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## Benchmarking private equity against public markets

Benchmarking private equity returns against public markets has always been an important task for investors, as it is essential for gauging the attractiveness of private equity as an asset class. This task, however, is not as straightforward as one might expect, because private equity returns are not directly comparable with public market indices. This note highlights why such direct comparisons are not meaningful and describes a method known as the Public Market Equivalent (PME) return, which offers one solution to the benchmarking problem. Using this PME approach, we examine how the UK private equity funds have performed relative to the FTSE All-Share Index.

### The Public Market Equivalent (PME) method

The performance of public market indices are typically measured by annualised buy-and-hold returns (BHR), which are defined as the annual rate of return one would receive by investing an amount of capital in an index and holding it for a given period. There are implicitly only two cash flows to investors in this case, as dividends (or interest payments in the case of bonds) are reinvested, so investors just pay out the initial investment and receive funds when the investment is liquidated. The annual return of a private equity portfolio, however, cannot be measured in this way. This is because when an investor makes a commitment to a private equity fund their capital is not put to use immediately, but is called over a period of time. Similarly, the capital contribution and any associated gains/losses are not returned at the end of the fund's life but whenever disbursements are made. Thus, instead of two valuations at the start and end of the period, we typically observe a considerable number of somewhat random-looking cash flows throughout the life of the private equity fund. This is why the internal rate of return (IRR) is widely used as the measure for private equity performance. The strength of this measure is that it is influenced by not just the opening and closing cash flows of the fund but also the timing and size of all cash flows over the life of the fund.

Given the differences between these performance measures, comparing a private equity IRR with a public BHR index is comparing apples with oranges. Instead, we need to make a like-for-like comparison between private equity and public market returns. One such approach is the PME (Public Market Equivalent) measure of returns. This creates a hypothetical investment vehicle that mimics private equity cash flows. The performance difference between this PME vehicle and the private equity portfolio is determined by their net asset value (NAV) at the end of the benchmarking period. If the private equity fund has a larger NAV, that indicates private equity outperformance (and vice versa). The IRR of the PME vehicle represents the level of returns an investor could have achieved if they had bought or sold the equivalent amount of public index whenever a private equity fund made a capital call (investment) or a distribution (divestment). This PME IRR is directly comparable with the private equity IRR and gives a clear indication of private equity performance relative to public markets. Table 1 provides an illustration of the PME approach.

**Table 1: Illustrative PME return**

1. PME Benchmark					2. PME Valuation	
Date	Cash flow (CF) type	Fund A CF	PME	Index Value (IV)	PME NAV (PMEV)	Valuation Calculation
Year 0 (Y0)	Capital Call (C)	-100	-100	100	100	= - C <sub>Y0</sub>
Year 1 (Y1)	Distribution (D)	50	50	120	70	=PMEV <sub>Y0</sub> *(IV <sub>Y1</sub> /IV <sub>Y0</sub> ) - D <sub>Y1</sub>
Year 2 (Y2)	Capital Call (C)	-50	-50	144	134	=PMEV <sub>Y1</sub> *(IV <sub>Y2</sub> /IV <sub>Y1</sub> ) - C <sub>Y2</sub>
Year 3 (Y3)	NAV (V)	150	112	120	112	=PMEV <sub>Y2</sub> *(IV <sub>Y3</sub> /IV <sub>Y2</sub> )
IRR (p.a.)		<b>17%</b>	<b>4%</b>			

Whilst the PME method offers a practical solution to the benchmarking problem, it is not without its limitations. A main concern is that the PME vehicle may end up in a ‘short’ position (i.e. holding a negative NAV) when it underperforms a private equity fund. Comparing a long private equity position (positive NAV) with a short position in public markets obviously does not make sense and such a ‘short’ position may even result in nonsensical or uncalculable IRRs. In light of these issues, a number of adaptations to PME have been proposed, including the PME+ method developed by Capital Dynamics, a fund of funds. PME+ fixes the closing NAV of the benchmarking vehicle to be the same as the private equity fund, and scales back the PME vehicle’s cash outflows accordingly. This avoids the situation of having to ‘sell’ more shares than it has in its outstanding position, thereby resolving the ‘shorting’ problem. Alternative adjustments include restricting the amount of cash outflow from the PME vehicle to be no greater than its current NAV.

### Application to UK data

Applying the PME approach to benchmark UK private equity against public markets, we find evidence of significant outperformance relative to the FTSE All-Share Total Return Index. Collectively all funds in the BVCA’s database generated a pooled IRR of 14.3% p.a. from 1986 to 2009. In this instance, the matching PME vehicle maintained a ‘long’ position throughout the benchmarking period, avoiding the ‘shorting’ concerns. But its final NAV was significantly lower, and its total IRR was 7.3% p.a. This suggests a significant private equity outperformance. To check the robustness of these findings, we also excluded the impact of the recent global recession, as the FTSE All-Share, like many other stock indices, saw a drastic decline in 2008 that was not fully recovered in 2009. But moving the end of the benchmarking period to December 2007 still indicates private equity outperformance. Whilst the PME-IRR improved from 7.3% to 9.0%, the IRR of BVCA funds improved even more, rising from 14.3% to 17.5%, indicating a larger outperformance prior to the global recession. This suggests that private equity funds, like other financial asset classes, were also hit by the global recession.

The presence of a significant private equity outperformance is clearly encouraging. Nevertheless, it is important to bear in mind that this outperformance is very much a backward-looking exercise, and does not hold across all investment stages or vintages. Our results suggest that private equity funds have outperformed public markets overall since 1986, although individual investments and funds can clearly underperform. Furthermore, this PME exercise does not ascribe outperformance to leverage, sector-specific developments or other factors. But, as a starting point, it suggests that private equity can offer superior returns than are available in public markets.

If you have any questions or comments, please contact Mei Niu: [mniu@bvca.co.uk](mailto:mniu@bvca.co.uk)