An analysis of UK private equity fund performance against the public markets

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The ability to benchmark the performance of different asset classes is of paramount importance to institutional investors when considering where to put their money. In the case of private equity (PE) and venture capital (VC), however, the comparison is not always an easy one. The irregular and discretionary nature of the timing of the cash flows of PE and VC mean that their performance is not directly comparable with, for instance, the buy and hold returns from publicly quoted equities. There have been a number of solutions developed to this problem, including the Public Market Equivalent (PME) approach, which effectively replicates private equity's irregular cash flows in the public market. This analysis uses the PME approach to examine the performance of UK private equity funds relative to the FTSE All-share Total Return Index.

The underlying PE and VC fund data[1] is taken from the BVCA's 2012 *Performance Measurement Survey* (PMS)[2]. The PMS dataset contains PE funds invested in by UK General Partners (GPs), covering the period 1986 to 2012, and includes the daily cash flows and year-end valuations of funds. Data is directly provided to the BVCA by GP member firms on an annual basis.

Key points

All funds sample

- Since the earlier years of the industry in the 1980s, UK private equity funds have delivered robust returns for their investors, outperforming the market. The since-inception pooled IRR covering all of the 428 PE/VC funds in this analysis was 14.0% p.a. as of December 2012. This compares strongly with the Public Market Equivalent (PME) generated return which was 7.4%.

Post-1996 vintage funds

- Looking more closely at post-1996 vintage funds onwards – where the majority are still active today – reveals some interesting insights. Collectively, this group has outperformed public indices around two times over, with returns of 13.1% over the period compared to 5.7% for the PME. There are, however, noteworthy differences in the underlying fund stages. Venture funds, taken in aggregate, have underperformed relative to the public market. Encouragingly, however, those funds which drew down capital after 2002 have done relatively well, returning a since-inception IRR of 3.6%, and appear to be quickly catching up to the public market.
- Small MBO-focused funds – which typically invest up to £10 million in investee companies – are the dominant outperformers, with a PE-public market performance gap of the order of 10 percentage points in favour of PE. Buyout funds, investing in the mid-market and larger transactions, have also performed well, although their outperformance gap is relatively smaller.

Best performing vintage years

- As of December 2012, the best performing fund vintages are in periods following both domestic macroeconomic weakness twinned with relative global stability. Looking over each of the years, fund vintages from 1994 (34.3%) and 2004 (25.0%) were found to be the best returning. Moreover and somewhat surprisingly, funds which first drew down capital between around the turn of the millennium and up to 2004 did markedly, well, often generating IRRs in excess of 20% p.a.

Pre-1996 vintage funds and stages

- As the majority of these funds have been fully liquidated and/or retain only minimal, immaterial residual value within the portfolio, their since-inception returns quoted are in the main based upon realised cash flows and value. Returns, as of the year-end 2012, were healthy, with Generalist, Mid and especially Large -MBO orientated funds delivering stellar performances. On the whole, while there was outperformance in favour of PE, the gap was relatively small. It is worth remembering, though, that the PE returns quoted are net of fees and charges.

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By investment stage and subcategory

	Number of funds	IRR (% p.a.) to Dec '12	PME (% p.a.) to Dec '12
Pre-1996 vintage funds			
Early Stage	17	9.5	11.4
Development	32	10.3	11.8
Mid MBO	30	13.9	13.7*
Large MBO	26	18.2	12.9*
Generalist	22	18.0	13.9*
Subtotal pre-1996	**127**	**16.2**	**13.3***
1996 vintage funds onwards			
Venture	98	0.4	6.0
Pre-2002 Vintage Funds	43	-2.6	5.8
2002 Vintage Funds onwards	55	3.6	6.5
Small MBO	32	16.0	6.0*
Mid MBO	126	12.3	5.4
Large MBO	45	14.7	5.7
Subtotal 1996 onwards	**301**	**13.1**	**5.7**
Grand Total of all Funds	**428**	**14.0**	**7.4**
Subcategories (all vintages)			
UK	294	13.5	8.5*
Non-UK	134	14.2	6.5
Pan-European	127	15.8	6.9
Technology	100	0.6	7.2
Non-Technology	328	14.8	7.4

* Denotes that the Public Market Equivalent went short, so the PME+ method was used

By vintage year[3]

Vintage year	Number of funds	IRR (% p.a.) to Dec '12	PME (% p.a.) to Dec '12
1986	7	10.5	12.4
1987	13	8.3	10.8
1988	19	13.4	13.7
1989	16	18.1	14.2*
1990	13	11.3	13.1
1991	14	23.4	15.9*
1992	7	20.3	14.4*
1993	10	15.1	12.0*
1994	19	34.3	11.5*
1995	9	23.1	9.3*
1996	13	17.6	5.2*
1997	24	15.0	3.3*
1998	16	12.8	0.7*
1999	24	9.4	3.4*
2000	26	16.6	6.1*
2001	30	24.8	11.1*
2002	19	25.5	10.5*
2003	18	20.7	7.2*
2004	10	25.0	5.8*
2005	26	9.6	4.1
2006	36	4.2	4.9
2007	37	7.9	5.6
2008	22	7.6	7.9
Total	**428**	**14.0**	**7.4**
2009	20	4.0	8.7
2010	13	18.7	7.8
2011	14	70.7	10.7
2012	9	-32.6	11.7
Subtotal 2009 – 2012	**56**	**12.4**	**8.8**

* Denotes that the Public Market Equivalent went short, so the PME+ method was used

A primer on the Public Market Equivalent (PME) and PME+ metrics

Investors into the private equity and venture capital asset class face a common challenge: the ability to benchmark the performance of their portfolio against that of the public market. For publicly quoted equities and bonds which have clearly defined and often liquid markets, the returns are easily accessible, frequently in real-time, and easily understood. The PE/VC asset class, however, is somewhat different, reflecting the irregularity in the timing and discretionary nature of the cash flows between the fund and LPs.

Money multiples and the annualised internal rate of return (IRR) are the two most commonly quoted measures of PE/VC performance, and while they both have their distinct advantages in being easy to understand, they also have some drawbacks. Probably the most significant critique of multiples is that they do not take into account the timing of the fund's cash flows and so consequently do not take into account the time value of money. For example, a 2x result tells investors that for every one GBP invested into PE/VC, they received back twice as much in return. However, the relative attractiveness of this investment would be markedly different if it had taken, say, 10 years to produce that return than if it had taken two years.

In the case of IRRs, while they explicitly take into consideration the irregular timing of the fund's cash flows, they are a non-linear denominator-based measure of PE/VC return. Thus, while comparing them to standard time-bound numerator-based measures such as the passive or buy-and-hold estimates of return seen in the public markets can prove valuable as a guide to the relative performance of PE/VC, the two measures should not be seen as fully comparable.

What is the Public Market Equivalent (PME)?

In light of some issues surrounding the use of IRRs and multiples, Long and Nickels (1996)[4] devised the Public Market Equivalent (PME) metric. The PME is a returns measure in which investors can compare an IRR to the performance the public market would have generated over the exact same timing of the PE fund's cash flows. The PME is generated through creating a hypothetical investment vehicle which purchases and sells shares in the public market index in such a way that mimics the PE fund's irregular cash flows – i.e. investing in the index-shares when the fund makes a draw down and liquidating an apt amount of its holding when the fund distributes capital back to its LPs.

One of the key advantages of the PME is that it allows for a direct comparison against private equity funds' IRRs. It does, however, have some limitations. With cash flows remaining identical, the PME is largely dependent on the evolution of the Net Asset Value (NAV). However, the public market NAV could become negative in cases where the PE portfolio greatly outperforms the benchmark, effectively a sign that the PME has gone short and distributions exceed capital calls, or market prices have significantly fallen over time. This can potentially result in a largely nonsensical comparison of the performance of a long-only PE portfolio being compared against a short position in the public market.

What is the 'PME+'?

One solution to the issue of short exposure is the 'PME+', a returns metric first proposed by Rouvinez (2003)[5]. The PME+ circumvents the 'going short 'problem by selling a fixed proportion of the cash flows in contrast to the exact same amount as per in the PME. As such, the investor can avoid short exposure as they are restricted to not being able to sell more than the size of the public index position. In essence, the hypothetical PME+ vehicle retains the same end NAV as the PE fund but the public market's distributions are adjusted by a scaling factor. On the limitations side, PME+ does not, by definition, exactly replicate the private equity cash flows in the public market and a portion of a distribution (positive cash flow) can be moved back by a number of years with a consequent effect on the comparative result.

1 1986 vintage funds onwards were used in this exercise as FTSE All-Share Total Return Index data that includes dividend reinvestment were not available prior to December 1985.

2 BVCA (2012), Performance Measurement Survey, available at: http://www.bvca.co.uk/ResearchPublications/IndustryStatistics.aspx

3 Only funds which were at least four years old at the relevant year end are included for the computation of the 'Total' figures.

4 Long, Austin M. and Nickels, Craig J., (1996), 'A Private Investment Benchmark', mimeo; paper presented to the AIMR Conference on Venture Capital Investing, February.

5 Rouvinez, C., (2003), 'Private Equity Benchmarking with PME+', Venture Capital Journal, August, pages 34-38.

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