Private Equity: An Overview
“The private equity world is in its golden era right now ... the stars are aligned.”
Henry Kravis, Banking Conference, May 2007

Introduction

That provocative quote from the head of Kohlberg, Kravis & Roberts, one of the world’s largest private equity firms, smacks of hubris. Yet, given the astonishing growth of private equity funds in recent years, Mr. Kravis’ zeal is perhaps justified. Private equity has been around for a long time and has undergone booms before, from the leveraged buyouts (LBOs) of the 1980s to the dot.com venture capital frenzy in the late 1990s. But nothing has matched the remarkable growth of the private equity market in the past five years, with some $1.2 trillion under management globally at the end of 2006. The fastest growing sector of private equity has been buyout funds, which comprised $710 billion of that total, up two and a half times from 2000.

Also different this time around is the widespread involvement of institutional investors. Many seem to be hoping to recreate the “Yale effect”, derived from the success of Yale University and other ivy-league institutions in racking up a succession of huge returns in their endowment funds. One factor in their success was the early adoption of private equity as a significant part of the “alternative investments” in their asset mix. Other pension funds and endowments have followed Yale’s lead and, in most cases, this has included an allocation to private equity. Most have hired private equity firms, while some, such as the Ontario Teachers’ Pension Plan, have become active private equity investors in their own right.

The Yale Endowment Annual Report illustrates just how successful that institution has been in the last ten years. Private equity returned 34.4% annually over ten years, outstripping all of their other asset classes, most notably those “conventional” asset classes of fixed income and domestic/foreign equity. (It is interesting to note that Yale uses the University Inflation Rate +10% as their benchmark for private equity.)

Private equity firms have also been in the headlines because of their fundraising prowess and because of the companies being purchased. In tandem with having more capital, private equity funds have increased the size of their acquisitions and many of their recent targets have been well-known public companies. Burger King, Neiman-Marcus and Toys R Us are examples of household names swallowed up in recent years by private equity funds. In Canada, this phenomenon has culminated in the proposal by a consortium led by Ontario Teachers’ to purchase BCE Inc. for more than C$50 billion.

This paper considers private equity from the vantage point of an institutional investor, including a look at the unique aspects of this asset class, its return and risk characteristics, issues that fiduciaries should consider and, lastly, some interesting recent developments in the broader private equity realm. Although primarily intended for the Trustees of pension plans or endowments, the paper also provides background information for other types of investors.

What is Private Equity?

By definition, private equity is capital invested in the direct ownership of businesses that are not traded on public stock exchanges. The three typical structures by which institutional investors access private equity are:

Limited partnership: Private equity investors are typically organized into a pool of funds and legally arranged as limited partners. The pool is operated by a general partner (GP) who charges management fees to the limited partners. The pool of funds has a finite life, during which the GP acquires businesses, (hopefully) increases their value, sells them at a profit and returns the capital to the limited partnership of investors (less the management fees and a share of the profits). A typical private equity fund has a life of approximately ten years.

“Fund of funds”: In a fund-of-funds structure, investors purchase shares in a number of private equity funds (similar in principle to the structure of a mutual fund). This allows for greater diversification, and is particularly useful for smaller investors.

**Direct investment:** With the luxury of size, larger investors can invest directly in a target company, either alone or as a co-investor alongside a private equity fund.

The top ten largest private equity firms (by amount of assets raised) are shown in Table 1. Notably, three of the top ten firms are located outside of the U.S.

<table>
<thead>
<tr>
<th>Top Ten Private Equity Firms</th>
<th>Location</th>
<th>Assets Raised Last 5 yrs ($Billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Carlyle Group</td>
<td>Washington DC</td>
<td>32.5</td>
</tr>
<tr>
<td>2. Kohlberg Kravis Roberts</td>
<td>New York</td>
<td>31.1</td>
</tr>
<tr>
<td>3. Goldman Sachs Principal Investment Area</td>
<td>New York</td>
<td>31.0</td>
</tr>
<tr>
<td>4. The Blackstone Group</td>
<td>New York</td>
<td>28.4</td>
</tr>
<tr>
<td>5. TPG</td>
<td>Fort Worth</td>
<td>23.5</td>
</tr>
<tr>
<td>6. Permira</td>
<td>London</td>
<td>21.5</td>
</tr>
<tr>
<td>7. Apax Partners</td>
<td>London</td>
<td>17.3</td>
</tr>
<tr>
<td>8. Bain Capital</td>
<td>Boston</td>
<td>18.9</td>
</tr>
<tr>
<td>9. Providence Equity Partners</td>
<td>Providence</td>
<td>16.4</td>
</tr>
<tr>
<td>10. CVC Capital Partners</td>
<td>London</td>
<td>15.7</td>
</tr>
</tbody>
</table>

Source: As compiled by Private Equity International May 2007

The top fifty private equity firms, in aggregate, have raised an estimated $551 billion in investor capital over the past five years, representing $2.8 trillion in buying power (applying a 5-times leverage multiple). They are also estimated to have paid a remarkable $36 billion in investment fees to banks. Only two Canadian entities rank in the top 50: Teachers’ Private Capital (Ontario Teachers’ Pension Plan) at number 20 and Onex Corporation at number 37.

**Why invest in Private Equity?**

The primary motivation to invest in private equity is to achieve returns above what the traditional asset classes of public equity (stocks) and debt (bonds) have provided. As the figures in Table 2 show, the longer-term data for private equity shows returns significantly higher than those of publicly traded stocks.

<table>
<thead>
<tr>
<th>Private Equity (to Dec 31, 2006)</th>
<th>1 Yr</th>
<th>3 Yr</th>
<th>5 Yr</th>
<th>10 Yr</th>
<th>15 Yr</th>
<th>20 Yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Venture</td>
<td>16.4</td>
<td>9.1</td>
<td>1.0</td>
<td>20.3</td>
<td>21.5</td>
<td>16.6</td>
</tr>
<tr>
<td>All Buyout</td>
<td>24.5</td>
<td>14.6</td>
<td>10.4</td>
<td>8.5</td>
<td>11.1</td>
<td>12.9</td>
</tr>
<tr>
<td>All Private Equity</td>
<td>23.3</td>
<td>12.7</td>
<td>7.5</td>
<td>11.0</td>
<td>13.8</td>
<td>13.9</td>
</tr>
</tbody>
</table>

**Public Equity Indexes**

- S&P 500 Index (US$): 15.8, 10.5, 6.2, 8.4, 10.6, 11.7
- S&P/TSX Composite Index (US$)*: 17.0, 22.9, 20.4, 11.8, 11.2, 11.0
- NASDAQ Composite Index (US$): 9.6, 6.4, 4.4, 6.5, 9.9, 10.2


Over the twenty years to the end of 2006, private equity has provided excess returns of 3.7% (annualized) over public equity, as measured by the NASDAQ Composite Equity Index (generally regarded as the best comparative benchmark). This is a substantial premium and is clearly a prime reason for the increasing interest from institutional investors. Is this premium sustainable? Clearly, returns of this magnitude are now widely expected from this asset class: to quote a large U.S. investment-consulting firm, “…3% represents [a] common industry expectation for the additional return provided by private equity investments over public equity.” For Canadian investors, however, it is interesting to note that private equity has been challenged to beat the commodity-fuelled returns of the S&P/TSX Composite Index, even when measured in U.S. dollars. It is only over the 15- and 20-year time frames that private equity has provided a premium to the annualized returns in the Canadian equity market. “Average” is an important qualification when discussing the history of private equity returns. There is considerable cyclicality to the returns, and significant variation among the different categories of private equity. Note, for example, that the 5-year post-“technology bubble” returns from venture capital were a nominal 1.0%. It is also useful to note the differences in volatility among the different private equity sectors, as shown in Table 3.

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6 Ibid.
7 Although public, the NASDAQ Composite Equity Index is generally regarded as the best benchmark because of its broader inclusion of mid- and small-sized companies, representing the traditional target market of private equity funds.
Table 3: Standard Deviations 1986-2006

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<table>
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<tbody>
<tr>
<td>All Private Equity</td>
<td>20.5%</td>
</tr>
<tr>
<td>Venture Capital</td>
<td>44.5%</td>
</tr>
<tr>
<td>Mezzanine</td>
<td>10.2%</td>
</tr>
<tr>
<td>Buyouts</td>
<td>21.0%</td>
</tr>
<tr>
<td>S&amp;P 500 Index</td>
<td>14.9%</td>
</tr>
<tr>
<td>S&amp;P/TSX Composite Index</td>
<td>15.2%</td>
</tr>
</tbody>
</table>

Source: Deutsche Bank Group, Thomson Financial

Venture capital, which has the highest long-term returns, also has the highest volatility, with a gut-wrenching 44.5% standard deviation (a broadly used measure of volatility); mezzanine finance, befitting its role as a lender – albeit high-risk – has much lower volatility; and buyout capital falls in between the two in terms of risk.

However, private equity is a controversial asset class, and more so in recent years as investors have come to question whether the enormous funds raised of late can continue to provide the premium returns and justify the high fee structures. The key “for and against” issues are summarized in Table 4.

Table 4

<table>
<thead>
<tr>
<th>For</th>
<th>Against</th>
</tr>
</thead>
<tbody>
<tr>
<td>Longer-term focus allows</td>
<td>Excess leverage artificially boosts returns</td>
</tr>
<tr>
<td>Align objectives of owners &amp; managers</td>
<td>Same assets, higher fees</td>
</tr>
<tr>
<td>Strategic/Operational skills create value</td>
<td>Self-dealing</td>
</tr>
<tr>
<td>Endorsed by largest pension plans/endowments</td>
<td>Top performing firms often closed</td>
</tr>
</tbody>
</table>

Proponents of private equity argue that “going private” enables corporate managers to focus on long-term results in contrast to the short-term focus reinforced in the public markets by quarterly return releases. Onerous accounting and reporting requirements for public companies are also cited as an escalating hurdle, notably after the U.S. government’s imposition of the Sarbanes-Oxley Act of 2002. Enacted after the accounting and financial scandals of Enron, WorldCom and others, this Act greatly increased the regulatory oversight and accountability of public companies and their auditors.10

Private equity managers lay claim to management acumen that utilizes non-public information in the acquired companies to restructure them profitably and create meaningful financial incentives for the management of those companies to succeed. Private equity proponents also point to increasing participation by large and sophisticated pension plans and endowments as mounting evidence of the validity of this asset class.

Many of the concerns articulated by detractors of private equity investing centre around the massive fundraising accomplished by private equity groups in recent years (primarily for buyout funds). This asset gathering is seen as a “money grab” aimed at generating huge fees, and there is scepticism about future returns as more and more money pursues a finite asset class. The detractors argue that the industry relies on a ready market for low-cost debt, and that private equity is nothing more than highly leveraged equity investing. Additionally, they point to conflicts of interest and self-dealing within private equity firms, and note that the best returns accrue to the top private equity firms that are often closed to new investors.11

Further, Moody’s, the credit rating agency, in a special report on private equity issued in mid-200712, questioned the “long-term focus” of private equity, citing the tendency of general partners to pay themselves dividends from acquired companies while at the same time increasing the leverage on those companies’ balance sheets.

Phillips, Hager & North has no particular bias for or against private equity investing, neither do we invest our clients’ money directly in this asset class. Our view is that the truth, as usual, lies somewhere in between the extremes.

Fund Raising in Recent Years

One incontrovertible fact is that private equity has been very successful at raising money. In 2006, $415 billion was raised world-wide by private equity firms. Notably, almost half of this was done outside North America, implying that private equity is alive and well in the U.K., Europe and other countries.13 Notable in recent years has been the emergence of “mega-funds” created by the largest private equity firms, often with $20 billion or more in a single fund. This has enabled (and required) private equity firms to target ever-larger acquisitions, resulting in enormous transactions like the proposed BCE purchase by an Ontario Teachers’-led consortium and, in the U.S., the purchase of Equity Office Properties Trust (the largest owner of office

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10 For a summary and detailed explanation of the Sarbanes Oxley Act of 2002 see http://www.soixaw.com/
11 Self-dealing refers to the buying and selling assets between funds controlled by the same private equity firm, with the asset price set by the general partner, giving rise to concerns over possible conflicts of interest.
buildings in the U.S.) for $39 billion\textsuperscript{14}, and TXU Corp. (a large Texas utility company whose business includes 2.1 million electricity customers) for $45 billion.\textsuperscript{15}

**Private Equity Categorized**

Private equity comprises three broad categories: venture capital, mezzanine finance and buyout capital.

**Venture Capital**

Venture capital funds new and emerging businesses, and can, itself, be further subdivided into three categories:

- **Seed capital**, which is provided to “start-up” enterprises that need backing to fund the development of the new business idea or concept.

- **Early stage capital**, which is provided to businesses with a product or service at the prototype stage but without sufficient capital to go into broader production.

- **Later stage capital**, which funds businesses that already have revenues but need more in order to expand production or create new products.

Flows into venture capital investments peaked in the “dot.com” era of 2000, when investors were drawn to the seemingly instant riches of technology firms, many of which had an internet-based element to their business plan. Many of these investments subsequently suffered enormous write-downs or proved worthless. As a result, cash flows into venture capital dwindled and have yet to recover. Historically, however, venture capital has created enormous fortunes for those with the foresight (and/or luck) to fund companies like FedEx, Microsoft and Avis, all of which were started with venture capital.

**Mezzanine Finance**

Like the mezzanine in a hotel, mezzanine financing is situated in between two levels, in this case two other levels of financing: debt and equity. Mezzanine finance provides high-risk debt that carries a high interest rate and often includes a “kicker” such as warrants, options or preferred/common shares. Companies seeking to expand plant and equipment, but lacking sufficient assets to pledge as collateral may use mezzanine financing. While expensive, it sidesteps the dilutive (and ultimately more expensive) impact of issuing more shares.

**Buyout Capital**

The largest category of private equity, and the most prevalent in the headlines today, is buyout capital. Of the $215 billion raised by U.S. private equity funds in 2006, fully $149 billion of that went into buyout funds.\textsuperscript{16} Previously, buyouts were called “leverage buyouts” or simply LBOs. LBO activity last peaked in the junk-bond era of the 1980s. The zenith of that period was the Kohlberg Kravis Roberts (KKR) purchase of RJR Nabisco for $31 billion, the largest LBO to that point in time, and a record that would stand until 2006.\textsuperscript{17}

**The Source of Private Equity Returns**

The key differences between conventional public equity investing (i.e., buying stock in the public market) and private equity are listed below.

<table>
<thead>
<tr>
<th>Table 5: Sources of Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Equity</td>
</tr>
<tr>
<td>Earnings growth</td>
</tr>
<tr>
<td>Dividends</td>
</tr>
<tr>
<td>Change in valuation</td>
</tr>
<tr>
<td></td>
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</table>

Public equity is a near-passive investment exercise in terms of the investor’s influence on the company. Analysts make judgements about a company’s ability to earn profits, pay dividends, and the value investors will place on the shares in the future. While investors may exert their voices through shareholder activities such as proxy voting, they are uninvolved in the company’s day-to-day operations.

Private equity investors, on the other hand, “get their hands dirty” and usually take a very active role in management. Significant ownership stakes, board representation and strategic management appointments are the primary means of accomplishing this. The objective is to uncover value by improving operations, rationalizing underperforming assets and motivating management through financial participation.

The essential skills required by private equity managers are the abilities to purchase assets at low prices (ostensibly in the private company realm where pricing is less efficient and valuations are often lower due to illiquidity, although private equity firms are increasingly acquiring

\textsuperscript{17} Bryan Burrough and John Helyar, The 1980s’ LBO environment and the RJR takeover was chronicled in the book Barbarians at the Gate: The Fall of RJR Nabisco. (New York: Harper & Row, 1990).
public equity companies), cut costs and improve growth. They also employ very high levels of financial leverage in order to amplify returns. If successful, their efforts may increase the value of the acquired company by multiples of the original purchase price.

### How it's done

Just how do private equity managers generate those outsized returns? In an article published by the CFA Institute, Charles Froland of General Motors Investment Management Corporation, outlined results of a study of a buyout deal done by his firm. The target company had modest growth of 5% per year and was available at 8 times cash flow, creating a base case return of about 11% per annum. The study analyzed the impact of various private equity techniques, including the estimated return increment from each. The results are shown below: remarkably, the techniques improved the 11% base case return to a supercharged 47%. Of course, it would be unrealistic to expect a general partner to accomplish all of these objectives, but it does illustrate the potential for bolstering returns.

<table>
<thead>
<tr>
<th>Base Case</th>
<th>11%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double leverage</td>
<td>7%</td>
</tr>
<tr>
<td>Buy 10% cheaper</td>
<td>5%</td>
</tr>
<tr>
<td>2-Point cost cut</td>
<td>6%</td>
</tr>
<tr>
<td>Double growth rate</td>
<td>7%</td>
</tr>
<tr>
<td>Multiple expansion</td>
<td>8%</td>
</tr>
<tr>
<td>Sell 10% higher</td>
<td>3%</td>
</tr>
</tbody>
</table>

**Total: 47%**


### Realizing Value

Note that these active skills of the private equity investor imply hidden value in the companies they are buying. The general partners of private equity buyout funds insist they are “all about ‘surfacing’ value” and not about financial engineering or “buccaneer capitalism”. However, with the increasing size of private equity funds comes the need for ever-larger acquisitions, including more publicly traded companies for which large premiums must be paid. Furthermore, the burgeoning demand for private equity among investment funds of differing size and also between those in the U.S. and those in Canada, to wring enormous gains from the successful 20% portion of their portfolio assets.

Buyout funds can sometimes find a strategic buyer for the assets they hold. For example, Onex Corporation acquired the catering division of AMR (parent of American Airlines). The company was renamed Sky Chefs, and expanded its business beyond a single airline. Six years later Sky Chefs was sold to Lufthansa Corporation, with Onex booking a $940 million gain on a total investment of $99 million.18

However, the preferred route to realizing value, particularly for buyout funds, is to sell the assets to public investors via an initial public offering (IPO). This can result in a substantial increase in valuation through “multiple expansion”. For example, a lackluster private company acquired at 8 or 10 times depressed earnings levels might be sold publicly for 15 to 20 times improved earnings level once the company’s operations have been optimized. With the initial boost provided by financial leverage, the magnification of final returns can be very significant.

### Who Invests in Private Equity?

It is only in recent years that “mainstream” institutional investors like pension plans and endowment funds have embraced this asset class. As outlined earlier, large U.S. endowments, notably certain Ivy League universities such as Yale University, pioneered allocating a significant portion of their assets to private equity. Pension plans and other institutions noticed their successes when they, themselves were searching for higher returns in an era of record low interest rates. This lent credibility to the asset class and led to much broader acceptance of private equity by institutional investors of all stripes.

However, there is notable differentiation in the commitment to private equity among investment funds of differing size and also between those in the U.S. and those in Canada. Table 6 on the next page shows that large, mid-size and small funds in the U. S. all typically have commitments to private equity, with average allocations in the mid or low single digits. Very large investment funds with assets over $5 billion, however, have more than double the allocation of mid-size funds, and participation drops off further with smaller funds.

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18 Onex Corporation 2001 Annual Report. Onex owned Sky Chefs (purchased when it was the catering division of American Airlines) for 16 years, and reports a 30% annualized return on their investment.
Includes available data for endowments/foundations, corporate and public sector pension funds

Source: Greenwich Associates 2006

In Canada, only the largest investment funds have a meaningful commitment to private equity, with 3.3% on average. Mid-size funds have less than the smallest funds in the U.S. and the smaller Canadian investment funds have very little. Canadian institutional investors have been much slower to embrace private equity, with meaningful participation from the very largest pension funds only, as illustrated in Table 7.

Larger funds can overcome one of the greatest hurdles to private equity investing, namely the need for more specialized internal expertise and greater oversight than is required for traditional asset classes. Moreover, because of their size, the large investment funds can reap the rewards of direct investing over hiring external managers. Jim Leech of Ontario Teachers’ Private Capital, for example, recently claimed that their management costs for investing in private equity are about one-tenth of the typical fees charged by external private equity managers.¹⁹ As outlined in the section on fees in this report, this represents a substantial saving.

But what are the other barriers that cause smaller U.S. plans to invest less than the larger plans in private equity and cause most small and mid-size Canadian funds to avoid private equity altogether? This question points to some unique attributes of private equity and the hurdles facing pension plan and endowment fiduciaries when considering this asset class.

### A Unique Asset Class

Private equity differs from traditional investment in public equity in ways that present some unique challenges for Trustees. The key points of differentiation are as follows:

Uncertain cash flows and illiquidity: private equity funds have a limited lifespan (usually ten years) and are “self-liquidating”, meaning that the invested capital is returned to the investors over that time frame. The general partner will “call” for cash when purchase opportunities become available (usually on very short notice), and pay out distributions as acquired companies are sold. This contrasts sharply with engaging an investment portfolio manager to invest in publicly traded equities, where the capital remains invested until the client withdraws money or terminates the arrangement. As noted earlier, most private equity funds require a ten-year commitment, often with a two-year extension option. Investors’ capital is locked up for that period, and the opportunities for realizing the investment lie only in waiting for distributions or in the nascent secondary market (discussed in more detail below).

There is also a critical difference between “committed capital” and “invested capital”. Although a client will commit a sum, say $10 million, to a private equity fund, the general partner may request only a portion of it initially, and then call the rest in tranches over time, as opportunities to invest arise. At some point, likely 3 to 5 years into the life of the fund, the general partner will begin making distributions back to the investors. For the client, the actual sum invested at any time during that process, is likely much less than the targeted $10 million commitment. For that reason, the rule of thumb for private equity is that committed capital needs to be roughly double that of the actual amount targeted for investment. Additionally, with funds targeted for about ten years, investments in private equity must be continually refreshed. The following example²⁰ illustrates this: a $1 billion fund targeting an allocation of between 5% and 7% of the total portfolio to private equity (i.e., $50 to $70 million) must commit $18 million per year each and every year over the ten-year time frame shown here. This is due

<table>
<thead>
<tr>
<th>Table 6</th>
<th>% Total Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UNITED STATES (US$)</strong></td>
<td></td>
</tr>
<tr>
<td>Fund Size</td>
<td>+$5 Billion</td>
</tr>
<tr>
<td>4.5%</td>
<td>2.1%</td>
</tr>
<tr>
<td><strong>CANADA (CDN$)</strong></td>
<td></td>
</tr>
<tr>
<td>Fund Size</td>
<td>+$5 Billion</td>
</tr>
<tr>
<td>3.3%</td>
<td>0.9%</td>
</tr>
</tbody>
</table>

* Includes available data for endowments/foundations, corporate and public sector pension funds

Source: Greenwich Associates 2006

<table>
<thead>
<tr>
<th>Table 7: Commitment to Private Capital: Sample of Large Pension Plans in Canada</th>
<th>% of assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontario Teachers</td>
<td>5.7%</td>
</tr>
<tr>
<td>Caisse de dépôt et placement du Québec</td>
<td>11.8%</td>
</tr>
<tr>
<td>Canada Pension Plan Investment Board</td>
<td>7.0%</td>
</tr>
<tr>
<td>OMERS (Ontario Municipal Employees) Capital Partners</td>
<td>6.0%</td>
</tr>
<tr>
<td>HOOPP (Hospitals of Ontario)</td>
<td>3.8%</td>
</tr>
</tbody>
</table>


to the distributions (assumed in this example to begin in Year 5) that effectively liquidate the private equity funds over a ten-year time frame. Obviously this adds a great deal to the workload of those overseeing the private equity investments, and requires ongoing success in manager selection. Also of note is that, in this example, it takes 5 years before the portfolio reaches the minimum targeted weight (5%) in private equity.

Performance measurement: private equity returns are calculated with a measure known as “internal rate of return”, or IRR, while most other portfolio returns (including popular benchmark indices such as the S&P 500, Dow Jones Industrials and S&P/TSX Composite indices) are measured using a “time weighted rate of return”, or TWRR. This is due to the unique nature of each investment; IRR rewards a manager for returning cash to the investor sooner rather than later (IRR is often called a “dollar weighted” rate of return) while TWRR removes the influence of cash flows. TWRR assumes that the manager has no control over cash flows in and out of the portfolio and that they should not be penalized for the timing of cash flows.

There is nothing untoward in the use of IRRs for private equity, and in fact it is recommended in the Global Investment Performance Standards (GIPS) of the CFA Institute. However, measuring investment results by IRR and TWRR can lead to drastically different return numbers. This makes comparing private equity returns to public market indices difficult or perhaps even meaningless. Alternate methods for assessing private equity returns have emerged, such as “multiples” of cash generated from the initial investment. There are also methodologies for converting private equity IRRs into the equivalent of public market TWRRs.21 However, all of this adds to the administrative burden of monitoring this asset class.

IRR versus TWRR
These two methods of calculating returns can have widely different results. The following simplified example illustrates this: a portfolio manager invests $50 million dollars in an asset class, with a 12% return in the first six months. Another $50 million is invested in the same asset class at that time, and the portfolio subsequently declines 8% over the following six months. The TWRR for that period is \((1+12\%)(1-8\%)-1=2.04\%\). However, the portfolio is worth only $97,520,000 at year-end, less than the total invested amount. The IRR calculation for the same set of cash flows is -1.7%.

Vintages and the J-curve: Unique also to private equity funds are the effect of the vintage and the “J-curve” path of returns.

As with wine, vintage refers to the inception date, in this case the year in which the private equity fund becomes closed to investors. As with other asset classes there are periods of high and low returns for private equity, notably between the different categories of the asset class. An extreme example is venture capital: funds with a vintage of 1995 through 1998 were well positioned to capitalize on the coming technology bubble and did very well, particularly if technology was a focus. Similar funds initiated in 2000 or 2001 were late into the game and performed poorly, in many cases disastrously so. Investors wanting to compare manager performance need to compare like vintages in order to assess performance fairly.

The J-curve describes how returns from a private equity fund are typically distributed. In the initial years, returns are negative; fees are charged and early underperforming investments are often identified and written down. It is often not until mid-way through the life of the fund that profits begin to be realized from the sale of investments and distributions are made to the limited partners.

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Ideally an investor would own funds with differing vintage years for diversification and to smooth the impact of the J-curve on returns.

**Fees**

As with many alternative investments (including most hedge funds), private equity investing typically comes with high fees that include a performance-bonus component termed “carried interest.” The usual fee is “2 and 20,” which means 2% of the assets under management plus a 20% carried interest beyond a certain hurdle rate (the minimum rate of return that must be achieved before the bonus is owed). A fund of funds structure adds an additional fee layer of approximately 1%, often including a smaller carried interest. Note also that fees are routinely charged on committed capital, not the invested capital, which is the amount that has actually been put to work.

These fees are much higher than those for conventional asset classes, such as public equity and bonds, and this is a source of controversy. High demand for private equity has kept the fee structures largely intact, and successful managers point to their high returns and performance-based compensation as justification.

 Critics say that, with much larger fund sizes, private equity firms should lower their management fees. Before the current boom, private equity funds were smaller, and the 2% management fee was intended to “keep the lights on” with the bulk of compensation coming from the performance kicker. However, a recent study from the Wharton School asserts that with much larger funds now prevalent, the relationship between management fees and carried interest has drastically changed. This study calculates that the average-performing buyout fund collects almost double the revenue from management fees as from carried interest. This challenges the notion that private equity only thrives by providing exceptional returns.

Despite ongoing cynicism about fees, investors in private equity, to date, have little recourse in reducing fees. A recent survey showed that 57% of all buyout firms were still charging a 2% management fee, with another 31% charging between 1.5% and 2.0% of assets. Larger investors can save on fees by “co-investing” directly in target companies along with the general partner. Very large funds can, of course, realize substantial fee savings by investing directly; however the level of internal expertise and infrastructure required to support direct investing puts it out of reach for all but the largest organizations.

**The Importance of Manager Selection**

It is an investment industry truism that the performance of investment managers is cyclical and transient; today’s top performing manager is often tomorrow’s loser. One unique facet of private equity is that the opposite appears to be true; performance tends to be persistent among the best performing managers. A study over a 17-year period from the University of Chicago concluded that “General partners (GPs) whose funds outperform the industry in one fund are likely to outperform the industry in the next; GPs who underperform are likely to repeat this performance as well.”

Additionally, the gap between the average and top-quartile private equity manager tends to be very wide, much beyond that seen in conventional asset classes. For the ten-year period illustrated in the chart below, the gap between first quartile and median performing managers in domestic large-cap equities (i.e., conventional public equity investments) was about 1.4%. The difference between first-quartile and median private equity managers was a stunning 11.2%. Manager selection is absolutely critical in private equity, as selecting a mediocre or poor-performing manager will result in sub-par returns that could well underperform public equity investments. The importance is accentuated when the evidence of consistent relative performance (both good and bad) among private equity managers is factored in.

![Annualized Return Spread between Top-Quartile and Median Managers Oct 1994 - Sept 2004](chart.png)

This return dispersion highlights a unique attribute of the private equity allocation decision – the need to choose a winning manager. When allocating assets to public equity, investors can be reasonably assured that returns will cluster

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around the average for the asset class, particularly if their portfolio is diversified among managers. With some skill in manager selection, they may outperform the averages. There is also the option of indexing, which narrows the return outcomes within a very tight range for each asset class. With private equity, there is much less assurance of receiving acceptable returns representative of the asset class, simply because of the wide dispersion of returns among managers, and there is no opportunity to index in order to eliminate manager selection risk. Furthermore, diversification (which can be achieved somewhat through a fund-of-funds) is itself not a very worthwhile goal if it results in median returns. In order to be successful in private equity investments need confidence in their ability to select top-performing managers.

### The Question of Diversification

One oft-cited benefit of a private equity allocation is the diversification it adds to a portfolio, with the claim that private equity returns have low correlations to other asset classes, particularly public equities. In fact, longer-term data suggests that private equity is actually quite closely correlated with public equity investing. The 20-year sample study in Table 8 shows reasonably high correlations around 0.5 of private to public equity.

#### Table 8

<table>
<thead>
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<th>Correlation of Private Equity to:</th>
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<tr>
<td>U.S. large cap equities</td>
<td>0.49</td>
</tr>
<tr>
<td>Global large cap equities</td>
<td>0.50</td>
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Source: AON Consulting

Some observers question the usefulness of these correlation figures. Private equity investments are, of course, not publicly traded and rely instead on valuation data until the portfolio assets are sold. This results in “stale pricing”, a situation in which asset prices are infrequently valued (perhaps quarterly), resulting in understated volatility and misleading correlation data. In the words of one study “…many investors feel that the valuation drawbacks that understate the risks in private equity investing also understate the correlations, particularly given that public market valuations are a large driver of private valuations”.

That private and public equity should be closely correlated makes intuitive sense, as private equity is all about ownership of businesses, with much of the return reliant on selling assets back to public equity investors. It should come as no surprise that public and private equity returns are closely linked, and Trustees may wish to consider private equity as part of their overall equity allocation.

### Illiquidity & Limited Information

As noted above, most private equity funds have a ten-year life, along with a two-year extension period. During that time, investors have very limited options for liquidating their investments. For most pension plans or large endowments this lack of liquidity is not a problem; the investment horizon is long-term and liquidity exists within other asset classes.

There is a growing market for “private equity secondaries”, with firms such as Coller Capital in the U.S. acting as intermediaries for buyers and sellers of private equity fund interests, including portfolio investments. However, there is scant information on the pricing efficiency in the secondary market, meaning sellers may be faced with accepting a large (and difficult to quantify) discount on their investment. Private equity investors are likely best off planning to remain in their investment for the full term. Of note, however, there are some private equity funds that operate purely by buying investments in the secondary market. As an example, Coller Capital closed the $4.8 billion Coller International Partners V Fund in April 2007, which they claim is the world’s largest secondaries fund.

While investors in public equities have ready access to information about the investments in their portfolio, the same does not apply to private equity. General partners regard the opaque nature of their investments as a proprietary tool, and are generally loathed to provide details. In a 2004 survey by the Private Equity Industry Guidelines Group, limited partners cited the lack of information on portfolio companies as a key shortcoming, while general partners expressed a firm unwillingness to reveal confidential information.

With secrecy of information regarded as a key asset, it seems likely this tug-of-war will be resolved in the general partners’ favour and investors will simply have to live with the information gap.

#### Considerations for Trustees

How can Trustees assess whether private equity might be suitable for their investment portfolio? A key question for fiduciaries to ask themselves is “do we have the right

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stuff?” This is a first and critical consideration. As outlined in this report, the range of outcomes for private equity investments is wide and unforgiving to “also-rans” and poor practitioners.

<table>
<thead>
<tr>
<th>The “right stuff”</th>
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<tbody>
<tr>
<td>Access &amp; skills</td>
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<tr>
<td>Risk tolerance</td>
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<tr>
<td>Internal resources or advisor</td>
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<tr>
<td>Trustee experience</td>
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<td>Liquidity requirements</td>
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<td>Asset size</td>
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One key is having access to the best general partners and funds. Typically, this will be a function of research and may require the services of a “gatekeeper” or advisor specializing in the field. In some ways, this supports the use of a fund-of-funds structure, where the general partner performs the manager selection function.

However, in reality, this structure simply transfers the selection task from one party to another. Investors still need to be confident that the general partner of the fund-of-funds is skilled in selecting the underlying funds and general partners.

Risk tolerance is, of course, unique to each investor, but a useful touchstone is the total equity content of the pension plan or endowment portfolio. As outlined earlier, private equity is closely correlated with public equity investing, although with a much wider dispersion of outcomes. Private equity is potentially suitable for those portfolios already incorporating a high level of equity investing.

Private equity also necessitates greater internal resources to handle reporting, cash calls and distributions and ongoing monitoring, although this requirement is less in a fund-of-funds structure. Having a Trustee or board member with experience and expertise is a valuable asset, as they can aid in manager selection and instil patience, especially through the inevitable negative returns in the early years of the J-curve.

Asset size can be both a benefit and a hindrance. Investing 10% of a $250 million dollar fund into private equity implies a $25 million investment; to achieve adequate diversification that almost certainly implies a fund-of-funds structure with its attendant higher cost structure. However, very large funds may find it difficult to find enough private equity funds (at least top-performing ones) to accommodate their huge capital base.

### Recent Developments in Private Equity

This paper would be incomplete without a comment on recent developments in the field of private equity. With the massive fundraising done in recent years, a number of industry professionals had sounded alarms about the future of private equity buyout funds. Acquisitions were increasing in size and general partners appeared to be competing with each other, using increased leverage and often buying public companies at valuations that seemed to belie their basic premise of “buy cheap, sell dear”. They were also relying on a ready market for low-cost, low-quality debt to fuel those acquisitions.

The summer of 2007 marked the “sub-prime” lending crisis that appeared to stop the low-quality debt market in its tracks. Concerns over embedded poor-quality loans soured the market for collateralized debt obligations (CDOs), creating a liquidity crunch that spread to collateralized loan obligations (CLOs), the primary funding vehicle for buyout funds. Funding came to a near halt, with a financing logjam and the resulting collapse of some transactions. Gradually, financings resumed, albeit at less favourable terms, and at the cost of some deals that simply collapsed. By one recent account, half of the largest U.S. buyout firms had deals that collapsed through this period.29

Cerberus Capital’s proposed $4 billion acquisition of United Rentals in July 2007 is an interesting example. The collapse of this deal seems to have been motivated almost solely by concerns over credit markets; Cerberus did not attempt to assert the so-called MAC, or “material adverse change” justification for cancelling the deal. This escape clause claims a meaningful decline in the business health of the target company. Cerberus simply stated it was liable only for a $100 million break-up fee and attempted to walk away from the purchase. United Rentals took Cerberus to court in an attempt to force them to consummate the transaction, but in December 2007 the courts ruled against United Rentals, and allowing Cerberus to pay the break-up fee and terminate the purchase agreement.30

Many other interesting events have transpired also: in an ironic twist, one of the largest and most successful private equity firms, Blackstone Group, sold some of its own shares to investors. The Chinese government invested $3 billion in non-voting shares of Blackstone and the company conducted its own IPO, raising an additional $4.1 billion in June 2007 at $31 per share. The shares briefly rallied

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above the IPO price before tumbling to less than $16 by March 31, 2008. Carlyle Group, another of the largest U.S. private equity firms, sold a 7.5% stake in their firm to the Abu Dhabi government for $1.35 billion. 31

A difficult funding environment is not the only issue facing private equity firms. Critics of the industry have long cried foul about alleged unfair tax treatment, asserting that the “carried interest” of private equity firms should be taxed as income and not long-term capital gains, implying a radical increase in tax rates. Several reform measures have been proposed, though none are yet law.

It seems logical to expect that fundraising would slow in the face of these adverse trends. However, initial data to year-end 2007 indicated a record level of fundraising, expected to exceed 2006 levels.32 Of note, 59% of the capital was raised in the first half of the year and 41% in the second half. Deals have certainly slowed; and, although worldwide mergers and acquisitions (M&A) set a new record in 2007, there was a 30% decrease in the latter half of the year from the record-shattering first half. The percentage of announced U.S. M&A activity from buyout firms also fell off markedly in the second half of the year.33 There was a noticeable drop in large (over $1 billion) deals while so-called middle-market LBOs (under $1 billion) were steady.34 This has been attributed to the lack of CLO financing for the large transactions while funding for the mid-market (supplied primarily by banks and not the CLO market) was still in good supply.

Whether the enormous amounts of money controlled by buyout funds can be deployed efficiently and sustain their performance track records remains to be seen. Clearly, the final chapter has yet to be written in this, the latest cycle in the world of private equity.

Summary and Conclusion

Measured over the past twenty years, private equity has realized returns that seem to be significantly higher than most other conventional asset classes. We appear to be at a unique juncture in the private equity cycle, namely the culmination of a sustained period of very successful fundraising by large buyout funds. Challenges facing the buyout industry include increasing competition for acquisitions, a less friendly financing environment, and threatened changes to their attractive tax structure. How these challenges will impact returns to investors remains to be seen.

A private equity allocation demands much more from investors in terms of resources to source and monitor their investment opportunities. Investors in private equity also face some unique hurdles, primarily in the areas of manager selection, performance calculation, fee structures and limited information on portfolio investments. These challenges will be magnified for smaller organizations, which will need to rely on external sources of expertise.

References and further reading:


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