GOLDEN SECTION

To Fee or not to Fee...

BY ADAM DAY

EXECUTIVE SUMMARY

Management fees can be a constant point of tension between investors and managers, especially within the context of a venture fund. To find common understanding and achieve better alignment, this paper examines:

- The purpose of management fees in operating a fund and creating value
- True economic effect of fees (not what you think) when viewed quantitatively
- The real story of fees and alignment and what it means to be misaligned
- Recommendations that solve fee concerns: investing in the right funds

CONCLUSIONS

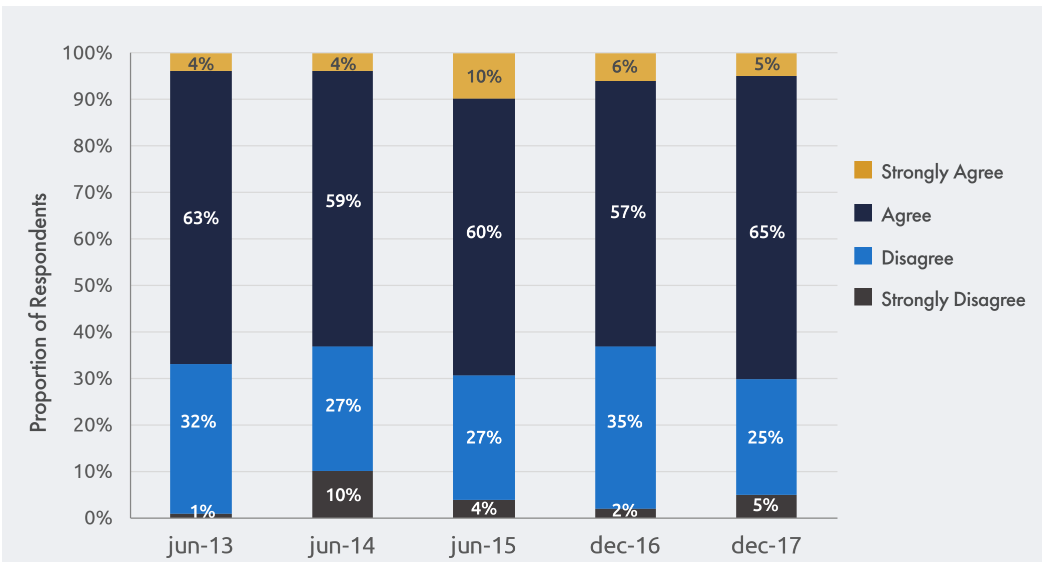
The structure of a given venture capital fund is more important to evaluate than the size of the management fee. Management fees are only one variable among many that affect return for investors. More importantly, fees are returned to investors before general partners earn carried interest in a typical venture fund. Fees should only be part of the evaluation process unless they are atypical (more than 2.75% or less than 1.2%). Finally, while overcapitalized funds may take advantage of economies of scale, it is not a foregone conclusion that the healthy management fees misalign GPs and LPs.

- **Management fees serve a compensatory purpose and they create value**
- **Management fees often act as a "red herring" when evaluating a fund: they misdirect an investor from more relevant information. Always look closely at other factors that affect return!**
- **Overcapitalized funds, and the fees that go with them, do not necessarily misalign managers and investors. If the managers perceive net value in the fund profit, they will be aligned with their investors.**

I WANT TO BREAK FEE

In the world of venture fund investing, there is no more hotly contested issue between general partners and prospective investors than the management fee. It's a familiar story: Limited Partners want to make investments that will earn meaningful risk adjusted return, and they want to pay as little as possible in exchange for that return. After all, they are risking their capital. GPs also want meaningful return, on both their time and money, and they want to produce return for their investors because that will make them more money, both now and in the future. Why, then, do 30%+ limited partners believe that the interests of the investors and managers are not aligned properly?[1]

Extent to Which LPs Believe that GP and LP interests are Properly Aligned, 2016-2017



The answer: those pesky management fees that general partners like to charge. In private equity, it's the area investors want improvement to improve alignment.[2] As a concern, it far outstrips investor concerns over hurdle rate, general partner commitments, and performance fees.

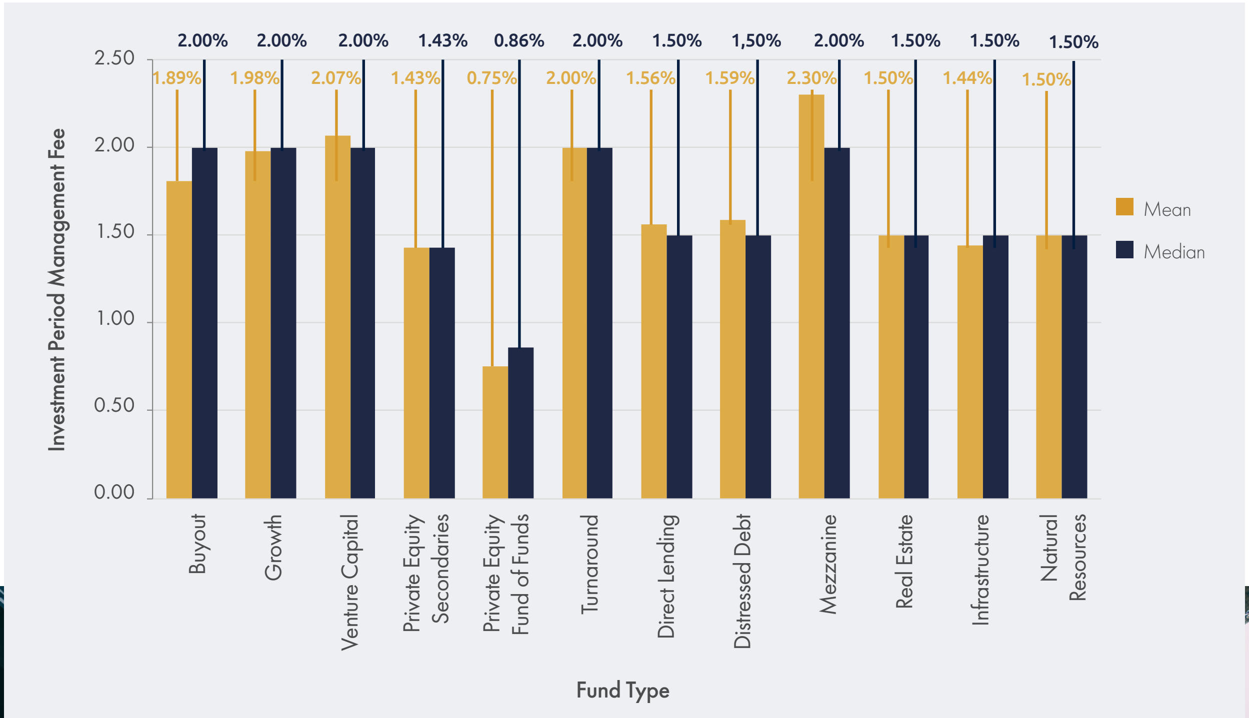
Unfortunately, there is no magic number for management fees which produces ultimate return for both limited and general partners. Management fees do not exist in a vacuum, to the chagrin of institutional investors and fund partners everywhere. Fees are inextricably intertwined with fund structure and size, management operations, portfolio performance, and all the other economic variables in a fund. Trying to isolate them is like deciding if you should choose driver or 4-iron off the tee without knowing which hole you are playing.[3]

[1] https://docs.preqin.com/reports/Preqin-Special-Report-Private-Capital-Fund-Terms-October-2017.pdf
[2] Preqin Investor Survey, June 2019
[3] Trust me, take driver

LAY DOWN WITH FUNDS, GET UP WITH FEES

The fee landscape doesn't vary much in the fund universe. A private equity fund of funds will charge, on average, .75% on AUM during the investment period, while a mezzanine debt fund on average charges 2.3% for the same. This data varies year to year, and in general is trending down as competition increases for investors (known as fee pressure).

Average Management Fee during Investment Period by Fund Type
(Funds Raising & Vintage 2015/2016 Funds Closed)



Source: 2016 Preqin Private Capital Fund Terms Advisor

Staying in the realm of venture capital funds - shown here with a median management fee of 2% - it's clear that venture fund management fees tend to be higher than their asset class counterparts. Real Estate funds, for instance, average 1.5% for the management fee. The curious investor will ask why venture typically charges a higher management fee. Why a fee at all, for that matter?

Before we explore the answer, some baseline assumptions are required. Management fees typically apply to assets under management, so if a fund raises $100M and charges a 2% fee, then the managers would draw (quarterly in this example) $500,000 to pay for the operational expenses of the fund. Operational expenses will include the manager salaries.

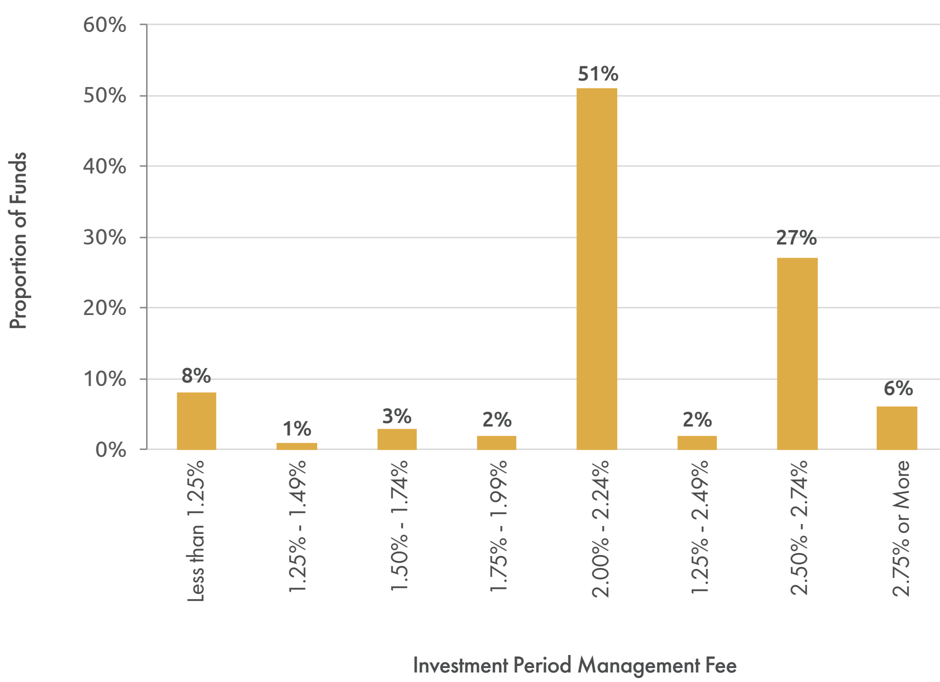
It is common for management fees to scale down after the investment period. That means in a typical 10-year fund, the managers actively work to find companies worthy of investment for the first 3-5 years. After that initial investment period, the management fee is typically reduced by 0.5-1.0%. Fees after the investment period are often based no longer on committed capital, but invested capital.

It is also common, when a subsequent fund is raised by the general partners, to step down management fees in the first fund. This is done to avoid "double-dipping" limited partners who have invested in the subsequent fund. It also reflects the reduced need for operational capital in the first fund.

These assumptions and typical terms should make it clear that the management fee is not as straightforward as 2% of the fund until all the companies are sold. It just is not so. It gets even more complicated as the myriad of fund structures are considered (see section: Economic Model of Fees).

Venture Capital Funds - Management Fee during Investment Period

(Funds Raising & Vintage 2015/2016 Funds Closed)

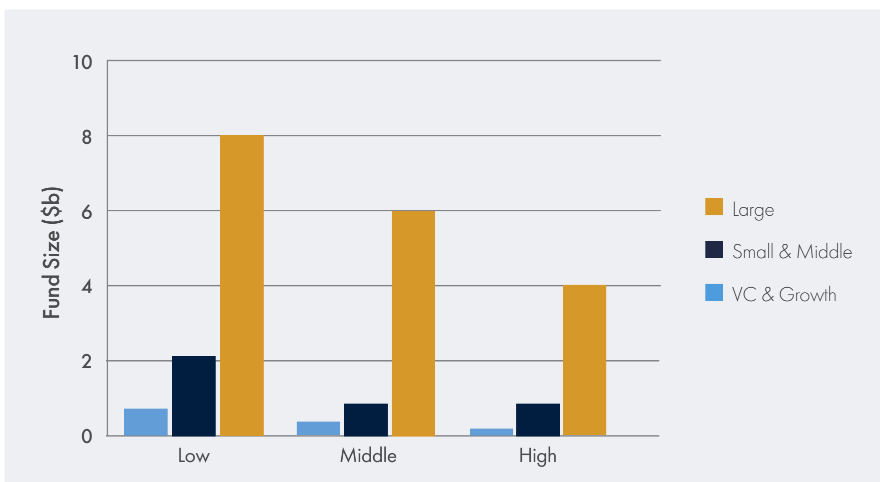


Source: 2016 Preqin Private Capital Fund Terms Advisor

As shown, venture capital fund management fees largely fall between 2% and 2.74%. And for an asset class whose average return is currently 1.6x[4] and whose top quartile returns are easily over 25% IRR to investors in recent years[5], the management fee appears commensurate.

Funds that are smaller tend to charge higher fees. Because AUM is smaller, the higher fee percentage allows the managers to operate the business of the fund and collect some salary.

Average Fund Size by Fee Tercile[6]



Despite the doubling of AUM for the venture class over the last 12 years, the median fund size is now $50M lower than its 2007 counterpart, and the average is $24M lower.[7] This could point to market efficiency in fund size, or it could point to a more competitive landscape for capital, or it could point to lower barriers to entry for first time funds. In all cases, however, it should imply that many venture fund managers – dare I say typical fund managers – are not expecting management fees to bring them wealth. Currently, the typical venture fund is not structured to maximize fees.

[4] https://www.venturecapitaljournal.com/performance-of-venture-funds-reached-record-levels-in-q2-2019/
[5] https://www.avgfunds.com/venture-returns-outperform-public-markets/
[6] https://www.torreycove.com/wp-content/uploads/2012/02/Fees-and-Performance_Final2.pdf
[7] NVCA's 2020 Yearbook

FEE REIN

Though management fees are often a sticking point for a prospective investor, that same investor should know that their capital that goes to a management fee is treated (from the fund's return perspective) as an investment that must be returned. A fund with $50M in capital commitments may charge a 2% management fee and some administrative fees (sneaky, I know!), but most funds must still return every dollar of called capital before any carried interest is earned. In other words, management fees are returned. Perhaps the term "fee" is what generates confusion. In effect, the management fee is a loan that is paid back (with interest, if there is a hurdle rate or preferred return) through the divestiture of portfolio assets. That is, selling companies.

So, the fees are returned, and returned first in most waterfalls.

But why charge them in the first place? The manager argument is also a common justification, but I will leave it to the reader to determine if it holds water. Asset managers charge fees. Wealth managers make fees on assets under management. Mutual fund managers make fees, and brokers make fees. And doesn't the job of a fund manager encompass the duties of all three? Furthermore, it has been thoroughly argued that managerial performance is the variable that creates the alpha that venture is trying to achieve (see our paper: Nothing Ventured). Therefore, as the argument goes, managers are creating more value relative to other fund types and should be compensated accordingly.

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FEES CREATE VALUE... WAIT, WHAT?

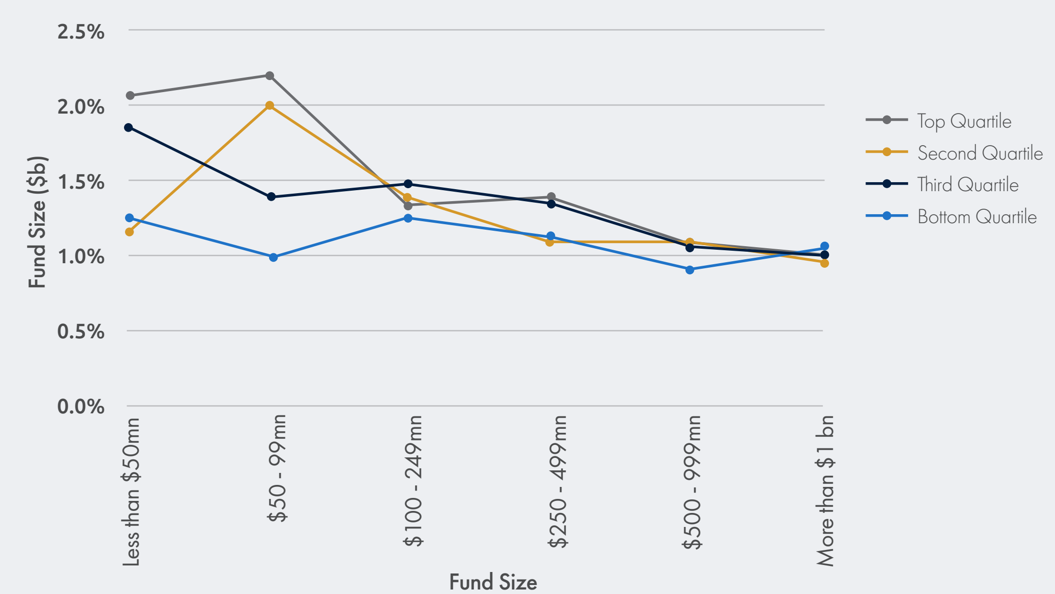
One of the central ideas in venture investing, like all private equity, is that fund managers create value within the portfolio assets after acquisition of those assets. Fund managers should be adding operational value to portfolio companies, whether by connecting the companies to new revenue, sharing their operational expertise, finding advantageous capital partners, or being a sounding board. Some of the most successful venture funds in the world have become so by being obsessive about adding value to their portfolio companies.[8]

[8] https://thoughts.siliconguild.com/how-andreessen-horowitz-is-disrupting-silicon-valley-208041d6375d

They sit on the board, they meet with the founders and leaders of the company to both encourage them and discuss ideas, they offer strategic vision and insight, they leverage their network to set up partnerships. The management fee then, as part of its existential purpose, should be compensation for the fund manager's operational work. Not simply the operational work related to fund activities, but the operational help a fund manager gives to the operating companies in which the fund has invested. This work is, at its heart, presumably creating value for investors.[9]

The management fee then, as part of its existential purpose, should be compensation for the fund manager's operational work.

Average Management Fee of Private Capital Funds by Fund Size and Quartile Ranking, All Vintages



Source: Preqin Private Equity Online

Keep in mind, the chart shown above takes into consideration all private equity funds (not just venture) in the available data set. But, it should be clear from this chart that higher management fees don't always correlate to better performance (manifested by better fund returns). An interesting counterpoint in the venture only world is that smaller funds tend to charge higher fees (fund fees by tercile shown earlier), and undercapitalized funds also tend to perform much better than their larger counterparts (see: Nothing Ventured).

[9] https://blog.greenspringassociates.com/venture-capital-today-creating-gp-lp-alignment-why-terms-matter

So, across all private equity, management fees do not appear to correlate with returns (some research shows slight negative correlation[10]). But in venture capital, it could be argued that because smaller funds have a higher return profile, they should also charge higher fees.

One might argue that a general partner is compensated by the carried interest for their operational help to portfolio companies. This appears true except for an important nuance: it is not clear to me that carried interest is compensation at all. Carried interest is return on investment with inherent volatility. And the further out this "compensation" is from the work effort in terms of time, the more disconnected the reward is from the agent. Imagine the salesperson who secures a million-dollar contract but is paid their commission eight years later and only after the contract has been fully paid out and account managers have successfully expanded that account. At that point, is it really compensation? In this analogy, if you want that salesperson to perform, you better pay them a nice base salary.

The objection most common to management fees in this context is that they are outsized for the work being accomplished. Fortunately, it is easily observable that this is not always the case! Micro funds (those under $50M in AUM), if charging a traditional 2% management fee, are still often run by multiple General Partners, multiple employees, and multiple venture partners. Such funds will have office leases, office expenses, copious legal bills, software subscriptions, travel expenses, utility bills, and the like. It would not be uncommon for a small fund's operating budget to be completely exhausted before general partner salaries.

It is worth noting that as funds scale, general partners are ostensibly earning more for greater expertise. They have more seniority and more experience. Better managers are worth more, and their compensation should be right sized as such.

[10] https://www.torreycove.com/wp-content/uploads/2012/02/Fees-and-Performance_Final2.pdf

THE ECONOMIC MODEL OF FEES

There are more fund and fee structures than there are hoodies at a hack-a-thon, so it is futile to try and analyze the economic merit of each structure here. But, the most common structures will involve all the economic variables listed below. And unfortunately, investors will want to pay a lawyer to uncover the specificities that affect return. It should come as no surprise that they all affect return. As it relates to fees, the most important variables to examine in a venture fund, if you are crunched for time are:

- **Management Fee Percent**
- **Management Fee on Called or Committed or Something Else**
- **Management Fee Stepdown**

If you've got an entire afternoon, and you'd like to dive deep into the Limited Partner Agreement that you keep getting email reminders about (sent by some persistent young GP, no doubt) then it would be helpful to examine the other variables affecting the economics of the fund:

- **Preferred Return or Hurdle**
- **Fund Expenses Agreement (gotcha!)**
- **Total Capital Invested**
- **Carried Interest Structure**
- **Life of the Fund**
- **GP catch up structure**
- **Recycling of management fees**
- **Timing of Capital Calls**
- **Timing of Distributions**
- **Tax effects**

The hard-hitting conclusion for investors: stop overweighting the management fee as a decision for investment. Stop looking at the fee in isolation because in isolation it's totally irrelevant.

Is there a hurdle? Does it compound? Is there a fund recycle period? How fast will the fund call capital? How much of the committed capital can a fund use for admin expenses outside of the management fee? How does the GP catch up after the return of capital? And so on.

EFFECT ON LIMITED PARTNERS

In this brief examination, assume all variables are the same except for those noted in the sensitivity analysis. The simple adjustment of fees and carry percentage reveals a key piece of our analysis. Namely, that the profits in a venture fund especially are significantly more valuable than the cost of the fees, given that a fund performs even moderately well.

Assume a ten year, $50M fund that achieves a 2.5 DPI[11]. In the fund, the first five years requires a full management fee, and the second five years cuts the management fee in half. There is no preferred return hurdle. A 2/20 fund in this case yields $22.5M to the general partner, and $102.5M to the limited partners. The fund is assumed to have invested $42.5M ($50M fund minus $7.5M of management fees), with a multiple on that invested capital of 2.94. Not a terrible day for the limited partner and general partner.[12]

Now let's assume the general partner has been negotiated down on management fees. But venture investing requires a large amount of active management, so that general partner trades management fee percentage for more carry. Using the same assumptions above, but with a 1.5% management fee and a 25% carried interest. The results? The limited partner return is worse, with only $100.6M returned.

Lower management fees, worse results.

[11] Distributed to Paid In Capital Ratio. Referred to as DPI, this ratio or multiple is calculated by dividing the total amount distributed to partners over the life of a fund, divided by the amount of capital paid into that fund. This metric is important to use in scenario building because it considers management fees.
[12] These calculations, and the calculations of the later tables, are achieved using a simplified model of venture fund economics which can be found here: https://seraf-investor.com/compass/article/seraf-toolbox-venture-fund-economics-modeling-tool

But wait, in the next example the general partner is feeling especially frisky; and the limited partners, being averse to management fees, agree to give up more of the potential fund profits to secure no management fees. So, 0% management fees, and 30% carried interest to the general partner. All the capital of the fund is invested and achieves a 2.5 DPI. With no management fees and no fund expenses, we can conclude that the DPI and MOIC are the same. You can see the results:

(GP numbers are inclusive of management fees)

	2/20	1.5/25	0/30
To GP	22,500,000	24,375,000	22,500,000
To LP	102,500,000	100,625,000	102,500,000

So, in this last example, the fund manager is not able to collect a salary for ten years, and has no capital to run the operations of his fund, and invests every dollar under management for a 2.5x return, and still only achieves what the 2/20 fund structure achieves.

Investigating these disparities further, we can adjust the variable with the most profound effect, namely fund performance, to see how disproportionate distributions emerge based purely on fund structure. In the below example, assume the $50M hypothetical fund performs worse than the pooled average of modern, mostly realized funds (those with little to no residual value). This means something below a 1.3 DPI according to Pitchbook's most recent data set.[13] The figures below represent a 1.2 DPI.

	2/20	1.5/25	0/30
To GP	9,500,000	8,125,000	3,000,000
To LP	50,500,000	51,875,000	57,000,000

In the above example, the performance is poor, and the general partner is only able to return capital net of management fees. As a result, the GPs compensation is dominated by the management fee, and in the 0/30 structure, receives $3M in total compensation from the carried interest.

So, the obvious question to the investor is this:

How well do you expect the fund to perform?

If an investor participates in venture as reach for yield, or to balance low-yield allocations, and that investor expects 3x+ MOIC out of venture allocations, it appears (given the variables above) that the lowest carried interest percentage yields the best return.

On the other hand, giving up carried interest to reduce management fees seems to create some downside protection if a fund performs poorly. But protecting downside by giving up carried interest percentage points is also limited upside.

A better way to protect downside is insist on a preferred return hurdle.

[13] https://files.pitchbook.com/website/files/pdf/PitchBook_Benchmarks_as_of_Q4_2019.pdf

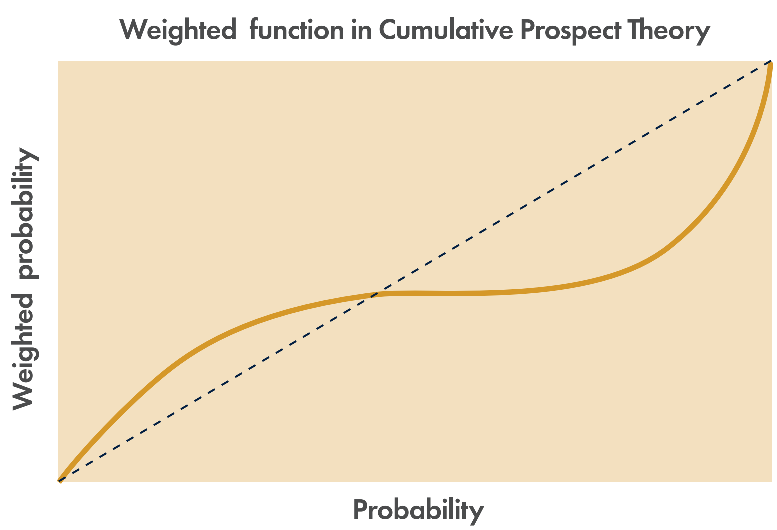
THE ARGUMENT OF ALIGNMENT

The most cogent argument against exorbitant management fees, or unfavorable fund structures that compensate the managers healthily even in downside scenarios, is the alignment argument. When rational actors understand how lucrative management fees are, the incentive to achieve a carried interest of fund profits may dissipate because of the effect of diminishing sensitivity.[14]

Simply put, a General Partner can become so well compensated by fees that their portion of the future carried interest has lost value to them. Therefore, they will not work to achieve that carried interest. This is misalignment. And increasing fund size – a situation in which the fund organization takes advantage of economies of scale – may create a perverse incentive to continue raising larger funds irrespective of the expected returns to investors.

But it's more nuanced than this, isn't it? After all, rational actors still want to maximize their utility, and economic return may account for a large portion of this. And since the GP take-home pay of carried interest would exceed 15x their salary in a decently well performing fund, with standard fund structure, this huge economic incentive should thoroughly align the GP with their investors.

Could it be that investors have done their reading on Expected Utility Theory and . Hang on to your hats, dear reader, if you dare go down this rabbit hole with me. Because some theories of behavioral economics suggest that (to a certain point) as the actual probability of an outcome increases – let's say in this case it's the probability of a handsome carried interest distribution – the subjective weighing of that probability decreases. In other words, in our example, and if the theory holds, the GP begins to underweight the probability of achieving the carried interest distribution.



This is where the rubber meets the road with respect to the carried interest acting as an incentive to align general partners and limited partners. The middle of the value function pictured above is the problem area. At first, when the probability is ambiguous or lower, the general partner may not believe that the probability is high to earn carried interest, but they overweight that probability.

Remember, all of this is about the general partner making decisions (in both an operational and investment capacity) that produce the most return for limited partners. No management fees might be nice, but it does not allow for a fund to operate, and therefore does not produce the most return for limited partners.

[14] Advances in Prospect Theory: Cumulative Representation of Uncertainty AMOS TVERSKY, DANIEL KAHNEMAN* Journal of Risk and Uncertainty, 5:297-323 (1992) © 1992 Kluwer Academic Publishers

THE ECONOMIC MODEL OF FEES

The rational general and limited partner's interests will always be to maximize value for themselves. The general partner wants to perform well to maximize return, and the limited partner wants to maximize their own return. So, with all the moving parts in fund economics, at what point does the rational general partner become misaligned with respect to the interest of the limited partner? This is what I call "The Alignment Boundary" and can be a determinant for investment.

Is this a rip-off of Tversky and Kahneman's cumulative prospect theory of choice? Absolutely. I'm no behavioral economist, so I will not attempt to explain the mathematical basis of the value functions proposed by cumulative prospect theory. And investors don't need to be behavioral economists either to know that there can be diminishing sensitivity to economic gains by a general partner. If a fund manager can collect a salary that outstrips their carried interest (really, their subjective perception of the carried interest including adjustments for ambiguity and risk, foregone economic value as a result of failure, discounted to present value), then will that fund manager work to achieve the best carried interest?

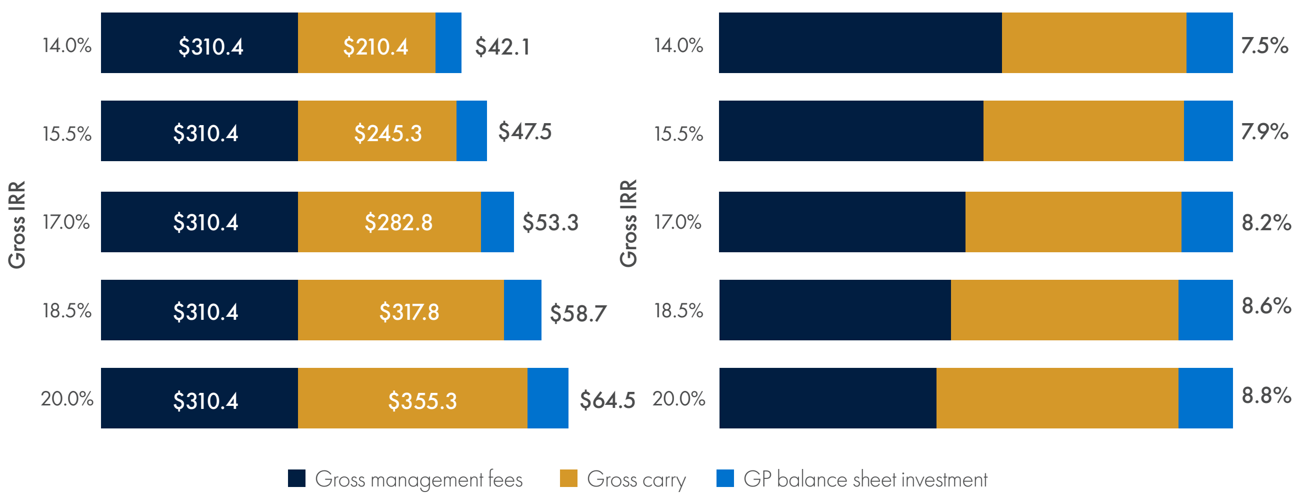
The alignment boundary has been reached when a GP no longer thinks the carry is worth working for.

An investor just wants to know if the GP is going to be unmotivated to produce return because the collection of management fees has become so lucrative

But this is all too complicated. An investor just wants to know if the GP is going to be unmotivated to produce return because the collection of management fees has become so lucrative. And the answer to this question can be determined by knowing what the GPs will take home in salary (because this gives an approximation of the level of diminishing sensitivity for expected gain from the carried interest), and by knowing throughout the life of the fund what the portfolio assets are expected to yield on an aggregated basis (specifically how much that yield contributes to the GPs economic value).

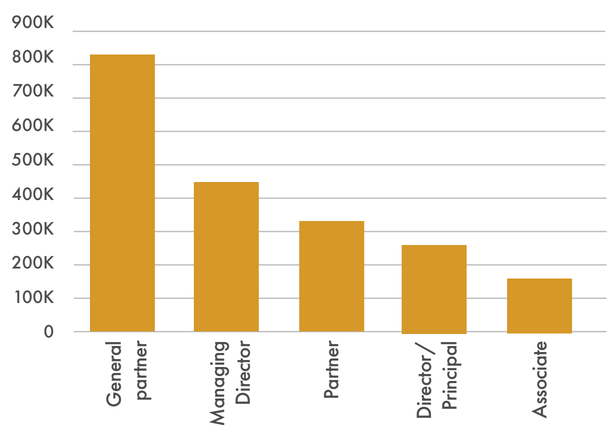
You can see below the gross revenues of typical private equity funds, and how those revenues vary based on fund performance (gross IRR). As you dissect, keep in mind management fees pay not only general partner and manager salaries, but also lawyer's fees, auditing and accounting fees, software fees, etc.

GP's gross revenues ($M) from fund by source of capital[15]



Test the economics with the following thought experiment: you are a general partner with a newly raised $200M fund. Your management fees, being the standard 2%, mean that you will collect a $250K salary.[16] Not too shabby. On par with many dentists, physicians, successful salespeople, junior investment bankers and others. And your portion of the carried interest, with a moderately performing fund of this size, is likely to be somewhere in the $2.5M range. Seems to pass the sniff test.

Average compensation for firms with $500M-$1B AUM



Source: J. Thelander Consulting's annual venture firm compensation survey

What about a $1B fund with a 1.5% management fee? That's a 5x uptick in assets under management, and perhaps a 5x in your salary. Call it $1M in salary per year, (see above), with zero uncertainty, and your portion of the carry for a $1B fund (with average return of 1.3x) and depending on how many partners you have, might be in the $5M range,[17] with plenty of uncertainty. Does it pass the sniff test?

[15] https://www.theleadleft.com/wp-content/uploads/2020/01/PitchBook_Q1_2020_Analyst_Note_What_Is_a_Private_Capital_Fund_Worth.pdf
[16] Calculated by assuming a typical fund operational team for a $200M fund, and typical operating expenses to run the firm. Surprised? You shouldn't be. Attorneys, accountants, administrators, custodians, software, data, subscriptions, rent, employees, benefits, travel, office equipment and supplies, etc. It adds up.
[17] https://www.mergersandinquisitions.com/private-equity-salary/

RECOMMENDATIONS

- Fund structure needs to be correct (see below for key provisions)
- Standard terms are standard for a reason
- If you're worried about alignment, ask yourself why
    - **If you believe the carry isn't meaningful, the investment profile may not be a fit**
    - **If the carried interest is meaningful, does the GP have fee stepdowns?**
- Multiple on GP Salary. How much profit is produced for every dollar of GP salary over the life of the fund? Notice that I do not state 'management fees' here. A GP collecting a $200K salary, who produces $50M of profit for investors over a 10-year fund (assuming they collect salary for all ten years) will have a multiple of 8.3x.

There exists a sweet spot for limited and general partners, but there are often too many moving pieces in the legal and mechanical structure of a fund to find it. A few key elements I will mention here:

- **GP Clawback:**
  the limited partners, not having achieved a promised return, can "claw back" a portion of management fees to recoup investment and/or return.

- **Fund Expense Caps:**
  if fund money is going toward legal expenses, diligence, lunches, travel, etc., then that money cannot be invested in portfolio companies. Expenses are necessary but capping them should ensure paid-in capital gets allocated responsibly.

- **Tiered Carry:**
  as general partners produce more profit for LPs, it's arguably a better alignment for their carry to increase with performance.[18] But finding the correct tiered percentage can be a difficult balancing act. Don't overengineer this one.

[18] https://capria.vc/updates/tiered-carry-creates-alignment-where-hurdle-rates-fail/