

Introduction to Private Equity Investing

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Executive Summary

- Private Equity is an alternative asset class that - while not appropriate for all investors – has the potential to increase portfolio returns while smoothing the volatility of performance.
- Private Equity vehicles can offer exposure to a profile of investments that is difficult to replicate in the public markets. While small cap stocks traditionally provided similar characteristics, costs associated with the Sarbanes-Oxley Act of 2002 have prohibited smaller companies that might have gone public from listing, effectively rendering a unique subset of businesses investable only through the private markets.
- In addition to saving on the ‘hard’ costs of being public, privately-financed investments are also unburdened by some of the informal pressures of being public. For instance, the investment community’s focus on quarterly earnings is a potential encumbrance to taking a longer-term focus on projects which require substantial up-front investment; while public companies are subject to these burdens, private vehicles do not typically face such scrutiny. It should be noted that this lack of regulatory oversight is also a primary reason these investments are considered higher risk and limited to accredited investors.
- To a greater degree than in other asset classes, there exists meaningful dispersion in returns reported by managers in the Private Equity space, suggesting that careful research by the investor - or engagement of an advisor – is warranted. There are also potentially widely varying fee structures, which should be taken into account when comparing prospective returns on a gross basis.
- Some portion of these incremental earnings trace to the greater levels of fiscal leverage (debt borrowing) employed by PE operators. Still, even after stripping this effect out, returns are compelling on an unlevered basis. To quantify, leverage can typically account for a quarter of returns but PE investments still tend to outperform similar publicly-traded businesses by about 600 bps per average (both according to third party research, see “Private Equity’s Love Affair with Leverage”, Steve Johnson, 10/25/2009).

Overview

Introduction to Private Equity

Private Equity (PE) is a blanket term for non-traded equity investments in operating businesses, real estate, infrastructure projects, and other return-seeking ventures. At a functional level, Private Equity financing can provide a source of capital for any enterprise seeking to modify its activities, grow an existing business, or transition ownership rights. Private Equity capital has the potential to improve returns for both the operator and investors. It also provides a useful mechanism for transfer-of-ownership and succession planning.

Private Equity has increasingly been integrated into the portfolios of endowments, pensions, and other institutional investors as well as those of high net-worth individuals. As explored later in this paper, return characteristics are compelling versus many of the traditional asset classes. As we also discuss in detail, there is a perception that volatility is lower than traded securities – our view differs from this historical surmise. But in aggregate, we conclude that risk-adjusted returns coupled with the potential for diversifying idiosyncratic risks of other

investment types suggests that this asset class has a place in well-managed portfolios with sufficient size and time horizon to accommodate some of the unique aspects of PE investing.

Unlike mutual funds, hedge funds, and other “passive” investment operators, PE investors often purport to offer more than just funding to their target companies, by consulting with operators about their

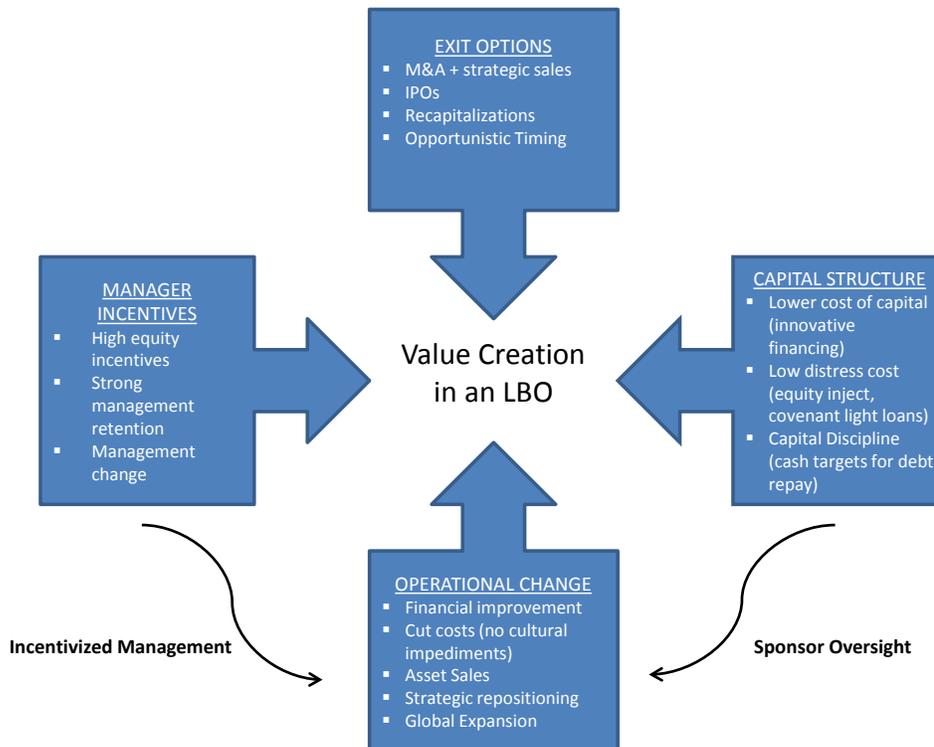
“...Risk-adjusted returns coupled with the potential for diversifying idiosyncratic risks of other investment types suggest that this asset class has a place in well-managed portfolios...”

strategic, managerial, and governance platforms. Generally, their goal is to strengthen and improve the business, grow it, and ultimately exit it (typically through a sale of some sort). To wit, recent academic

research suggests that private equity sponsorship fosters more successful operating businesses. In 2006, Professors Josh Lerner (Harvard Business School) and Jerry Cao (Boston University) analyzed two decades worth of RLBO transactions - companies that went public again after being acquired by private equity firms. Their data showed that these companies outperformed the market and other IPOs by a statistically significant margin; over a three-year hold, owning RLBO IPOs produced an average excess return of 26%

versus other IPOs during the same timeframe.

The Private Equity Value Proposition



Source: Organization for Economic Co-operation and Development (OECD)

Private Equity investments also tend to be better equipped for patient investments. Public companies are often rather beholden to research analysts, who in turn key in on short term metrics such as quarterly earnings. With lock-up periods for capital that typically vary from five to twelve years, PE investors are afforded the opportunity to install changes that are profitable in the longer term but require upfront costs.

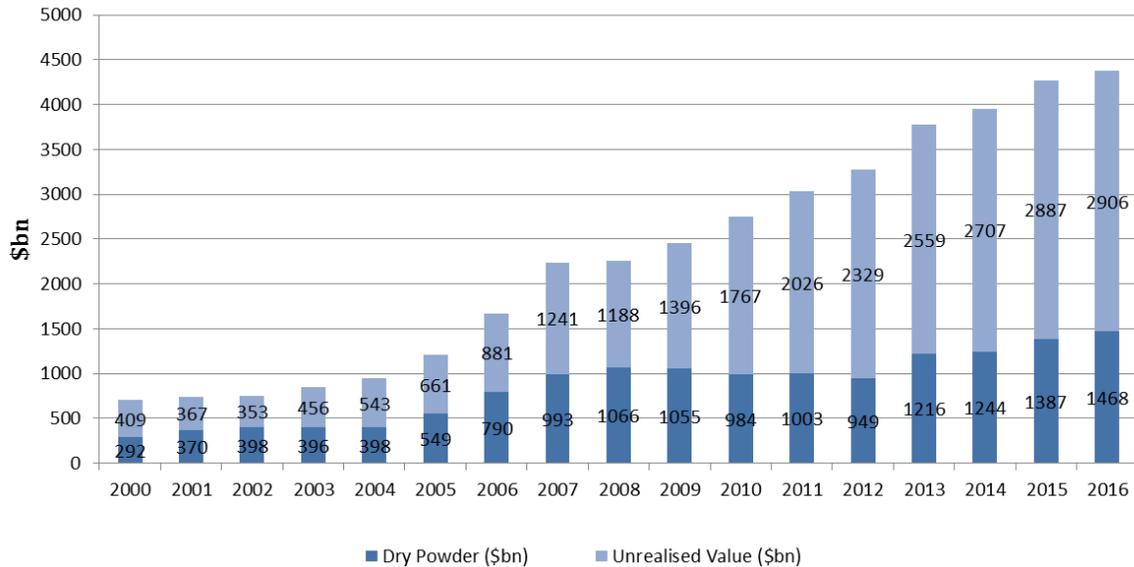
Private Equity has existed in its modern incarnation since at least the 1940s

but blossomed in popularity during the 1980s. Bryan Burrough and John Helyar, who chronicled the 1988 bidding war to privatize RJR Nabisco in their best-seller “Barbarians at the Gate,” cite 1982 as the dawn of the LBO craze. In that year, former Treasury Secretary William Simon led a group that bought Gibson Greetings with a pool of capital comprised of \$1 million in equity levered by \$79 million in debt. When they sold the company for \$290 million just a year-and-a-half later, Simon’s share of the returns was \$66 million on an initial investment of \$330,000.

Private equity’s popularity and acceptance in the investment community has flourished ever since. An estimated \$4.2-trillion is currently invested in Private

Equity strategies today. And it is estimated that over 8,000 investment firms specialize in managing PE investments.

Growth in Private Capital Assets Under Management



Source: Preqin Private Equity Online

Not surprisingly, there are many more private companies in the US today than public companies. When distilling the private universe into independent companies and those that have received financing from an institutional sponsor, the numbers are closer – there are just over twice as many PE firm-financed companies as there are public-listed companies. It is worth noting, however, that the average size of the public companies tends to be much larger (quantifying by exactly how much is difficult given the sparsity of reported data on private companies).

Comparing Use of Corporate Structure in the U.S. Today



Source: Carlyle Group, Hoovers,
Capital

“...Private Equity returns tend to exceed those in traded securities by several hundred basis points annually.”

and US Private Equity Growth

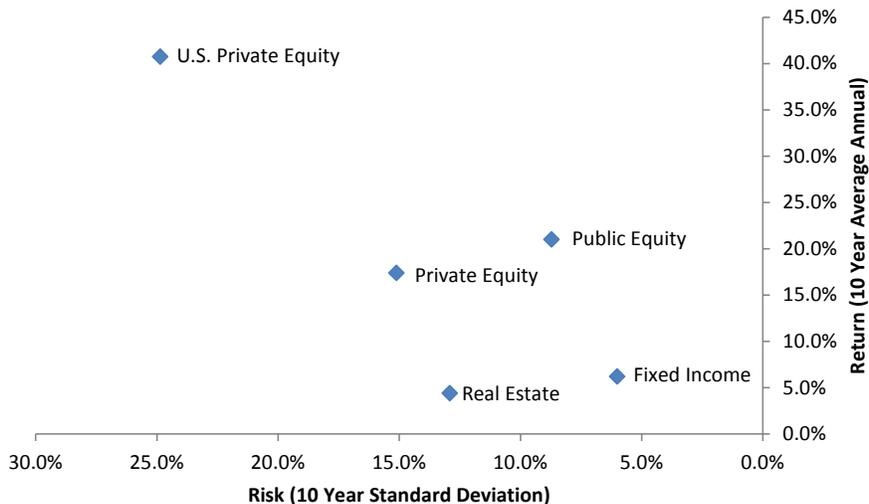
our view. In the context of investments, risk is most often characterized as volatility, which tends to

In the context of an institutional portfolio, Private Equity is typically labeled as an alternative investment class. Copious academic analysis (some of which is explored later in this paper) has documented that Private Equity returns tend to exceed those in traded securities by several hundred basis points annually. Although PE returns have been comparatively strong versus other asset classes, the benefits for inclusion in a portfolio do not stop there. PE has the potential to diversify idiosyncratic risk associated with traditional investment types and to moderate reported portfolio volatility.

Traditional metrics for assessing risk and return are circumspect when utilized for comparing public and private investments, in

be calculated based on some measure of the standard deviation of returns. However, this comparison becomes suspect when one asset class (publicly traded securities) are marked-to-market on a daily basis and the other (private equity) is valued infrequently – if at all – during the holding period. Absence of appraisals or other measures of current value do not imply that private equity investments are not shifting in value. Rather, if an investor were to look for liquidity from their investment intra-period, they would probably find greater swings in value due to the absence of an efficient secondary market and the added ‘tax’ of ancillary fees that might be associated with transferring ownership.

Returns & Volatility

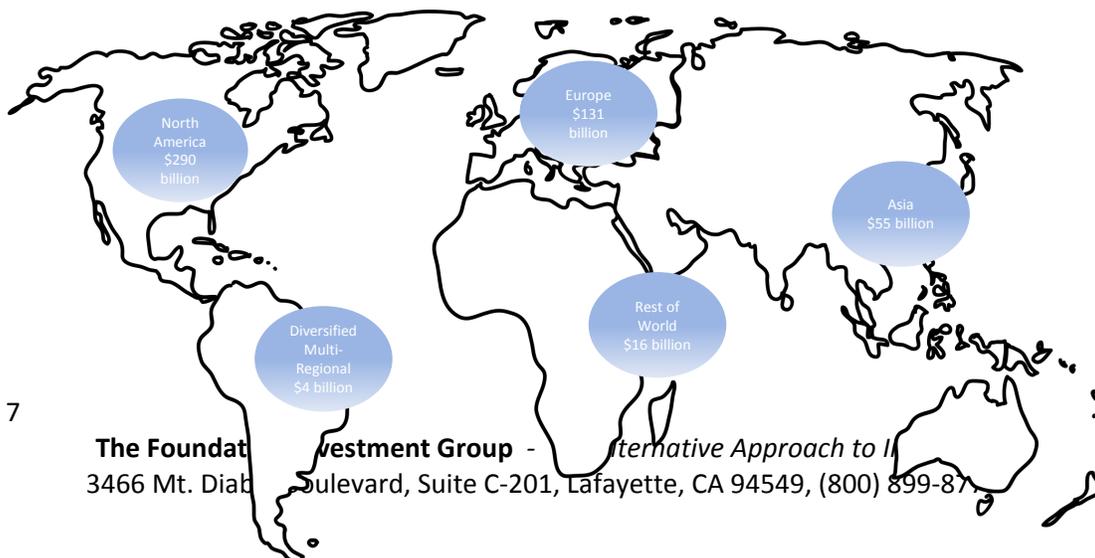


Source: "Expected Returns". By Antti Illmanen, 2011; Scatterplotting average asset returns, 1999-2009 on (subjective) illiquidity estimates; Sources: Bloomberg, MSCI Barra, Lehman Brothers, NCREIF, EPRA/NAREIT, UBS, Credit Suisse/Tremont, Hedge Fund Research, Thomson Financial, Cambridge Associates, Economy.com

Private Equity is a global asset class, and utilization of PE funding has continued to garner acceptance around the rest of the world in recent years. According to 2016 data from Preqin, Private Equity assets-under-management total \$4.7-trillion worldwide. While North America is the largest contributor to this sum (at 56.6%),

Europe represents 23.9% and the Rest-of-the-World tallies 19.6%. Non-US markets are particularly relevant for Growth capital (where North America represents just 28.3% of the total invested capital) and Infrastructure (where North America represents 46.1% of the total invested capital)

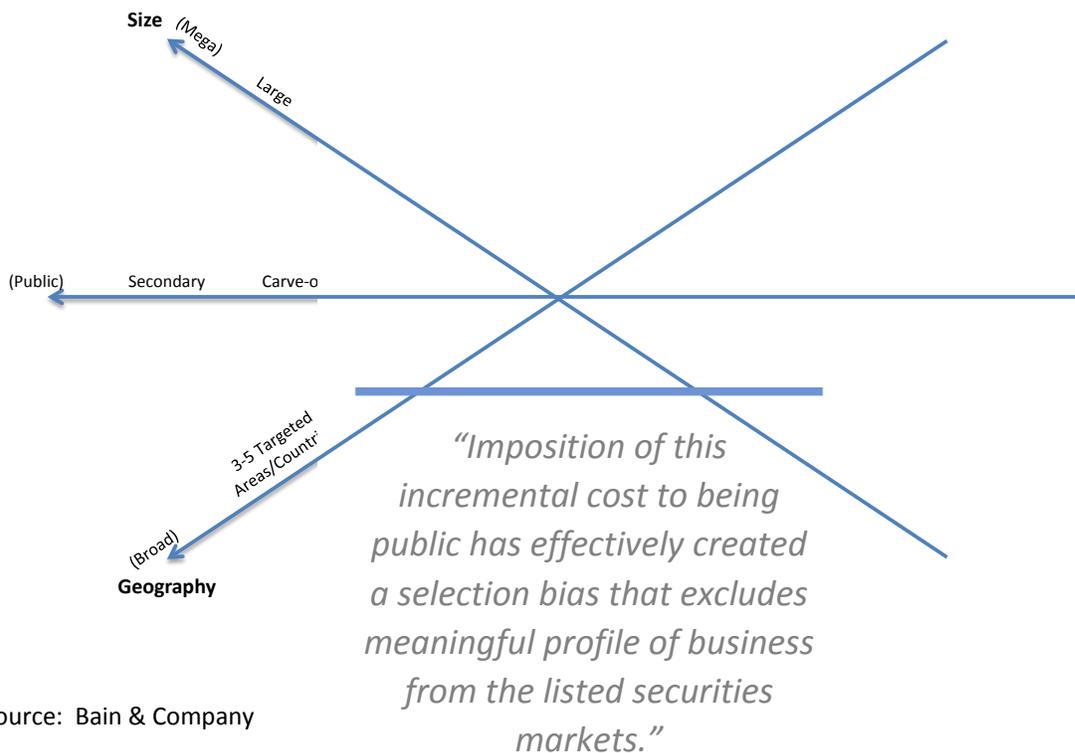
Aggregate Capital Raised by PE Funds in 2015 by Primary Region



Source: Preqin's 2015 Global Private Equity and Venture

As illustrated in the exhibit below, specialists in Private Equity have a myriad of variables upon which to specialize. Many of these subsets and strategies are described and explored upon later in this paper.

Target Conditions That Influence Investment Choices



Source: Bain & Company

While private equity vehicles once shared a number of common attributes

with publicly traded small cap companies, adoption of the Sarbanes-Oxley Act of 2002 rendered it

cost prohibitive for a number of smaller companies to operate in the public markets. In an article published by the CPA Journal ([“Tallying the Cost of the Sarbanes-Oxley Act”](#)), Jill M. D’Aguila suggested that public companies’

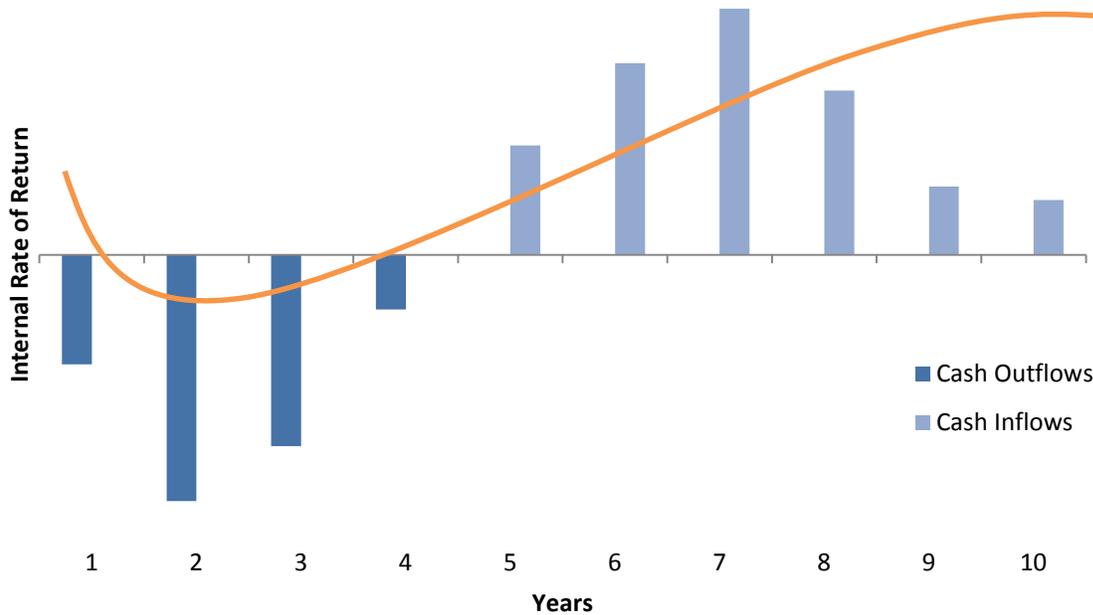
compliance with Sarbanes Oxley would increase audit fees by 38% during the first year, or an average of approximately \$2-million for medium-sized and smaller companies.” Imposition of this incremental cost to being public has effectively created a selection bias that excludes a meaningful profile of businesses from the listed securities markets.

Types of PE Investing / Stages of Investment

Private equity firms tend to focus on target investments at a specific stage in the business cycle, spanning from start-up to growth to mature businesses to turnaround opportunities.

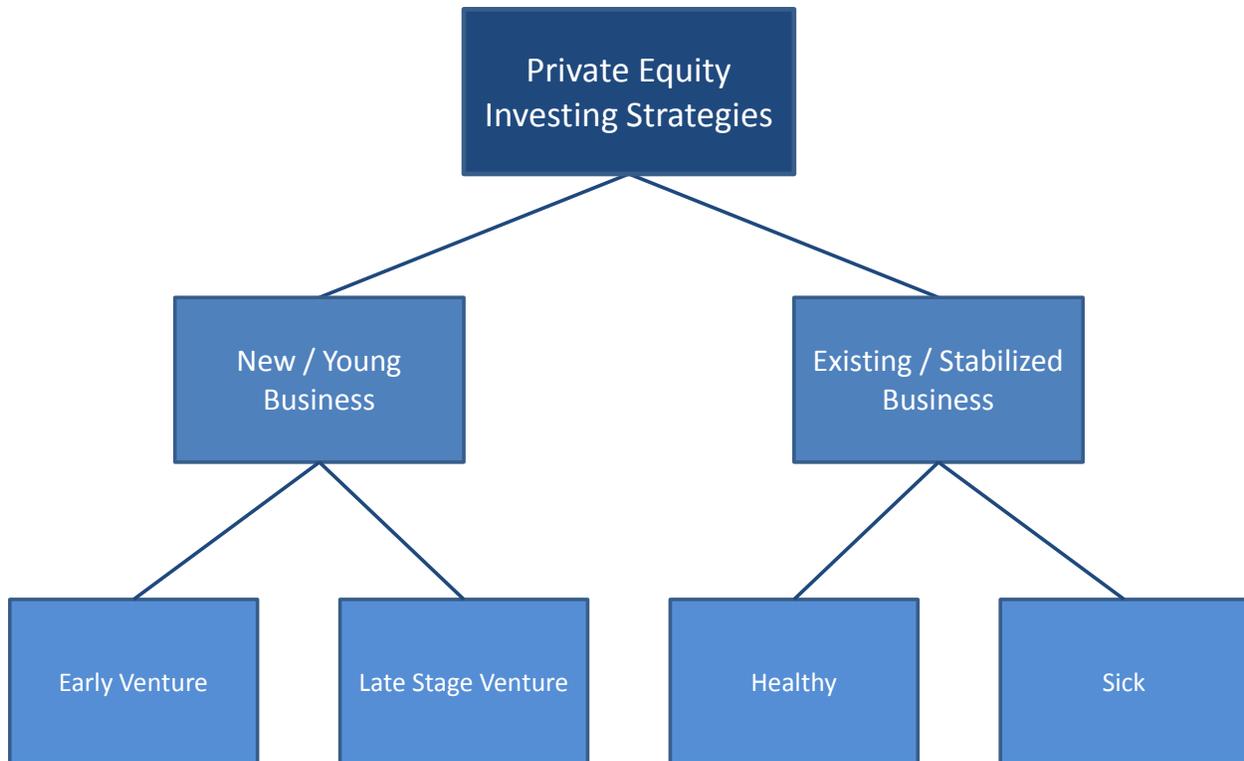
A conversation about a PE-sponsored investment may often be framed within the context of the “J-Curve.” The J-Curve is a hypothetical model which depicts the life cycle of expected cash flows for a given business. The curve typically starts by dipping into negative IRR in early years while the business is invested in and grown but turns steadily positive, only to become asymptotic or start to diminish in rate of growth once the business becomes stabilized.

J-Curve Hypothetical Cash Flows of Private Equity Fund



Generally, expected returns will be higher the earlier in the cycle an investor targets (reflecting risk in product/service development, implementation, and indeterminate consumer buy-in or validation) and will diminish later in the cycle (as proximity to a liquidity event and shorter time horizon for disruptive economic events render underwriting cash flows less onerous).

Private Equity Investing Strategies



Some of the most common strategies implemented within the PE spectra are as follows:

Venture Capital (VC) investors focus on younger businesses (often start-up companies) and smaller businesses. VC investors may further specialize based on just how nascent their target businesses are, applying terms that include “seed,” “angel,” “early stage,” and “late stage,” to their spheres of interest, in ascending order of maturity.

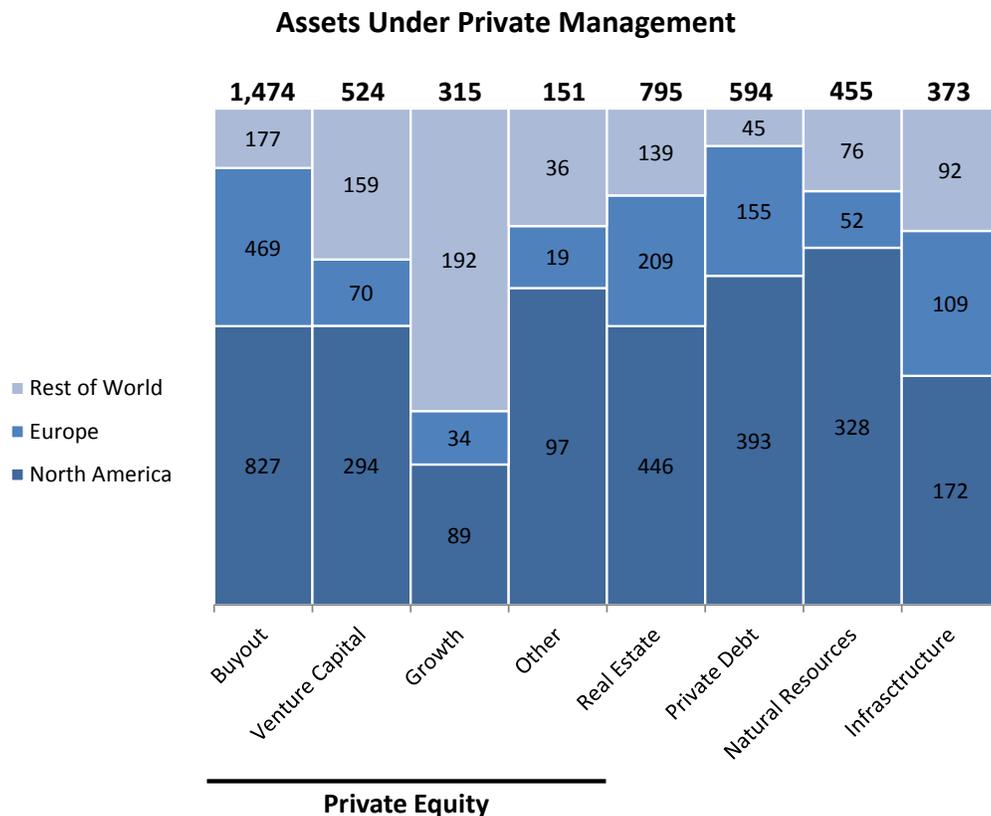
Growth Capital represents PE investments in companies that have evolved beyond the VC stage but require outside capital to expand their business activities. These companies may have already validated their product or service strategy by executing some early sales. Addressing this aspect of risk generally renders these investments lower risk, but returns are usually commensurately lower.

Leveraged Buyout (LBO) investments typically occur later in a business’ life. These investments may be more about applying debt to derive returns to a stable-yet-stagnant cash-flowing business than rather than innovating or re-inventing a growth business. Because of the focus on later stage businesses, the sizes of these transactions are typically larger than early stage investments. Consequently this is the largest strategy group in terms of both amount of capital deployed and number of firms.

Special Situations or Distressed or Turnaround or Vulture Capital investing typically involves a later stage company that has gone into some degree of decline and may be subject to a bevy of potential changes including new management, post-bankruptcy re-structuring, or some sort of change to the core product, service, or its pricing.

Other types of PE funds that investors may routinely encounter include: **Mezzanine, Sector-Focused Equity Specialists** (e.g. Life Science funds), **Infrastructure, Natural Resources**, and **Real Estate**. Mezzanine investments are generally debt investments that are subordinate to senior debt in the company’s capital stack. Infrastructure funds focus their attention on large-scale projects. Natural Resources or Commodity funds focus on non-real-estate real assets, such as farmland or other agricultural ventures, natural energy interests, mining, precious metals, and timberland).

As evidenced in the exhibit below, adaption and use of these various stages of private equity investing may vary materially by geographic market. Still at a broad level, international markets have swiftly found paths to utilize all phases of the PE spectra.



Source: Preqin, 2016

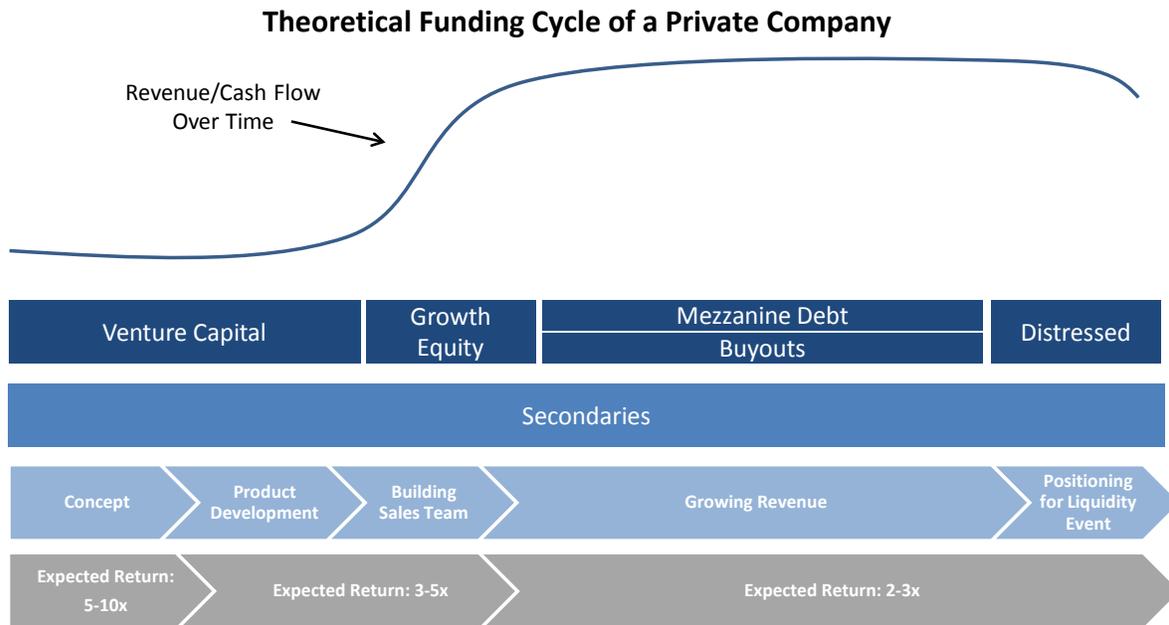
Operating Strategies Implemented

Each investment opportunity is of course unique and private equity operators often have a menu of prospects to drive value creation in their portfolios. While the GP will likely contour their approach to each investment based on their specific skill set and the operating environment at the time capital is deployed, there are a few characteristic strategies that are oft employed by investors which warrant discussion.

- **Roll-Up/Buy-and-Build:** In some cases, diffuse industries may set the stage for aggregators to consolidate disparate ownership into larger vehicles to drive margin expansion and capture various economies of scale. Generally speaking, the more diffuse or fragmented existing ownership is, the greater the opportunity there is for the PE operator to acquire cheaply and glean the necessary scale to enhance profitability. In some instances, there may be a premium valuation in the marketplace for a larger assemblage – for instance in an industry that is consolidating, the largest consolidators may be willing to pay a higher multiple for larger portfolios of assets that have already been brought up to institutional standards. Closely linked to this strategy is the so-called “buy-and-build,” approach, where the PE buyer starts with the purchase of an existing business as a platform to grow their consolidation efforts upon.
- **Buy-It-and-Fix:** This strategy generally involves the purchase of a business or assets that require some investment of capital or operating expertise to derive better profitability. In the case of real estate, these may be assets that need some form of re-development or renovations. In comparison to publicly traded companies, which are often beholden to the pressures of meeting quarterly earnings expectations, PE investors are generally permitted to take a longer view and can thus engage in fairly transformative changes in strategy.
- **Rationalize Expenses/Cost-Cutting:** Another strategy is to buy a stabilized business whose growth has slowed or stopped and then implement cost-saving measures. Often time, a core business that has ceased to grow is less compelling to public investors who are focused on the earnings trajectory. Mechanisms to control costs may include closing unprofitable business lines terminating redundant personnel.
- **Lever-Up:** While leverage is typically applied fairly liberally in Private Equity as an ancillary measure to augment any of the above strategies (please see this paper’s section #5 on the use of leverage for more details), a subset of investors may focus primarily on taking financial risk with a stabilized business rather than seeking to modify a growing enterprise.

PE Firm Lifecycle: Cash Flows, Liquidity Terms, and Investment Exit Strategy

The following exhibit illustrates many aspects of the interplay between the corporate lifecycle of a target investment and the various aspects of investing with it that may be coincident to a specific point in time. This is of course a dynamic relationship that may offer more overlap than cut-and-dry delineation but hopefully this illustration highlights some of the broad tendencies that exist in the market at current:

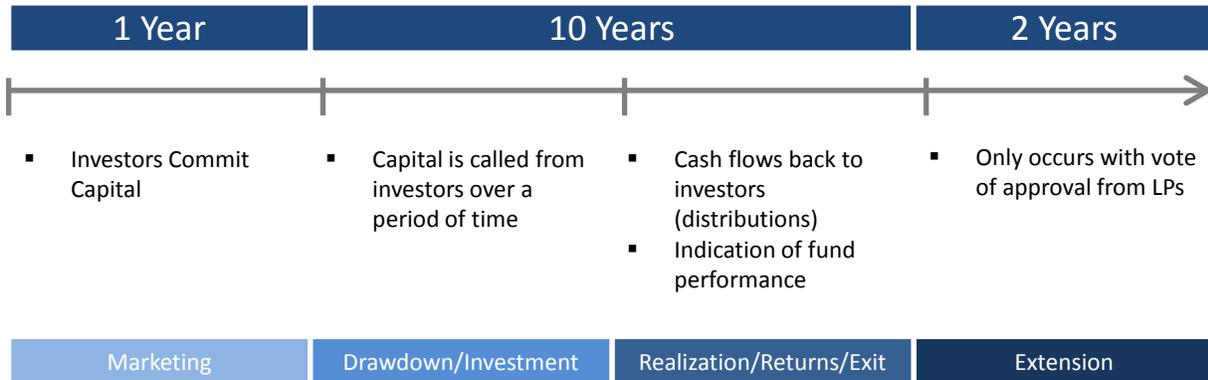


Source: Mercer Canada, Arnerich Massena

Private Equity Partnership terms typically provide for a long-term relationship between the GP and LPs. Common terms include an investment period which spans five to seven years, and for a partnership term of 10 to 12 years, as illustrated below:

Lifecycle of a Typical Private Equity Fund

- Capital is gradually drawn down over a 3-5 year investment period as opportunities are identified and executed on
- Over 5-12 years, existing portfolio investments begin exits with distributions flowing back to LPs



Source: Preqin

Another metric upon which PE firms may be differentiated is “vintage year.”

Vintage year refers to the date of inception of the partnership. Since broad macroeconomic conditions, the asset pricing market (at the time of both acquisition and disposition), and other trends outside of the manager’s control may impact total returns, vintage is very relevant when contemplating returns of a strategy and when comparing investment managers.

Another aspect of PE that further distinguishes it from publicly traded investments is the absence of the ability to easily transition interest in the investment into cash. As suggested in the lifecycle exhibit [above], an investment may not begin to return capital to an investor for a span that can typically take

five years or more, and total return of cash flow may not occur until seven to ten years. There are also, depending on the terms detailed in the partnership agreement, often provisions for extending the agreement (and thus delaying cash flow distribution) for some period of time should business circumstances or market conditions warrant.

A few industry specific terms are

relevant to the means in which the GP collects capital from the LPs.

Generally, the LP will retain the capital they have elected to invest until the

GP is ready to deploy it. Funds that have been promised to the investment or fund but have not yet been invested are referred to as “committed capital.” Once the LP has accepted the capital (and subsequently deployed it toward the investment), the

“...total return of cash flow may not occur until seven to ten years...”

capital is said to have been “called.” The broad scope of this arrangement is sometimes referred to as a “drawdown” structure.

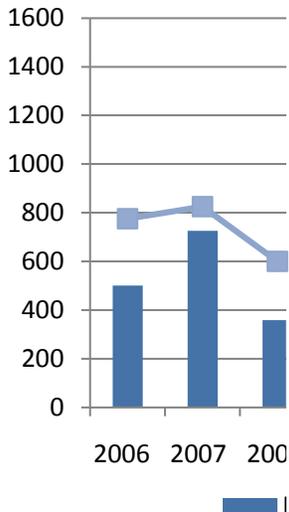
Typically, the specific timing of return of cash rests at the discretion of the investment sponsor and market circumstances (as long as they operate within the terms outlined in the partnership agreement). The mechanisms employed by GP’s to orchestrate an investment exit are explored in the next section of this paper.

There is, in some instances, a “secondary market” for transferring interest in private equity investments to another investor. These markets tend to be rather inefficient and lacking in transparency, so investors should not anticipate using them unless extraordinary circumstances arise. It should go without saying that exit via this mechanism will most likely result in significantly diminished returns.

Exit Strategies typically include sale of the business to a third party (which could be a corporate entity or another PE fund that focuses on different types of businesses), publicly listing equity, merging with another company.

The relative favor of one exit strategy versus another will vary over time, as macroeconomic factors (such as public stock valuations) shift. A sponsor will likely explore multiple avenues, and it is not unheard of to switch midstream (for instance to be in the process of listing publicly only to sell to an operating company before the IPO is completed). Generally speaking, the highest bidder is often the third party sale – to a competitor or peripheral business operator. These so-called “strategic buyers” or “strategic suitors” are often best positioned to bid aggressively due to their ability to generate synergies and rationalize redundant costs.

Annual U.S. Private Equity Exit Volume



Source: American
Pitchbook

“...it may be challenging to assess private equity performance for a number of reasons.”

Investment Council and

Risks and Returns

Return Profile and Metrics for Analyzing Performance

Returns can be thought of as a function of some combination of vintage (timing of the investment, or the economic opportunity set at the time capital is deployed), investment strategy, and manager value-add. But generally, and over the long term, Private Equity is regarded as a higher risk/higher return investment versus traditional investments like public equities or debt.

Relative to traditional investments, it may be challenging to assess private equity performance for a number of reasons. Cash flows are often thin versus income investments. Appraisals may be conducted at seldom intervals (if at all) during the lifespan of the investment. In

most instances, the preponderance of value creation may tie to the exit multiple, rendering it impossible to truly underwrite total return until the investment is liquidated.

Once visibility of returns has been achieved, the two most typically used performance metrics are the internal rate of return (IRR) and value multiple. Both of these return metrics may be stated in either gross (before fees) or net terms (actual cash-flow to the investor subsequent to any applicable fees).

IRR is a measure of profitability which captures the average annual return generated by an investment. IRR calculations generate a yield or rate quantity, which can be contemplated as an

“Private Equity returns tend to be rather stratified, with dramatic dispersions between the top-performing investments and the worst.”

indicator of the quality or efficiency of an investment.

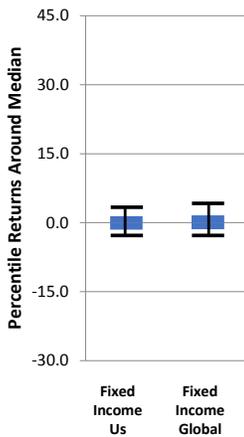
The value multiple approach is a simpler calculation which represents the degree to which equity capital has increased over a specified time period. The output is usually expressed in the format ##.#x.

When comparing the output of these two methodologies, the biggest distinction is that IRR contemplates the

value of time. An IRR calculation would suffer in the event that pro forma targets take longer to achieve; the multiple calculation for such a proposition would not change to reflect the delayed timing (unless the actual cash flow totals change).

Private equity returns tend to be rather stratified, with dramatic dispersions between the top-performing investments and the worst.

Dispersion by Asset Class of Fund Returns Around Median Return, Average of Calendar Year Returns, 2002-2011



	Fixed Income US	Fixed Income Global
10%	-3.2	-3.2
25%	-1.5	-1.4
75%	1.4	1.6
90%	2.8	3.3
Interdecile	6	6.5
Interquartile	2.9	3

Source: Russell Investments,

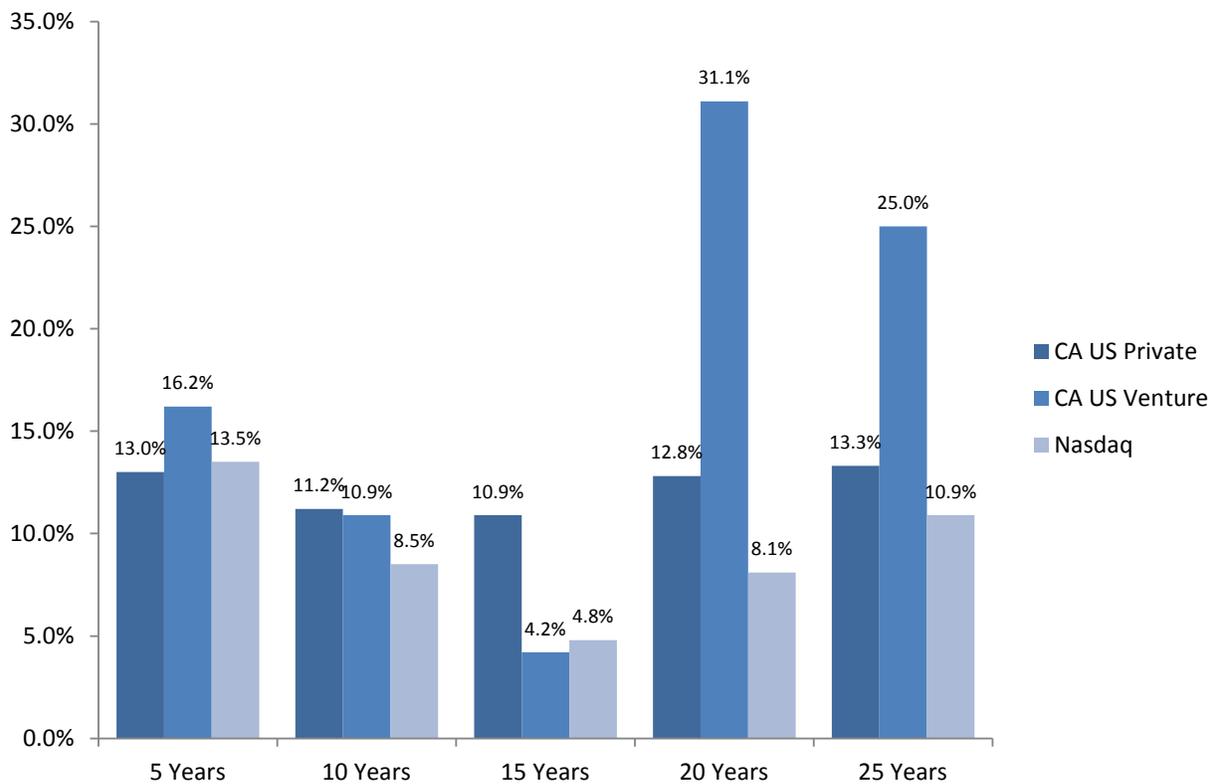
ThomsonOne, and Blackrock

“...returns for PE investing have typically outpaced those in the public markets by 300-500 bps.”

A standard mantra in investing that opportunities with greater risk should afford the potential for greater returns generally applies

to private equity. In aggregate (across the various stratified managers), returns for PE investing have typically outpaced those in the public markets by 300-500 bps (see Russell Investments, “Strategy Primer: Private Capital”, November 2012).

Historical Returns: Private Equity versus Public



Source: Cambridge Associates, Periods Ended Dec. 31, 2015.

Use of Leverage in Private Equity

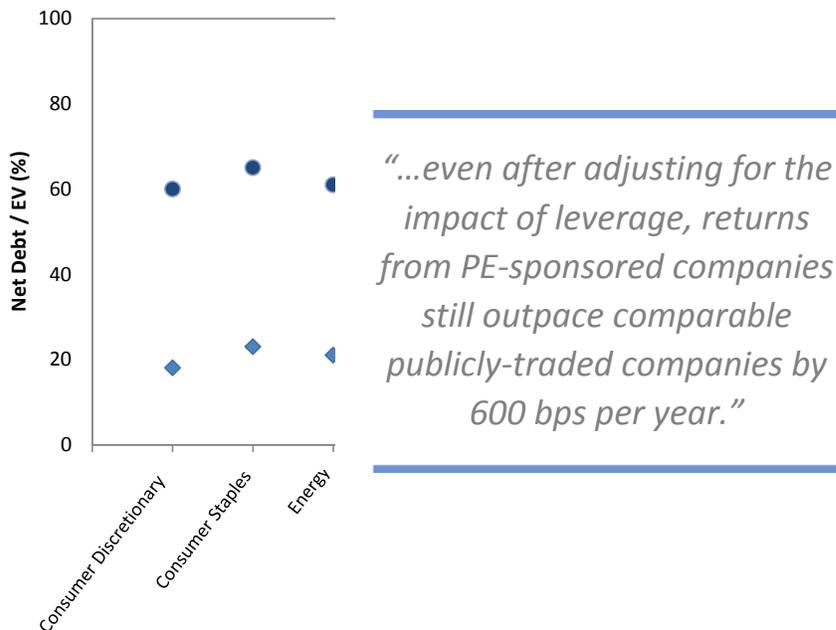
Leverage may represent a significant portion of the capital structure in a PE deal. Please recall the 79-to-1 debt-to-equity cited in the Gibson Greetings transaction mentioned at the start of this paper.

Basic finance theory dictates that fiscal leverage should generally be (inversely) commensurate with the economic leverage of the underlying venture. This is to say that a lower risk venture can more easily accommodate a higher degree of debt. With respect to PE investments, a more stable business (presumably later stage in the company's life cycle) can more readily service greater amounts of debt.

Academic research (see Axelson, Jenkinson, Strömberg, and Weisbach's "[Borrow Cheap, Buy High? The Determinants of Leverage and Pricing in Buyouts](#)," in 2012 and Acharya, Gottschalg, Hahn, and Kehoe's "[Corporate Governance and Value Creation: Evidence from Private Equity](#)," also in 2012) suggests that leverage employed by PE-financed companies is about double that of comparable publicly-traded companies, with an average debt-to-enterprise value of around 70% at the time of buyout. Acharya et al. (2013) noted that leverage declines as the business stabilizes and starts throwing off cash flow and as the venture approaches exit, with average debt-to-enterprise value at 44% at the time of liquidation.

Average Leverage by Sector in the Buyout Industry and in Small-Cap Public Equities,

1997-2014

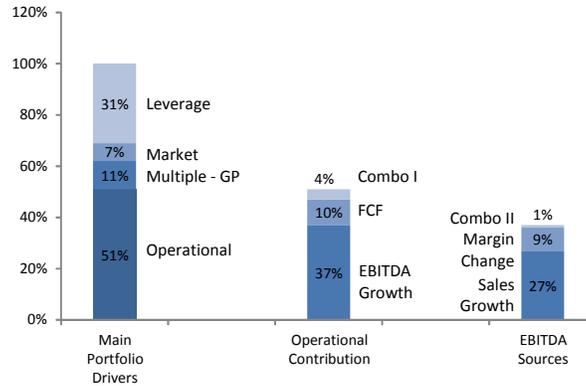


Source: “A Bottom-Up Approach to the Risk-Adjusted Performance of the Buyout Fund Market,” by Jean-François L’Her, CFA, Rossitsa Stoyanova, Kathryn Shaw, William Scott, CFA, and Charissa Lai, CFA. Financial Analysts Journal: Volume 72, Number 4

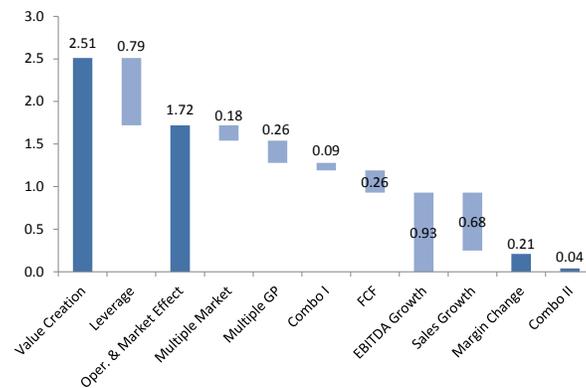
One of the most fervent criticisms lobbied against PE is that too great a portion of returns owe to steep leverage used. A recent Financial Times article ([“Private Equity’s Love Affair with Leverage”](#) by Steve Johnson, 10/25/2009) cites Nico Engel, a research assistant at the Center for Entrepreneurial and Financial Studies at the Technical University of Munich, as finding the one-third of the returns from PE investments trace to the application of financial leverage. Still, the same study

concludes that even after adjusting for this impact that PE-sponsored companies still outpace comparable publicly-traded companies by 600 bps per year. Johnson’s article describes another study, by Boston Consulting and the IESE Business School at the University of Navarra, which found that leverage accounted for 23% of value creation while examined companies were under PE ownership with 46% attributable to sales growth.

Value Creation Drivers (%)



Value Creation Drivers (times money)



Source: Capital Dynamics and the Center for Entrepreneurial and Financial Studies at the Technische Universitat Munchen

Risks

In the financial markets, there is rarely such a thing as free lunch. And as implied by its return potential, Private Equity Investments are subject to special risks and may not be suitable for all investors.

The most obvious risks – and in our view also the most relevant - associated with Private Equity investing pertain to liquidity, or more precisely lack thereof.

With investment horizons typically spanning seven to fifteen years, capital committed to Private Equity investments is tied up for some time. While some instances may accommodate transfer to another investor via the secondary market, transfer restrictions may be very onerous and costly. Depending on the specific investment or fund, cash flows may also be de minimus – especially early in the investment.

Relevance of vintage is another consideration one should make when contemplating investing in private equity. As with any other investment, timing is paramount to returns (but typically rather difficult to plan for or underwrite).

As mentioned earlier in this paper, there also exists a wide dispersion between PE managers, so any well-executed alternative investment strategy should entail careful underwriting of the universe of potential managers. To wit, Yale’s CIO David Swensen has noted that “nearly 80 percent of Yale’s outperformance relative to the average Cambridge Associates endowment was attributable to the value added by Yale’s active managers, while only 20 percent was the result of Yale’s asset allocation.” With Yale’s stable of skilled investment analysts and the access to highly-regarded managers that its size and reputation permit, it may be very difficult for

a smaller investor to replicate Yale’s track record in manager selection.

It is worth noting that Private equity and other non-traded investments are sometimes regarded as being lower volatility than public securities. In many respects, though attributing this alleged benefit to the asset class is disingenuous – because providing valuation optics less frequently does not mean that the underlying investment’s potential for cash conversion is not shifting, just that these changes are not being captured by its reporting cycle. In this regard, we would suggest investors contemplate the volatility of their investments as being more closely linked to the underlying business, venture, or commodity rather than than the security class that houses it¹.

Nuts and Bolts of PE Investing

Structure of Products and Partnership Agreements

The most typical organizational format employed by private equity vehicles is the private limited partnership. This structure features two

“...any well-executed alternative investment strategy should entail careful underwriting of the universe of potential managers.”

parties: the general partner (managers of the fund, aka the “GP”) and the limited

partnership (passive capital investors, aka the “LP”).

The roles of both sides of the partnership are defined in documents that are formally called private equity partnership agreements. This paperwork defines the terms of the

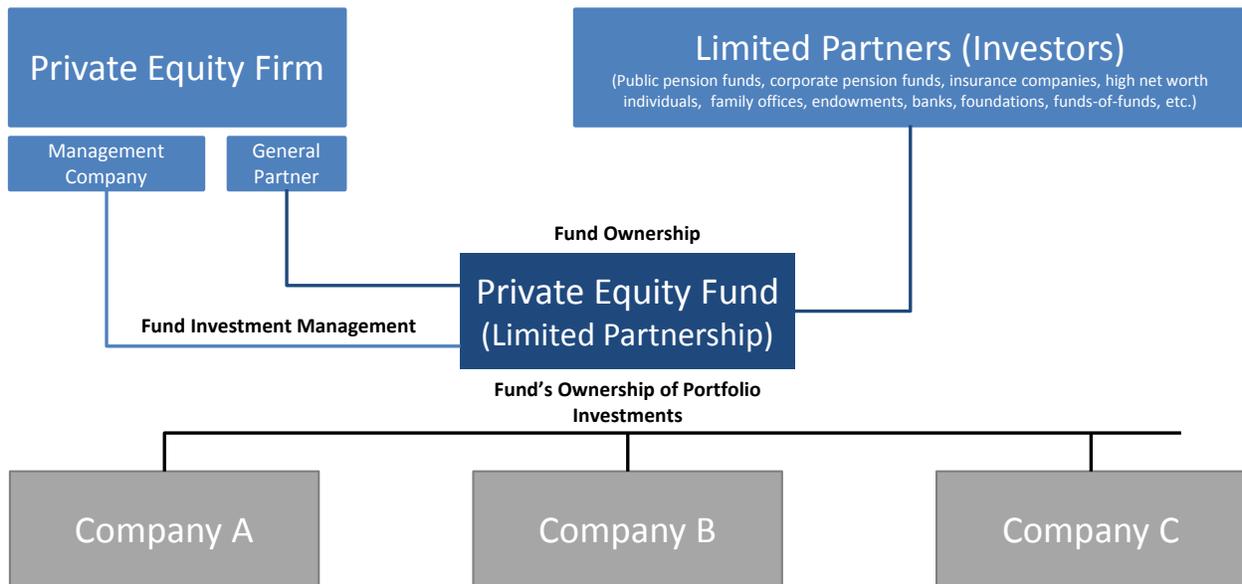
partnership and establishes expectations for both the GP and the LPs, spanning from the terms by which the GP may draw down

capital as needed for individual investments through various rubrics governing operations through ultimately the liquidation of the investment partnership.

Private equity investments may be most accessible to individual investors in

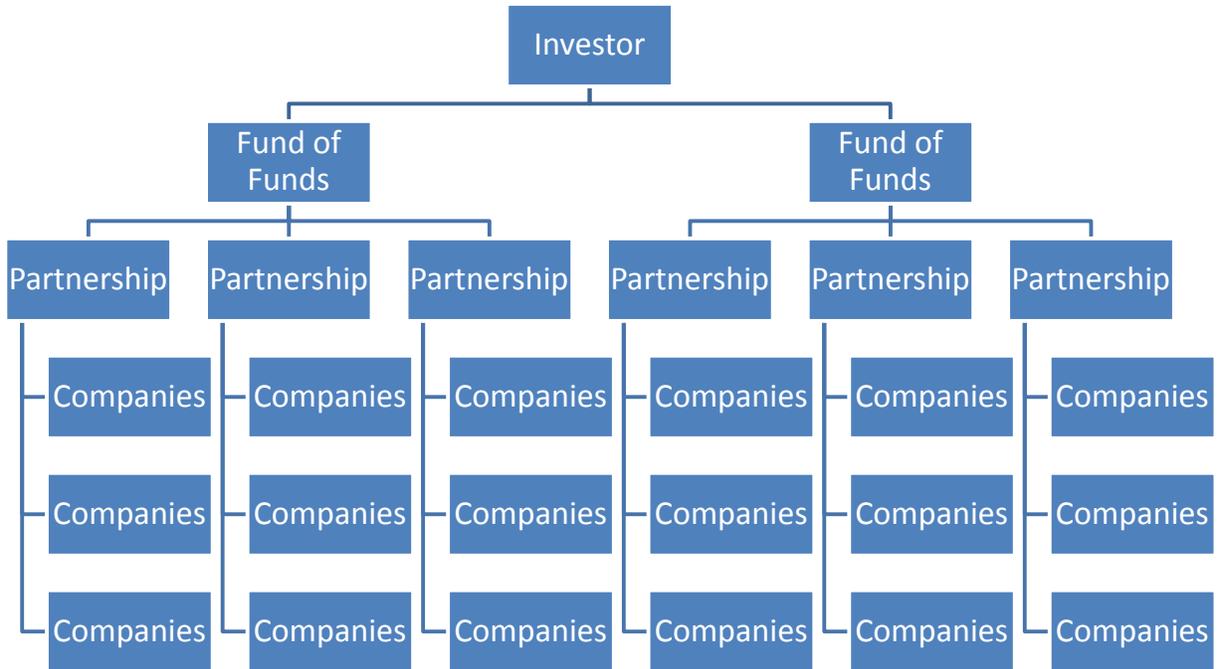
the form of a fund investment which pools multiple individual opportunities into a set of investments shared by LP investors. Most often these funds begin as blind pool, meaning capital commitments are gathered before specific investments have been identified.

Private Equity Fund Structure



It is also worth noting that there exists a subset of investors that operate funds-of-funds, which pool investor capital to spread across a number of third-party PE funds. For a fee, these managers purport to offer skill at manager selection to identify candidates they believe will outperform and also provide incremental diversification for investors with limited capital to spread across PE investments that often have substantial minimum investments.

Fund of Fund Structure



Fee Structure

Investing in PE and illiquid assets often requires delegation to some sort of sponsor or intermediary. These managers typically derive their revenue via some combination of recurring (typically annual)

base fees as well as performance-dependent incentive fees.

Base fees most often take the form a management fee. This fee is typically a percentage of committed capital, but may

be a percentage of total asset value (including leverage). It may also be variable based on whether capital has been called or not (ergo the manager offer a discounted rate for capital that they have not already invested). Management fees are almost always a recurring fee that is typically charged on an annual basis.

The second types of fee generally charged by the General Partner are called incentive fees. Incentive fees are a portion of return from the investment which is allocated to the GP. However, these fees may not kick in until a certain level of profit, typically referred to as a “hurdle rate” or “preferred return,” is met. While these two terms are often used interchangeably, there is a subtle technical distinction. Generally a preferred return does not include any catch-up provisions once the target has been met, but a hurdle rate structure may include catch-up stipulations. For clarification, please consider the following example:

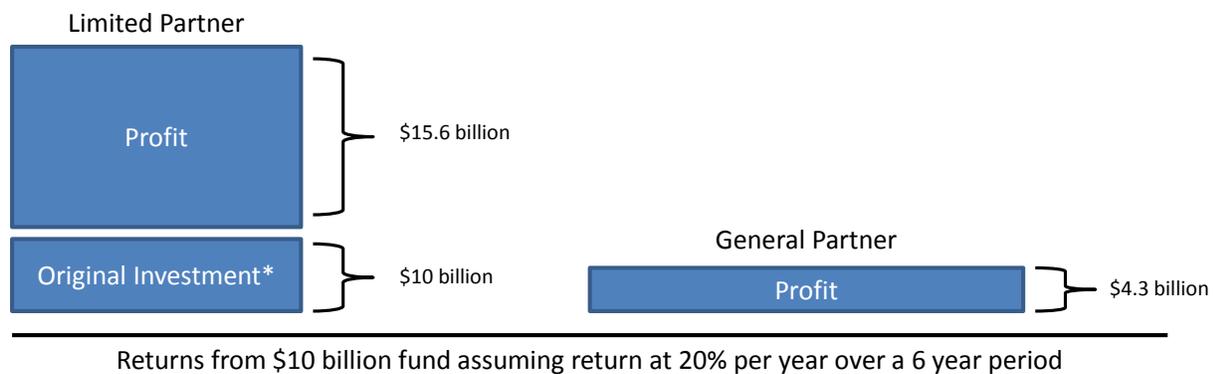
Example: Comparing Preferred Returns and Hurdle Rates

Scenario: PE investment generates returns of 20%. Comparison of hurdle rate structure with 100% catch-up and true preferred structure.				
	Hurdle Rate Structure		True Preferred Structure	
	LPs	GP	LPs	GP
First 8% of Return	8.0%	-	8.0%	-
Next 2% of Return	-	2.0%	1.6%	0.4%
Remaining 10%	-	2.0%	8.0%	2.0%
Totals	16.0%	4.0%	17.6%	2.4%

One additional nuance to fee streams that crops up in some agreements is the inclusion of a “clawback” provision. These provisions require the GP to return previously received incentive fees if later cash-flows fall short of the agreed incentive structure.

Another form of fees that may crop up in some arrangements are ancillary fees. These are typically reimbursement to the GP for actual expenses encountered, such as legal fees, financing costs, travel expenses, etc. In some cases, the total repatriation for these costs may be capped at a fixed percentage.

Returns to Investors from Private Equity



*Including GP investment

Investor Reception/Role in a Portfolio

In the context of institutional investment, Private Equity is typically labeled as an alternative investment class.

So-called “alternative” investments, which include private equity (as well as hedge funds, managed futures, real estate, commodities and derivatives contracts), have increasingly been embraced by institutional asset allocators (such as pensions, endowments, foundations, and family offices) as well as high net worth individual investors.

A Natural Complement: Private and Public Market Investments

Public Markets	Private Markets
<ul style="list-style-type: none"> ▪ Frequent transactions ▪ Information widely and quickly shared ▪ Performance generally in line with markets 	<ul style="list-style-type: none"> ▪ Infrequent Transactions ▪ Asymmetric information ▪ Performance premium to liquid markets

One of the earliest and most prolific adapters of alternative investments is Yale University’s endowment. With \$25.57 billion in assets, Yale’s endowment is the second largest academic in the world after Harvard University. Yale enhanced its disclosure in its most recent annual endowment report and in doing so cast a light on the strong contribution it received from private equity. Yale’s top performing asset class over the past decade was venture capital. Leveraged buyouts were the third best-performing asset (with foreign equity in the number two slot).

In the report, Yale’s officers state:

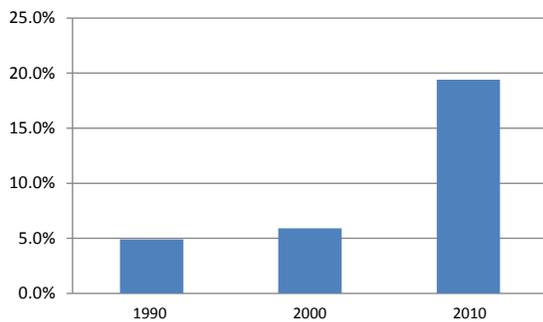
Over the past three decades, Yale dramatically reduced the Endowment’s dependence on domestic marketable securities by reallocating assets to nontraditional asset classes. In 1985, 80% of the Endowment was committed to U.S. stocks and bonds. Today, target allocations call for 12.5% in domestic marketable securities, while the diversifying assets of foreign equity, natural resources, leveraged buyouts, venture capital, absolute return, and real estate dominate the Endowment, representing 87.5% of the target portfolio.

The heavy allocation to nontraditional asset classes stems from their return potential and diversifying power. Today’s actual and target portfolios have significantly higher expected returns than the 1985 portfolio with similar volatility. Alternative assets, by their very nature, tend to be less efficiently priced than traditional marketable securities, providing an opportunity to exploit market inefficiencies through active management. The Endowment’s long time horizon is well suited to exploit illiquid, less efficient markets such as venture capital, leveraged buyouts, oil and gas, timber, and real estate.

Yale University’s “heavy allocation to nontraditional asset classes stems from their return potential and diversifying power.”

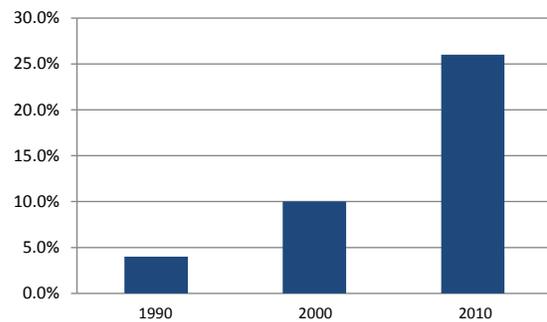
Since the 1985 starting point mentioned above, the share of the endowment’s contribution to Yale’s annual operating budget has increased from 10% to 33% today. Yale’s endowment performance is not indicative of PE investing as a whole and is intended for illustrative purposes only. Actual result will vary. Past performance does not guarantee future results.

U.S. Public Pensions Allocation to Alternative Investments Over Time



Source: Global Pension Asset Study, Towers Watson, 2011

U.S. Endowments Allocation to Alternative Investments Over Time



Source: National Association of College & University Business Officers (NACUBO) 2014 Asset Allocation study; Equal-weight (1995, 2000), Dollar-weight (2005, 2010).

Driving institutional adoption of PE investing are a number of factors, including the strong absolute and risk-adjusted returns previously described. But perhaps even more compelling to sophisticated investors is the potential to enhance portfolio diversification. The table below summarizes correlation coefficients for Private Equity in relation to a handful of other investment platforms commonly utilized in institutional portfolios.

Correlation Coefficients of Investment Asset Classes

	Venture Capital Pooled Average	Buyout Pooled Average	RGI LC PMI*	R1000 PME**	RGI SC PME**	R2000 PME**
Venture Capital Pooled Average	1					
Buyout Pooled Average	-0.14	1				
RGI LC PME	0.24	0.44	1			
R1000 PME	0.13	0.47	0.93	1		
RGI SC PME	0.32	-0.03	0.46	0.18	1	
R2000 PME	0.23	0.35	0.94	0.95	0.44	1

*Russell Global Large Cap Index, Public Markets Equivalent

**Russell 1000 Index, Public Markets Equivalent

Source: ThomsonOne and Russell

Conclusions:

Structurally and operationally, Private Equity is a unique assets class that offers both compelling absolute returns as well as desirable properties as a portfolio diversifier.

PE investors are afforded a longer-term focus relative to public operators. There are also meaningful savings on administrative costs to be public. Consequently, and as supported by academic research, returns tend to outpace those of public companies.

A portion of these incremental returns trace to the liberal usage of financial leverage often utilized by PE operators. However, when adjusting for the differences in borrowing and comparing underlying business models with similar profiles, research suggests that PE opportunities have historically outperformed their publicly-traded counterparts by an order of magnitude of 600 bps.

For investors with the appropriate characteristics, including high networth and a long investment horizon, Public Equity may warrant inclusion in portfolios as part of their alternative investments allocation. However, returns are disparate across sponsors so careful research or use of an advisor in selecting investments is warranted.

Notes:

¹Investing in alternative investments may not be suitable for all investors and involves special risks, such as risk associated with leveraging the investment, adverse market forces, regulatory changes, and illiquidity. Small company investments entail higher risks than investments in larger, more stable companies. There is no assurance that the investment objective will be attained.

Investing in Private Equity entails more company-specific risk than other investments, and proper due diligence and suitability criteria should be observed before investing. Private Equity investments including Limited partnerships are subject to special risks and may not be suitable for all investors. These

investments are generally illiquid securities for which no public market may exist. Investors may be unable to liquidate the security at any price. There is no assurance that the investment objective will be attained.

Disclosures:

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