The GEM Implied Private Premium®
Private Equity Benchmark

an intuitive way of communicating the relative performance of private equity commitments against public benchmarks

Two Key Questions

1. How much additional return, if any, did an investor generate by making a private equity commitment and forgoing public equity returns?

2. How can the investor express that return as an annualized excess return percentage?

The Answers

Question 1: How much additional return?

The Public Market Equivalent (PME)[1] is a metric that was developed to answer this question. Investors calculate PME as the ratio of (i) the sum of the future values through the date of calculation of the distributions from a private equity fund (or portfolio) reinvested in the selected public benchmark plus the private equity fund's (or portfolio's) ending unrealized net asset value (NAV) to (ii) the sum of the future values of the related contributions (capital calls) invested in that benchmark when made. The ratio demonstrates if the private equity commitment generated a higher or lower dollar amount (e.g., $1.20 or $0.95) for each dollar invested. As such, PME is a useful measure of incremental return.

$$PME = \frac{\text{SUM OF PE \$ DISTRIBUTIONS REINVESTED IN PUBLIC BENCHMARK + UNREALIZED NAV}}{\text{SUM OF PE \$ CONTRIBUTIONS INVESTED IN PUBLIC BENCHMARK}}$$

However, while private equity practitioners are satisfied with multiples of return (e.g., 1.2x or 0.95x), such metrics do not satisfy other constituents. Chief Investment Officers, for example, prefer annualized excess return percentages to compare the performance of portfolios or portfolio subcomponents against benchmarks.

1 KAPLAN, S. N. and SCHOAR, A. (2005), Private Equity Performance: Returns, Persistence, and Capital Flows. The Journal of Finance, 60: 1791–1823.

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Question 2: How to express as an annualized excess return?

The GEM IMPLIED PRIVATE PREMIUM® (GEM IPP) benchmark calculates the annualized rate of excess return that a private return stream generates over a public market benchmark, where a positive (negative) rate indicates outperformance (underperformance). (Technically, GEM IPP is the incremental return to the public benchmark to produce the same return as the private investment.)

To find this positive (negative) annualized excess return constant, we utilize the Goal Seek tool in Microsoft Excel to equalize both sides of the PME ratio (i.e., PME = 1.0). GEM IPP uses annual compounding to produce a metric consistent with other reporting methodologies and comparable to IRR.

IPP expressed algebraically

$$d \cdot \left[(1+b)^{\frac{365.242}{f-t_d}} + r_{pp} \right]^{\frac{f-t_d}{365.242}} = c \cdot \left[(1+b)^{\frac{365.242}{f-t_c}} + r_{pp} \right]^{\frac{f-t_c}{365.242}}$$

Where:

d = distribution, including unrealized NAV as the final "distribution"

c = contribution

f = end date of the analysis

b = the total return (in %) of the benchmark from the date of the cash flow (t_d or t_c) to the end date (f)

t = date of the distribution or contribution

r_{pp} = GEM IPP

GEM IPP isolates a manager's value add and sidesteps the well-known mechanical issues associated with earlier versions of PMEs. Furthermore, our methodology can be adapted easily to incorporate additional sensitivities including beta, a capital charge for unfunded commitments, and NAV adjustments.

Once the investor calculates IPP, it is his or her responsibility to determine whether it exceeds the indifference point between available private and public investment opportunities

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An illustrative example of GEM IPP in Microsoft Excel

We illustrate the computational details of GEM IPP using a simple numerical example. Consider the sample spreadsheet below, where we have tabulated the hypothetical cash flows of a private equity fund in columns A–C. Notice that the final "distribution" (cell C10) should be the current NAV of the fund. We also show in column D the benchmark levels (total return basis) corresponding to each cash-flow date. These four columns include all of the ingredients we need to compute IPP.

We use a numerical optimizer to obtain the value of IPP so that PME is equal to one. This can be done using Microsoft Excel's Solver or Goal Seek. For those so inclined, a one-dimensional root-solving algorithm such as the Newton method can be used. Computing IPP using such algorithms is very efficient and a value is typically obtained within 3–4 trials.

	A	B	C	D	E	F	G
		Hypothetical Cash Flows				Future Values	
	Date	Contributions	Distributions	Index	Year Fractions	Contributions	Distributions
1	12/31/2005	100.0	0.0	338.9	8.660	443.299	0.000
2	12/31/2006	25.0	0.0	386.5	7.661	88.936	0.000
3	12/31/2007	50.0	0.0	408.9	6.661	152.801	0.000
4	12/31/2008	0.0	0.0	256.2	5.659	0.000	0.000
5	12/31/2009	0.0	50.0	331.6	4.660	0.000	151.323
6	12/31/2010	0.0	75.0	390.8	3.661	0.000	176.669
7	12/31/2011	0.0	100.0	393.1	2.661	0.000	212.053
8	12/31/2012	25.0	0.0	456.5	1.659	41.827	0.000
9	12/31/2013	0.0	75.0	611.6	0.660	0.000	86.818
10	8/29/2014	0.0	100.0	667.7	0.000	0.000	100.000
11					IPP		10.619%
12					PME		1.0

About Global Endowment Management, LP

Fully Outsourced Chief Investment Officer (OCIO) Solution

GEM actively manages over $7 billion for foundations, endowments, family offices, and sovereign entities. We assume direct responsibility for asset allocation, manager selection, risk management, reporting, and investor service. In addition, we provide accounting, tax, and audit support for our investors.

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Questions?
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