds, on one hand, and arguing that they are the only place capital is being raised, on the other, are equally inaccurate. Sure, the market has grown around them, but they remain a significant part of the private markets' landscape.

Chart 24: Total Exposure by Strategy

% of NAV + Unfunded



Note: Total exposure and market cap as of year end for 1999, 2007. For 2019, as of 6/30/19.
Source: Hamilton Lane Data via Cobalt, Bloomberg (October 2019)

Three things jump out at us from Chart 24. (Nope, that wasn't a reference to the beast in the jungle – we just meant there are some interesting takeaways here.)

1. The industry has really grown. Tough to get something by those HL folks! In 20 years, the private markets grew from half a trillion dollars to \$5.7 trillion¹. That's a lot of zeroes.

5,700,000,000,000

(We're a very visual organization. Give us crayons and a white board and we'll be entertained for hours.)

2. Growth has been across a number of sub-categories of the private markets. Buyouts' share has shrunk significantly, yet it is often assumed by the general public to be the only category. It was long the majority of exposure in private markets and is now less than half.
3. The entire industry is still a fraction of the overall global equity market cap. It is one-eighth the size. In reality, this isn't even an accurate comparison; that's because including credit and real assets in the private markets figure would, by proxy, mean adding the debt and real assets public markets into the equation, thereby making the ratio even smaller.



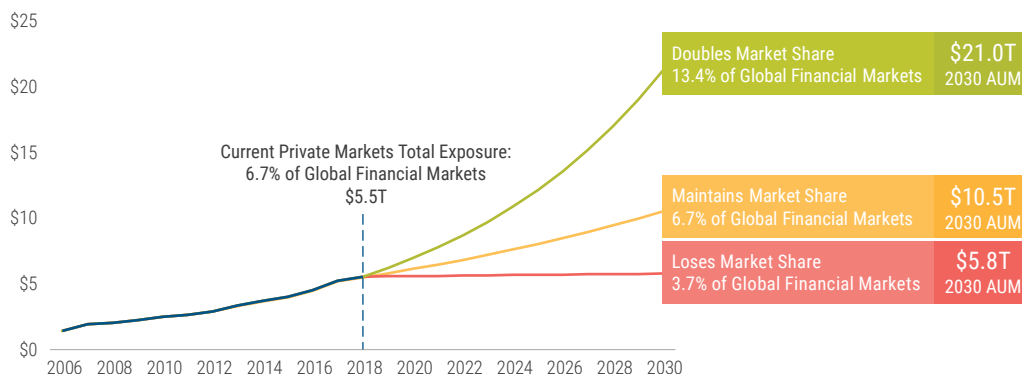
¹Source: Hamilton Lane Data via Cobalt as of 6/30/19 (October 2019)

Many will ignore – or delete entirely from memory – that third point. “The private markets have peaked! The industry can’t grow any bigger.” Deep breaths. Total private markets’ AUM of \$5.5 trillion as of year-end 2018 represents 6.7% of all listed equities and non-financial debt. In fact, it is roughly the same percentage of global GDP that Japan represented in 2017. Whew, that doesn’t seem so big and scary now, does it?

But, can it keep growing? It certainly can, and the forecasted numbers are nothing short of impressive (Chart 25). Over the next decade, if the private markets maintain their current market share, the asset class is projected to double to greater than ten trillion dollars. If that share doubles, then the private markets cap hits above \$20 trillion.

Chart 25: Projected Private Markets AUM

USD in Trillions



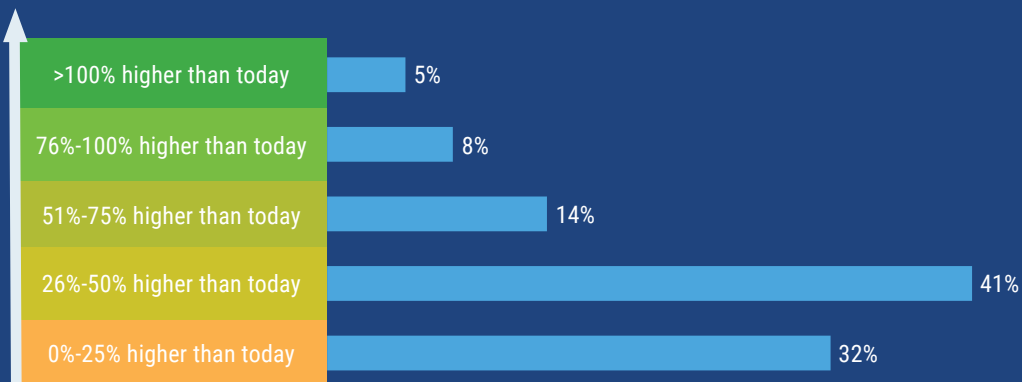
Source: World Bank, Hamilton Lane Data via Cobalt, Hamilton Lane calculations (June 2019)
Please refer to endnotes on last page

And what say our general partner crew? Do they believe they can or will grow at anywhere near that pace?



GP View: Projected AUM

Chart 26: What do you project your AUM will be in five years?



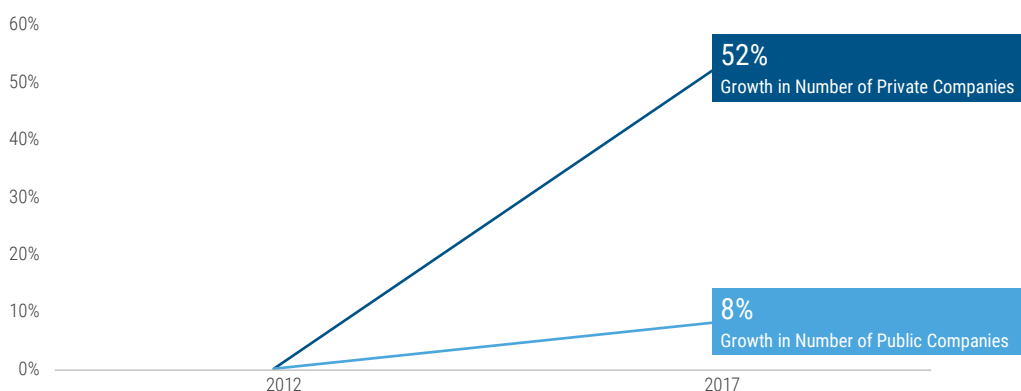
Source: Hamilton Lane General Partner Survey (July 2019)
Please refer to endnotes on the last page

No general partner expects to shrink (who would?) and two-thirds expect substantial AUM growth over the next five years (Chart 26). We don't view this as necessarily predictive. Of course, GPs expect their businesses to grow. What is important, however, is that we're talking about an industry whose participants are developing business plans for real growth (well, some of them are at least....). "If you build it, they will come" may not be a legitimate prophecy, but we can assure you that, if you don't build it, they will certainly never come. The industry is preparing for that growth and that's an important component.

We've outlined several of the reasons that growth in the private markets is likely to continue: continued outperformance; downside risk protection; familiarity with industry structures and performance characteristics on the part of investors; low interest rate environment making private strategies more attractive; a growing opportunity set relative to the public markets.

Chart 27: Growth in Number of Companies

Private vs. Public



Source: S&P Capital IQ (March 2019)

Let's dig a little deeper on that last point. Over the past few years, the number of public companies has barely grown in the U.S. This is in a period of strong public market prices. Now, look at the growth of private opportunities in the comparable period (Chart 27). That would be bigger, wouldn't it? We believe this trend will continue for the foreseeable future, although the various reasons are well beyond the scope of this market overview. (Why yes, there are some topics about which we won't burrow to the center of the earth. Try not to act so shocked.)

Another, longer-term trend impacting the growth of private markets is simply the shift from active public equity and debt management to passive strategies, along with a concurrent increase in allocations to illiquid strategies.

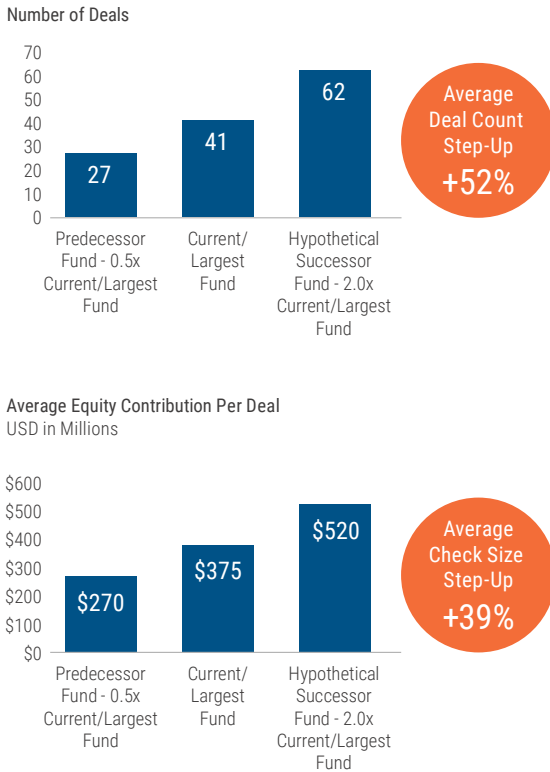
A number of other macro trends are driving this continued AUM growth as well:

- » Growth of sovereign wealth fund assets that continue to move into private markets
- » Continued need for higher returns in existing pension funds globally
- » Increased demand from high net worth investors, family offices and financial institution channels
- » Potential retail investor participation through changes in laws and regulations around the world

The combination of these factors begs the question of how this money is to be allocated or spent. We're frequently asked how big funds can grow. The underlying assumption being that there's a limit and only one path to growth.

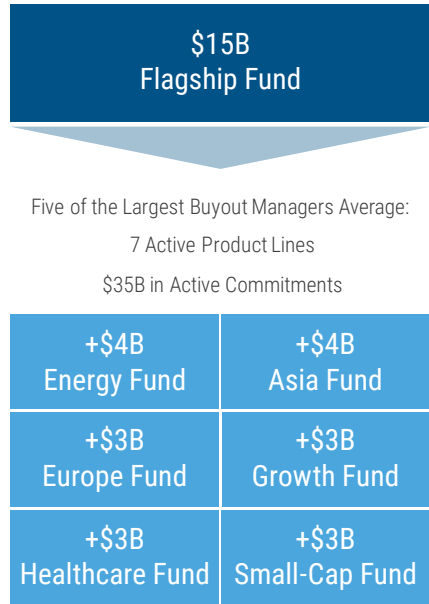
Chart 28: What Could Buyout Look Like?

Option A: Fund Size Increase



Source: Hamilton Lane Data (June 2019)
Please refer to endnotes on last page

Option B: Proliferation of Additional Product Lines



Source: Hamilton Lane Data (July 2019)

There are a variety of ways growth can, and will, occur; Chart 28 offers but two illustrations. Since the "how big can funds get?" question was first posed some number of years ago, we've witnessed that one such path was for average check sizes and number of deals to grow as a fund increased in size. Growing a fund to \$40 billion may sound Herculean today, but Option A illustrates that the numbers are not that daunting. Heck, we've all seen the Softbank Vision Fund deploy \$100 billion quite rapidly.

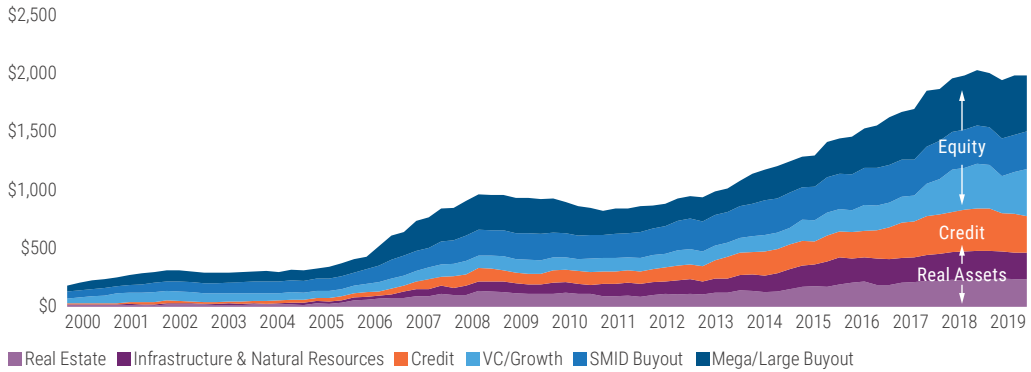
Option B outlines a continuation of what we also have seen over the last few years: Managers don't necessarily increase a fund by doubling its size, but rather they increase the fund family by dividing into unique fund strategies. Again, this isn't a roadmap to better or worse returns. It is an indication that growing the industry and deploying the capital is not the insurmountable challenge that many commentators have made it out to be.

Investment Activity

Well, we're here. Where, you ask? Here! Where we get to every year. That place where the skeptical smirks and whispers of "this is why the private markets are destined to implode" really begin in earnest. The capital overhang. Dun dun dun.



Chart 29: Private Markets Unfunded Capital
USD in Billions



Real Estate Infrastructure & Natural Resources Credit VC/Growth SMID Buyout Mega/Large Buyout
Source: Hamilton Lane Data via Cobalt (October 2019)

Any chart eliciting such high drama would have to win an HLA. So well deserved. [Insert slow clap here.]



Accepting the award on behalf of Chart 29 is @DrDroneOn

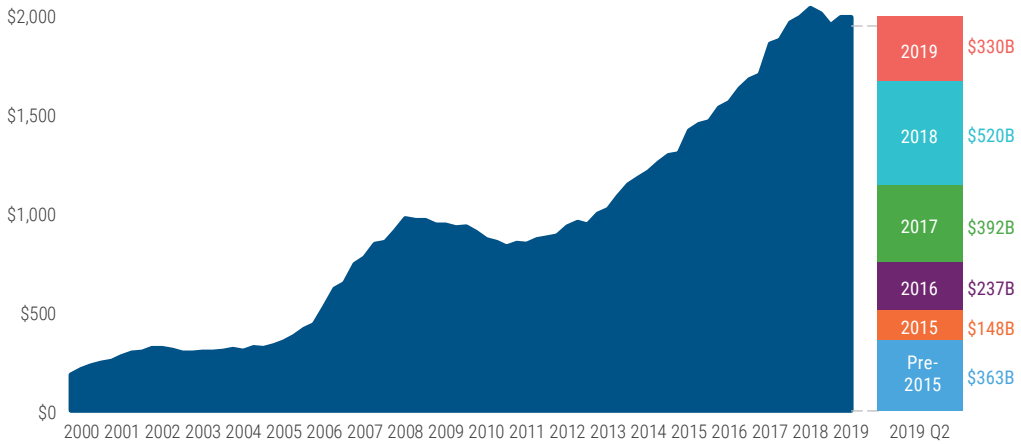
Thanks to Hamilton Lane for this honor. It's a privilege and surprise to stand up here and have anyone look at this chart. My career really started after the Global Financial Crisis, when the CIO of one of the largest investors in the world loudly and publicly proclaimed that they were getting out of private equity because of the capital overhang. That was 2008 and who knew what a future I had, cited by CIOs, heads of private equity, journalists far and wide, consultants near and far...tossed out at cocktail parties and conferences alike. To have become such a celebrity! It's a thrill. I only hope I can continue to be the guiding inspiration for so many investment decisions as I have been in the past. Now, if you'll excuse me, I have some after-parties to attend. Cheers!

What more can we say about the capital overhang that we haven't said before? Ignoreignoreignoreignore. For those unconvinced and who may be thinking, *this* is the actual beast lurking in the jungle, please cut it out. As T. Swift would say, you need to calm down. In fact, if we were going for academic accuracy, we'd have to note that the overhang has actually come down from its peak; although we know you don't want to hear that, so we won't mention it.

How about we offer another way to look at it?

Chart 30: Private Markets Unfunded Capital by Vintage Years

USD in Billions

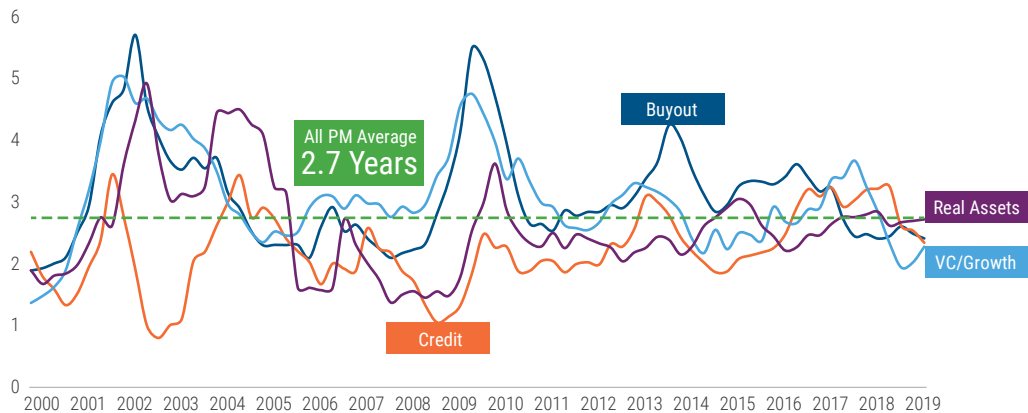


Source: Hamilton Lane Data via Cobalt (October 2019)

Chart 30 gives a better snapshot of the vintage years from which you are drawing the capital. Aside from the fairly obvious observation that the bulk of the capital comes from more recent vintage years, it's interesting to note that about 20% comes from pre-2015 vintage years. How much of that will actually be drawn? We'd argue very little, and so the aggregate number is overstated.

Chart 31: Time to Deploy Capital Overhang

Years at LTM Pace

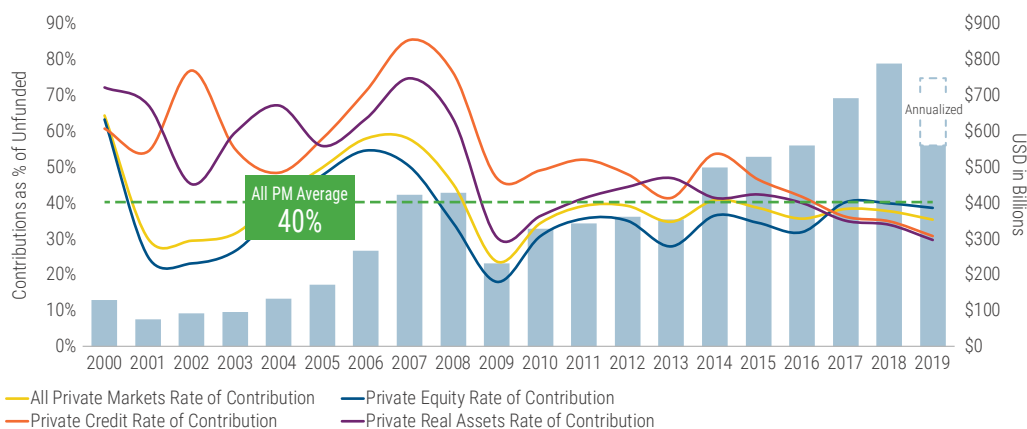


Source: Hamilton Lane Data (October 2019)

Now turn your attention to Chart 31, which, in our humble opinion, is really how we should be looking at the capital overhang. At current rates of investment, how much time will it take to spend the capital? We are right around average levels in all strategies other than venture, which, interestingly, suggests that more capital needs to go into that area. The other fascinating aspect of this chart is that *the best times to invest are when the capital overhang is at its greatest*. How is that for counter-intuitive? It's one of life's great paradoxes. It's largely because investment activity slows down in difficult times as sellers don't want to sell at low prices until they get used to those prices. Reality takes a long time to re-calibrate. Hell, in the case of the investors' view of the significance of the capital overhang, we're at 10 years and counting.

Moving on from the capital overhang, what's the rate of spending out there?

Chart 32: Annual Private Markets Contributions



Source: Hamilton Lane Data via Cobalt (October 2019)

While the absolute pace of investing is high, that's only because the entire industry has grown. On a relative basis, investments have been at about average levels in the private equity world. Perhaps surprisingly, particularly given the press around the credit space, the pace of investing has been light in both credit and real assets. Why? The explanation is not unlike what we said about limited partners in the context of their fund commitment pacing: General partners have been relatively disciplined about investing during this entire cycle. We have not seen the kind of exuberant behavior that took place at prior peaks in 2000 and 2007. If we are at a peak, if there is the beast of recession readying to jump out at us, then we would argue that private markets portfolios will be in far better shape than they were in the prior two downturns.

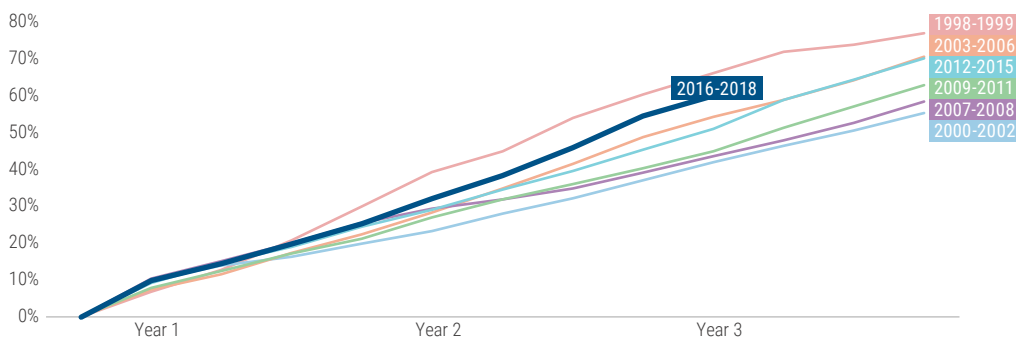
“
**The best times to invest are when
the capital overhang is at its greatest**”

Let us add another observation, although we do so at the risk of sounding foolish if the market behavior changes. What if the asset class as a whole is simply more mature? General partners understand they will get funding as long as they do well for their investors, and limited partners are being more consistent in looking at opportunities. All participants have better, more realistic expectations and don't feel pressured unnecessarily to hurry up and invest so they can raise the next fund and lock in the money. For our part, we hope that is the case.

Looking at contribution pacing relative to other vintages, it's only slightly above average.

Chart 33: Median Buyout Percent Called by Fund Age

Vintage Years 1998-2018



Source: Hamilton Lane Data via Cobalt (October 2019)

Sigh...there's a fly in the ointment.

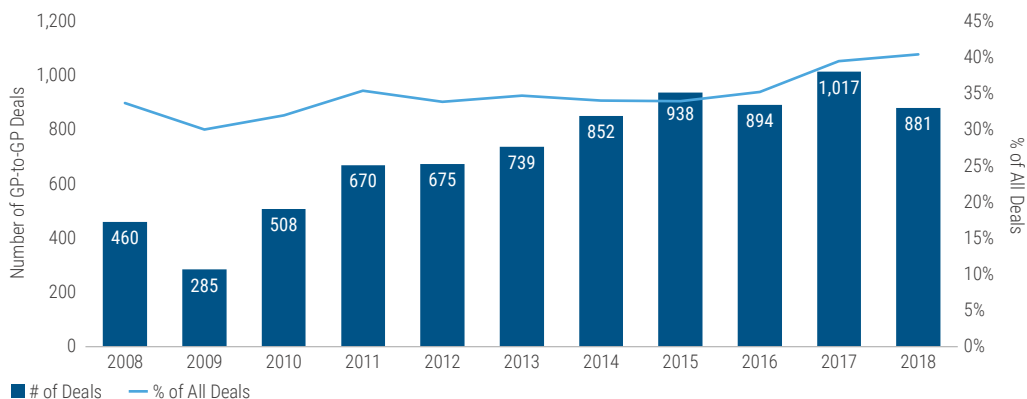
There is one feature of private markets investing that is getting a great deal of attention: sponsor-to-sponsor transactions. GP-to-GP deals. Secondary GP purchases. They go by different names, but they are all viewed as a sign of only one thing.

For many, the rise of sponsor-to-sponsor transactions means there's nothing of any value left to buy and, therefore, general partners simply buy from each other. The explicit or implicit subtext is that these deals are not going to be successful.



“
**Sigh...there's a fly
in the ointment**

Chart 34: U.S. & Europe GP-to-GP Transaction Volume



Source: Pitchbook (August 2019)

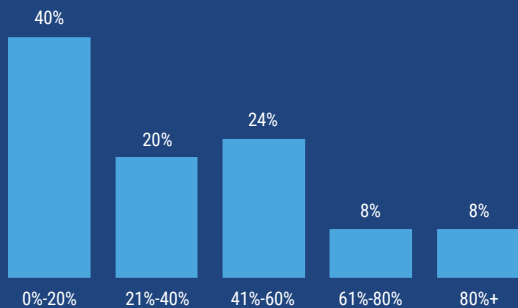
The number of GP-to-GP deals has risen substantially since 2010 and has held steady around roughly 35% the last few years (Chart 34).

What are general partners' experience and expectations around these deals?



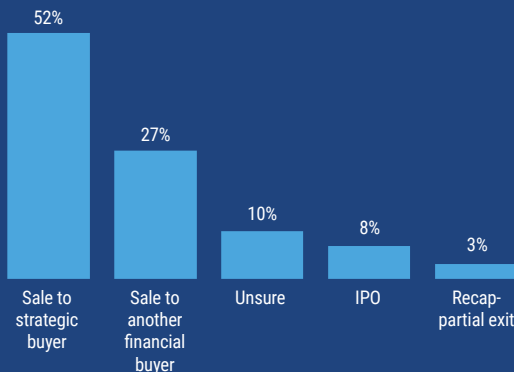
GP View: Financial Buyers in Exits

Chart 35: What % of your exits in the last three years have been sales to another financial buyer?



Source: Hamilton Lane General Partner Survey (July 2019)
Please refer to endnotes on the last page

What is the most likely exit option for the portfolio companies you expect to exit in the next 12 months?



It's interesting to observe a large number (40%) of our surveyed general partners with very few of these types of deals. There are an almost equal number, however, with close to half or more of their exits over the last three years in this kind of transaction. What does that mean? We're not sure. We will be looking at this data in more depth in future market analysis. Interestingly, if we were to add the "unsure" category and the expected "IPOs" (that don't actually happen) to the "sale to another financial buyer" category, the resulting percentage would be roughly the same as what our GP group experienced over the past three years.



Here's a tangential point related to an earlier observation: When talking about the relative decline in the number of public companies, we look at the inventory of future public companies to see if that decline will stop. What better place than in private markets portfolio companies? Yet, general partners think only 7% of their companies are likely to use that exit over the next 12 months. That is not an encouraging number for those who foresee a more robust set of IPOs in the markets.

Of course, the flip side of this argument is that most general partner deals are too small for the IPO market, which is yet another reason for more GP-to-GP deals. If the IPO market isn't open to those deals because public markets only want larger companies, the universe of potential exits just shrank.

What are the pros and cons of these deals?

The pros:

- » Efficient diligence as both the buyer and seller are experienced buyout practitioners. That means they understand the process and expectations on each side.
- » Risk mitigation, as the existing sponsor is likely to have dealt with any undisclosed issues that often arise in a non-GP-to-GP deal. There are likely to be far fewer surprises for the buyer.
- » Complementary competencies of the new general partner, whether better able to deal with a larger company or different value creation skills, that can be applied to the company at a different point in its life cycle.
- » A very savvy seller in the transaction. Wait, Hamilton Lane, have you lost your mind? Doesn't that mean the buyer gets fleeced? Potentially, except that there is a very savvy buyer on the other side of the transaction. In fact, these are some of the best buyers and sellers around, and we think that's a good thing. You've often heard, and maybe said, "I'd rather deal with a tough and smart seller/buyer than a tough and dumb seller/buyer." We agree that's the right way to think about it and makes for a better transaction on both sides.

The cons:

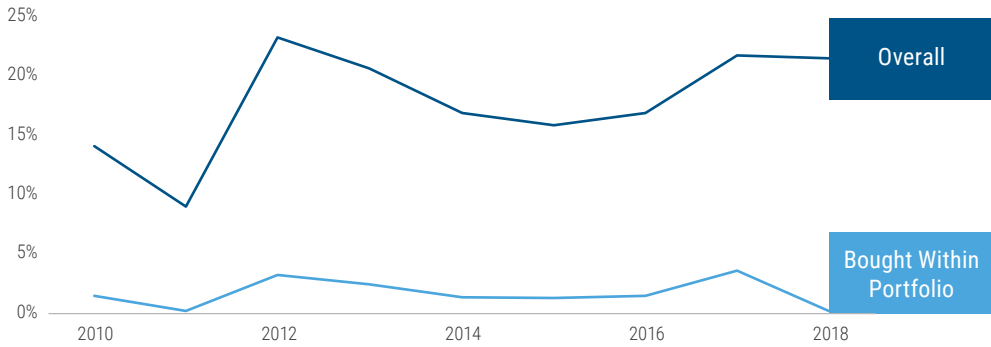
- » Additional fees. There are going to be transaction fees and costs associated with the purchase and sale. There are also likely to be higher management fees and certainly longer management fee streams as the company moves from one general partner to another. As one client said to us: "Gee, this is a great asset class: I get to pay 2 and 20 to one GP and then 2 and 20 to another, so I have the privilege of paying 2 and 40...." A wholly inaccurate overstatement, but you get the idea.
- » Potential for limited value creation. It is likely that the easiest operational or financial improvements will have taken place with the first general partner.

The published research on this question is mixed. Some reports found GP-to-GP transactions resulted in worse returns, some found better returns and some found no difference. We were hoping for a more definitive answer too, so we thought we would look at it differently.

What is the actual experience of a mid-sized limited partner that has been investing in the private markets for more than 25 years with a diversified portfolio of largely buyout funds from the U.S. and Europe (Chart 36)?



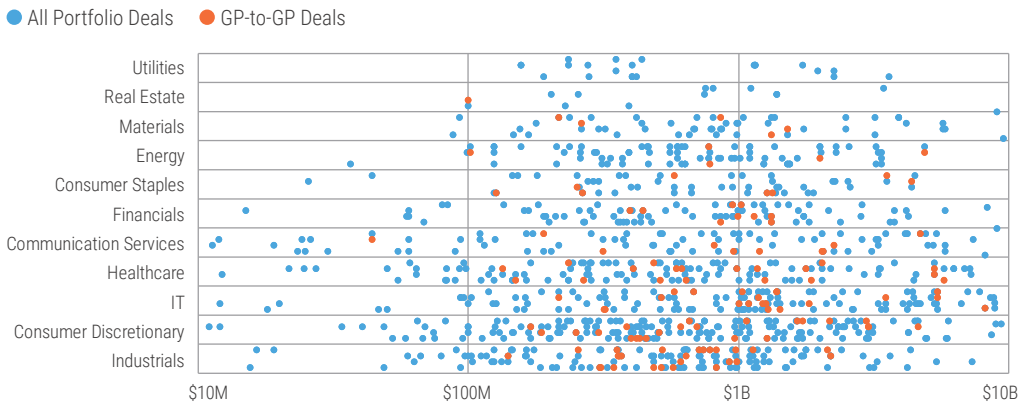
Chart 36: % GP-to-GP Deals in Portfolio
By Deal Vintage



Note: Analysis based on single LP portfolio, other LP portfolios may vary
Source: Hamilton Lane Data (August 2019)

This investor's portfolio has a lower ratio of GP-to-GP deals than the market in general. More notable is the ratio of those deals where this investor was on both the buy and sell-side. It is very rare, zero in some years. That is not what the anecdotal chatter regarding the frequency of these deals would suggest.

Chart 37: Portfolio Map: Enterprise Value at Acquisition
All Buyout Deals in Portfolio, Logarithmic Scale



Note: Analysis based on single LP portfolio, other LP portfolios may vary
Source: Hamilton Lane Data (July 2019)

Don't go blind on us yet, you've still got a few more pages to go in this book. Chart 37 looks like a 2000 U.S. presidential election ballot from Florida.

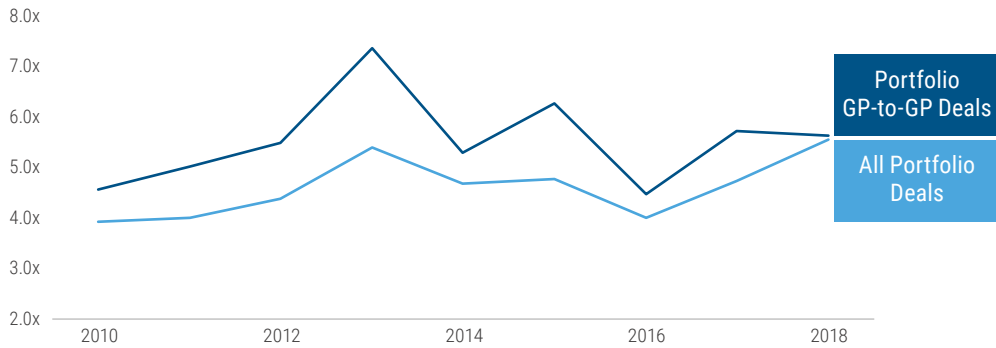
It's important, however, as it indicates a lack of bias in GP-to-GP deals whether by sector or size. We wondered whether the plurality of those deals came from particular places, but that is simply not the case.



We also looked at whether there was any difference between GP-to-GP deals and “regular” deals at acquisition as it relates to purchase price multiples (there was none) and leverage multiples (there was).

Chart 38: Leverage Multiples at Acquisition

Median Net Debt/EBITDA by Deal Vintage

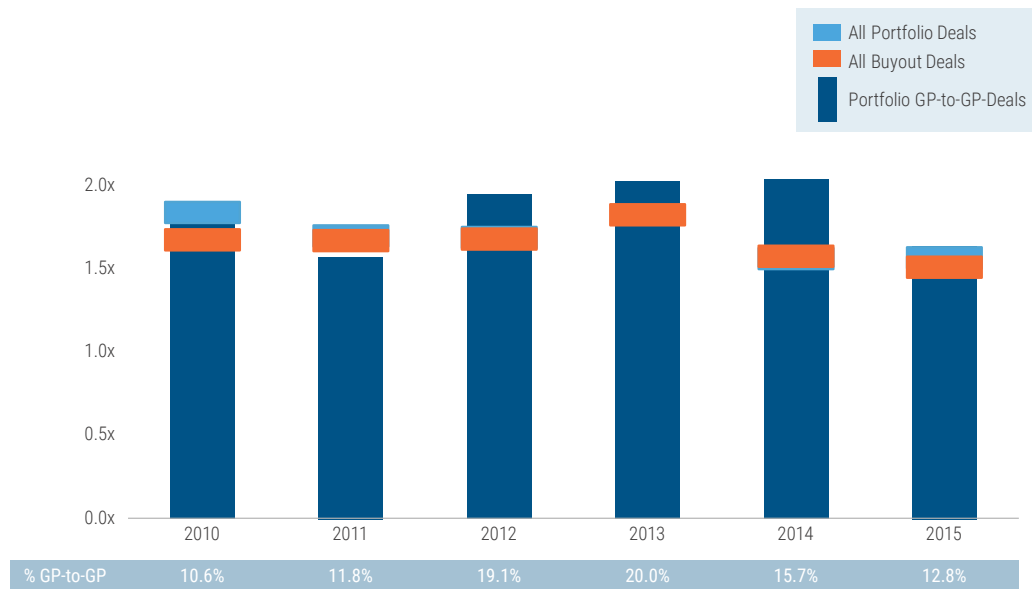


Note: Analysis based on single LP portfolio, other LP portfolios may vary
Source: Hamilton Lane Data (July 2019)

The GP-to-GP deals consistently had more leverage in every time period (Chart 38). Why? Again, not sure. Perhaps this reflects the fact that the businesses are better run or less risky and, therefore, able to maintain greater leverage. It could indicate that future growth might not be as robust, and more leverage is needed to create the desired return.

And what, you ask, is the return profile for these transactions? On a money multiple basis, there is little difference between a GP-to-GP deal and all buyout deals.

Chart 39: Median Gross MOIC by Deal Vintage

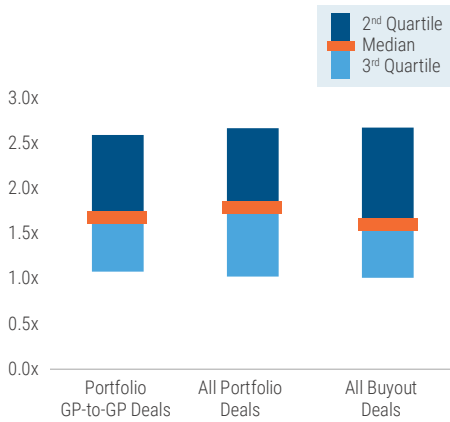


Note: Analysis based on single LP portfolio, other LP portfolios may vary
Source: Hamilton Lane Data (July 2019)

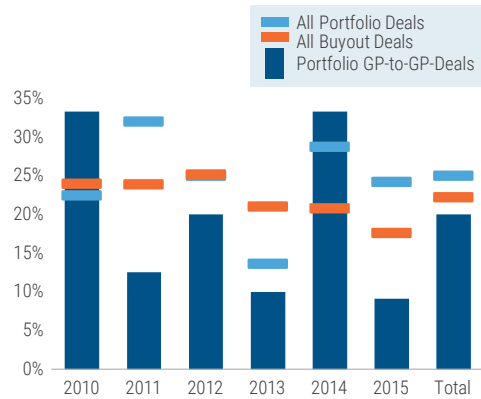
The return band is tighter, and the risk of loss is generally far lower for GP-to-GP transactions – in spite of higher leverage.

Chart 40: MOIC Return Quartiles and Loss Ratios

Deal Vintages 2010-2015



% of Deal Count



Note: Analysis based on single LP portfolio, other LP portfolios may vary
Source: Hamilton Lane Data (July 2019)

Does any of this prove they are better or worse? No. Does it show that these deals are done because there are no other deals to do? No. It probably says something no one wants to hear: These deals represent normal transactions that have no meaningfully different return profile than any other deals undertaken in the private markets.



That was a not so boring journey, with a pretty boring conclusion.

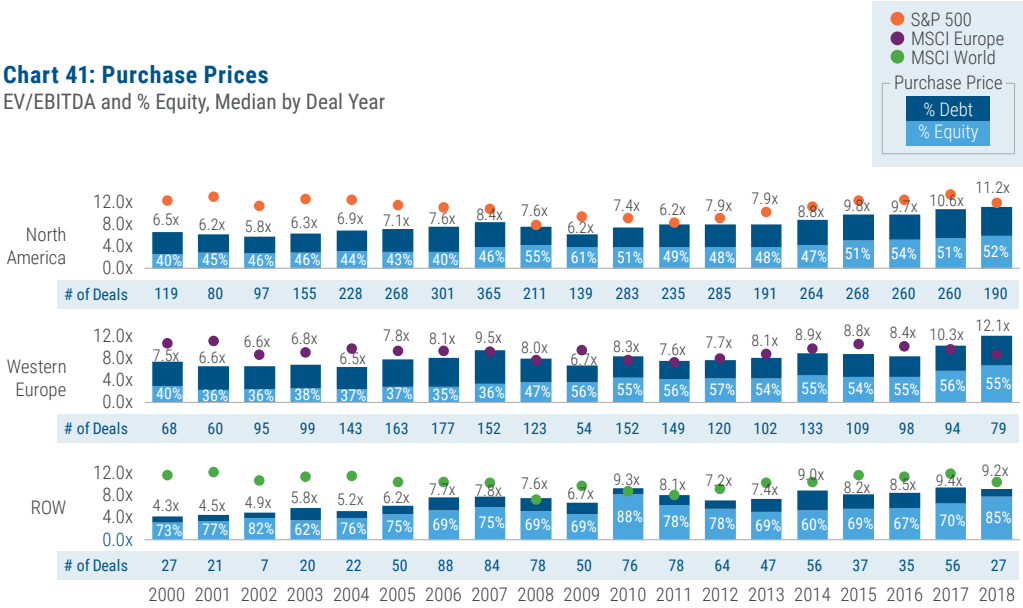
You know what isn't boring? It's a topic that's always discussed, with a data set that's feverishly anticipated every quarter, second only to that of returns. It's the Green Lantern of private markets data—the most powerful figure of them all. (We'll go toe-to-toe with anyone who'd argue otherwise....)

Purchase Price Multiples!



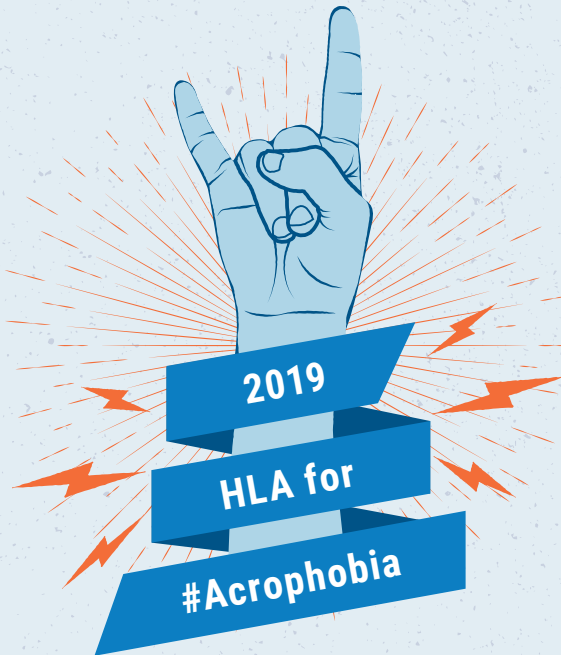
Chart 41: Purchase Prices

EV/EBITDA and % Equity, Median by Deal Year



Source: Hamilton Lane Data, Bloomberg (July 2019)

We can try to sugarcoat this, talk around it or explain it away, but there's no debating that private markets prices are very high (Chart 41). You guessed it; this chart deservedly receives an HLA.



Accepting the award on behalf of Chart 41 is @Don'tLeaveMeHoldingTheBag

Thank you Hamilton Lane for this award. This is such uncharted territory for me, up here, all alone. Everyone tells me not to worry. We're all doing it, they say. How high you are doesn't matter, it's all relative. Hey, what's a purchase price supposed to do? Nothing? Not!! No, I've kept trying to go higher, achieve more, and it's an honor to be recognized for my efforts. But my goal is to go higher still!! To everyone who's ever believed in me, thank you!

And now for some more bad news. We asked our general partners what they thought would happen to purchase multiples over the next 12 months (Chart 42).

Well, they definitely don't anticipate them going down. 😞

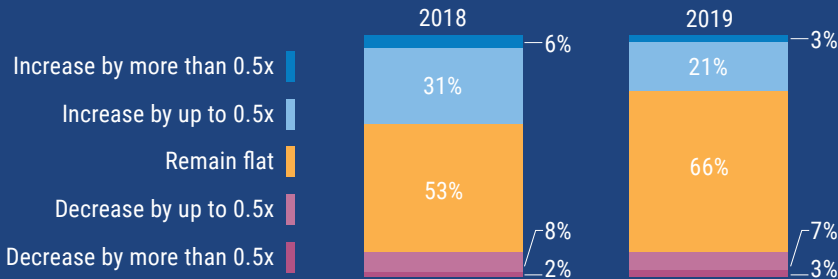


Ruh roh raggy. «««««



GP View: Purchase Prices

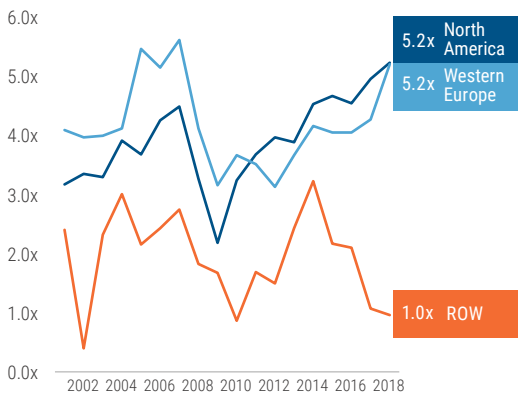
Chart 42: Purchase prices over the next 12 months will...



Source: Hamilton Lane General Partner Survey (July 2019)
Please refer to endnotes on the last page

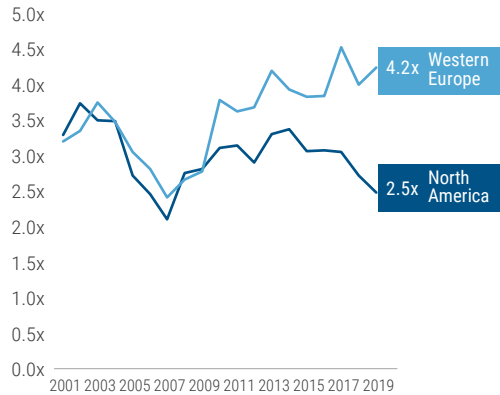
Chart 43: Leverage Multiples and Coverage Ratios at Acquisition

Net Debt/EBITDA



Source: Hamilton Lane Data (July 2019)

EBITDA/Cash Interest Expense

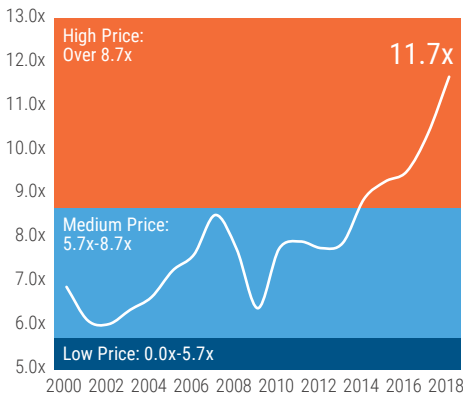


Source: S&P LCD (September 2019)

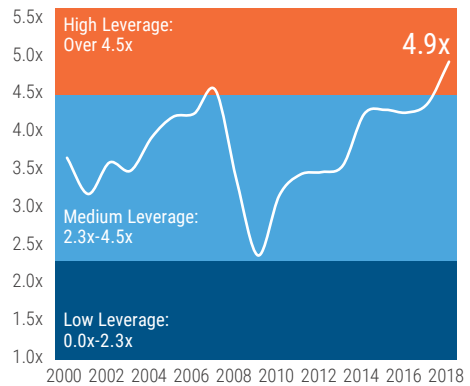
Last year, we sounded the alarm bell on leverage multiples – and they’ve gone up farther still (Chart 43). They are now at 2007 levels, and that’s decidedly worrisome. There’s also been a marked deterioration in coverage ratios at acquisition, particularly in North America. We now rate both of these indicators as concerning as the high purchase price multiples. We had felt better about the purchase multiples when we could convince ourselves that debt levels remained low and debt service easily maintained. We are no longer convinced. The warm and fuzzies have officially faded.

You know we love data, and patterns, and history; and we have definitely seen this movie before. So, instead of launching into a full-blown panic, maybe there’s a chance for us to learn something here if we keep our wits about us.

Chart 44: Median Purchase Price and Leverage Multiples at Acquisition



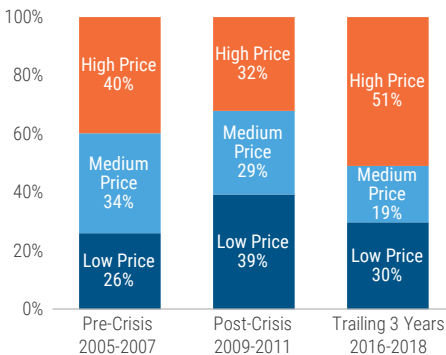
Source: Hamilton Lane Data (July 2019)



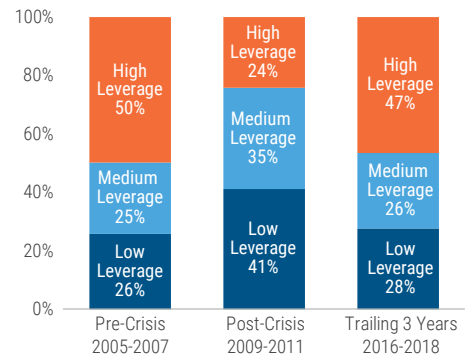
Source: Hamilton Lane Data (July 2019)

Chart 44 paints in graphic form what we presented in chart and word form over the last few pages. We are, both from a purchase price multiple and leverage multiple basis, in historically high areas. That doesn’t mean they can’t go higher, but it does mean we can look at what actually happened before and try to glean some indication of where we might be headed.

Chart 45: Distribution of Purchase Price and Leverage Multiples at Acquisition



Source: Hamilton Lane Data (July 2019)



Source: Hamilton Lane Data (July 2019)

Striking, isn’t it? We looked at the number of deals pre- and post-GFC and broke them down into where they fell on the low, medium and high scale for both price and leverage multiple (Chart 45).

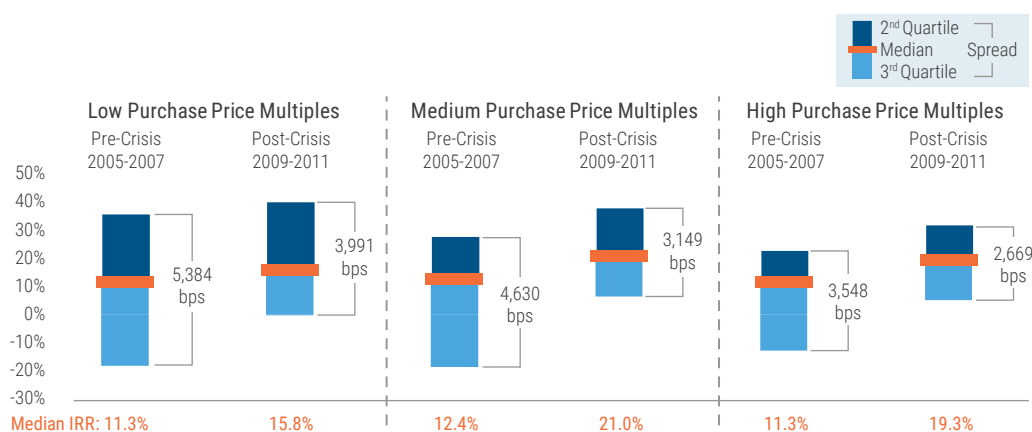
We then compared that to the composition of those deals during the last three years.

(Come on, it has to blow you away that we have this data and use it this way. Don't act like you're not impressed.)

On a price multiple basis, we are actually doing a greater percentage of high multiple deals than we did pre-crisis. On a leverage basis, we are at almost exactly the same proportions. That's a little better, though hardly a cause for celebration. What happened to the deals in those periods (Chart 46)?



Chart 46: Gross IRR by Purchase Price Multiples at Acquisition



Source: Hamilton Lane Data (July 2019)

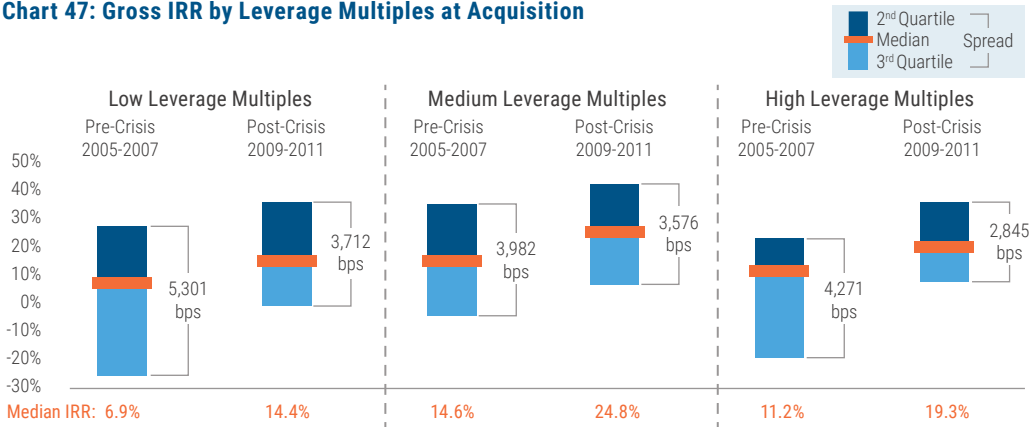
It's no big surprise that post-crisis deals performed better across all multiple bands, but we do observe some interesting twists:

- » Median IRR pre-crisis was not as dramatically different as you would expect across the different price multiple bands. The high-priced deals were about 80 basis points worse than the low-priced deals and the medium-priced deals actually did better.
- » The upside for the low-priced deals was greater than any other band and followed the pattern you would expect based on paying lower prices.
- » The downside for the low-priced deals pre-crisis fared the worst. Surprising, isn't it? Now, we love finding value as much as anyone, but all of us need to be aware that certain "value traps" can exist in the private markets. What do we mean by that exactly? Well, what if this last finding reflects the fact that companies trading at the lowest multiples in a frothy environment tend to be those with greater cyclicity or customer concentration or any other number of issues that could contribute to a greater dispersion of return? Those are considerations that are often overlooked. Companies available at low multiples may trade at those levels for a reason. Something to think about.



**The warm and fuzzies
have officially faded**

Chart 47: Gross IRR by Leverage Multiples at Acquisition



Source: Hamilton Lane Data (July 2019)

Let's keep mining the data to see what else it reveals. Again, if we review the gross IRR by leverage multiples at acquisition, it's not surprising that deals did better post-crisis across all bands (Chart 47). But, look at performance pre-crisis with low leverage. Those were the worst deals whether measured by median return or downside risk. Who would have foreseen that result? Not unlike our musings about purchase multiples, we have to wonder whether these companies had less leverage at acquisition not by the GP's choice, but rather because they are the type of companies that, for any number of factors, lenders wouldn't *want* to give more leverage, as doing so would make them inherently more susceptible to greater return dispersion. It forces us to name Charts 46 and 47 as co-winners of an HLA.



Accepting the award on behalf of Charts 46 and 47 is @DataOverAnecdotes

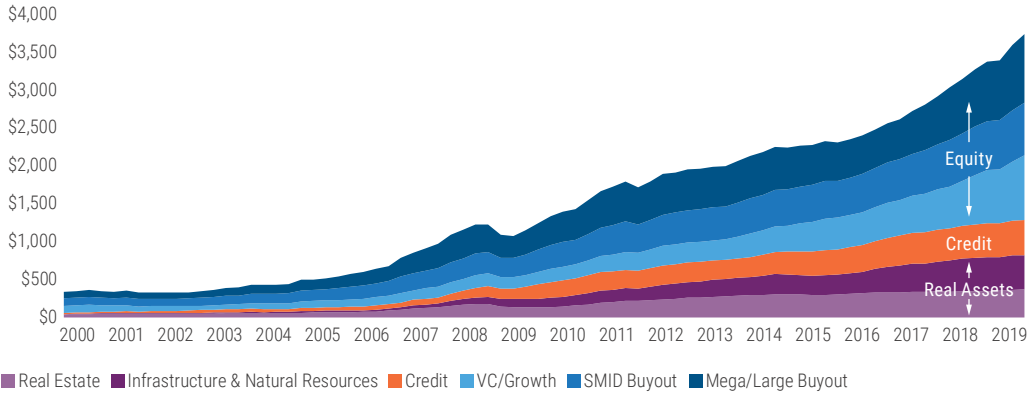
We're shocked to have won this award. We really don't know what to say. We each came here thinking we'd just sit in the audience and tell ourselves that high prices and high leverage are going to have the worst results and everyone is going to love low prices and low leverage. And now, this. To be up here and accept this award; it's an honor and a privilege, truly! Words escape us. We'd like to just thank the high priced and high leveraged deals that made this possible and Hamilton Lane for believing in the data. Go big or go home! Thank you!

Liquidity

Let's now turn our focus to the portfolios themselves and see what is going on there.

Chart 48: NAV by Strategy

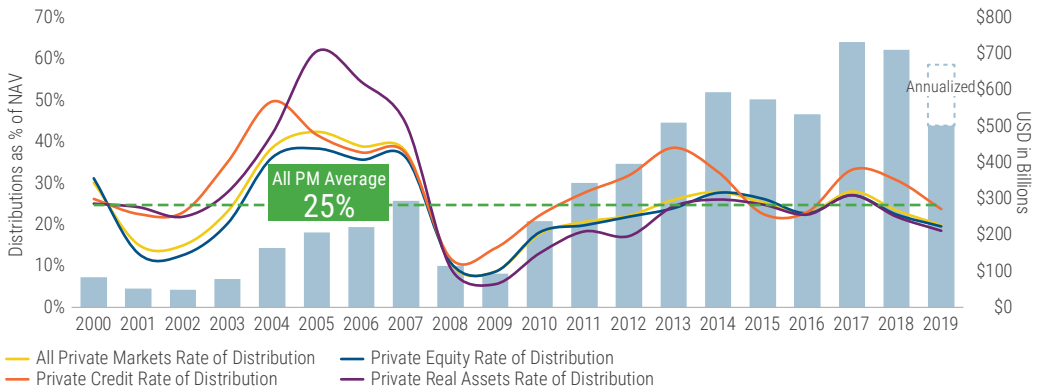
USD in Billions



Source: Hamilton Lane Data via Cobalt (October 2019)

Net asset value continues to grow across all the private markets categories (Chart 48). That's to be expected given the pace of investing and the value appreciation of those portfolios. This is a healthy sign for investors.

Chart 49: Annual Private Markets Distributions



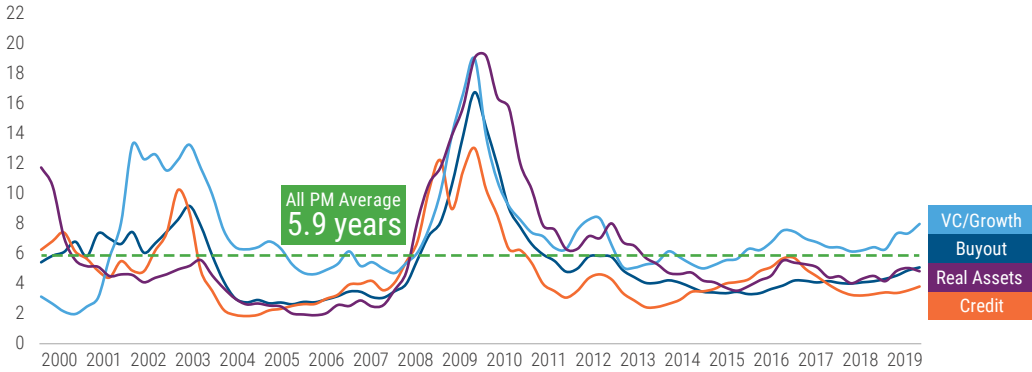
Source: Hamilton Lane Data via Cobalt (October 2019)

The rate of capital coming back to limited partners remains in line with historical averages (Chart 49). While the absolute levels may be higher than we've seen in prior years, that's only because the entire industry has grown. As a ratio of the growing NAV, it remains at average levels across the last 20 years.

The time it takes to liquidate that NAV at current distribution levels also is at average levels and holding relatively steady year over year.

Chart 50: Time to Liquidate NAV

Years at LTM Pace

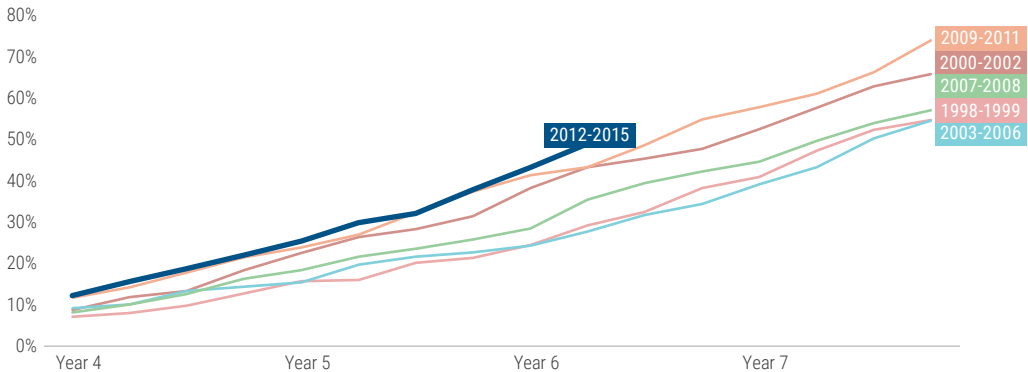


Source: Hamilton Lane Data (October 2019)

Rather surprising, given the prior charts, is that vintage year 2012-2015 buyout distributions are ahead of any prior vintage year comparables (Chart 51).

Chart 51: Median Buyout DPI by Fund Age

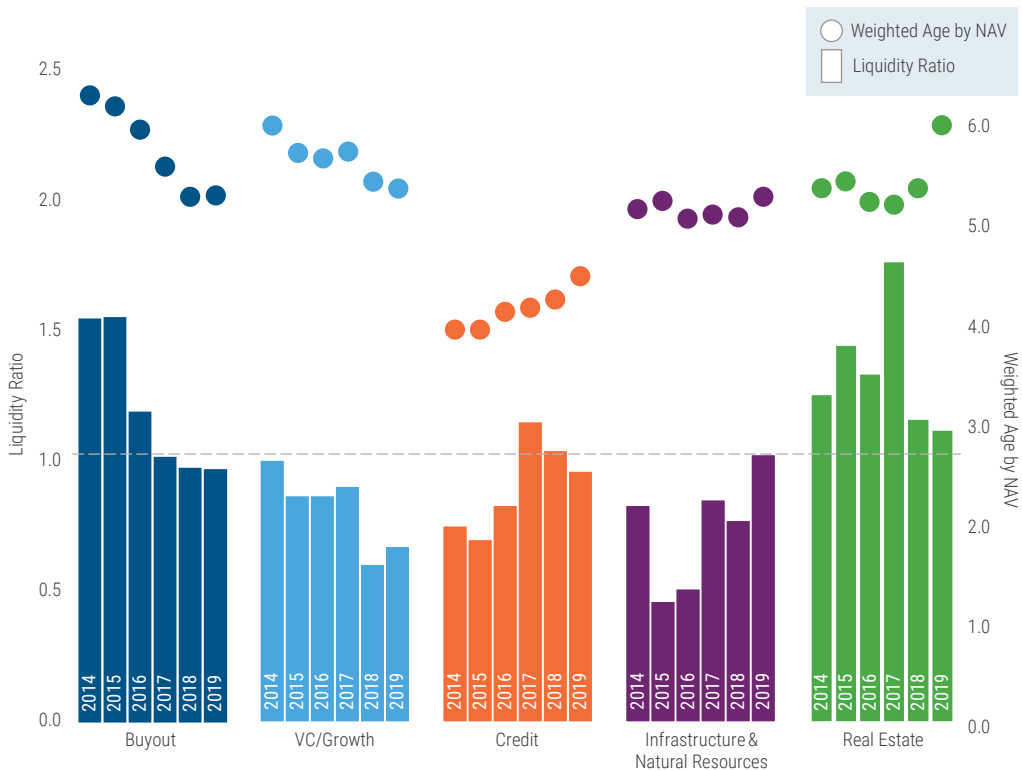
Vintage Years 1998-2015



Source: Hamilton Lane Data via Cobalt (October 2019)

This reflects what you often have heard from general partners the last few years: They believe market prices are too high and, as such, are more than willing to sell into those markets. Digging deeper into the liquidity metrics across various strategies and geographies, we discern a fair bit of difference.

Chart 52: Annual Liquidity Ratio
Distributions/Contributions



Source: Hamilton Lane Data (October 2019)



Venture continues to struggle to return capital to investors (Chart 52). When it comes to consistently returning more capital to investors than they've contributed, real estate is the winner year over year. Even buyout, which had a similar profile, fell short the last few years as strong fundraising injected youth into portfolios. (Don't you love that expression? "Injected youth." Visualize that one for a second.)

»»»»»» What if Keanu Reeves never ages...
because he uses internet points to
stay alive?

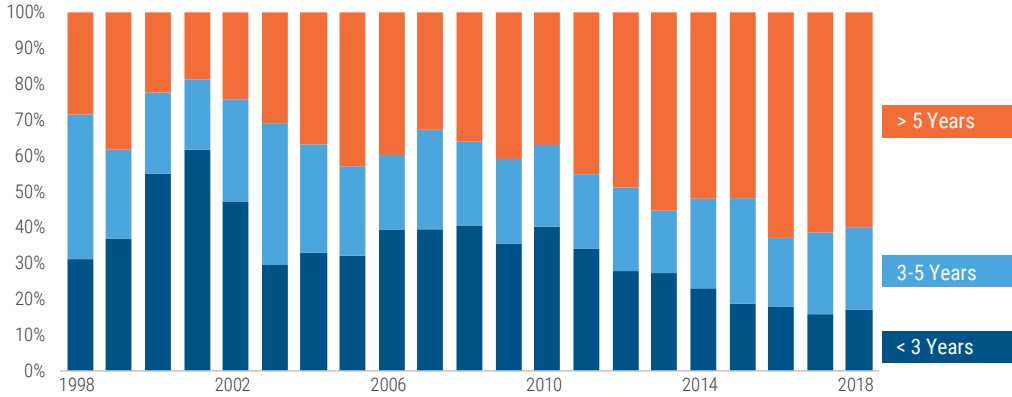


**GPs believe market prices are too high
and are more than willing to sell**

What is happening to hold periods? So funny you asked! We happen to have a chart that looks at hold periods over the last two decades. And it's an HLA winner for sure.

Chart 53: Holding Period of Exited Buyout Deals

% of Deal Count by Year of Exit



Source: Hamilton Lane Data (July 2019)

Chart 53 says more about the changed nature of our industry than any other. Holding portfolio companies for five years means employing a number of different value creation levers to deliver returns. Most of them are operational. Compare that to the shorter holding periods of 20 years ago when it was much easier to buy companies at cheaper prices, enact faster operational and financial improvements and then sell them. This evolution isn't necessarily a bad thing. It forces the industry

Accepting the award on behalf of Chart 53 is @Workin'HardForTheMoney

This is such an honor. I remember when I first started...it was a much simpler time. At the millennium, I would only sit around for less than three years before moving on to the next thing. Now, I'm lucky if I'm done in five years. Five years feels a lot longer than three. But, receiving this award makes it all worthwhile if people recognize how much goes into it. Thank you, Hamilton Lane, and let's see if we can't get things done a little faster next year!

to actually deliver upon what it always has claimed to do, which is create real value by improving companies and driving their growth.

One corollary implication to the longer holding periods (that our data now indicates average approximately six years) is that IRRs are likely to decline. It's just a matter of mathematics. For reference, please check out our whiteboard drawing.

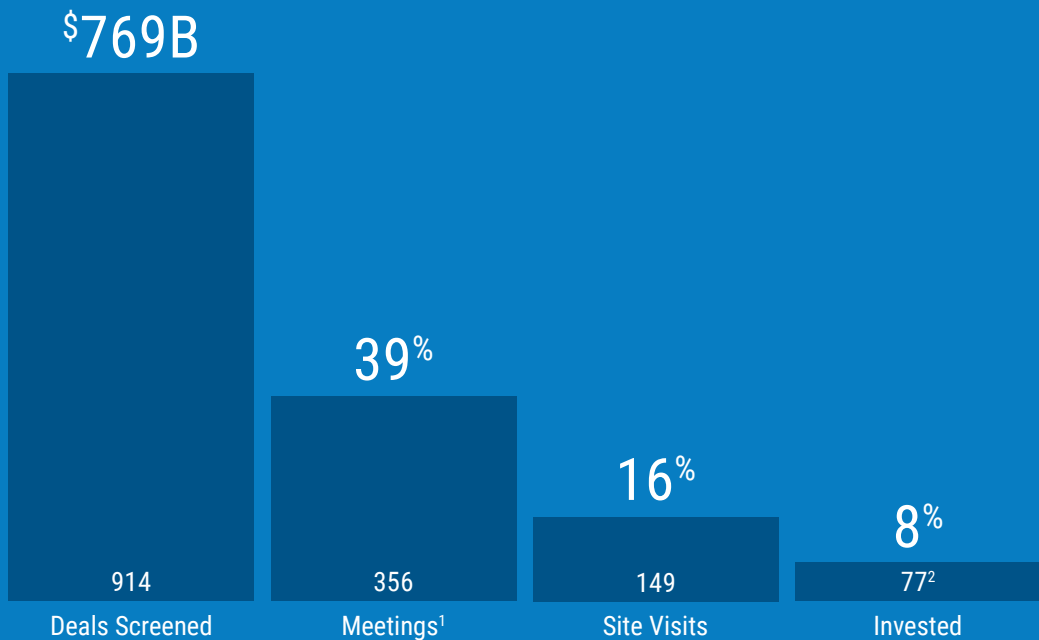
Keep it simple. That's our motto.

“
**This evolution forces the industry
to actually deliver upon what it
always has claimed to do**

Hamilton Lane Builds Portfolios Designed to Outperform

Concentrated

In 2018, Hamilton Lane screened \$769B in primary deal flow, yet invested in only 8%.



The 2018 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. This amount excludes secondary and co-investment commitments. (December 31, 2018)

¹ Based on initial meeting date

² Represents primary fund investment opportunities that received discretionary commitments from Hamilton Lane.

Diversified

Investments across multiple sectors



Credit



VC/Growth

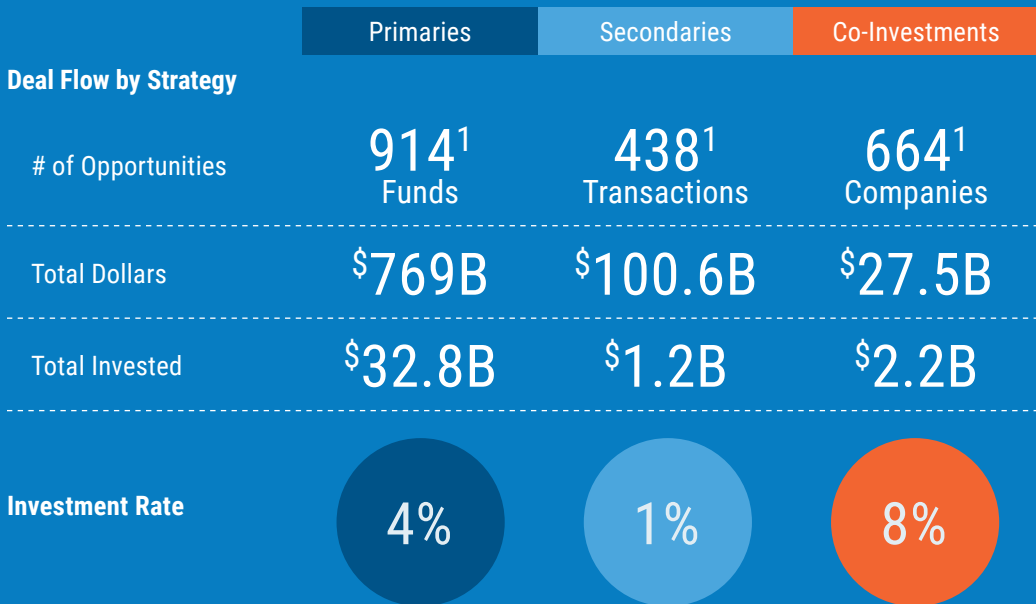


Real Assets



SMID

Selective Deployment



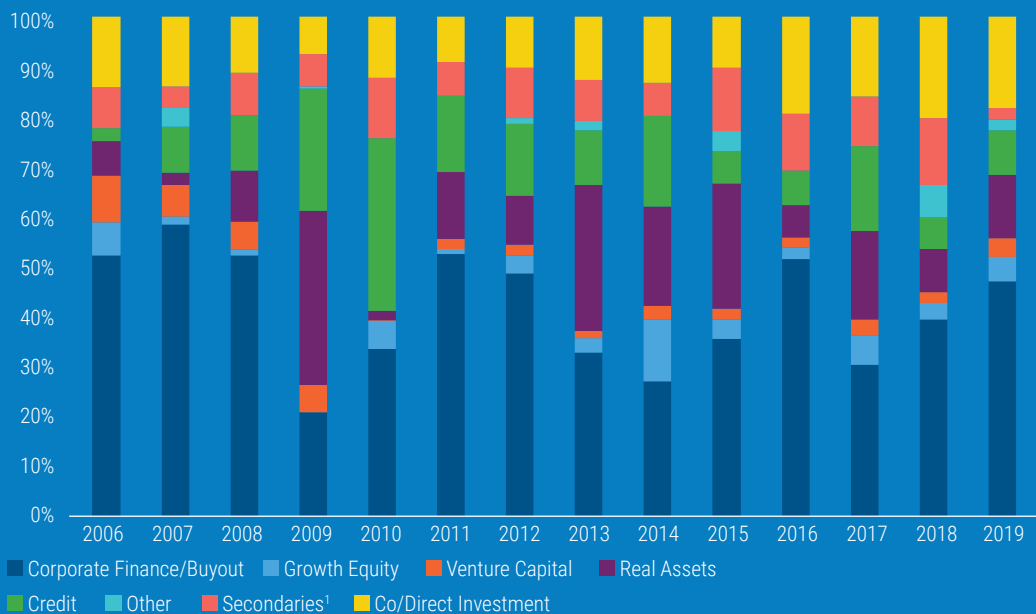
¹ Total opportunities reviewed in 2018

² Figures are an approximate amount of total capital invested

³ Invested as a % of total opportunities reviewed

Tactical Allocations

Hamilton Lane Discretionary Committed Capital by Vintage Year and Strategy



Source: Hamilton Lane Investment Database. Includes all discretionary commitments from active Hamilton Lane clients through June 30, 2019, for both active and liquidated investments.

¹ Secondaries represents all secondary purchases as well as investments to secondary fund-of-funds. Secondary purchases vintage year represents the closing year of the investment.

WHERE
ARE WE
NOW?

We take great pride in our track record of prior recession probability predictions.

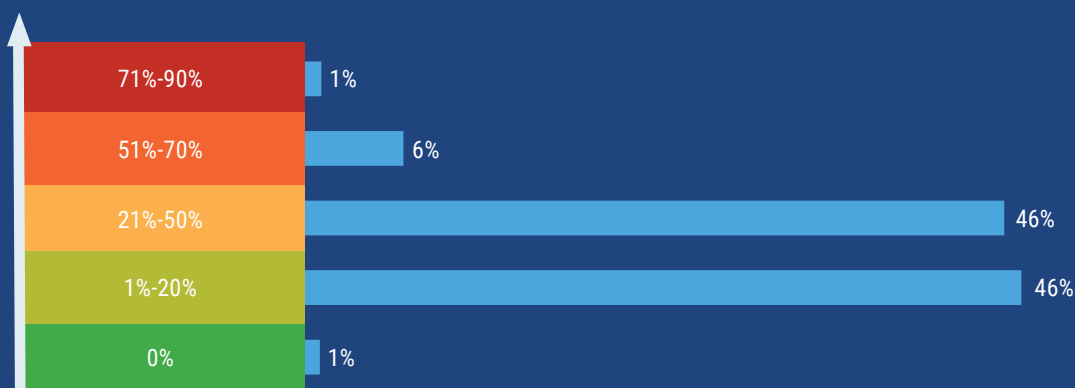
In 2015, our prediction was zero. In 2016, that dropped to less than zero – a statistically bold call that was frequently met with skepticism and, in some extreme cases, derision. In 2017, we predicted a 0% probability, whereas last year, largely thanks to Trump’s tariff threats, we moved the probability up to 20%. We wouldn’t go so far as to call ourselves “genius” in our predictions, but if you wanted to think of us that way....

So, where are we this year? Before revealing our prediction, why don’t we take a look at what our general partners think. Please note that this poll was taken in July 2019 (Chart 54).



GP View: Recession

Chart 54: What is the probability of a global recession in the next 12 months?



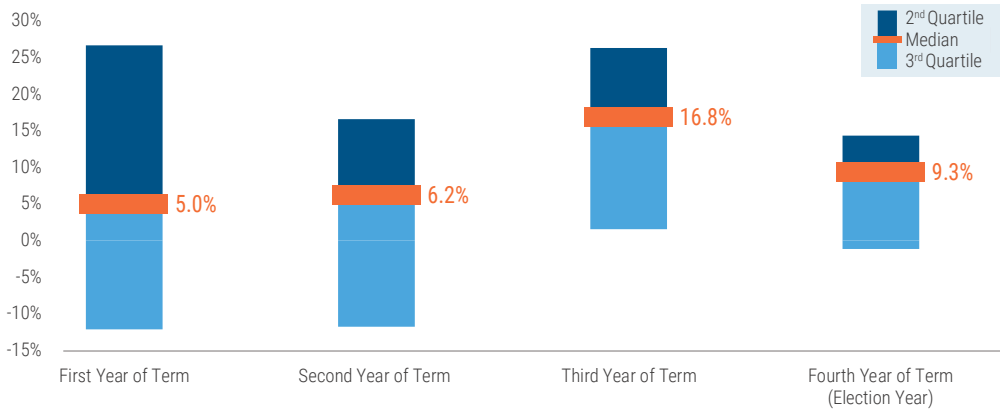
Source: Hamilton Lane General Partner Survey (July 2019)
Please refer to endnotes on the last page.

Not a very high likelihood. The results are pretty evenly split between two categories of probability – 1-20% and 21-50%. Either way, an overwhelming number of GPs think it is more likely that there will not be a recession in the next 12 months.

So that’s the GP view; but what do investors think? A BofAML report from August 2019 revealed the global fund managers surveyed were more bearish than they were in 2011 (when they were decidedly wrong) and instead closer to the recessionary expectation level they reached in early 2008 (when they were decidedly right).

It's also worth considering whether there is anything to be gleaned from U.S. stock market history.

Chart 55: Dispersion of S&P 500 Returns During Presidential Years
1929-2016

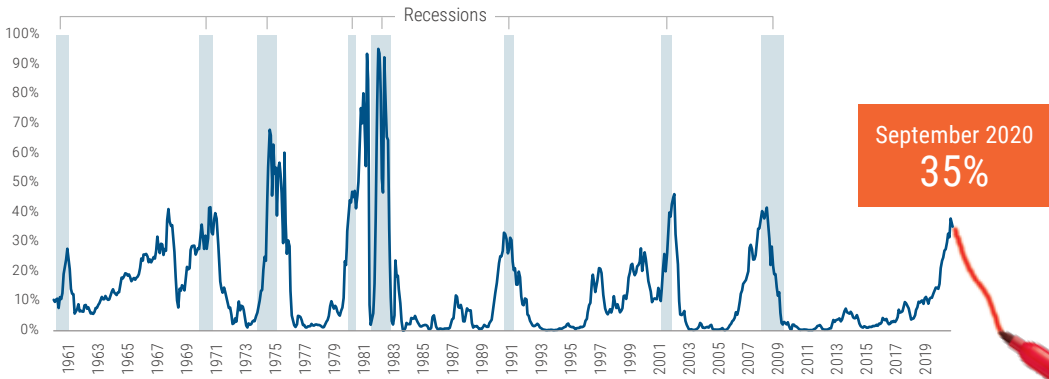


Source: Hamilton Lane Data (October 2019)

To be fair, the analysis in Chart 55 doesn't directly address the question of a recession, but it strongly suggests that one is unlikely based on a stock market history of virtually no downturns in the year prior to or the year of a presidential election. The reason is rather intuitive: A president or the party in power will do everything possible to keep the market and economy strong for an election cycle.

What does the U.S. Federal Reserve have to say on the matter?

Chart 56: Probability of U.S. Recession Predicted by Treasury Spread
Twelve Months Ahead (Month Averages)



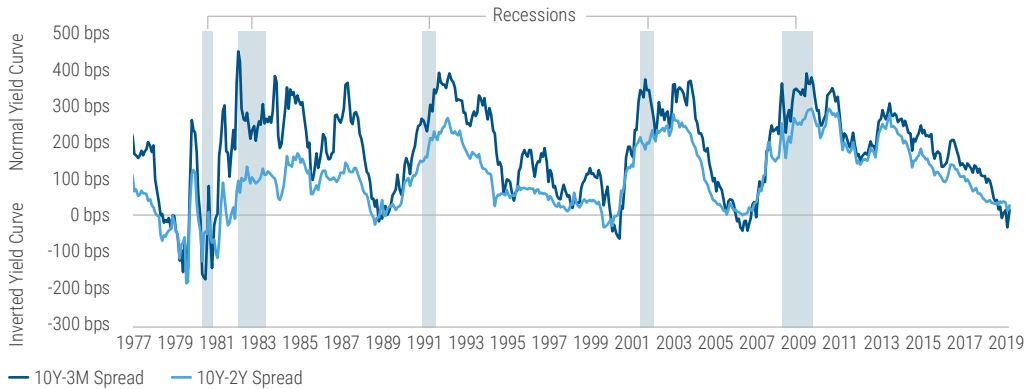
Parameters estimated using data from January 1959 to December 2009, recession probabilities predicted using data through September 2019
Source: Federal Reserve Bank of New York (October 2019)

Fascinating! It appears that there are, in fact, two Fed probability charts. Perhaps that's simply the new norm for government data in the Trump era. For the purpose of this discussion, let's ignore the Sharpie Version. Chart 56 suggests a 35% probability of recession over the next 12 months as of September 2019. Consider that a probability percentage greater than 30% has failed to predict a recession only once over the last 60 years, and that was back in 1968. (Take note of the way the probability indicator sloped up and down in the late 1990s; we'll come back to that shortly.)

What says our beloved yield curve indicator, upon whose guidance and infinite wisdom we have relied for so many years?

Chart 57: 10-Year Treasury Bill Spreads

Against 2-Year and 3-Month T-Bills

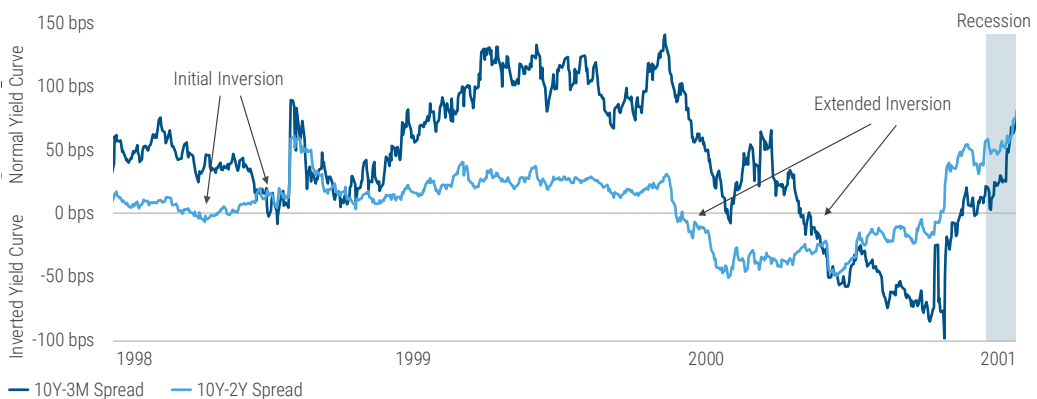


Source: Bloomberg (October 2019)

There is a real question here whether it has, as of this writing, inverted sufficiently to signal an impending recession. Let's start with the fact that there has never been a time when the 3-month to 10-year and 2-year to 10-year didn't invert at the same time. The 3/10 inverted in May 2019 and has remained so. We didn't view that as enough of a signal and view the real yield curve test as the 2/10 (or at least the 3/10 and 2/10 together), which did ultimately invert – albeit for only ever so brief a time and with ever so slight a spread – on August 14, 2019. But, again, that inversion did not last for long and, as of this writing, the 2/10 is once again not inverted.

Confused? Intrigued? Curious if such a phenomenon has ever happened before? Well in fact it has.

Chart 58: Yield Curve Spreads 1998-2001



Source: Bloomberg (October 2019)

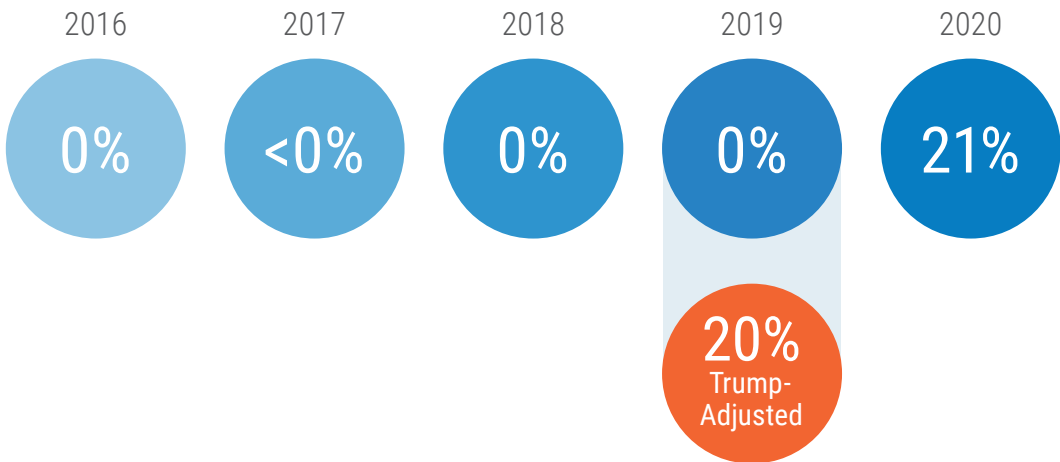
Recall that in last year's overview we suggested where we were in the cycle was similar to a late 90s type of environment. Late 1998 saw a brief inversion followed by a period of stronger market action, and then another, prolonged inversion occurred in late 1999 that presaged the recession (Chart 58).

You have to admit the parallels to what's happening in today's market are pretty compelling. This data becomes even more notable when you consider that most pundits maintain that stock markets typically have another 18 or so months to rally following a 2/10 inversion before the real trouble starts. Nevertheless, what remains clear is that, once a 2/10 inversion occurs, the final countdown to a recession has begun.



And now Europe's "The Final Countdown" is going through your head. You're welcome.

Against that backdrop, what is Hamilton Lane's probability of a U.S. recession prior to the end of 2020?



This was a very tough call. To be clear, it should be zero. Actually, in any rational world, IT SHOULD BE LESS THAN ZERO! We *should* be in something of a late 1990s world, maybe even as early as 1995, with years of upside ahead. As you can see, we ever so slightly favor that we are in that world; and yet there are significant factors differentiating today's market from that of 1995 or 1998.

Rewinding a few years, we had predicated our view that there was no impending recession on the presence of strong leaders at the central banks. We even created a snazzy graphic depicting them.

2013



Today? Well, today, these are a lot of the people who are determining the fate of our economies. Collective groan...

Today



Their actions, particularly the chaotic economic and political bluster out of the U.S., are largely responsible for creating the recessionary headwinds. Even assuming, for argument's sake, that this group wanted to avoid a recession, does anyone reading this believe they would actually know how? Is anyone confident that Trump and his confederacy of dunces will make *anything* better? That Boris Johnson won't blunder the UK into a downturn worse than that of 2008?

We aren't, and while it pains us to admit it, we view a recession occurring in the next 12 months as a far higher likelihood than we would have thought possible only six months ago. Still not the most likely outcome, but so uncomfortably possible that we need to be prepared.



The Beast or No Beast in the Jungle Dilemma

Here's something to think about: The all-clear-for-the-year indicator will be if China and the U.S. reach a trade deal. If that happens, then we'd drop our recession prediction to zero. But what's the lurking beast in this scenario threatening to upend everything? Why it's that Trump and his associates weaponize the U.S. dollar and attempt to weaken it globally. Don't think it can happen? After the experience of the 1930s, that's what we thought about tariffs....



“

**It feels as though the majority
simply wants less chaos, less
bombast, less lying, less drama**

Since we've wandered into political waters anyway, we have a brief interlude designed to make a prediction about the next President of the United States. We're well aware that some of you will be thinking, "How U.S. centric and pointless." Respectfully, we disagree. Fortunately or unfortunately for all of us, no matter where we reside, U.S. policy exerts significant influence on global economies. Moreover, would anyone make the argument that four more years of Trump in the White House would be considered pointless economically? How about a progressive Democratic agenda taking over – would that be thought of as pointless?



We didn't think so either. So, turn on those listening ears, because this election can have enormous consequences felt 'round the world.

We've observed that U.S. presidential elections tend to follow one of two patterns when the sitting U.S. president is perceived as either unethical or incompetent. In the case of ethical issues, the subsequent president almost always presides over a kind of caretaker government. Think of Coolidge after Harding or Carter after Nixon. It was as though the nation simply wanted a period of quiet and remote sense of moral standing and ethics, rather than any dramatic shift in policy or politics. Where a president's competency is in question and the economy is falling apart, people want change – dramatic change at that. Think of Roosevelt after Hoover or Obama after Bush. In those cases, the nation wanted a shift in direction from an economic perspective.

What on earth follows Trump? Another four years of Trump? What kind of president if not Trump? No other president in U.S. history has had either the combination of complete incompetence and moral bankruptcy evident in this administration or the extremes of both qualities, so prediction becomes quite difficult. Our gut tells us that any recession prior to the U.S. election in 2020 will be mild and, therefore, that the election will not feature an economic downturn severe enough to cause the kind of shift in presidential priorities witnessed with Roosevelt or Obama. Based on this historical snapshot, it is our view that the odds favor the election of a more moderate, less dramatic economic change agent than Sanders or Warren and someone more like Biden or Harris. It feels as though the majority of the U.S. electorate simply wants less chaos, less bombast, less lying, less drama.

<=>
LESS IS MORE.

It is very early in this political process, but we thought the historical precedents interesting. You have read our material enough to know we are very strong believers in the dictum that history doesn't repeat, yet it very often rhymes. If we were giving probabilities, we'd say the odds for the next president are:

- » Moderate Democrat: 50%
- » Progressive Democrat: 45%
- » Republican: 4%
- » Trump: 1%

If the U.S. economy really falters earlier in 2020 and weakens throughout the year, then we would raise the probability of a progressive Democrat, such as Sanders or Warren, to somewhere closer to 65%.

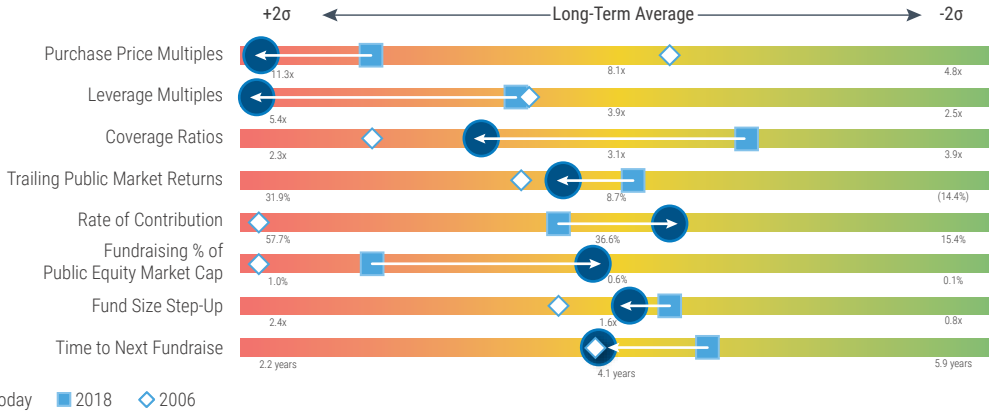
SENTIMENT INDICATORS



We have long thought that the private markets are not so wholly different from the public markets, subject to swings of fear and greed. (We know that is not the prevalent thought in the private markets, where the rather smug, “We’re long-term investors” mantra is really code for “We’re not subject to emotional investment decisions.” Don’t believe it. LPs and GPs alike are just people, after all, and the predominant driver of human behavior is emotion.)

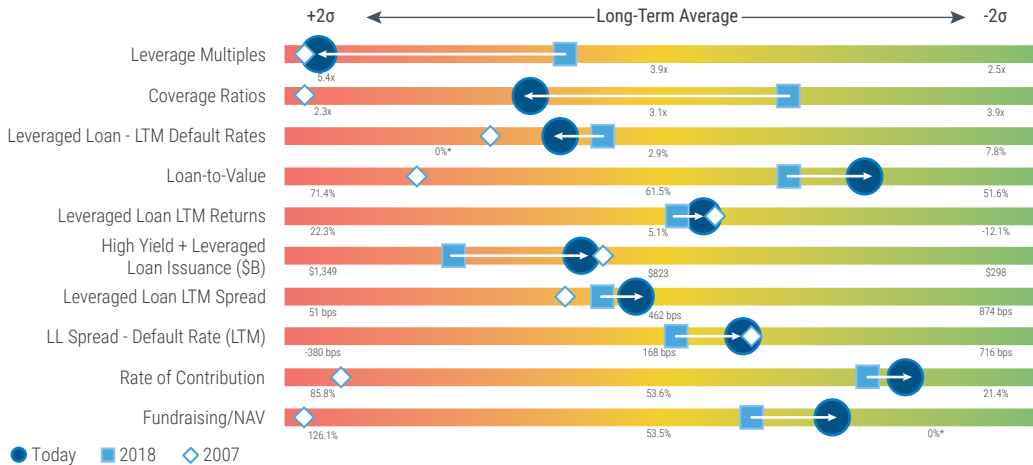
We’ve developed and shared over the years some indicators that offer a sense of where market moods are today.

Chart 59: Hamilton Lane Sentiment Indicators: Buyout



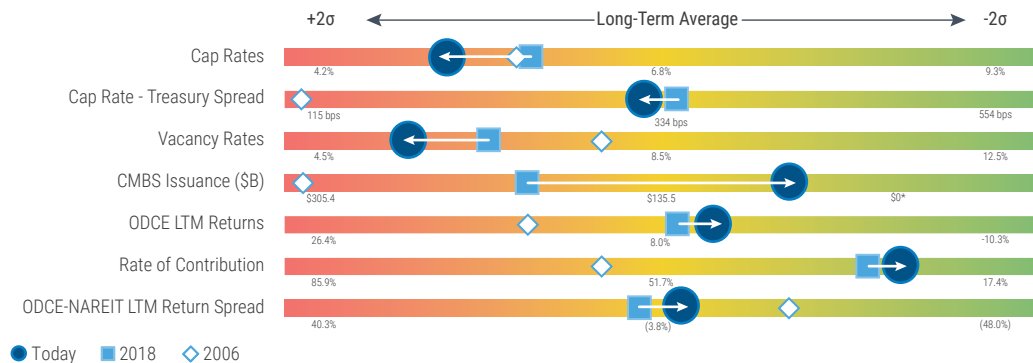
Source: Hamilton Lane Data, Bloomberg, Bison, Preqin, S&P (October 2019)

Chart 60: Hamilton Lane Sentiment Indicators: Credit



*Asterisk indicates zero used as floor for indicators that cannot be negative
Source: Hamilton Lane Data, Bison, Preqin, S&P (October 2019)

Chart 61: Hamilton Lane Sentiment Indicators: Real Estate



*Asterisk indicates zero used as floor for indicators that cannot be negative
Source: Hamilton Lane Data, Bloomberg, NCREIF (October 2019)

Please refer to endnotes on last page

The **buyout market** continues its trend from last year into negative territory (Chart 59). It was slightly negative last year and we would now categorize it as fully in the negative camp from a sentiment perspective.

Contrary to all the media chatter of this market being a disaster, the **credit market** is firmly neutral (Chart 60). Some key indicators are negative, but, overall, we would rate this market as having no real sentiment direction.

The **real estate market** continues to be firmly neutral, with indicators moving in both directions this year (Chart 61). Keep in mind that neutral is not bad. Markets tend to be in neutral territory for long periods, and we are only looking for extremes and trends.

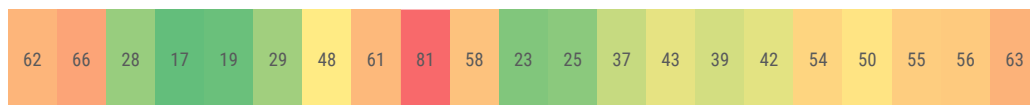
In addition to our sentiment indicators, we're introducing a new analytical model this year, aptly named "The Hamilton Lane Worry Index."

Chart 62: The Hamilton Lane Worry Index

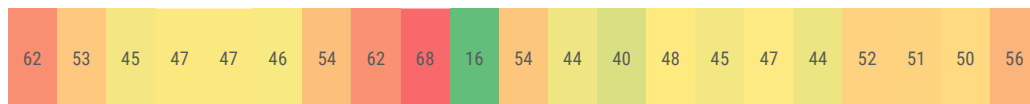
The Hamilton Lane Worry Index is a composite of Hamilton Lane's Sentiment Indicators. Higher numbers = more worry.

1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 Today

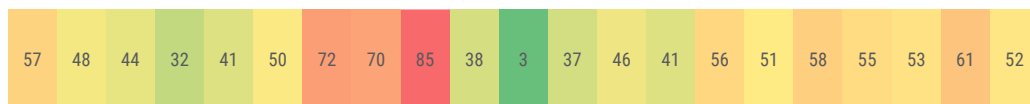
Private Equity



Credit



Real Estate



Source: Hamilton Lane Data, Bloomberg, Bison, Preqin, S&P, NCREIF (October 2019)
Please refer to endnotes on last page

Chart 62 reflects the sentiment indicators from the prior page. The worrisome (how clever are we to use the word from the chart's title to describe what it is saying?) aspect remains the buyout market, which is very close to a peak stage.

We love this chart. We love it so much, we think it deserves an HLA.



Accepting the award on behalf of Chart 62 is @WeLoveColors

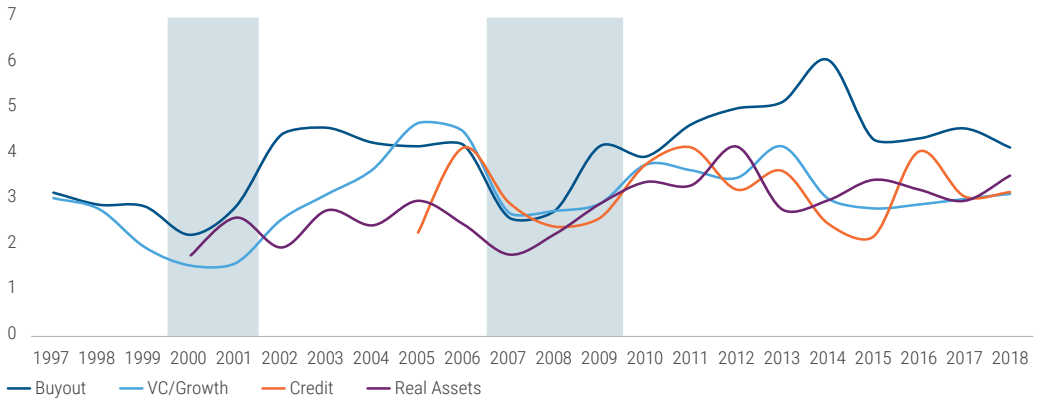
This is quite the honor. I started out as just a bunch of fuzzy, colored boxes and morphed into such an impactful arrangement. Where some see normal colors of the rainbow, others see direction, guidance, easy to follow paths. Connect the dots; color by numbers. It's all there. Thank you so much!

Another sentiment indicator, and one of our favorites for its indication of the collective greed on general partners' parts, is in firmly neutral territory (Chart 63).

“

At the risk of sounding like a broken record, those are very good returns

Chart 63: Time Between Fund Strategy
 Median Time to Next Fund in Years

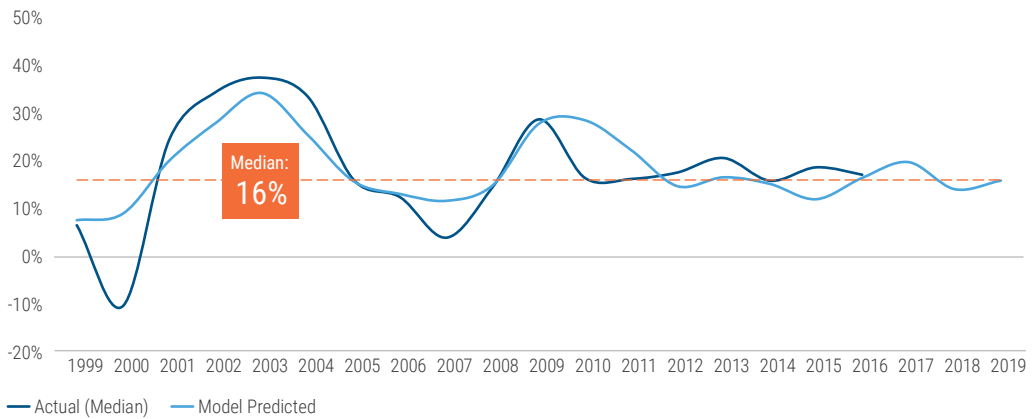


Source: Hamilton Lane Data (October 2019)

If we were at a market peak, you'd really expect that some part of the private markets universe would be spending quickly. None is.

Our proprietary indicator, The Hamilton Lane Predictive Model, has been highly directionally accurate the last 10 years and remains in firmly neutral territory today.

Chart 64: 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

Neutral also is good here because it suggests that this year's deals will return around industry median levels. At the risk of sounding like a broken record, those are very good returns for investors.

HOW SHOULD
AN LP
INVEST?

Reading this section title, you may be waiting for us to reveal the one fund, one deal, one area, one geography in which you should invest. May we offer you an alternative perspective to consider? It's not about that one decision: It's about a portfolio framework; it's about a strategy; it's about far larger decisions than any one fund or transaction. What works? What doesn't?

To see what sort of conclusions we could reasonably draw to answer those questions, we ran an analysis of seven different investors, each with varying sizes, geographies, types and portfolios. Some make use of third-party guidance and expertise, whereas others are primarily internally managed (Chart 65).

Chart 65: Limited Partner Portfolios

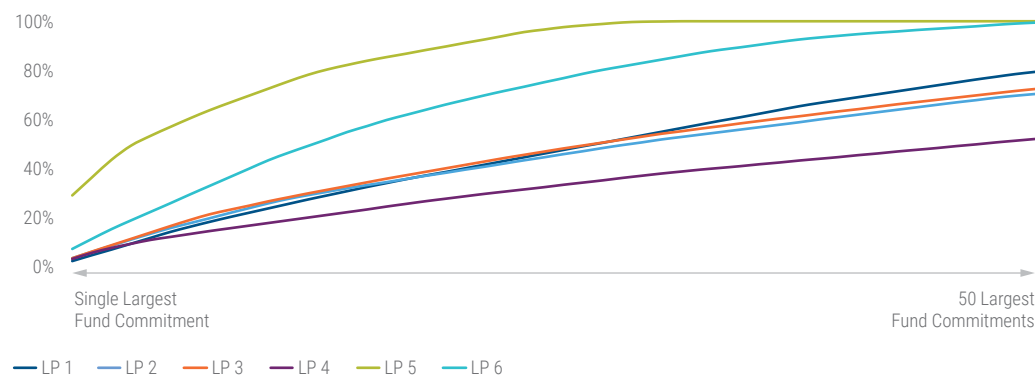
Limited Partner	Type	Geography	How They Manage Their Private Markets Portfolio	Total AUM	Current Private Markets Allocation	First Private Market Investment
LP 1	Public Pension	U.S.	Outside Consultant	\$10B–\$50B	15%–20%	~25 years ago
LP 2	Public Pension	U.S.	Outside Consultant	\$50B–\$100B	30%–35%	~40 years ago
LP 3	Public Pension	Canada	In House	>\$150B	45%–50%	~20 years ago
LP 4	Public Pension	U.S.	In House	>\$150B	30%–35%	~25 years ago
LP 5	University Endowment	U.S.	In House	\$10B–\$50B	30%–35%	~40 years ago
LP 6	Public Pension	U.S.	In House	>\$150B	15%–20%	~30 years ago

Source: Comprehensive Annual Financial Reports (June 2019)

Let's start by taking a look at how these LPs have been allocating their capital.

Chart 66: Cumulative Fund Commitment Concentration

Commitments Made to 2014-2018 Vintage Year Funds



Source: Bison Data via Cobalt (June 2019)
Please refer to endnotes on last page

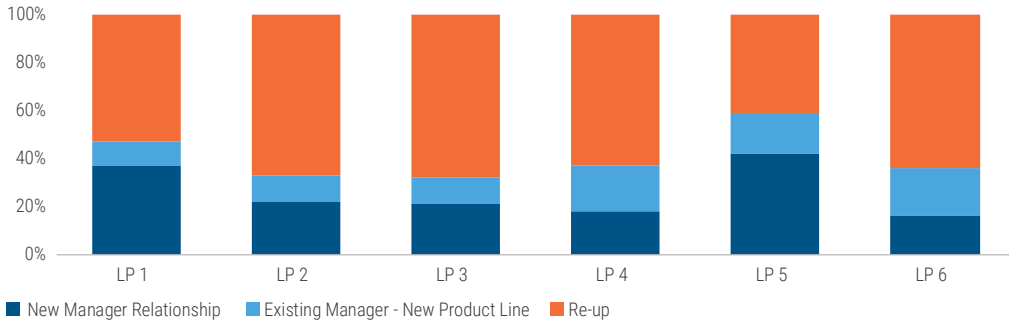
It is interesting that there are two outlying LPs who have far more concentrated portfolios than the others, who are generally clustered, although LP 4 has the most broadly diversified portfolio (Chart 66).

Please refer to endnotes on last page

Looking at Chart 67, we note the heavy preference for existing managers across each of the LP portfolios. The notable exception is LP 5, which seems to be trying to reduce its relatively massive concentration.

Chart 67: Percent of Total Dollars Committed by Relationship Type

Last Five Vintage Years

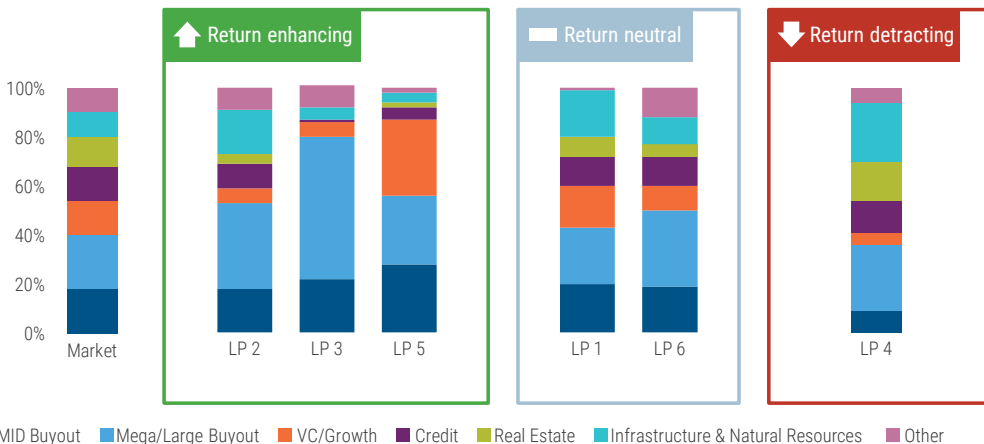


Source: Bison Data via Cobalt (May 2019)

We considered the different portfolio decisions each investor made and looked at the impact those decisions had on returns. Start with strategy choices (Chart 68).

Chart 68: Strategy Composition

% of Total Dollars Committed by Strategy, Since Inception-2018



Note: Return enhancing, return neutral, return detracting relative to 10-year market performance
Source: Bison Data via Cobalt (June 2019)

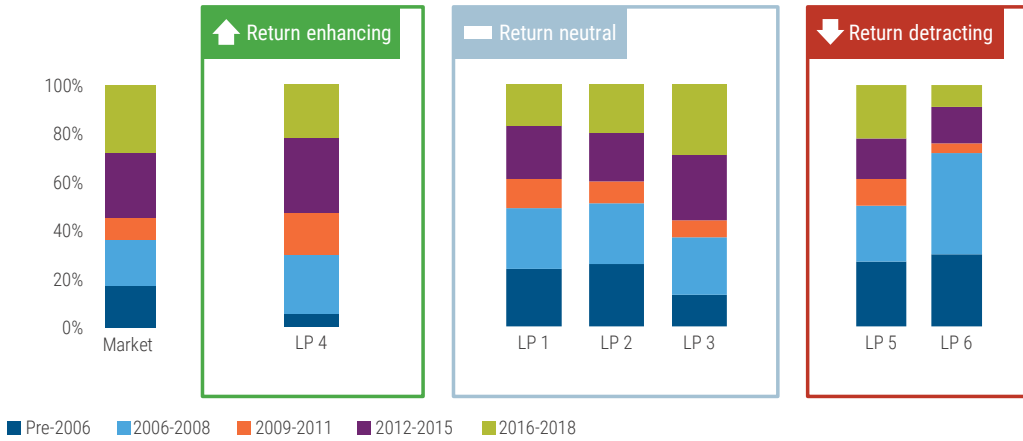
Viewed solely from a strategy perspective, choosing well-performing sectors created added return in the portfolio, whereas choosing poorly-performing sectors or underweighting the strongest performers detracted from return and generated poor results. This LP group exhibited a wide variety of choices when it came to the strategy composition of their portfolios. Note LP 3, with a substantial allocation to large buyout, which likely enhanced its returns. LP 4, on the other hand, made a conscious choice to lean heavily into real assets and paid the price. Very few of the investors chose “market,” or the average amounts raised in those asset groupings.

Please refer to endnotes on last page

Chart 69 looks at vintage year pacing.

Chart 69: Vintage Year Composition

% of Total Dollars Committed by Vintage Year, Since Inception-2018

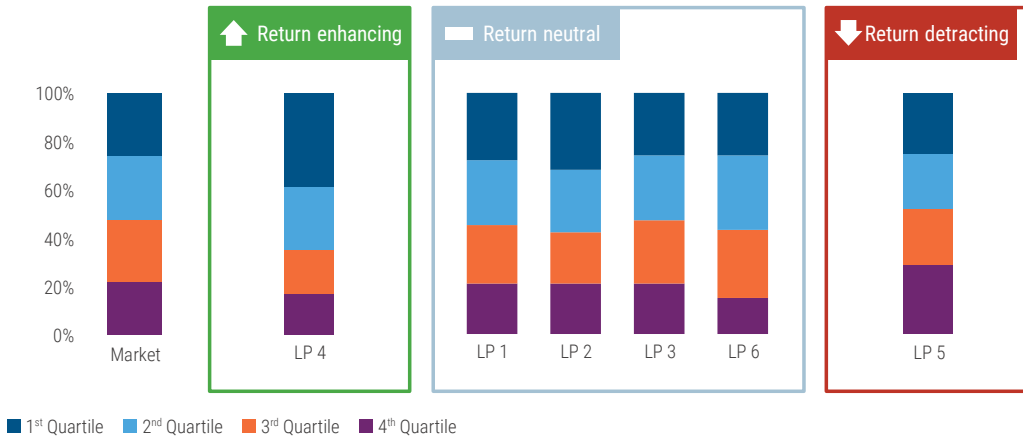


Note: Return enhancing, return neutral, return detracting relative to 10-year market performance
 Source: Bison Data via Cobalt (June 2019)

We've consistently preached the virtues of steady investment pacing. LP 4 demonstrates the benefits of adopting that approach, whereas LP 6, with its heavy concentration in pre-2006 and 2006-2008 vintages, illustrates the risk of dramatically increasing commitments to particular years.

Chart 70: Portfolio Exposure by Strategy Quartile

By Committed Capital, Since Inception-2018



Source: Bison Data via Cobalt (June 2019)

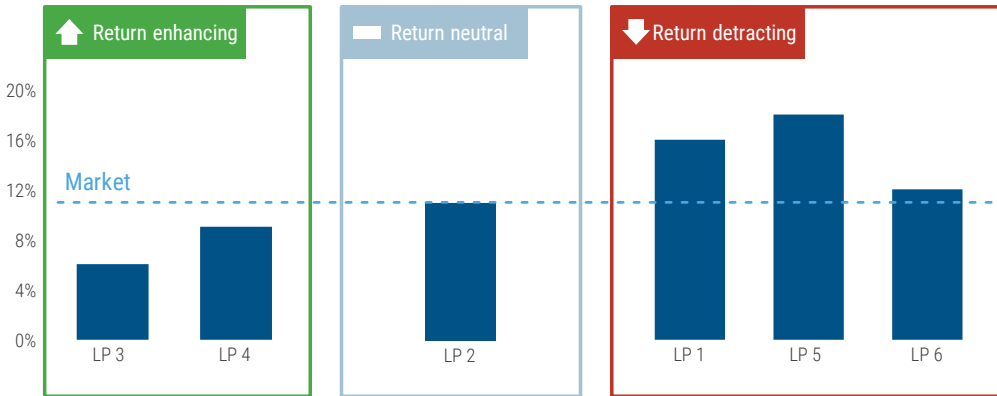
How much should fund selection factor in? We've covered this in the past, and, yes, picking top quartile still matters (Chart 70). LP 4 shows just how much it matters. Less discussed – or at least less acknowledged – is that avoiding bottom quartile is equally, if not more, important. LP 6, for example, actually selected fewer top-quartile funds than many others, but experienced the lowest bottom-quartile performance and managed to outperform.

Please refer to endnotes on last page

Here's where it gets really interesting.

Chart 71: Loss Ratios by Committed Capital

Since Inception-2018



Source: Bison Data via Cobalt (June 2019)

LP 6, with so few bottom-quartile funds, nevertheless had too many losses (Chart 71).

Chart 72: The LP Scorecard

		Vintage Year Pricing	Strategy Allocation	Fund Selection	Loss Ratios	Overall
Outside Consultant	LP 1	—	—	—	↓	D
	LP 2	—	↑	—	—	C
In House	LP 3	—	↑	—	↑	A
	LP 4	↑	↓	↑	↑	B
	LP 5	↓	↑	↓	↓	B+
	LP 6	↓	—	—	↓	C-

What's the overall scorecard for this LP group and what are the key conclusions (Chart 72)?

- » What matters most? Strategy allocation. Note that LP 4 outperformed in all areas but strategy allocation, and that was enough to drive down overall performance significantly.
- » Bad vintage year pacing almost invariably leads to poor performance, as was the case with LP 6.
- » LPs nearly singular focus on fund selection is misplaced. Note that it is not the sole driver of return in these portfolios.

Be honest, who saw that coming? Hopefully, if nothing else, this encourages you to think a bit harder about how much time you will spend on individual fund selection versus strategy allocation.

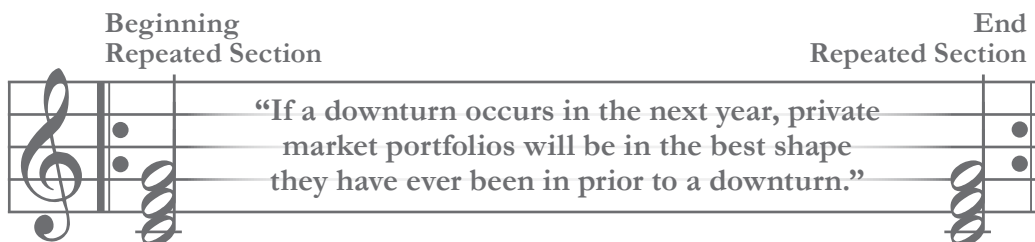
Please refer to endnotes on last page

WELCOME
TO THE
JUNGLE

We are in an odd spot, aren't we? There is an uncomfortable likelihood that we are facing the first real downturn that major economies have experienced in 12 years. Yet, looking at several of the private market indicators, we don't see peak behavior. We don't have money being spent by general partners at frenzied levels. We don't see limited partners chasing down allocation targets by committing vast amounts of capital.

So, what do we make of that? We make of it that the private markets are entering this downturn, if it actually comes to pass, in far better shape than they entered the 2000 and 2008 downturns. That's a very good thing. The silver lining, as it were.

In fact, to ensure we all commit that belief to memory, let's go ahead and try setting it to music. (Oh, admit it; it's stuff like this that makes you like reading our materials so much.)



See what we did there? The musical symbol for repeat should make you repeat that little phrase, and do so repeatedly, for the next few months.

“

Sure, co-investments are scary and multiples are high...

What has us convinced that the private markets are in better shape? We've already touched upon a number of reasons:

- » Money has been coming back to limited partners in buckets (another technical term of measurement used in the private markets);
- » General partners have exhibited none of the signs of greed with respect to the pace of investing that occurred in prior cycles; and
- » Limited partners have not thrown gobs of money at funds, causing fundraising to spike to record levels.

Sure, co-investments are scary and multiples are high, but that is all manageable and probably confined to individual companies and LP portfolios. It does not appear to be a systemic risk as we saw in 2000 and 2008.

But let's come back to the larger question at hand. What if there is no downturn? What if we're still on the runway to a peak, but, assuming a downturn is bearing down upon us, we make bad decisions and become our own worst enemies? We've seen from prior cycle behavior that private markets practitioners have a propensity to act as irrationally and emotionally as those in the public markets. How do we prepare for an environment that is either ready to turn down or not at all? How do we choose transactions or general partners in this environment? Where should we focus our efforts and our portfolios?

Observations from prior paths to peaks provide some guidance. (Sigh, alliteration makes everything sound better. Remember Bowie's brilliant, "wish upon, wish upon, day upon day"?)



...but that is all manageable

BEHOLD!

THE FANTASTIC FIVE FOCUS FACTORS



Strategy Shape Shifting

Groups that shifted strategy significantly prior to downturns fared relatively poorly compared to those that did not. What were the most common strategy shift mistakes?

- » Geographic expansion
- » Growing deal size
- » Investing in new sectors

Stick with what you know and with general partners who do the same.



Governance

Both for your own internal process and for those general partners with whom you are investing, governance is key.

- » Do your GPs have the right people in charge making decisions and do those people have experience investing through a downturn?
- » What risks does the investment committee say “no” to and avoid? How much guidance is the investment committee providing to set the tone for deal teams?
- » Does the governance structure allow marginal deals to get approved or do they take a hard stance on their discipline around risk?

Paying attention to governance considerations always matters; heading into a downturn, it matters even more. Take control! Tell your GPs: “You’d better have robust governance and decision-making structures in place before I think about putting a penny into your fund.”



Resources

With any general partner, as with your own co-investments, it's crucial to evaluate the size and health of each unrealized portfolio. Can the general partner manage it sufficiently if/when problems arise? This is an issue of both capacity and the mix of resources required. When businesses struggle, they take up far more time than those that are doing well.

Make sure you feel confident that your GPs have the requisite skill sets and teams in place – and are incentivizing those teams appropriately – to give each investment the attention it needs during a downturn.



Managing Leverage

We've identified and discussed that leverage represents a key risk that needs to be managed. Once things go south, those that are over-levered may find themselves exposed or having less flexibility to maneuver through a downturn.

Identify general partners who manage leverage well and invest prudently.



Portfolio Construction

Hopefully we've done an adequate job throughout this overview of demonstrating the importance of portfolio construction. Indeed, portfolio construction can make or break a fund's IRR, whether it's that of a general partner or of your own overall portfolio.

- » Does the general partner emphasize thoughtful portfolio construction or is it more likely to just pursue good deals opportunistically?
- » What measures does the general partner use to benchmark its own performance?
- » Does the general partner re-underwrite positions throughout the hold period?

LPs tend to focus exclusively on a GP's deal selection prowess, but a GP's portfolio management and portfolio construction skills can be just as important.

The goal here is to minimize excessive risk, not to eliminate it entirely. You don't want to do that, since it's partly that risk that generates the superior return. Still, if we are headed into a downturn or experiencing the peak part of the cycle, then there are ways to ensure a stronger portfolio.



Welcome to the Jungle

This is the most uncertain market environment we can recall as investors. It is one thing to be investing in an upturn or downturn; we have all experienced that and learned a bit of what works and what doesn't work. However, being on a recessionary knife's edge is different. We can envision the beasts that are out there. We've named and explored many of them throughout this overview, and how their collective din continues to grow louder and demand ever greater attention: global negative interest rates, Trump, climate change. We can hunker down, do nothing and wait for the beast in the jungle to appear, or we can be proactive and continue to invest appropriately.

We hope this overview provides some guidance as you navigate the jungle of private markets investing throughout the year ahead. If markets turn down, we will all suffer some losses. The key is suffering fewer losses and having the capital to invest when others are fleeing. That's what we will be doing. Maybe we'll see you out there.

ENDNOTES

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Indices used: Hamilton Lane All Private Markets with volatility de-smoothed; Hamilton Lane All Private Equity ex. Credit and Real Assets with volatility de-smoothed; S&P 500 Index; Russell 3000 Index; MSCI World Index; HFRI Composite Index; Hamilton Lane Private Credit with volatility de-smoothed; Credit Suisse High Yield Index; Barclays Aggregate Bond Index; Hamilton Lane Private Real Estate with volatility de-smoothed; Hamilton Lane Private Real Assets with volatility de-smoothed; FTSE/NAREIT Equity REIT Index; S&P Global Infrastructure Index; MSCI World Energy Sector Index. Geometric mean returns in USD.

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Bubbles sized by relative market NAV as of 6/30/19.

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U.S. Stocks were considered over the years 1926–2016. Buyout deals and funds were considered over the years 1995–2015. Buyout deal performance was considered on a gross-of-fees basis. Buyout fund performance was considered on a net-of-fees basis. Public Market Equivalents were used to compare private market performance to public index performance. The MSCI World Total Return Index and Bloomberg Barclays 1-3 Month U.S. Treasury Total Return Index were used to evaluate buyout outperformance. U.S. stock outperformance was pulled from the sourced academic article.

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All PM includes fund-of-funds and secondary fund-of-funds.

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The Private Markets AUM was calculated using Hamilton Lane Data via Cobalt and represents the sum of dry powder and NAV as of December 31, 2018 for all private markets styles/foci with the exceptions of fund-of-funds and secondary fund-of-funds. Global Financial Markets consists of the "market capitalization of listed domestic companies" as of December 31, 2018 per the World Bank plus "outstanding global non-financial corporation debt" as of December 31, 2018 per Bank for International Settlements. The Maintains Market Share scenario assumes that both Private Markets AUM and Global Financial Markets each continue to grow at the 15-year CAGR for Global Financial Markets. The Doubles Market Share scenario assumes that Global Financial Markets continue to grow at 15-year CAGR while Private Markets AUM steadily gains market share each year until 2030 when it would represent twice the 2018 share of Global Financial Markets. The Loses Market Share scenario assumes that Global Financial Markets continue to grow at the 15-year CAGR while Private Markets AUM maintain a "steady state" growth rate.

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Represents data for the five of the largest buyout managers in the Hamilton Lane Fund Investment Database. The sample used for the "Predecessor Fund – 0.5x Current/Largest Fund" includes one partnership for each manager that has a corresponding, succeeding partnership within two generations of its product line approximately twice its fund size. The "Current/Largest Fund" sample includes the partnerships that are roughly twice the fund size of the original "Predecessor Fund – 0.5x Current/Largest Fund. The "Average Deal Count Step-up" and "Average Check Size Step-up" respectively represent the percent increase in

"Number of Deals" and "Average Equity Contribution Per Deal" from the "Predecessor Fund – 0.5x Current/Largest Fund" to the "Current/Largest Fund." The values for the Hypothetical Successor Fund – 2.0x Current/Largest Fund were calculated by applying the average step-up in both deal count and check size to the "Current/Largest Fund."

Pages 66, 67

If a data set is distributed normally, about 95% of all data points will lie within two standard deviations of the mean.

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The Hamilton Lane Worry Index ("HLWI") is a composite view of a wide range of macroeconomic indicators across Buyout, Credit, and Real Assets. Indicators are scaled from 0 to 100 based on their relative value each year, and then averaged to create a market-wide number. Lower numbers represent a generally more favorable environment while high numbers signal a generally less favorable environment. The HLWI is directional and not necessarily indicative of future results.

Pages 71, 72, 73, 74

The sample of LPs were selected based on length of history investing in private markets and completeness of public market data. Data gathered from publically available sources. These portfolios may not be reflective of portfolios managed or recommended by Hamilton Lane. Portfolio characteristics in the private markets will vary based on the limited partner.

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Estimated performance attribution is determined by calculating the 10-year industry IRR for each strategy respectively, as well as the aggregate industry 10-year IRR. LPs that have high (low) allocations, relative to the Market allocation, to strategies that outperformed (underperformed) over the 10-year period are considered "Return Enhancing." LPs that have similar allocations to the Market are considered "Neutral." LPs that have high (low) allocations, relative to the Market allocation, to strategies that underperformed (outperformed) over the 10-year period are considered "Return Detracting." Strategy composition is not a sole indicator of returns and a variety of factors will affect a portfolio's performance. There is no guarantee that a portfolio with similar characteristics will achieve these performance results.

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Estimated performance attribution is determined by calculating the 10-year industry IRR for each vintage year group respectively, as well as the aggregate industry 10-year IRR. LPs that have high (low) allocations, relative to the Market allocation, to vintage year groups that outperformed (underperformed) over the 10-year period are considered "Return Enhancing." LPs that have similar allocations to the Market are considered "Neutral." LPs that have high (low) allocations, relative to the Market allocation, to vintage year groups that underperformed (outperformed) over the 10-year period are considered "Return Detracting." Vintage Year composition is not a sole indicator of returns and a variety of factors will affect a portfolio's performance. There is no guarantee that a portfolio with similar characteristics will achieve these performance results.

Quartiles determined by vintage year and strategy benchmarks. LPs that have high (low) allocations, relative to the Market allocation, to funds in the top (bottom) quartile are considered "Return Enhancing." LPs that have similar allocations to the Market are considered "Neutral." LPs that have high (low) allocations, relative to the Market allocation, to funds in the bottom (top) quartile are considered "Return Detracting." Fund selection is not a sole indicator of returns and a variety of factors will affect a portfolio's performance. There is no guarantee that a portfolio with similar characteristics will achieve these performance results.

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Loss ratio is defined as the percentage of funds in the portfolio that have failed to return principal. LPs have a lower loss ratio than the Market are considered "Return Enhancing." LPs that have a similar loss ratio to the Market are considered "Return Neutral." LPs with a higher loss ratio than the Market are considered "Return Detracting." There is no guarantee that a portfolio with similar characteristics will achieve these performance results.

Return enhancing, return neutral, and return detracting assignments for each category are determined as specified in the end notes above. The Overall grade is determined by the 10-year performance figures reported by each LP in their most recent financial reports. A variety of factors affect a portfolio's performance and there is no guarantee that a portfolio with similar characteristics will achieve these performance results.

Pages 12, 19, 32, 39, 45 and 57

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.

INDEX DEFINITIONS

Barclays U.S. Corporate Aggregate Index – Tracks the performance of U.S. fixed rate corporate debt rated as investment grade.

BofAML High-Yield Index – The BofAML High Yield Index tracks the performance of below investment grade U.S. dollar-denominated corporate bonds publicly issued in the U.S. domestic market.

Credit Suisse High Yield Index – The Credit Suisse High Yield index tracks the performance of U.S. sub-investment grade bonds.

Credit Suisse Leveraged Loan Index – The CS Leveraged Loan Index represents tradable, senior-secured, U.S. dollar-denominated non-investment-grade loans.

FTSE/NAREIT Equity REIT Index – The FTSE/NAREIT All Equity REIT Index tracks the performance of U.S. equity REITs.

HFRI Composite Index – The HFRI Composite Index reflects hedge fund industry performance.

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 World Energy Sector Index – The MSCI world Energy Sector Index measures the performance of securities classified in the GICS Energy sector.

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 World Index – The MSCI World Index tracks large and mid-cap equity performance in developed market countries.

Russell 3000 Index – The Russell 3000 Index is composed of 3000 large U.S. companies, as determined by market capitalization.

Russell 3000 Net Total Return Index – The Russell 3000 Index is composed of 3000 large U.S. companies, as determined by market capitalization with net dividends reinvested.

S&P 500 Index – The S&P 500 Index tracks the 500 largest companies based on market cap of companies listed on NYSE or NASDAQ.

S&P 500 Information Technology – The S&P 500 Information Technology comprises those companies included in the S&P 500 that are classified as members of the GICS information technology sector.

VIX – The Volatility Index is an index created by the Chicago Board Options Exchange (CBOE) which shows the market's expectation of 30-day volatility.

Strategy Definitions

All Private Markets – Hamilton Lane's definition of "All Private Markets" includes all private commingled funds excluding fund-of-funds, and secondary fund-of-funds.

CI Funds – Any fund that either invests capital in deals alongside a single lead general partner or alongside multiple general partners.

Co/Direct Investment Funds – Any PE fund that primarily invests in deals alongside another financial sponsor that is leading the deal.

Corporate Finance/Buyout – Any PE fund that generally takes a control position by buying a company.

Credit – This strategy focuses on providing debt capital.

Distressed Debt – Includes any PE fund that primarily invests in the debt of distressed companies.

EU Buyout – Any buyout fund primarily investing in the European Union.

Fund-of-Funds (FoF) – A fund that manages a portfolio of investments in other private equity funds.

Growth Equity – Any PE fund that focuses on providing growth capital through an equity investment.

Infrastructure – An investment strategy that invests in physical systems involved in the distribution of people, goods, and resources.

Late Stage VC – A venture capital strategy that provides funding to developed startups.

Mega/Large Buyout – Any buyout fund larger than a certain fund size that depends on the vintage year.

Mezzanine – Includes any PE fund that primarily invests in the mezzanine debt of private companies.

Multi-Management CI – A fund that invests capital in deals alongside a lead general partner. Each deal may have a different lead general partner.

Multi-Stage VC – A venture capital strategy that provides funding to start-ups across many investment stages.

Natural Resources – An investment strategy that invests in companies involved in the extraction, refinement, or distribution of natural resources.

Origination – Includes any PE fund that focuses primarily on providing debt capital directly to private companies, often using the company's assets as collateral.

Private Equity – A broad term used to describe any fund that offers equity capital to private companies.

Real Assets – Real Assets includes any PE fund with a strategy of either Infrastructure or Natural Resources. Real Estate funds are not included.

Real Estate – Any closed-end fund that primarily invests in non-core real estate, excluding separate accounts and joint ventures.

Real Estate Fund-of-Funds – Any fund that primarily invests in other real estate private equity funds.

ROW – Any fund with a geographic focus outside of North America and Western Europe.

ROW Equity – Includes all buyout, growth, and venture capital-focused funds, with a geographic focus outside of North America and Western Europe.

Secondary FoF – A fund that purchases existing stakes in private equity funds on the secondary market.

Seed/Early VC – A venture capital strategy that provides funding to early-stage startups.

Single Manager CI – A fund that invests capital in deals alongside a single lead general partner.

SMID Buyout – Any buyout fund smaller than a certain fund size, dependent on vintage year.

U.S. Mega/Large – Any buyout fund larger than a certain fund size that depends on the vintage year that is primarily investing in the United States.

U.S. SMID – Any buyout fund smaller than a certain fund size, dependent on vintage year that is primarily investing in the United States.

VC/Growth – Includes all funds with a strategy of venture capital or growth equity.

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.

Venture Debt – A venture capital strategy that provides debt financing to companies, rather than equity.

Other

De-smoothing – A mathematical process to remove serial autocorrelation in the return stream of assets that experience infrequent appraisal pricing, such as private equity. De-smoothed returns may more accurately capture volatility than reported returns. The formula used here for de-smoothing is:

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

where: rD(t) = the de-smoothed return for period t
r(t) = the return for period t
ρ = the autocorrelation

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. Sharpe Ratio – The Sharpe Ratio is the average return earned in excess of the risk-free rate per unit of volatility or total risk.

Time-weighted return – Time weighted Return is a measure of compound rate of growth in a portfolio.

Total Exposure – Total Exposure is equal to NAV + Unfunded Commitment.

Volatility – Volatility is a statistical measure of dispersion of return, specifically standard deviation.

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The following hypothetical example illustrates the effect of fees on earned returns for both separate accounts and fund of funds investment vehicles. The example is solely for illustration purposes and is not intended as a guarantee or prediction of the actual returns that would be earned by similar investment vehicles having comparable features. The example is as follows: The hypothetical separate account or fund of funds consisted of \$100 million in commitments with a fee structure of 1.0% on committed capital during the first four years of the term of the investment and then declining by 10% per year thereafter for the 12-year life of the account. The commitments were made during the first three years in relatively equal increments and the assumption of returns was based on cash flow assumptions derived from a historical database of actual private equity cash flows. Hamilton Lane modeled the impact of fees on four different return streams over a 12-year time period. In these examples, the effect of the fees reduced returns by approximately 2%. This does not include performance fees, since the performance of the account would determine the effect such fees would have on returns. Expenses also vary based on the particular investment vehicle and, therefore, were not included in this hypothetical example. Both performance fees and expenses would further decrease the return.

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