Memo to: Oaktree Clients

From: Howard Marks

Re: You Can't Eat IRR

Until rather recently – certainly up to the early 1980s – "investing" was largely synonymous with "stocks and bonds." And the performance of a stock or bond portfolio was evaluated in terms of its rate of return. You invested a certain amount of capital, and the percentage by which it increased in a given year was its annual return. To quantify performance over a multi-year period, you chained the individual yearly returns to come up with a compound annual return:

	Annual Return	Dollar Gain	Portfolio Value
Initial Investment			$1,000
Year 1	10%	$100	1,100
Year 2	15	165	1,265
Year 3	8	101	1,366
Comp. Ann. Return	11%		

But in the last few decades, buyout and venture capital funds came along, changing things. Funds like these start with capital commitments, call and invest their capital over time, and thereafter manage and liquidate their portfolios. They expand and contract radically, and in assessing their performance, it's clear that a given year's percentage return matters more – and thus should be given more weight – if it was achieved when the fund held a lot of capital (and less if it was not).

Investors wisely concluded that the performance of such funds should be assessed using a measure capable of capturing this phenomenon. They turned to "internal rate of return," the now-ubiquitous "IRR," as the yardstick with which to measure results for portfolios that experience significant cash inflows and outflows.

In mathematical terms, IRR is the discount rate that sets a fund's cash outflows equal to its inflows in present value terms. In other words, you list all of the fund's contributions and distributions and solve for the discount rate that makes them add up to zero. If discounting at 20% accomplishes this, then the amounts received in distributions represent an average advance of 20% per year over the capital contributed, and that's the fund's IRR.

I'll provide a simple example on the next page to illustrate the difference that can arise between compound annual return and IRR.

Fund A	Annual Return	Dollar Gain	Distribution	Portfolio Value
Initial Investment				$1,000
Year 1	10%	$100	$600	500
Year 2	40	200	650	50
Year 3	100	50	100	--
Comp. Ann. Return	45%			
IRR	21			

The 10% gain in year one, achieved on starting capital of $1,000, produced a $100 gain in the fund's value. The 100% return in year three, on the other hand, was applied to just $50 of capital, producing a gain of $50. Although the percentage return was much higher in year three, it produced just half the dollar gain as the smaller return in year one. Thus, in calculating the fund's overall performance, the 100% return should be accorded much less weight than the 10% return. IRR produces that result (whereas compound annual return does not).

Because a given year's annual result is weighted in the IRR calculation by the number of dollars in the fund that year, and thus counts for more when the fund is larger and less when it's smaller, internal rate of return is referred to as a "dollar-weighted" return. To make the distinction clear, the old compound annual return is now referred to as a "time-weighted" return. This nonsensical term means that every year's individual return is given the same weight in the calculation. It's the same as saying "equal-weighted," or even "unweighted" . . . but "time-weighted" sounds much more scientific. (It's not for nothing that George Bernard Shaw defined professions as "conspiracies against the laity.")

For Fund A, shown above, the three-year IRR is 21%. This is far more reflective of the amount of wealth created than is the 45% time-weighted return. The difference arises because the IRR calculation gives relatively little weight to the 100% return achieved in the third year, whereas the time-weighted return gives it as much weight as the first-year gain of 10%.

To fully understand the importance of this distinction, consider Fund B, which achieves the same annual returns as Fund A – and thus the same compound annual return – but holds on to all of its capital through the end of the third year.

Fund B	Annual Return	Dollar Gain	Distribution	Portfolio Value
Initial Investment				$1,000
Year 1	10%	$ 100	0	1,100
Year 2	40	440	0	1,540
Year 3	100	1,540	$3,080	--
Comp. Ann. Return	45%			
IRR	45			

The annual returns are the same for Fund B as for Fund A (and thus so is the three-year compound annual return). But Fund B's IRR is 45% (the same as its compound annual return, since there weren't any interim inflows or outflows), while Fund A's is 21%. The difference arises because Fund B achieved its 100% return in year three with beginning capital of $1,540, as compared with just $50 for Fund A. Fund B produced total distributions of $3,080, while Fund A's distributions totaled only $1,350. Certainly Fund B's performance should be considered superior – even though the two funds' time-weighted returns are the same. Fund B's superiority is captured by its higher IRR.

Big Percentage Gains on Small Dollars – Real-Life Example #1

I would find it hard to invent examples as extreme as some of those provided by real life. Let's look at the results for our first distressed debt fund – Special Credits Fund I – in 1996, its last year in business.

This fund was formed in October 1988 with committed capital of $96.5 million, which was fully drawn and invested by the end of 1990. It achieved annual before-fee returns ranging between 29% and 89% in 1991-94 and made large distributions in 1992-93. By the end of 1995, its since-inception time-weighted return had reached 23.7%, its IRR stood at 24.0%, and it was down to one asset carried on the books at $1.9 million. So far, a simple picture.

In the first few weeks of 1996, that sole remaining asset was sold for more than $10 million. On the strength of that sale, the fund reported a 579.1% annual return for 1996. This high annual return (and the very brief period of time it took to achieve it) had the effect of doubling the fund's time-weighted return from 23.7% at the end of 1995 to 46.9% in 1996.

And yet, the $8 million profit realized on the sale of that last asset added just 8% to the fund's total dollar gain, bringing it to $104 million. Properly, the effect on the fund's cumulative IRR of this small-dollar, high-percentage gain was limited to lifting it just from 24.0% at the beginning of 1996 to 25.5% at the end. It goes without saying that, if relied on, the time-weighted return of 46.9% would have presented a highly distorted picture of this fund's achievements. IRR is much better than time-weighted returns because it isn't fooled by high percentage returns achieved with little capital invested.

Time-weighted returns are irrelevant for evaluating the performance of private equity-type funds. IRR is the answer. Or is it?

IRR's Limitations

The good news is that internal rate of return is infinitely better than time-weighted return as a tool with which to evaluate the performance of funds that expand and contract. The bad news is that IRR is far from perfect, far from sufficient, and relied on far too much.

Most of IRR's shortcomings surround the very phenomena it is designed to capture: inflows and outflows. Because private equity funds can expand and contract at widely varying rates, IRR can't tell the whole story. **IRR shows how good a job the manager did with the capital he**

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employed. But it doesn't tell you anything, for example, about how promptly he put the capital to work.

Here are the results for two funds, both of which have committed capital of $1,000:

		Fund X						**Fund Y**			
Year	Capital Call Jan. 1	Invested Capital Jan. 1	Annual Return (%)	Dollar Gain	12/31 Value		Capital Call Jan. 1	Invested Capital Jan. 1	Annual Return (%)	Dollar Gain	12/31 Value
1	$100	$ 100	10%	$ 10	$ 110		$10	$ 10	10%	$ 1	$ 11
2	200	310	20	62	372		20	31	20	6	37
3	300	672	30	202	874		30	67	30	20	87
4	400	1,274	40	510	1,784		40	127	40	51	178
				$784						$78	
IRR					31%						31%

Because they both made capital calls at the same time and in the same proportions, and they both achieved the same annual returns on their invested capital, Fund X and Fund Y show the same IRR. But Fund X racked up dollar gains totaling $784 on its $1,000 capital commitment, while Fund Y's gains totaled just $78. Even though they had the same IRR, no one would say they performed equally well. Fund X called down all of its capital and invested it profitably, while Fund Y called down and invested only a tenth of its capital. The process through which IRRs are calculated is oblivious to that important difference, since its only inputs are fund contributions and distributions.

The manager of Fund X got the money to work much faster than Fund Y and produced $704 more of gains on the same $1,000 capital commitment. **If two funds can produce the same IRR but such different total profits, IRR simply can't be a perfect yardstick**. **Clearly, the ability of a manager to put capital to work both profitably and promptly has to matter.**

How about funds X and Z? (The data is the same as in the table above, other than the fact that each of Fund Z's annual returns has been increased by ten percentage points versus Fund Y.)

		Fund X						**Fund Z**			
Year	Capital Call Jan. 1	Invested Capital Jan. 1	Annual Return (%)	Dollar Gain	12/31 Value		Capital Call Jan. 1	Invested Capital Jan. 1	Annual Return (%)	Dollar Gain	12/31 Value
1	$100	$ 100	10%	$ 10	$ 110		$10	$ 10	20%	$ 2	$ 12
2	200	310	20	62	372		20	32	30	10	42
3	300	672	30	202	874		30	72	40	29	101
4	400	1,274	40	510	1,784		40	141	50	70	211
				$784						$111	
IRR					31%						41%

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Now Fund Z's IRR isn't the same as Fund X's – it's higher. But Fund Z produced dollar gains totaling just $111, while Fund X's gains total $782. Fund X – with the lower IRR – has to have done the better job. **Again, evaluation based solely on IRR proves clearly inadequate.**

The Answer (Maybe): Times-Capital-Returned

Because of the shortcomings of IRR – primarily the fact that it tells you what the return was on the capital employed but not how much capital was actually employed – people seeking to measure fund performance have come up with an alternative measurement: times-capital-returned, or TCR (that's my name for it; there are lots of others).

Whereas the calculation of IRR is complicated, for TCR it's simple: How much did you commit to the fund, and how much did it return? If you commit $1 million to a fund and receive distributions totaling $2 million over its life, its times-capital-returned is 2.

TCR solves IRR's problem with undrawn capital. Looking at the table on page 4, Fund X's TCR is 1.78 (ending value of $1,784 divided by committed capital of $1,000), and Fund Y's TCR is 1.08 ($1,078 – the total of the ending value of $178 and the uncalled capital of $900 – divided by committed capital of $1,000). The difference between the two TCR ratios reflects the fact that even though the two funds earned the same return on the money they managed to invest, Fund X did a far better job of putting its capital to work.

Before proceeding, it's important to note that there is considerable unevenness in the way profitability ratios are calculated. Some people don't look at the ratio of ending value to committed capital, but rather at the ratio of ending value to contributed capital or invested cost, sometimes called a "multiple of cost." **I consider this highly inappropriate, as it tells you how much was earned on the capital that was invested but does not deal at all with the fact that capital went undrawn (and as such it shares IRR's great shortcoming).** Certainly managers should be held responsible if they fail to promptly invest the capital commitments they accept. Multiples based on investment rather than commitment don't accomplish this.

Let's calculate the multiple of cost – the ratio of ending value to contributed capital – to the data for Funds X and Y shown on page 4. Fund X's ratio is 1.78 ($1,784 divided by $1,000). So is Fund Y's ($178 divided by $100). But who doesn't think Fund X did the better job?

As opposed to a fund that calls down 10% of its committed capital and achieves a high IRR and multiple of cost, a limited partner would probably prefer a fund that draws down all of its capital and earns even a somewhat lower IRR and multiple of cost. Of course, this ultimately depends on how the limited partner feels about having capital uncalled, and on what he does with it while it is uncalled.

Times-capital-returned (in which committed capital is the divisor) is much better than IRR in that it takes into consideration both how much of the committed capital was called <u>and</u> the return that was earned on it.

Unfortunately, times-capital-returned isn't perfect either. Simply by holding on to its capital long enough, a low-return fund can produce a higher TCR than a high-return fund. But it may not have done the better job.

Let's consider two more funds: L and M, each with committed capital of $1,000. Fund L calls all of its capital and earns 20% per year for four years (turning the $1,000 into $2,074). Fund M also calls all of its capital, and earns a return of 5% per year, but it goes fifteen years without selling an asset or making a distribution. In this way, Fund M turns its $1,000 into $2,079. According to TCR, they performed the same. But in order to turn $1,000 into $2,070, would you rather give up the use of your money for four years or fifteen? I'd rather be in Fund L.

How Should Performance Be Judged: IRR or TCR?

In comparing two funds, if one has a higher internal rate of return and a higher times-capital-returned, certainly it did the better job.

	Fund G					Fund H				
Year	Capital Call Jan. 1	Invested Capital Jan. 1	Annual Return (%)	Dollar Gain	12/31 Value	Capital Call Jan. 1	Invested Capital Jan. 1	Annual Return (%)	Dollar Gain	12/31 Value
1	$300	$ 300	10%	$ 30	$ 330	$300	$ 300	10%	$ 30	$ 330
2	700	1,030	20	206	1,236	700	1,030	20	206	1,236
3	0	1,236	30	371	1,607	-400	836	30	251	1,087
4	0	1,607	40	643	2,250	-400	687	40	275	962
				$1,250					$762	
IRR					28%					25%
TCR					2.25					1.76

Although Funds G and H had the same annual returns, Fund G's IRR is higher because it had more money invested in high-return years three and four. That gave it a higher TCR, at 2.25 (ending value of $2,250 divided by $1,000) as opposed to Fund H's 1.76 (ending value of $962 plus $800 returned, divided by $1,000), as well as a higher IRR. With both a higher IRR and a higher TCR, it's easy to see that Fund G did better.

But it's possible for one fund to have the higher IRR and the other the higher TCR. In the following comparison, the two funds drew down their capital at the same rate and again had the same annual returns, but Fund J held on to its assets while its returns declined, whereas Fund K made significant distributions at the beginning of years three and four.

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	Fund J					Fund K				
Year	Capital Call Jan. 1	Invested Capital Jan. 1	Annual Return (%)	Dollar Gain	12/31 Value	Capital Call Jan. 1	Invested Capital Jan. 1	Annual Return (%)	Dollar Gain	12/31 Value
1	$300	$ 300	30%	$ 90	$ 390	$300	$ 300	30%	$ 90	$ 390
2	700	1,090	20	218	1,308	700	1,090	20	218	1,308
3	--	1,308	10	131	1,439	-400	908	10	91	999
4	--	1,439	5	72	1,511	-400	599	5	30	629
				$511					$429	
IRR					13%					16%
TCR					1.51					1.43

Because Fund J didn't make any distributions, the greater amount of capital it held in low-return years three and four pulled down its IRR even as its times-capital-returned grew past that of Fund K. Fund J's ending value is $1,511, and thus its TCR is 1.51. Fund K had ending capital of $629 and distributed $800, for terminal value of $1,429 and a TCR of 1.43. But if Fund K's investors were able to earn more than $82 in years three and four on the $800 they got back (requiring an average annual return of 6.5%), then Fund K did a better job than Fund J. **So while we know IRR isn't perfect, TCR isn't either, as the fund with the higher TCR may not have been the better performer.** Maybe Fund K, with its lower TCR, did the better job.

How should we judge fund performance? Only thorough evaluation can lead to the right answer. Complex, multi-dimensional analysis is required. No one number can be relied on to produce a proper conclusion. Here's a list of things you have to weigh. There simply is no cookie-cutter method – no single calculation – that considers them all.

- The internal rate of return,
- The times-capital-returned,
- The percentage of the capital that was put to work,
- The speed at which that capital was put to work,
- When investments were harvested and distributions made,
- What the LPs were able to do with capital that remained uncalled and/or was returned,
- What the LPs could have done with the capital that was called and/or not returned.

Finally, it's important – as in all other areas of investing – to consider how much risk a fund took to earn its return. We've become accustomed to evaluating managers of public securities on the basis of risk-adjusted returns, but this approach hasn't equally reached the alternative markets. Part of this is because alternative assets generally haven't been marked to market, and thus there are no meaningful figures for volatility (without those simplistic measurements, risk analysis becomes a real challenge – see "Risk," January 6, 2006).

But clearly, for an oversimplified example, if buyout funds X and Y buy similar kinds of companies and end up with similar IRRs and TCRs, but Fund X uses far less leverage than Fund Y, I would tend to say that Fund X did a superior job. **Their IRRs and TCRs alone tell us nothing about their respective riskiness.**

How are we to make distinctions when the assets purchased aren't comparable or the differences in leverage and results are less than dramatic? What if one fund buys companies that are more solid than another's? How do we compare a leveraged buyout fund against an unleveraged venture capital fund (with its very low expected batting average)? Which is riskier, a highly leveraged portfolio of safe assets or an unleveraged portfolio of risky assets? It's hard to make these judgments, but that doesn't mean they're unimportant.

And while I'm on the subject of evaluating performance records, I want to raise the subject of unevenness in the quality of performance data. Some managers mark their private holdings to market and others carry them at cost. Some managers are more optimistic than others in marking to market. Some managers discount large holdings of public securities for illiquidity while others do not. And some managers highlight the results on just their realized investments, which invariably are the best. For these and other reasons, IRR or TCR figures simply can't be accepted at face value for funds that are still in operation and thus haven't turned all or almost all of their investments into cash.

Which Return Matters? – Real-Life Example #2

Another look at our real-life experience will give a clear view of the absolute conundrum posed by performance assessment. We held a first closing for Opportunities Fund IVb in May 2002, at which time we drew down $51 million. We averaged down while Enron bonds slid and continued to draw capital and invest it as the whole distressed debt market tanked in June and July, saddling the fund with some very significant mark-to-market losses in percentage terms.

The market bottomed in August-October, by the end of which period we had gotten the fund more than 70% invested. Investor sentiment turned up dramatically in November, giving the fund a 15% gain in that month alone – now with $1 billion invested.

Here are the results:

	Time-weighted Return	Dollar Profit
May - July	-18.6%	($ 33.8)
August - December	22.3	229.2
8-month totals	-0.5%	$195.4

As you can see, the fund had a large percentage loss in the first three months and a large percentage gain in the subsequent five months. As a result, on a time-weighted basis, it showed a small overall loss for the eight months taken together.

But the fund was a lot smaller in its initial down months than it was in the later up months. Thus the LPs made a total of $195 million . . . whereas the time-weighted return says they made no money at all.

The $195 million dollar profit translates into a 30.7% return on the $640 million of capital employed in the fund on average during the eight months. And that 30.7% return on average capital employed annualizes to 49.4%. Finally, the annualized IRR for the eight months – the proper measure, according to the experts – was 61.4%.

So here are the returns for the fund:

Time-weighted return	-0.5%
On average capital	30.7
On average capital (annualized)	49.4
Internal rate of return	61.4

Was the fund a marginal loser or a booming success? You pay your money and you take your pick, as my mother used to say. But clearly, there's just one conclusion to be drawn with absolute certainty: **no one figure is capable of rendering a precise picture of fund performance, particularly as relates to short periods of time.**

Short-Term Success

Because IRRs are annualized returns, the results for part-year investments can be highly misleading. I feel it is always undesirable to annualize returns on part-year investments, but doing so is an unavoidable aspect of calculating their IRRs.

For me, it was the onset of option trading that first highlighted the folly of annualizing short-term results. Back around 1973, exchange-traded options came into existence (whereas prior to that time, options were an obscure corner of the investment world, traded over the counter among "put-and-call brokers"). This made trading much easier; options attracted a lot of attention; and the "buy/write" strategy became the new "silver bullet."

In a buy/write, you buy stock and write a call option that gives someone else the right to buy the stock from you at a fixed "strike price" for a specified period of time. Suppose you buy 100 shares of XYZ at $40 and for $6 sell a call option that will permit someone else to buy those shares a month later at $35. The total proceeds to you when the option is exercised will be the $6 option premium and the $35 exercise price, for a total of $41. Your investment is $40. The gain of $1 in one month, or 2.5%, annualizes to 30%. So people walked around saying, "I just put on the XYZ buy/write at a 30% return." But at best they would have $41 in their pockets for every $40 they started with, and that doesn't sound like a 30% gain to me.

(As usual, not only were the merits of a would-be silver bullet overstated, but its dangers were often overlooked. Your dollar of profit and that beautiful 30% annualized return were entirely contingent on the stock being above $35 on the option expiration date. If the stock fell, say, from $40 to $30, the option would not be exercised and you would be left with stock worth $30 and the $6 option premium – for a total of $36 and a loss of $4 from the invested cost of $40. And that 10% loss is real, not annualized!)

It's universally agreed that IRR is the right tool with which to evaluate vehicles like private equity funds. And all approaches to calculating IRR implicitly annualize the returns on investments held for less than a year and on funds that have been in existence for less than a year. There is no alternative, despite the shortcomings of annualizing.

Of course, an investment shouldn't be judged to be successful on the basis of a high IRR alone, especially if the TCR is low. Note, for example, that a 60% IRR on a $10 investment will produce a gain of $16 over two years, but fifty cents if the opportunity lasts just a month. Certainly the two investments cannot be described as having been equally successful.

Now more than at any other time, I hear a lot of clients say their private equity managers are producing ultra-high IRRs over very short periods of time . . . but low times-capital-returned ratios.

Dividend Recap Magic

Whenever a company borrows money, it becomes more risky, everything else being equal. Let's say a company has $200 of debt and $200 of shareholders' equity supporting $400 of assets. If the value of its assets declines 50%, its assets will just equal its debt, and its equity will be gone. Now assume it borrows $100 with which to buy additional assets, giving it $300 of debt and $200 of shareholders' equity supporting $500 of assets. It only takes a decline in asset value of 40% to wipe out its equity. This demonstrates that when a company increases its debt, the impact of subsequent developments is magnified. That's why borrowing is also called leverage . . . and why borrowing makes companies riskier.

But what if it borrows money and gives it to the shareholders? Take the same company with $200 of debt and $200 of equity. Assume again that it borrows $100, but this time, rather than buy assets, it distributes the cash to its equity investors. Now it has $300 of debt and $100 of equity supporting the same $400 of assets, and it takes just a 25% decline in the value of its assets to erase its equity. So whereas all borrowing makes companies riskier, borrowing for dividends greatly amplifies the effect, as the assumption of debt doesn't lead to either the acquisition of productive assets <u>or</u> an increase in cash reserves, but merely a decrease in shareholders' equity.

For this reason, lenders should view borrowing for dividend distributions with extreme skepticism. But it is a feature of the current capital market environment – with its excess of enthusiasm and shortage of caution – that transactions designed to replace equity with debt have become commonplace. According to CSFB, in the 36 months that began April 1, 2003, $68 billion was borrowed through high yield bond issuance or bank loans with the stated purpose of paying dividends or repurchasing stock, whereas deals of this sort were largely unheard of prior to that date. This is a clear sign of imprudence on the part of today's capital markets.

Of course, as they say in golf, "every putt makes somebody happy." The lender's lack of caution can work to the borrower's benefit (assuming he can avoid financial mortality). In the case of dividend recaps, the beneficiaries are buyout funds and their limited partners. Certainly

companies have appreciated in value in the last few years, but a substantial portion of the high IRRs being reported by buyout funds is due to financial engineering and the availability of equity-replacement debt. Dividend recaps are permitting equity investors to take some or all of their capital off the table, reducing their capital at risk and leveraging up their reported rates of returns. But it should be noted that whereas dividend recaps raise IRRs, they don't necessarily add to investors' dollar profits. (And if they increase the total leverage on portfolio companies, they can jeopardize the recovery of any remaining investment.)

Let's say a fund buys a company for $200 expecting to make $40 in a year, for a 20% IRR. Assume a wacky capital market immediately lets the company borrow and dividend out $180 through a dividend recap. Now the fund's invested capital is down to $20, and the $40 expected profit represents an IRR of 200% instead of 20%. The reported return is beautiful, but the fund's expected gain is still just $40. **Dividend recaps increase fund investors' wealth only if the amounts dividended out can be reinvested profitably. Short of that, they represent financial engineering but not value creation.**

That – among other things – is the reason why I've titled this piece "You Can't Eat IRR." A high internal rate of return does not in and of itself put money in one's pocket. Only when it's applied to a material amount of invested capital for a significant period of time does IRR produce wealth – something which is often (but not always) signified by a high TCR. Investors evaluating fund performance should look at both IRR and TCR . . . and beyond.

So, Bottom Line: Good or Bad? – Real-Life Example #3

Just as this memo was about to go to print, a friend showed me the 2005 report of a fund of funds and asked what I thought of its performance. Here are the facts: The fund was formed in mid-2001 to buy secondary partnership interests (that is, interests in funds that limited partners want to get rid of). My friend committed $750,000. Given the carnage earlier this decade in buyout funds and, especially, venture capital funds, he felt (and still feels) his timing was quite good.

The fund's report consists of financial statements only, without any discussion to help a reader understand the implications or limitations of the figures. As concerns performance, the fund reports a since-inception internal rate of return of 27.1% and a "multiple of cost" of 1.45. So far, pretty good.

But let's go behind the numbers.

- The first thing worth noting is that only $600,000 of my friend's $750,000 capital commitment has been drawn down. He doesn't understand why, given the dislocation of the early 2000s, all of his money hasn't been put to work. He suspects the General Partner may have taken too much in the way of capital commitments. (And he feels particularly badly that even before his fund has become fully invested, the GP has formed a successor fund.)

- The 27.1% IRR suggests the fund has done a good job with the capital it called down, but $150,000 remains in my friend's money market account. Thus he suspects his effective return on the entire $750,000 is lower because of the fund's slowness in putting his money to work.

- He also suspects that the 1.45x "multiple of cost" is misleading. That is, the $600,000 he contributed has been turned into $873,000, for a gain to date of $273,000. But he set aside $750,000 for this fund, and the $873,000 of current value (distributions plus assets still held), when added to the $150,000 not yet drawn (for a total of $1,023,000), represents a multiple of only 1.36 on his capital commitment.

- As of the end of 2005, the fund was roughly 4½ years old. If it had invested his $750,000 at 27.1% for that entire period, he would have $2,178,000. If it had just earned a 27.1% return on the $600,000 that was actually drawn down, he would have $1,742,000 (plus the undrawn $150,000, for a total of $1,892,000). And yet, he has just $1,023,000.

- The IRR of 27.1%, if applied to his contributed $600,000 (forget his committed $750,000), would have produced $1,142,000 of gains. And yet he sat at the end of 2005 with $273,000 of actual gains. **Simplistically to me, this suggests his contributed $600,000 has been at work earning 27.1% for only about a quarter, on average, of the 4½ years since the fund's inception.** This illustrates the shortcoming of IRR taken alone: its failure to penalize the GP for failing to put the money to work and keep it at work.

- Finally, since the fund has already returned more than half of the $873,000 into which the $600,000 grew, it's extremely unlikely that even further good returns will produce ultimate dollar gains approaching the amount he thinks he should have.

The fund reports an IRR of 27.1 % and a TCR of 1.45. But clearly, my friend doesn't have anything near the profit he would have had if all of the money had been invested promptly and kept invested. And the 1.45x "multiple of cost" is irrelevant to him; he wants to know what the GP made for him on his entire commitment, not just the part it drew down. Using this fund's approach to calculating the multiple, the GP looks better if it makes a few high-return investments, whereas the investor would be better served if it invested the entire committed amount – even at a materially lower return – and kept it out there longer. My friend has $1.36 for every dollar he committed, but a 4½-year return of even 15% on his entire commitment would have given him $1.86.

An IRR of 27.1% sounds impressive. Does it mean the fund has done a good job? It seems to me that the GP accepted more committed capital than it could invest in a timely manner, charged fees on that higher amount, put its capital out very slowly (and not yet in full), and wasn't able to keep it out for long. I doubt the fund's LPs invested to earn 36 cents over 4½ years per dollar they committed. So no, I think, not a good job.

The real bottom line is that my friend committed $750,000 4½ years ago and has $1,023,000 today. That's an average annual advance of 7.3%. As Clara Peller used to say in the burger commercials, "Where's the beef?"

In this case – as in many, I suspect – both the IRR and the "multiple of cost" are next to useless. It takes thought and insight to figure out how a fund did. As in all things, looking at published figures must be just the first step.

<p style="text-align:center">*   *   *</p>

Making a lot of money with the risks under control isn't easy. It's not even easy to identify the best performing managers. Not only is the quantification of returns themselves subject to debate, but it's often far from obvious whose risk-adjusted-returns are the best. All performance assessment demands quantitative ability tempered by judgment. But there is no alternative. Reliance on a single figure can't possibly provide the answer – not even IRR.

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