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Private Equity: The Tyranny of IRR: Part 2 –How to Manipulate Your Performance, Look Clever and Earn Millions In Fees

In my last column we started a series on the use and misuse of the internal rate of return calculation as it has been frequently employed by overseas private equity managers and introduced a paper by Professor Ludovic Phalippou of Oxford University. This week we will attempt to interpret Professor P's findings in non-technical language and thus demonstrate that many of the quoted returns by overseas PE players are patently ridiculous.

First some context: Professor P makes the point that "the widespread belief that private equity reliably out performs the public stockmarkets arose over the last 20 years due to a series of high-profile articles, institutional memoranda and public company disclosures repeatedly emphasizing striking return figures. These figures, called IRRs, have been treated as genuine rates of return and have become deeply imbedded in how investors, consultants, and policy makers talk about the asset class".

EXHIBIT 3

Influence of Early Distributions on IRR

Year	Fund 1	Fund 2	Fund 3
2011	-100	-100	-100
2012	120	60	120
2013	5	5	5
2014	5	5	5
2015	5	5	5
2016	5	5	5
2017	5	5	5
2018	5	5	5
2019	5	5	5
2020	5	5	5
2021	140	200	440
IRR	39%	20%	45%
Multiple of Money	3.0	3.0	6.0

So what is wrong with IRR? Professor P provides the following example of how early distributions from a

private equity fund can dramatically improve stated performance numbers. "Fund 1 has an early distribution, whereas Fund 2 possesses the same money multiple (money multiple is just the total distributions of the funds divided by the initial cost so in fund 1 distributions total 300 which is 3 x the initial cost of 100) but starts with a distribution that is half the size of Fund 1's (60 instead of 120). If a \$60 distribution set in 2012 is shifted to 2021, the IRR is halved! Fund 3's distributions are double those of Funds 1 and 2, yet its IRR only slightly rises from 39% to 45%. This example shows that initial cash flows largely dictate an IRR. Exhibit 3 data also show that presenting the multiple alongside the IRR offers only limited help. Fund 1 and Fund 2 share the same multiple, and their IRRs suggest a strong preference for Fund 1 over Fund 2. The problem is that the difference in IRRs overstates the performance gap between the two funds. Although Funds 1 and 3 have similar IRRs, Fund 3 boasts a multiple twice as high, signaling it is much superior, but the IRR gap is minimal.

Most importantly, the fact that IRR is influenced by early distributions makes it possible for fund managers to strategically manipulate IRR. Managers might quickly exit successful investments while retaining the less profitable ones. Furthermore, they can borrow to make their first investments in each fund rather than calling capital from investors (utilizing so-called subscription credit lines)". These techniques: early distributions, and lots of debt can supercharge IRRs.

In this section of Professor P's paper, which he labels "the smell test" he writes: "A simple way to show that the IRR is unlikely to represent a genuine rate of return is to calculate the amount of capital investors would possess if they had realized a rate of return equivalent to the IRR the managers' report. Specifically, assume that the IRR reflects the

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investors' actual return, as indicated by the exhibits, and calculate the growth in wealth that investors would have achieved."

EXHIBIT 2

What Would the Multiple Be if IRR Was a True Rate of Return?

		IRR	Duration	Implied Multiple
Example 1	Terra Firma	62%	7	29
Example 2	Top Quartile	39%	25	3,762
Example 3	Yale Endowment, PE	30%	25	762
Example 4	Apax	32%	15	64
Example 4	Apax	51%	15	484
Example 6	Yale Endowment, PE	36%	20	469
Example 6	KKR	26%	40	10,347
Example 6	Apollo	25%	25	265
Example 7	Yale Endowment, VC	93%	29	191,056,563

The table above details the internal rate of return cited by various private equity managers and the Yale Endowment together with the number of years over which the return relates and, in the last column, the extent to which \$1 invested would have grown over the period at that compound rate of return. In Example 1 a 62% pa return, for seven years, would mean that if you invested \$1 at the beginning of the period you would have \$29 at the end of the period. Similarly in Example 6 Professor P cites return data from major private equity manager KKR of 26% pa for 40 years which compounds out to a return of \$10,347 for \$1 invested at the beginning of the period. Extraordinary numbers, if they were true.

Professor P explains the falsehood: "The Yale Endowment's private equity program's supposed return of 30% annually over 25 years implies that the endowment's starting capital should have increased 762 times. Investing just \$100 million during the first year and then reinvesting only the capital distributions (never adding any new capital in any other year) would therefore have generated a final value of US\$76 billion. This is around twice the size of the overall Yale Endowment (not just the private equity segment). No one seems to have questioned the plausibility of Yale's claim (except Phalippou 2013). Since the size of the Yale Endowment is well known, this inconsistency should have been obvious. As a result, the frequently cited 30% for Yale should have been discarded, but it was not. The 26% annual return of KKR over 40 years would multiply an investment by 10,000. An initial investment of \$10 million in KKR, without any additional contributions, would have grown to \$100 billion (before fees). Similarly, Yale's venture capital program, with a 93% annual return over 29 years,

would have seen a \$1 million initial investment (with no further investment, only reinvesting the earnings) grow to an astonishing \$191 trillion, equivalent to twice the world GDP and four times the GDP of the United States.

Hopefully, it is now evident that IRRs are not comparable with rates of return, not even as an approximation, except in some specific circumstances. Any association between IRRs and rates of return is not merely inaccurate but highly misleading. The reliance on fictitious figures to present the track record of a financial product is of considerable concern."

From the above it is pretty clear that quoted IRRs are obviously not the actual returns that private equity investors have received. It is also a reasonable guess that Professor Phalippou doesn't invest in private equity funds personally, to put things mildly, as his concerns about PE don't just relate to performance: he is also unhappy with their fee structures, describing them as being opaque and much too high. Back in 2020 the Financial Times reported on an online event organised by the US Securities and Exchange Commission (the US financial regulator) in which Professor Phalippou, commenting on PE fee structures, said "the two and 20 fee structure used by private equity managers translates into annual costs of between 6 per cent and 7 per cent." For some perspective on that fee structure, today one can buy highly diversified ETFs investing in public equities with fees as low as 0.06%. In that same story the FT noted that PE investors "have paid about USD \$230 billion in performance fees helping to create a new class of super wealthy private equity barons with multi billion-dollar personal fortunes".

That is enough for this week. In the next column in this series on the performance of private equity we will investigate why historic performance is such a big deal for the PE sector including its critical role in the sales pitch used to sell PE to retail and institutional investors.

Brent Sheather is a Financial Advice Provider. A disclosure statement is available upon request. Brent Sheather may have an interest in the companies discussed.