Rationale for the establishment of a Private Equity Program[1]

Private equity investing has enjoyed steadily increasing popularity among investors over the last twenty years. This document provides a review of the key factors a large institutional investor should consider when building a new private equity portfolio. Private equity is generally considered a subset of the broader “Alternative Investment” asset class, which also includes real estate, natural resources and hedge funds. This document will only address the private equity subset of the Alternative Investments asset category.

From its beginnings as an institutional investment medium in the late 1970’s, private equity has grown to an asset class with over $600 billion under management globally. While the first institutional private equity investors tended to be endowments, foundations and private ERISA plans, by the mid-1990’s public pension funds had become the dominant participants in the market. 1996 proved to be a watershed. In that year, for the first time, the majority of private commitments were funded by public pension plans. Today, virtually all of the top fifty public pension funds invest in the asset class.

Allocations to private equity have been growing steadily. Endowments and foundations, the institutions with the longest experience with private equity programs, typically have the largest percentage allocations, followed by ERISA’s and then by public pension funds.

The sustained popularity of private equity investing derives from the returns and diversification that the program provides for investors. The table on the following page sets out comparative returns for private equity versus the S&P 500 and NASDAQ for three comparable periods.

Over longer periods, the positive comparison between median returns for all private equity versus the S&P is even more favorable. For the period from 1970 to 1998, the year before the internet/telecommunications bubble, private equity returns averaged 25.2 percent net of fees versus 17.0 percent for the S&P 500, a differential of 8.2 percent. With reduced expectations for absolute returns for public markets going forward, private equity is now considered an essential return enhancing segment of an institutional portfolio.

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[1] This discussion draws on a number of industry sources, including The Private Equity Analyst, Venture Economics, Pertrac Predominance Measurement, Dun & Bradstreet.

CAMBRIDGE ASSOCIATES LLC U.S. PRIVATE EQUITY INDEX ®

As of September 30, 2007

Period	End – to – End Pooled Mean Net to Limited Partners (%)
One Quarter	1.33
Year to Date	16.17
One Year	29.91
Three Year	29.69
Five Year	23.58
Ten Year	14.22

End-to-end calculation based on data compiled from 690 U.S. private equity funds, including fully liquidated partnerships, formed between 1986 and 2007.
* Pooled end-to-end return, net of fees, expenses, and carried interest.

U.S. Private Equity Index ® Compared to Other Market Indices for the One Year Ended September 30, 2007

U.S. Private Equity Index ®	29.91
Dow Jones Industrials Average	21.69
Nasdaq Composite	19.62
Dow Jones Top Cap	17.27
Dow Jones Wilshire 5000	16.99
Russell 1000 ®	16.90
S&P 500	16.44
Dow Jones Small Cap	15.68
Russell 2000 ®	12.34
Lehman Brothers Gov't/Corp Bond Index	5.08

Sources: Bloomberg, Cambridge Associates LLC U.S. Private Equity Index ®, Lehman Brothers, Inc., Standard & Poor's Frank Russell Company, Thomson Datastream., *The Wall Street Journal*, and the Wilshire Associates Inc.

In addition to a proven role in enhancing overall portfolio returns, private equity and alternative investments provide a welcome source of portfolio diversification. Public equity markets in the United States comprise a universe of 3,385 companies with revenues of over $250 million. However, there are 3,973 *privately-owned* companies with revenues of over $250 million which institutions can only access through the private equity medium.[4] As companies become smaller; the diversification opportunity becomes more striking. There are 20,012 public companies in the United States with revenues between $10 and $249 million. However, there are 105,062 privately-held companies in this same size range.[5] Furthermore, private companies and smaller companies tend to be less efficiently priced than public companies and larger companies, creating a greater opportunity for investors.

Over the past 50 years, small emerging enterprises have been the strongest performing segment of the US economy. On this basis, the venture capital segment of private equity offers opportunities for potentially rapid capital appreciation through investments in private rapidly growing venture stage companies. In other words, private equity allows institutional investors to generate investment returns from the actual "creation of value" through development and growth of new companies, as opposed to "trading value" or "interest value" that is often the basis of returns from investments in public equities and bonds.

Setting the allocation to private equity from the overall portfolio

With respect to setting and maintaining a private equity allocation, a key overarching concept is that it is important to invest steadily and "play through the cycles." The most successful investors in the asset class do not attempt to "time the market" by regularly moving their allocation dramatically up or down, but rather invest steadily towards a long term target with a focus on individual investment decisions and incremental adjustments to sub sector allocations.

Typical Allocations - The percentage of total assets to be invested into alternative investments is generally determined as part of the larger asset allocation analysis. A 5% allocation to alternative investments is the minimum size that will have an impact on the level of returns and diversification of the total fund. An allocation of 10% or more provides a more meaningful and measurable impact. Public pension funds in the U.S. typically have 5-10% allocations, although those funds with a longer history in the asset class, such as Michigan, Washington, Oregon and Pennsylvania have allocations as high as 13 - 15%. Corporate pension funds typically have 8-15% allocations, and foundations and endowments often have 10-30% allocations. In general, allocations to alternative investments tend to grow the longer an organization has experience investing in alternative investments and tend to stabilize at higher levels for those institutions with longer liability structures.

Allocation Modeling - Pension funds in the U.S. generally use asset allocation models based on Modern Portfolio Theory, which seeks to build an optimal mix of assets based on the expected return and risk of each asset combined with their correlation to one another. Unconstrained asset allocation models generate very high allocations to alternative investments (e.g. greater than 50%) because of the low correlations with other asset classes and the unique risk/return attributes. Therefore, the allocation to alternative investments will, in practice, be driven by more qualitative factors such as perceived tolerance for the illiquid nature of the asset class and the degree to which the implicit assumptions on low correlation between private and public equity seem reasonable. In this regard, recent academic work suggests that if private equity portfolio companies were "marked to market" on a more frequent basis, rather than only adjusting values when an "event" occurs, correlation with public markets would, by definition, be much higher and would drive asset allocation models to more intuitively reasonable levels in the 10-20% range. Today, the most sophisticated investors consider private equity primarily a return enhancing strategy and only secondarily as a tool for diversification.

Natural Fluctuations in the Allocation Range - In determining the asset allocation, it is also important to take into consideration that the capital commitments to private equity partnerships are drawn down and invested over 3 to 5 years. Therefore, commitments will exceed the amounts actually invested at any given time and the actual amount at work will vary within a target range. Experience shows that commitments will generally exceed the active amount invested by 1.5 to 2.0 times, depending on market conditions and the age and structure of the private equity portfolio. Furthermore, the illiquidity of private equity fund investments makes it difficult to instantly "rebalance" the allocation to the asset class, as can be done with public securities, as the institution's overall portfolio changes in value. For example, because distributions back from funds are quite lumpy and tied to economic cycles of the IPO and M&A markets, there are periods where the allocation drops as many deals are exited (e.g. 1999-2000) or rises as funds continue to call capital for new investments but are making fewer distributions (e.g. 2002).

Setting targets for sub-allocation within the private equity portfolio

A well-diversified portfolio will provide the maximum risk adjusted returns. At maturity, a well diversified private equity program for a large institutional investor will ultimately have investments with 75 to 150 active partnerships. The number of funds is driven by factors such as the desired size and structure of the private equity program and the ability to gain access and reasonable allocations from attractive funds. In addition, a truly diversified portfolio will invest in the best teams targeting each niche (ie. early stage medical devices or late stage software companies). Depending on the program, the portfolio would be developed through relationships built over a 4-6 year period.

In terms of mix within the subclasses of private equity, when historical data is used to model an optimal private equity portfolio, the model outputs suggest that over half the portfolio should be allocated to venture capital. However, large institutions in practice have difficulty accessing top venture partnerships and are often not structured to invest a small amount in a large number of venture funds. Therefore, in practice the allocations in large institutional portfolios are typically: 20-30% for venture capital; 20-40% for buyouts/restructurings and growth capital, 10% to 20% in special situations, such as mezzanine debt, turnarounds, distressed debt, energy, etc.

If an advisor is used, or if an institution is well-staffed and experienced in the asset class, a higher allocation is achievable for venture capital, small to middle market buyout, and growth equity funds. An overall mix as shown in the table below would be considered ideal:

INVESTMENT CATEGORY	TARGET ALLOCATION
Venture Capital	
Seed and Early Stage%:	25-35%
Late Stage%:	15-25%
Total Venture Capital:	40-60%
Buyout:	20-40%
Mezzanine/Subordinated Debt RestructuringlDistressed Debt:	10-20%
International:	10-20% of the total portfolio indicated above

At the policy level the institutional investor may also choose to explicitly define what types of investments are permitted and what is prohibited. For example, many institutional investors prohibit investments in funds targeting hostile takeovers.

Geographic Considerations - The most sophisticated private equity investors typically do not use strict geographic allocations by continent or nation as they can result in sub-optimal returns. The benefit of geographic diversification in private equity is unproven, with evidence suggesting that vintage year returns are similar between regions and that private equity performance, especially venture capital, is more closely tied to global economic and stock market cycles, rather than compartmentalized national economic conditions. Therefore, the optimal strategy is to build the core portfolio based on a "global standard," which will produce a U.S. biased mix, and to then diversify this at the margins with select international funds that have the potential to produce returns which are at least equally attractive to compensate for the somewhat higher cost in accessing these markets.

When a global standard is applied, certain structural features of private equity appear. For example, the venture capital sector has been the most successful segment in the US but has seen only limited success in Europe. Conversely, over the 1990's buyouts in Europe have outperformed US buyouts due to less saturation of the market, higher available levels of debt financing and greater opportunities to add efficiencies as the European market integrated.

Establishing return objectives - The goal of a private equity program is typically to maximize risk-adjusted returns and enhance the overall value of the total pension fund. A variety of benchmarking approaches can be used; each has benefits and deficiencies. The most commonly used benchmarks for private equity include:

1. Vintage year comparisons provided by Venture Economics or Cambridge Associates
2. Absolute return hurdle (e.g., 15% per year)
3. Public stock market index plus a risk premium

The benchmark should be consistent with the goals of the program and overall strategy. Public market based indexes can be used to reflect the "opportunity cost" of investing in private equity, but do not provide an "apples to apples" comparison. Typically a public index such as the Wilshire 5000 plus a risk premium is used for asset allocation modeling, but once an allocation is set for private equity, an absolute return hurdle or private equity vintage year index is used to evaluate relative performance of the private equity portfolio.

Vintage year comparisons are the best way to measure performance of a fund manager, as they take into consideration the maturity of the portfolio, as well as the sub-sector (ie. venture or buyouts, US or Europe). It should be noted however, that the benchmarks are based on voluntary reporting by funds and there can be significant effects from survivorship bias and failure of funds to provide data consistently. As a result, an advisor with a diversified portfolio will often assess funds according to an internal benchmark, both on an overall basis and by sub-sector.

Following the end of the 1990's stock market boom, many investors reduced their expectations for the absolute return targeted from both public and private equity. Furthermore, the prevailing approaches to benchmarking in private equity are moving towards (1) public index plus a liquidity premium and (2) vintage year comparison approaches. As an example of the trend in representative benchmarks, CalPERS has migrated over the years from an absolute return hurdle to the current use of vintage year comparisons with a target of performing in the top third in any given vintage year.

Lastly, it is important to note that none of the benchmarking methods work in the early years of a individual fund or a portfolio of funds because (1) a small number of events within the portfolio can have a significant impact on its value, and (2) early performance is, to a degree, immaterial because only a minority of the committed capital has actually been drawn by the funds and invested in companies. (See Section below on "J Curve.")

Issues to consider in building a portfolio

Building a top performing private equity portfolio requires access to the best performing funds, expertise in evaluating investment opportunities, and negotiating appropriate terms. While private equity as an asset class has significantly outperformed other asset classes, within private equity there is a significant difference in the returns generated by the average fund when compared to the top performing funds. Top-quartile private equity funds typically out-perform the median by 15% to 30% per year. Therefore, access to the best funds is of critical importance.

High performing private equity portfolios are well diversified, across strategies (early stage venture, late stage venture, small to middle market buyouts, etc.), industry sectors where private equity has proven successful (technology, healthcare), and time (vintage year). Investments in proven markets and proven segments of the asset class should form the largest portion of a portfolio. Furthermore, superior portfolios tend to have a greater concentration of investments in venture capital and small to medium buyout and growth capital funds. These factors contribute to the large number of fund investments needed to meet asset allocation targets.

Proven Top Performing General Partner Teams - These should make up the core of a superior private equity portfolio based on the fact that historic returns are the best single indicator of future returns. However, large institutions and many advisory firms seeking to build a meaningful allocation to the asset class typically have trouble gaining sufficient allocations from top funds, particularly in the early years of the program, as this requires displacing loyal existing investors. In order to overcome this issue a large investor that is new to the asset class can work with advisors who have a breadth of relationships that provide access to top teams.

New and Emerging Funds - Newer funds also have an important role in a large, top-performing portfolio. An evaluation of the investment strategies of the most successful long term investors in private equity clearly demonstrates that the best way to gain major allocations with the very best teams is to identify those teams early in their "life cycle." However, large institutions often consider it inefficient to work with new and emerging teams because this requires the skills to evaluate the strategy, the appropriateness of the team's prior qualifications, as well as any unrealized initial investments. In addition, because initial screening criteria are not well defined, a large number of teams must be reviewed for each investment actually made. When an investment is merited, the most effective approach is to invest relatively small amounts at first, but then work closely with the team to add value and establish major allocations if/when the team's performance merits.

Formation of investment criteria - The overriding criterion for a fund investment is clearly the expected future financial performance of the fund relative to the expected level of risk. This should take into account both expected Internal Rate of Return (IRR) and expected cash-on-cash multiple since neither on its own is sufficient. (Multiples of capital returns provides a measure of value creation while IRR takes into consideration the time value of money.) Evaluation of a fund should take into account the long-term track record of the principals but should always focus on both the stability and recent unrealized (un-exited) performance of a prospective team in order to assess the financial attractiveness of the investment going forward. In addition, it is important to analyze the operating expertise of the fund managers since building or improving the underlying business of each portfolio company is a key driver of returns in private equity. (Returns from financial engineering have diminished substantially. Financial engineering alone is not generally expected to produce acceptable levels of returns in the future.)

Evaluation criteria differ based on a fund's strategy. It is important to hire an advisor who has the capabilities to evaluate the different types of private equity. Generalized criteria are outlined below:

General criteria:

- Fit within the institution's private equity strategy and policy
- Strong past financial performance as a group or individually in the case of newly formed fund management teams (see discussion below)
- A repeatable strategy that fits with a market opportunity and which the general partner can effectively implement, including sourcing, evaluating, structuring, adding value to and exiting attractive investment opportunities
- Strong alignment of interest among the general partner and the limited partners and high quality governance structure for the partnership

*Criteria for teams with verifiable track records***:**

- Superior financial performance from the realized portfolio
- Continued strong performance apparent in unrealized investments
- A credible ongoing investment strategy in an attractive sector
- A high quality, stable investment team with appropriate qualifications for the strategy

*Criteria for new and/or emerging teams***:**

- A credible strategy for achieving superior performance in an attractive sector
- A high quality team with an appropriate mix of domain expertise and the resources and capability to differentiate and add value

- Proven personal track records of the key individuals prior to forming the new fund in a strategy close or identical to the proposed strategy.

Setting annual goals for amounts of capital deployed - While a private equity portfolio should be diversified across vintage years, it is important not to set specific volume targets annually, as this may lead to bad investment decisions. Private equity is not an asset class that can or should be indexed. The best approach is to invest only when good opportunities present themselves and it is therefore better to develop targets for deploying capital over a "fund cycle," which can be defined as the average period over which every active team will raise approximately one new fund (typically 3-4 years). Because the teams raising money will vary in any given year, any year can include an over or under representation of high quality teams who are raising capital, particularly by sub-sector. For example, during 2002 very few of the best information technology venture capital firms raised a new fund, whereas a large percentage raised capital in 2004. An investor putting equal amounts into this segment annually during 2002, 2003 and 2004 would end up with an inferior portfolio to one who deployed the capital in the best teams over the 3-year period. To a large degree it is therefore important to "pre-build" an appropriately diversified portfolio by identifying in advance the most attractive teams in each sub-segment, defining when they will raise capital in the upcoming cycle and holding space in the portfolio for those teams.

The "J-Curve"- During the first few years of a fund, the manager calls capital to make investments and cover management fees. The portion of capital which goes to fees causes the capital account balance of the limited partner to drop below the cumulative contributions in the early years of the fund, such that the limited partner's annualized return is negative. During the middle years of the fund as investments are harvested the value rises past breakeven and into a profit. As the fund nears the end of its life the value plateaus and terminates at the final level of return. This phenomenon is known as the "J-curve". Furthermore, the J-curve is often exaggerated in the early years of the fund by the write down of investments that fail. This occurs because problems with portfolio companies tend to surface early, while it takes a number of years to build or improve the underlying businesses and exit the investments - "it takes less time for a bad company to fail than it does for a good company to succeed." It is important to understand the J-curve in order to set expectations for individual funds and the overall portfolio in its early years.

There are two schools of thought on the J-curve. The most sophisticated investors, including many public pension funds, consider the J-curve a "fact of life" in private equity that the institution should not attempt to mitigate. Pension funds in particular typically do not attempt to immunize their private equity portfolios from the J-curve, but rather look to their substantial common stock and fixed income portfolios to provide liquidity and current cash flow. Furthermore, once the program reaches a steady state the return characteristics of the overall portfolio will be smoothed out as the J-curve of new fund investments is balanced by the distributions of older funds in the harvest mode. The second school maintains that private equity portfolios should deliberately moderate the J-curve by making initial investments in mezzanine, secondary purchases, partnerships with shorter investment holding periods, or in hedge funds so that there is some current income and early distributions to offset the management fees on large amounts of capital committed but not yet drawn. However, this approach will change the risk/return profile of the portfolio, impact the overall return of the portfolio over the long term and may also require adjustment to the benchmark utilized.

Ways to assure access to the highest quality funds - The best small and medium sized private equity funds generally only need to raise money from their existing investors. In contrast, the large buyout funds have an insatiable need for capital and are generally open to any large new investor. Historically, smaller funds have not taken capital from public institutions or their gatekeepers and have preferred endowment and foundations where they could have direct, long-term relationships with their major investors.

Access to the best performing funds results from having strong direct relationships with the fund managers and having a reputation as an attractive investor. For institutions that are new to private equity, it is particularly helpful to retain an advisor that has both strong relationships and an explicit pre-marketing strategy to seek out the best funds for its clients long before these funds are raising capital. The best funds have typically identified new investors to whom they plan to give access 12 months before they formally raise the fund.

In addition, in order to be viewed as an attractive investor, an institutional investor must:

- Have efficient and timely investment evaluation and decision making processes
- Be viewed as a stable source of capital over time and through economic cycles
- Be value added in some manner to the fund manager

A longer-term approach to gaining access to the best performing funds is to invest small amounts in the most promising new and emerging groups and increase the commitment to the best performing of these groups over several fund cycles, while weeding out those that do not perform as well. This is the approach used by a number of the top performing university endowments who have built superior private equity portfolios with large allocations to the top performing funds.

Large private equity funds - For the purposes of this discussion, "large buyout funds" are defined as greater than $2 billion and "large venture capital funds" include those over $1 billion.

Large pension funds often fall into the trap of building significant exposures to the large buyout funds because larger funds are relatively easy to access and can accommodate large commitments. However, smaller funds have generally out-performed large funds. In the buyout space, this occurs for several reasons: 1) large deals are often more competitively priced; 2) large buyout funds rely more heavily on financial engineering than middle market firms; and 3) it is much more difficult to achieve operational improvements in larger companies than in smaller companies. The following chart illustrates the rather dramatic return differentials between small and large buyout funds.

In the case of venture capital most funds are less than $1 billion. Those that are larger are often forced to take a more generalist approach and cover a larger geographic area, which makes it more difficult to spend time at portfolio companies helping to build their businesses. Smaller funds often have greater sector expertise and more narrow geographic focus that provides a greater ability to identify attractive investments and to actively engage in building the businesses of the companies in which they invest.

Ways to avoid dependence on large private equity funds - Avoiding dependence on large private equity funds requires the dedication of sufficient resources. It takes more resources relative to each dollar invested to identify, evaluate, and monitor a portfolio of small to mid-sized funds. An advisor can assist in building a portfolio of mid- sized and smaller funds. It is important to find the right advisor with the requisite expertise since many advisors lack the resources and experience to successfully build a high quality portfolio of smaller funds. In addition, such a program is most effective with a discretionary advisor who can move quickly and outside of the pension fund's internal process as the best small funds raise their capital quickly with limited room for new investors. For these reasons, some pension funds utilize internal staff and external non-discretionary advisors for their investments in large buyout funds and use a discretionary advisor with the expertise and resources to build and manage a portfolio of small and mid-size funds.

Disclosure policy - Disclosure of fund performance is currently a very hot topic within private equity. Recent pressure to disclose has come from the press and individuals wishing to sell the data with a number of cases currently in the courts. As such, any public institution planning to invest in the asset class must develop a policy with respect to disclosure. The key points to consider are the balance between the utility to the public of transparency for individual fund performance versus the impact of such disclosure on long term performance of the institution's private equity program. It should be noted that, currently, this data is kept confidential by the fund managers, and public sector Limited Partners agree to keep it confidential under the LP agreement, subject to state freedom of information laws, the scope of which is the matter presently being interpreted in the courts.

The key implication for the institutional investor is that, regardless of whether one can argue that disclosure of a fund's top line performance is or is not harmful, or should or should not be public information, the smaller and highest quality fund managers will simply not accept capital from LP's who will publish fund performance. This means that, depending on the fund raising environment in any given year, there will be 25 - 50 funds who have substantially outperformed the market (by 20-30% per year) which will not be willing to accept capital from disclosing LPs unless an investment vehicle can be constructed where the vehicle's total performance may be disclosed but each individual fund's performance is not.

Accessing the private equity fund market

Appointment of Counsel - Legal counsel with experience in private equity will be needed to assist with the review of the limited partnership legal agreements and to provide on-going support for amendments and consents. It is important that the party responsible for the investment decision for a given fund (i.e. either the staff or the advisor) run the legal negotiation process in order to ensure the terms match the key issues of the particular investment, to preserve continuity in the relationship and to ensure that overzealous attorneys do not harm the reputation of the limited partner.

Selection of advisors (non-discretionary, discretionary fund-of-funds managers) - A growing number of consultants are available to assist investors in the selection of private equity partnerships investments. Private equity consultants are often classified by the type of service they offer.

Non-discretionary consultants evaluate partnerships and make recommendations, but do not have the authority to make commitments on behalf of their clients in non-discretionary engagements. This authority is vested in the institutional staffs that supervise the consultant.

Discretionary consultants have the authority to make investment commitments for their institutional clients. Discretionary clients fall into two general categories:

(1) Discretionary fund of fund managers and

(2) Discretionary managers who offer custom programs

There are benefits and disadvantages to each of these consulting approaches. The non-discretionary approach gives the client the most control over its investments and can offer the lowest cost in terms of assets under management. But it has drawbacks. If internal staff is charged with final decisions on partnerships investments, then the staff should have the requisite skills and experience for this responsibility. An investment staff also shoulders a significant workload in a non-discretionary relationship. It undertakes responsibilities to supervise the consultant and run a program that includes consultant oversight of the private market's initial screening of investments and assessment of the consultant's recommendation. Further responsibilities may include supplementary due diligence and staff presentations to senior executives within their respective institutions.

Finally, under non-discretionary engagements in general, a heavy weight of accountability for the performance of the private equity program may rest with the investment staff. This burden arises because the staff supervises the consultant and makes final investment decisions.

Discretionary fund-to-funds managers take full responsibility for all phases of deployment of capital, program administration and investment performance. They issue periodic reports to investors.

However, while pooled fund-of-funds managers may be appropriate for investors that wish to completely out-source their private equity investment activity, such managers are typically unwilling or unable to customize an investment program for each individual client and often act as a barrier between the client and the fund managers.

The second category of discretionary consultants consists of those which offer customized programs. These service providers usually respond to specific portfolio-building projects such as international private equity, emerging managers or small venture capital that are agreed in advance with the institution. The consultants then proceed with a full service discretionary program.

Custom programs run by fully qualified consultants, represents a very effective way to deploy capital. The draw back is that they are premium priced and there are relatively few groups available.

It will be critical to carefully think through the process for choosing advisors with appropriate qualifications for the program's overall objectives and stage of development. In the case of an institution which is new to the asset class, it is likely that a combination of advisors would be most appropriate and might include:

(1) an advisor who would manage a dedicated discretionary program to build a core portfolio of venture and smaller buyout relationships that could be transferred over time to the core program,

(2) one or more non-discretionary advisors to assist the staff in making select direct investments in large buyout funds or in hedge funds,

(3) a reporting and auditing consultant who could pull together aggregate portfolio financial information and benchmark performance to the industry and ensure proper

internal controls,

(4) an investment policy consultant who can help advise the Board on asset allocation, a role often played by the general asset allocation consultant to the institution, and

(5) a provider of services for managing distributions from funds (i.e. particularly for non-cash distributions of securities in portfolio companies).

An ideal discretionary advisor would have the following qualifications: (1) Proven access to top performing partnerships - many of the best funds are closed to new investors and an advisor with existing relationships can provide access to those partnerships; (2) Superb investment evaluation and monitoring skills, (3) No major conflicts of interest between the proposed services and the advisor's business model and other clients, and (4) Strong alignment of interest between the institution and the advisor.

An advisor with significant operating experience in private equity, such as experience running a private equity fund and investing directly in companies will have unique insight into the quality of the partnerships under evaluation. In addition, an advisor who has unique market intelligence with respect to the internal dynamics of the team managing a partnership under consideration is highly valuable. For example, this may include knowledge of internal disagreements over management of the fund, interpersonal problems among the partners, problems with compensation or succession planning, etc.

The advisor should:

Implement a customized investment program consistent with the institution's goals and strategy. (Most advisors will say that they provide customized programs for each client, but in reality do not because of their large numbers of clients and relatively junior staffs.) It is therefore important to choose an advisor where you will be one of their most important clients and therefore the advisor can provide an exceptional level of service.

1) Develop a close working relationship with the internal staff, including assisting in staff development. The advisor should also be willing to transfer management of the program and/or its investments to the staff over time, if desired.

2) Build value added relationship with fund managers in the program

3) Have the ability and expertise to identify and work with new and emerging partnership

4) Have a strong alignment of interest with the institution, which can be achieved by the following:
   a) Fees should be, in part, performance based.
   b) The advisor should invest its own capital in the program.
   c) The advisor should provide clear policies for allocating investments among its clients that are acceptable to all of its clients.
   d) The client should have the ability to terminate the advisor with or without cause.

In designing the investment decision-making process, it is important to define who will have authority to make the investment decisions and the limitations. The best advisors will often want discretion for making investment decisions, but it may be appropriate to limit discretion to investments less than a certain amount. One approach is to provide different levels of authority for the advisor, Staff, Senior Management, or the Board.

Capital Calls - Because commitments to private equity partnerships are taken down and invested over 3-4 years, there will be a need for an administrative function to wire the capital to the partnerships as it is called down for investment. Also, there will be a need to coordinate with other areas of the pension fund to ensure that there is sufficient cash on hand to meet the capital calls. It is also important to define who will manage the private equity allocation until it is committed and ultimately invested in funds. Typically the allocation is placed in a highly liquid public equity index. Liquidity is important because the capital must be accessible to meet the capital calls from the partnerships on a timely basis (typically with 5 day notice).

Distribution Management - Capital and profit are returned in the form of cash or securities. Securities result from venture capital partnerships when the portfolio companies have public offerings, and can result from buyout funds that exit investments through mergers with publicly traded companies. Management of this process should be addressed. In addition, as capital and profits are returned, there needs to be a mechanism for the cash to be invested elsewhere.

Currency - Generally it is very difficult to hedge the currency risk in private equity portfolios because it is difficult to time the disbursement and receipt of cash/securities and the holding periods are long. Most academic work suggests that given the long holding period, currency effects tend to be neutralized over the life of a private equity portfolio. However, this topic deserves some consideration in formulating the strategy and currency exposures should be monitored.

Portfolio monitoring

There are two levels of monitoring which are critical for a major private equity program: (1) monitoring of individual fund investments, which is best done by the party managing that relationship, and (2) monitoring the various investment advisors and the congruence of the developing portfolio with investment policy and diversification targets, which is best done by the staff and Board.

Monitoring of individual funds - A monitoring process should be developed for monitoring each partnership, which should be managed by the entity responsible for the original investment decision in each case (i.e. staff to monitor their direct fund investments, advisors to monitor their fund investments). This process should include monitoring the fund's investment evaluation and decision making to ensure that investments are being evaluated properly and that investment criteria are being adhered to.

It is important to understand that the initial investment decision is far and away the most important step. Interaction with the fund after a commitment is made is unlikely to significantly impact financial performance. That said, monitoring the fund achieves several important objectives:

1) Fulfill a fiduciary obligation to ensure compliance with financial terms for valuations and distributions and ensure the team sticks to the agreed strategy.

2) Spot potential problems within partnerships before they become critical issues

and, where appropriate, to add value to fund and to advise the team on any key issues.

3) Follow the development of the portfolio to continually reassess the quality of the fund and its strategy in order to make the right decision to reinvest or not when the next fund is raised, since this decision will need to be made before the true financial outcome of the current fund is known.

Within the advisor or the staff, monitoring is most effectively led by the professionals who make investment decisions with support from the financial staff, rather than by financial staff alone. While the monitoring team should participate in annual meetings of the funds in order to show support and build relationships with the other limited partners in the fund, periodic face-to-face meetings, frequent telephone contact, and assistance on fund issues are the most effective means of monitoring and adding value to a fund. Advisory board and valuation committee seats are appropriate for funds where there is a large commitment or with newer teams where the advisor can add value. Ultimately, close peer-to-peer relationships between the advisor and the fund manager will lead to the most effective monitoring, the earliest warning on potential issues and the best insights into which teams justify continued support.

From a financial standpoint, there must be systems and procedures to:

- Track all cash flows and automatically calculate IRRs and pace of investment.
- Verify that valuations of portfolio companies are consistent with proper valuation procedures and with valuations reported by other investors in those same companies
- Review of all distributions for reasonableness and consistency with procedures and terms established in the management agreement
- Verify the pace of investment and pace of distributions is consistent with expectations.
- Monitor fit of investments with the stated focus of the fund.
- Provide customized reports which meet the client's needs

These systems will often be provided by a discretionary advisor and can also be provided to the staff for its direct investments by an auditing consultant.

Monitoring the Investment advisor and overall portfolio mix - A process should also be developed to aggregate the ongoing investments in funds, both staff investments and investments managed by advisors, in order to assess the level of diversification and risk in the overall portfolio, including concentrations in industries, vintage years, sub-sector strategy (venture, buyout, etc.), and geography. It is also prudent to monitor the currency exposures and the rate at which the partnerships are investing their capital commitments and the rate at which capital is returned. It may be advisable to outsource this overall aggregation function to a financial reporting consultant who can provide a quarterly report on the changing asset mix.

The monitoring strategy should also address the form and frequency of performance reporting. Because private equity has a relatively long time horizon, performance changes tend to be small from quarter to quarter and annual performance reporting therefore may be most appropriate. However, more frequent reports, which summarize the individual investments made, are also helpful for Staff, both as a component of their own professional development and as indicators of the quality, types, and pace of investing.

At the Board level, it will be useful to undertake a periodic review and refinement of the Alternative Investment Strategy, most likely on an annual basis. Such a review would provide an update on market conditions, review the portfolio performance, discuss progress implementing the strategy, recommend enhancements to the strategy and set priorities for the next year.

Staffing for a private equity program and role of the Board of Trustees

In order to build a program which is sustainable over the long term, some care should be given to the balance between the use of an internal staff in combination with advisors. The best advisory relationships are long term, involve the establishment of close professional relationships where the internal staff and advisor work as a unified team, and the staff is recognized as the ultimate authority in investment policy. However, staff development is an equally important element in the relationship and an advisor should pro-actively support the internal staff s development, to the point where, ultimately, the staff can take over management of the portfolio.

In a sense, a good advisor should try to work themselves out of a job over the long-term. However, if this is the institution's long term strategy it is important to select an advisor that agrees to this at the inception of the relationship, and has a proven record of working with staff and transferring relationships. Otherwise, the advisor may have the tendency to discourage build up of the staffs abilities and relationships so as to maintain control over the account.

Staff retention is also a significant issue. While it is possible to hire high caliber personnel into public institutions due to the exposure and relationships they gain, experience suggests that staff will turnover every 5 years. In this regard, advisors often provide a complementary means for preserving continuity in the program.

In developing the strategy, the resources required and roles of the various groups involved should be defined initially and then expected to change over time as the staff gains experience and portfolio matures.

Typically the Board of Trustees or an Investment Subcommittee of the Board will review and set policy, approve the alternative investment overall strategy, monitor performance of the alternative investment program and retain advisors. The reports to the Trustees are typically prepared jointly by the staff and advisor. Advisors came also playa role in Trustee education programs, since private equity as a topic is of significant interest among Trustees.