Is it possible to benchmark private equity performance?

Given the fall in public and private asset investment returns expected to materialise over the coming decade, the asset allocation debate is raging right across the fund management industry. This is leading to a closer look at the returns the private equity asset class can be expected to offer and what role it can play within a portfolio. And applying benchmarks is seen as one way to try to measure the effectiveness of private equity allocations in terms of the degree in which they are expected to enhance returns. The trouble is benchmarking can, on closer inspection, sway between the meaningless to the downright illogical. So how should fund managers make them logical and meaningful and in so doing avoid the charge of irresponsible corporate governance? *Lisa Bushrod* reports.

The problems start with the fundamental differences between private equity and other publicly-traded asset classes. Jesse Reyes, vice president at Venture Economics, which, among others, works with the National Venture Capital Association in the US and the European Venture Capital Association in Brussels to produce performance figures for their members, outlines the control issue. "In the public markets the money that an investment manager gets is not under his control and you do not want to penalise or reward for a timing decision that is not under his control. Since private equity investment timing is totally under the manager's control, timing decisions should be part of the performance measure so he can be penalised or rewarded for these timing decisions," he says.

Jesse Reyes, Venture Economics

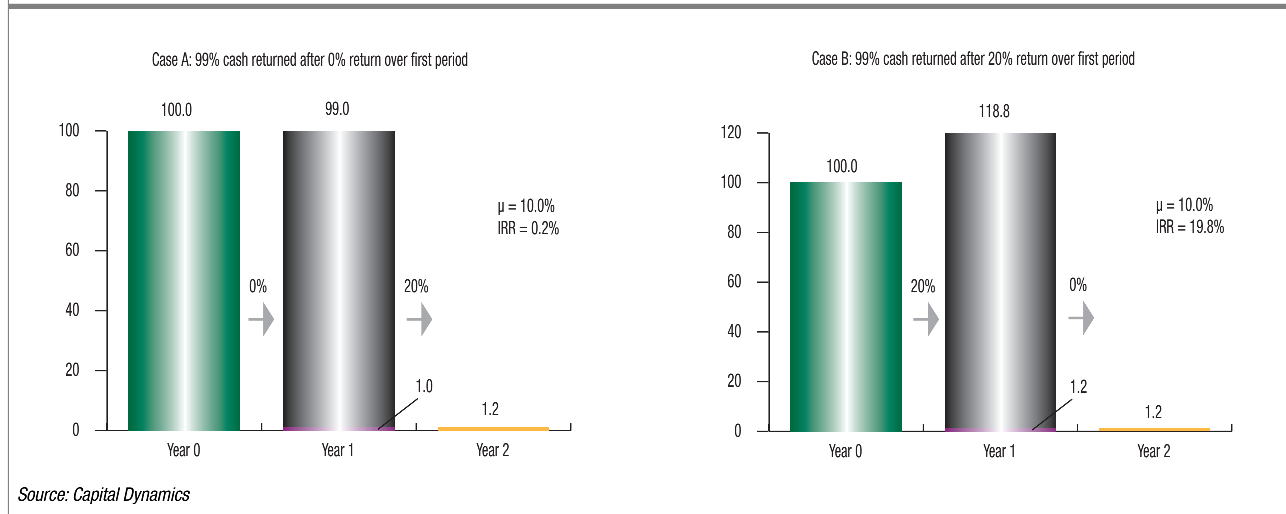
Unfortunately many managers faced with selecting and monitoring a portfolio of investments in private equity funds are tasked to do so within organisations that promote a return figure derived from a benchmark or index that ignores timing, when in fact the very way private equity funds and their managers work out their relative success is based on a calculation, called the Internal Rate of Return (IRR), that is wholly dependent on timing.

"Private equity has traditionally used IRR whereas public markets use time weighted returns. Time weighted return makes an assumption that no transaction has happened during the investment period. If a VC put money in one day and took it out five years later the IRR would be the same as time weighted return, other things being equal," says Reyes.

This point is clearly demonstrated in figure 1, provided by Capital Dynamics, which note that in Case A, the 100 units invested achieved a 0% return during the first year. After year 199 of those 100 are withdrawn, leaving only one unit, which goes on to achieve a 20% return in year two. The net result is that the IRR for the two year period is just 0.02%, whereas for the time weighted return calculation it is 10%. This is purely down to the fact that the time weighted return does not take account of whether the unit of investment was one or 100, merely what the increase/decrease is over a period of time and since the investment remained static in year one at 0% and gained 20% in year two then the return across the two-year period averages out at 10%. IRR, on the other hand, effectively penalises the decision to withdraw 99 of the 100 units in year two when the return was 20% and since the fund manager had so little money exposed to the 20% return (just one unit), the IRR is a paltry 0.02%.

Case B simply reverses the return between the two years so that in year one a 20% return is earned and in year two the return is 0%. While the time weighted return for this example

Figure 1: Why IRR is generally not used for the manager's performance
Illustration of the difference between IRR (cash weighting) and periodic return (time weighting)



Source: Capital Dynamics

still comes out at an average of 10% over the two year period, in the case of the IRR calculation, the fund manger is effectively recognised for holding 100 units at 20% and then removing 99 of those units in year two when the return turns out to be 0%, which uplifts the IRR to 19.8%. As Reyes notes: "The time weighted return is really a misnomer as it is timing independent; a big return in year five counts the same as the same return in year one of a ten-year investment."

Although it's important to note that it's not de facto a problem when managers faced with selecting and monitoring a portfolio of private equity funds are tasked to do so against a return figure derived from a benchmark or index. "At the very bottom of the food chain, i.e. the fund managers, IRR is the best measure. It gets trickier when you want to evaluate how well the overall private equity portfolio of a limited partner investor is doing, when the limited partner investment manager may not have control over commitments made before his time nor have any control over when the fund they have invested in will either draw down capital or make distributions. This means the private equity fund manager at a pension fund may be more appropriately benchmarked using a time weighted return," says Reyes.

In spite of the timing problem, it's not acceptable simply to throw up hands and declare that comparing private equity and publicly-traded asset classes is like comparing apples and oranges and so shouldn't be done. Fund managers, whether managing a portfolio that is part of a larger portfolio diversified by asset class or not, need to know whether they are performing relative to the alternatives, not least because the illiquid and more inherently risky nature of private equity warrants an out-performance of more liquid and less risky alternative investment options.

The reason many managers are faced with being monitored against a benchmark or index that ignores timing can be down simply to a lack of understanding. "Most investment professionals are so used to classic asset classes that it's sometimes very difficult to make that leap to see how private equity is a very different animal. Finance people tend to grasp it very quickly, but they simply have no need to think about it ordinarily," says Thomas Kubr at Capital Dynamics.

These issues, given the relative immaturity of the private equity industry in Europe, were recognised as problematic as long as 20 years ago. Although that shouldn't surprise, given that without a way to prove that investing in private equity is worthwhile, growth in the asset class is unlikely to match its worth. The public market equivalent (PME) was first mooted some 20 years ago as a way of measuring the performance of private equity against its public counterpart.

"It is fine to use IRR, but when doing comparisons to other asset classes the IRR method can't always be correctly or directly compared with public market indices. There have been several methods based on synthetic results gained by hypothetically investing a private equity fund's cash flows into stock indices, but they are not well known outside of the private equity community so are not widely adopted by pension fund managers," says Reyes on the subject of PME.

Although it shouldn't be surprising that PME was first mooted some 20 years ago as a way of measuring and promoting the private equity asset class, what does surprise is that it was not until late last year that this methodology was refined to produce a financial model, known as PME+, that attempts to overcome the shortcomings inherent in plain PME.

That refining was undertaken by Kubr and his colleagues at Capital Dynamics. "There are some nasty technical problems with PME, sometimes it gives non-sensical answers or is just plain wrong. For example, a real problem is created when private equity outperforms the benchmark; you end up selling your index short," says Kubr.

PME+ avoids going short by selling a fixed proportion of the corresponding private equity cash flows instead of an equal amount, as is done under PME. But this is a very simplistic way of explaining a highly complex mathematical approach that would undoubtedly involve most limited partners needing, at a minimum, a guiding hand.

Comparators* CLN index method public market equivalents returns as of 31/12/03

	Since inception returns			
Stage	European private equity return	Morgan Stanley Euro index	HSBC small Company index	JP Morgan EuroBonds
Early stage	1.9	1.8	5.7	9.8
Development	9.0	7.9	7.5	9.3
Balanced	9.0	2.7	6.2	9.1
All venture	7.2	4.3	6.4	9.4
Buyouts	12.2	–2.9	3.8	9.9
Generalist	9.1	5.9	4.3	9.4
All private equity	9.9	0.5	4.8	9.7

*Comparators are Internal Rates of Return (IRR). IRRs for public market indices are calculated by investing the equivalent cashflows that were invested in private equity into the public market index. Then an equivalent IRR is calculated for each index. Calculations based on methodology proposed by Coller and published by Long and Nickles.

Source: Thomson Venture Economics VentureXpert

Comparators* public market equivalents returns as of 31/12/02

	Since inception returns			
Stage	European private equity return	Morgan Stanley Euro index	HSBC small Company index	JP Morgan EuroBonds
Early stage	4.9	–0.1	–4.2	7.4
Development	10.3	7.7	3.9	8.0
Balanced	10.7	–0.2	–4.1	6.5
All venture	9.2	3.0	–1.3	7.3
Buyouts	12.9	–7.1	–8.7	4.0
Generalist	10.0	7.1	0.3	7.7
All private equity	10.8	–2.3	–5.7	7.2

*Comparators are Internal Rates of Return (IRR). IRRs for public market indices are calculated by investing the equivalent cashflows that were invested in private equity into the public market index. Then an equivalent IRR is calculated for each index.

Source: Thomson Venture Economics VentureXpert

But it does work and, although complex, is not undermined as a model in the way PME is when tested by market extremes. "Practitioners know there is a high correlation between the public and private markets. If you can show this in financial models it gives people more confidence that the asset class does what it is expected to do and in that respect it does help to expand private equity investment programmes," says Kubr.

That said, Kubr is clear where PME+'s value lies. He says: "Any financial modelling benchmark is, by its nature, always backward looking. If anyone tells you that models should predict the future you should run fast. But solid modelling can give investors more information and a better basis about what they actually have with the asset class, hopefully leading to better investment decisions."

While PME and PME+ bring us much closer to a meaningful comparison of the performance of publicly-traded assets and private equity, the fact remains that the value of publicly-traded assets is the price at which you can buy or sell them today, tomorrow or at any given point in time. With private equity the value of the live portion of a portfolio is based on net asset value. Mounir Guen of placement agent MVision explains what this means in practice. "When using market comparables your nightmare comes in regard to the unrealised portfolio. When public markets were soaring, it was felt by investors that there was a lot of hidden value in private equity holdings. And when the market does an extreme tank, but you are holding everything at cost, 'is it worth that or did you buy things when they were too expensive?'," he asks.

Private equity performance has always involved a large element of unrealised value, that is investments that are live but whose true value, in terms of the price at which they will be sold, can only be estimated. These estimations, although the subject of various national and pan-national association guidelines always going to retain a subjective element, deliberate or otherwise.

Susan Woodward set up Sand Hill Econometrics three years ago in an attempt to bypass the private equity firms responsible for generating these unrealised net asset values. Sand Hill Econometrics attempts greater objectivity in assessing net asset values by relying on company-level pricing data, which ultimately means its customers ought to be able to update company and portfolio values to obtain more timely estimates of value and even to predict the returns private equity firms will report over the coming year.

Woodward thought she would end up selling her product to the myriad of pension funds. But she says: "Consultants are our more natural customers. They need to measure risk to help their customers allocate assets. Most have their own portfolio optimisation software, but sometimes it does not have the functions needed to measure risk for the more exotic assets. We can provide the software, help them through the first time use of ours or theirs, and be there to talk through the results. Then there are 40 or 50 big banks with portfolios of venture and buyout funds in the billions of dollars. The new Basel II rules require them to hold capital based on risk, and we can help them measure risk."

Given the fundamental differences between private equity and other publicly-traded asset classes, the majority of limited partners' private equity programmes are heavily dependent upon the advice of gatekeepers, consultants and fund-of-funds managers. Carol Kennedy of fund-of-funds manager Pantheon Ventures (now part of Russell) notes: "Some of the consultants are beginning to question whether or not benchmark relative thinking is appropriate. Some are questioning whether private equity has got things to teach the public markets and the thinking is shifting to strategic benchmarks related to a fund's liabilities."

While the debate is at last opening up when it comes to fund raising it's pretty clear how the lines are currently drawn, as Guen explains. "One half of investors have real benchmarks so what they effectively do is compare private equity relative to other public market benchmarks and by default if you go into that line of reasoning they are seeking returns that are about 5% above that. The other half is absolute return investors; they try to find the potential for the highest return profile that they can access and have a higher risk appetite," he says.

Because this is not always transparent, it can hold its own set of frustrations for general partners seeking funds. "What GPs don't always fully appreciate is that the underlying investors whose money they covet have a programme which is based on MSCI World or Europe or S&P500, for example, and everything in that portfolio is set up to match the exposures set by a consultant or trustee," says Guen.

For fund managers, the dilemma of proving that private equity investing is worth the trouble or effort it is sometimes perceived to be, looks as though it is taking a positive step forward. And this is increasingly important at a time when the uncertainty remains regarding the medium and long-term performance across all asset management classes. "Private equity, if done properly, outperforms public equity. Over the long term we are in an environment where the returns of all assets are going to come down. We cannot repeat the 1980s and 1990s again. The next ten to 15 years' public returns may well be in a 5% to 6% range, fixed income 2% to 3% and private equity may be no better than 8% to 9% in diversified portfolios. Private equity should be viewed as a relative value alternative to public equity," says Kubr.