

More than meets the eye

TERMS & CONDITIONS

Investors in private equity funds must get comfortable about the economics of the partnership. In today's market place, are managers being overcompensated, ask Oliver Gottschalg, Bernd Kreuter and Ludovic Phalippou.

One of the distinguishing features of private equity (PE) investments is the particular governance structure through which these investments are made and managed. Within this structure, GPs are compensated for their service according to two principal mechanisms. First the , which is usually a percentage of the committed or invested capital that the GP received as a fixed annual payment from the LPs to cover the cost of running the fund before any profits from realised investments are available. Second the carried interest (carry) which specifies the degree of profit sharing of the GP through a portion of the capital gains of the fund's investments. Frequently only capital gains above a certain annual percentage return, the so-called hurdle rate, are being considered for the carried interest calculation.

The objective of these two instruments is to provide incentives for the GP to make and manage the fund's investments in the best possible way – in other words to maximise the return to the LPs. At

the same time, management fee and carry are fundamental determinants of the cost of a given PE fund. After all they determine what portion of the overall gains accrues to the LP and hence the *net* returns of the PE investments that can be captured by the investors.

This article takes a close look at the nature of typical terms and conditions and their impact on the difference between average gross and net returns to this asset class. It draws on a detailed analysis of key terms from over 1,000 worldwide PE funds raised during the 2001-05 period taken from the Feri Private Equity database. Overall, our data confirms the rule that most funds still follow the traditional pattern of 2 percent management fee, 20 percent carry and 8 percent hurdle rate, especially in the buyout segment.

THE DISTRIBUTION OF PROFIT BETWEEN LP AND GP

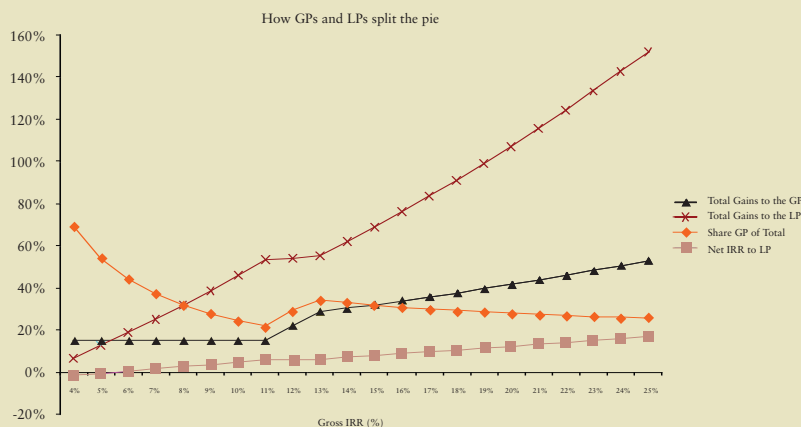
Let us assume a typical PE fund with these characteristics: 2 percent

management fee, 20 percent carry and 8 percent hurdle rate and a 100 percent catch-up provision. For the first six years the management fee is paid on committed, not on invested, capital. Empirically PE funds are, on average, only 50-65 percent invested as they take some time to place the capital committed to them. Practically speaking, this means that we have to increase the effective management fee that is attributable to every investment by at least a factor of 1.5.

If we assume a typical pattern of investments and realisations with an average holding period of five years, we can plot the distribution of returns between GP and LP, as well as the net IRR to LPs for different gross returns a pattern as described in Figure 1 evolves.

This figure illustrates that for all investments of less than 8 percent IRR, over 30 percent of the total proceeds from a given investment accrue to the GP due to the management fee. The hurdle rate improves the situation for the LPs for investments below eleven percent IRR, so that once the management fee is paid, all proceeds for IRRs up until eleven percent go to the LP. Due to the catch-up provision, GPs then again capture over 30 percent of the pie for investments between 13 percent and 17 percent IRR. A gross IRR of 18 percent or above is necessary to leave at least 10 percent IRR net of fees to the LP. Likewise a gross IRR of 30 percent translates into a net return of 22 percent to the LP.

FIGURE 1: DISTRIBUTION OF RETURNS BETWEEN GP AND LP UNDER STANDARD FEE TERMS



Source: the authors

SIMULATING REAL-WORLD FEES BASED ON ACTUAL FUND CASH FLOWS

Figure 1 illustrates the distribution of profits between LP and GP for a fund with a simple and specific cash flow pattern. Real-world fees depend largely on the actual cash flows of a particular private equity fund. We were interested in the historic difference between gross and net returns for private equity funds in general. To this end we used the actual net cash flows of 852 mature private equity funds raised between 1980 and 1993. These funds are part of the database used to calculate the well-known performance statistics provided by Thomson Venture Economics¹. Based on the net of fees cash flows of these funds, we were able to simulate the corresponding gross returns for different fee structures and to estimate the average impact of fees on the Alpha of these funds (See Table 1).

We consider five management fee structures ranked from the least costly to the most costly:

1) 2 percent of committed capital during the investment phase (five payments at year end from year 1 to 5) and 1 percent of committed capital

during the post-investment phase (five payments at year end from year 6 to 10).

2) 2 percent of committed capital during the investment phase and 2 percent on residual values during the post-investment period.²

3) 2 percent of committed capital throughout.

4) 2.5 percent of committed capital during the investment phase and 2.5 percent of residual values during the post-investment phase.

5) 2.5 percent of committed capital throughout.

We further distinguish between cases with and without a hurdle rate.

We find that the consideration of management fees alone reduces the average Alpha by between 3.37 percent and 4.9 percent. The carry reduces average Alpha for our sample by about 3.3 percent if no hurdle rate is considered and by about 2.1 percent if we assume an 8 percent hurdle rate. Note that under all fee arrangements GPs overall collect more money based on management fees than on carried interest. This means that the typical fee structure used today (20 percent carry with 8 percent hurdle and 2 percent management fee throughout) corre-

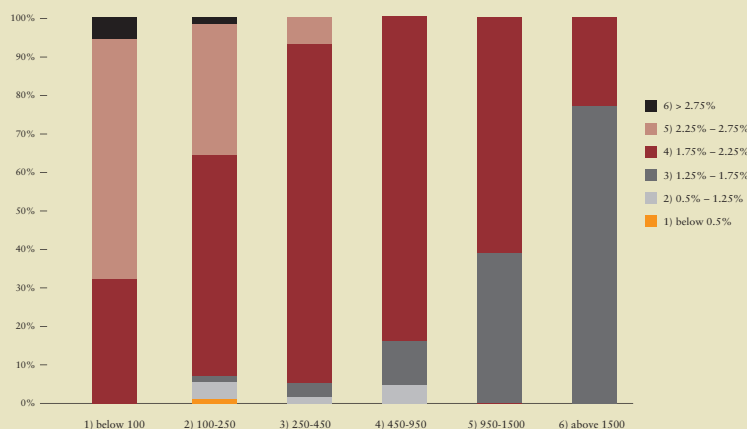
sponds to over 6 percent p.a. of average invested capital that accrue to the GPs.

LESSONS FROM AGENCY THEORY – WHAT OPTIMAL TERMS OF A PE FUND SHOULD LOOK LIKE

Looking at the effect these factors have on the incentives of the GP, it is easy to see that the management fee component constitutes a form of ‘fixed income’ for the GP which is independent of the performance of the investments made. The carry, however, is the performance-contingent element that motivates the GP to achieve the best possible returns for the fund’s investments, and thus also to maximise the net returns to the LPs. The hurdle rate pushes the GP to aim for investments with an IRR above a certain threshold value, as otherwise no carry is being earned. A final element of the terms and conditions of PE funds is the so-called GP commitment, i.e. the percentage of a PE fund’s capital that is provided by the sponsor itself. In a sense this element defines how much ‘skin in the game’ the sponsor has and specifies to what extent sponsors also share the potential downside of capital losses with their LPs.

One must not forget, however, that in addition to the effect of these incentives through which terms and conditions align the interest of GP and LPs, there is another important factor. GPs find themselves in a repeated game situation vis-à-vis the community of LPs, as they have to come back to the market at some point to raise subsequent funds. The present track record is a key determinant of whether and how much capital a GP can raise for a new fund and thus LPs can collectively sanction GPs for poor past performance by putting them out of business if they refuse to commit to the new fund.

FIGURE 2: LINK BETWEEN BUYOUT FUND MANAGEMENT FEES AND FUND SIZE (IN \$M)

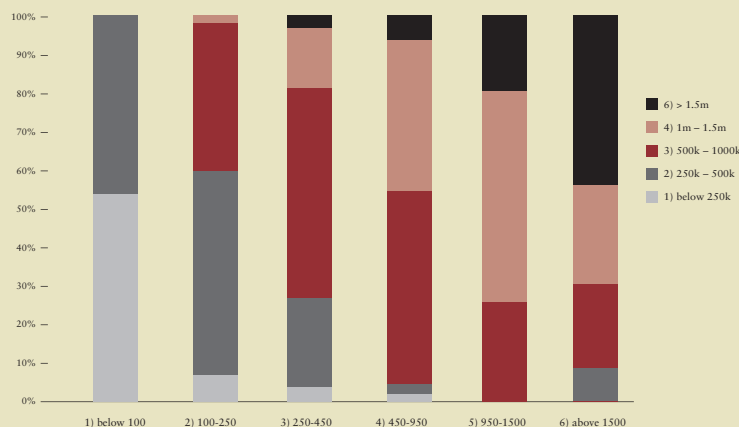


Source: the authors

To best align the interests of GPs and LPs, or put differently to motivate GPs to maximise the net returns of their funds, a PE fund's terms should have the following characteristics. The management fee should be of a magnitude that only covers the actual cost of managing the fund – without any profit for the GP or bonus to the investment managers. If this condition is violated, i.e. if fee income, which can include management fees from multiple concurrent funds as well as additional transaction fees, is much greater than the actual cost

of the fund, this can disturb the alignment of interest between GP and LPs. In fact, GPs may then be motivated *ceteris paribus* to manage large funds and to hold investments a long as possible in their portfolio rather than to make investments with the highest returns. They can get rich by managing large funds, rather than by making good investments. Ideally, these fees should also take the form of an interest-bearing advance for future carry payments, so that there is no incentive whatsoever to maximise management fee income.

FIGURE 3: LINK BETWEEN BUYOUT FUND FEES PER HEAD AND FUND SIZE (IN \$M)



Source: the authors

The carry should be used as the key element through which GPs are rewarded for their performance. Possibly the percentage of carried interest can be increasing with the achieved IRR. For example, a 15 percent carry is paid until 20 percent IRR, and a 25 percent carry above that value, pushing GPs even harder to look for highly successful investments. On the other hand, the carry should not be set to be too aggressive, as otherwise GPs may be pushed to search for too risky investments. At the same time, the carry should serve as a pricing mechanism for PE funds through which GPs can capture value from excess demand for their funds. Practically this could imply that high-quality GPs which would be able to raise more capital than their usual fund size demand higher carry from LPs so that their fund becomes less attractive and less LPs want to invest. Finally, a flexible hurdle rate could be used that is best tied to some benchmark index, such as a broad public market index. This way the GP's compensation is less dependent on trends in the macroeconomic environment that are not under the control of the GP.

THE IMPORTANCE AND VARIATION OF 'SOFT FACTORS'

There are several further refinements to the management fee and carried interest mechanisms: on the closing of a transaction a fund often receives a transaction fee. Moreover, funds sometimes charge their portfolio companies ongoing monitoring or director's fees. These income streams to the funds can even have similar magnitudes as the ongoing management fee. A great variety exists on the way these fees are split between GPs and LPs. Whereas larger funds usually credit all of these fees to their LPs via an

offset mechanism against the management fee, in many of the smaller funds, the GP retains 20 percent, 50 percent, or even a greater portion of these fees.

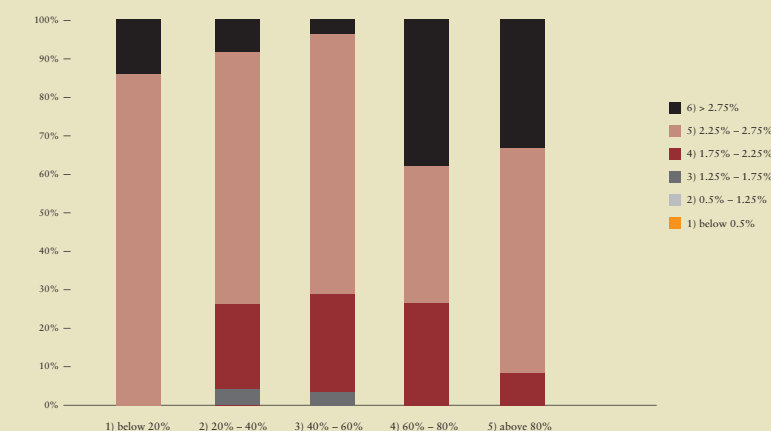
Also in the carried interest computation there can be substantial variations relating to the way the hurdle rate is calculated. Whereas in some funds the payment of carried interest is triggered once the net asset value of a fund (including distributions) implies an IRR in excess of the hurdle rate, other funds only pay out carried interest to the GP once the LPs have received that amount in cash which means that most of the portfolio has to be realised until carried interest is paid. In the former case GPs may be incentivised to sell well performing companies early or even too early so that carried interest is paid out early. There exist many further refinements on the subject of carried interest calculation and allocation that cannot be described in detail here.

To conclude, it can be said that the basic management fee and carry terms are highly standardised whereas many variations exist in details.

WHAT DRIVES TERMS AND CONDITIONS?

Despite the fact that terms and conditions of PE funds seem to be fairly standardised in general, our analysis was able to highlight several important drivers of the different elements of terms and conditions, especially for the sub set of buyout funds on which the following analysis will be focused. First, we observe a clear trend towards a larger GP commitment over time (See Figure 2). This can be interpreted as a good sign, as sponsors increase their risk exposure in recent funds. It may, on the other

FIGURE 4: LINK BETWEEN BUYOUT FUND FEES AND PAST PERFORMANCE (IRR)



Source: the authors

hand, also be driven by the fact that in recent years several large and well established sponsors came back to the market and that they simply have more capital to commit.

Management fees are of particular interest and therefore deserve our specific attention. Not only are they an area where we have seen a (relatively) greater level of variation across funds (see Figure 2), they have also been identified as potentially disturbing the interest alignment between GP and LPs in our previous discussion. In the following we are therefore going to take a closer look at this particular element of fund terms, focusing exclusively on the sub-sample of buyout funds.

We first ask the question of what drives management fees and look at how management fees change with the characteristics of GPs and their funds along several dimensions. Starting point is the link between management fees and GP age (year of GP foundation) presented in Figure 3. One can observe that the younger GPs charge higher management fees for their fund than the well established ones. This is consistent with our expectations as the latter should have fee and carry

income from prior funds and hence rely less on management fee income from the new fund. On the other hand it is possible that this effect is in part driven by the fact that older GPs tend to raise larger funds. As Figure 3 illustrates, percentage management fees tend to decrease in fund size. Again, this makes perfect sense as the cost of managing the fund that the fees are supposed to cover are likely to also decrease in fund size. After all, managing a fund of €800 million is generally less than eight times as expensive as managing a fund of €100 million. So far it seems as if the pattern of management fees follows the optimal path according to agency theory.

In this context it is important to realise that so far we have looked only at the *percentage* of fees, not at the *absolute* fee income of the sponsors. Given the differences in fund size in our sample, however, it is important to also look at the latter. To take differences across sponsors in terms of the resource intensity of their investment strategies into account, we have calculated the absolute annual fee income per investment professional for each fund. Here the number of investment professionals serves as a proxy

TABLE 1: IMPACT OF DIFFERENT FEE ARRANGEMENTS ON HISTORIC ALPHA OF MATURE PRIVATE EQUITY FUNDS

Mgmt Fee Invest. Phase		0%	2% Committed	2% Committed	2% Committed	2.5% Committed	2.5% Committed
Mgmt Fee Post-Invest. phase		0%	1% Committed	2% Res. Value	2% Committed	2.5% Res. Value	2.5% Committed
Carry	Hurdle						
0%	NA	0	3.37	3.59	3.94	4.48	4.9
20%	8%	2.35	5.51	5.71	6.09	6.61	7.01
20%	0%	3.56	6.73	6.92	7.22	7.74	8.12

Source: the authors

both for the resource intensity of the sponsor's investment strategy and for the salaries the sponsor has to pay out of the management fee income. Through this analysis, presented in Figure 4, a very interesting picture evolves. First, we note that the average annual fee income per investment professional is quite high, with an average of over €800,000 for the entire sample and an average of €1.1 million for funds greater than €250 million. For many funds one could argue that these amounts are far above the actual cost of running the fund, which can disrupt the alignment of interest between GP and LPs as described earlier. Second, we observe a drastic increase in the annual fee income per investment professional in the size of the fund. Although we have seen before that larger funds charge less percentage management fees, the increase in fund sizes overcompensates the decrease in percentage fees, even when one considers also the potentially larger number of investment professionals.

ARE MANAGEMENT FEES TOO HIGH?

The magnitude of management fee income per investment professional seems, at least at first sight, to be quite high. So high that it raises questions of whether the incentives of LP and GP are still aligned if the

GP receives such a large amount of fixed fee income. However, one has to also argue that it is necessary for GPs to charge management fees of such magnitude in order to successfully perform their job. After all GPs have to pay fees of up to 2 percent of the fund size to placement agents for their services, which absorbs practically the management fees for the first year. Moreover sponsors rely on very scarce, volatile and highly skilled human capital that has to be attracted and retained through attractive compensation packages that are being paid out of the management fees. On the other hand, we must not forget that sponsors' teams often have management fee income from multiple funds they manage and that they receive additional transaction fee income for the investment.

To some extent, however, high fees could be related to the fact that the larger funds, with a high management fee income are also the ones with a stronger track record. For these highly successful, funds, it is natural and justified that they demand higher fees. We looked at this link between past performance and fees and found indeed some support in our data for the claim funds with a strong track record are able to demand higher management fees (see Figure 4).

Finally, it is important to

remember that fees can really only be evaluated relative to what LPs receive in exchange. The difference between average and upper quartile performance in the PE industry is substantial. Fund managers at the upper end of the spectrum will have little difficulty to justify that they really deserve fees of such magnitude. At the same time it is also true that, given the industry's typical fee structure, there can be situations at the lower end of the market in which the amount of fees collected by GPs are out of balance with the net returns left over to their LPs. ■

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1 We would like to thank Thomson Venture Economics for making this article possible through generous access to their databases.

2 Note that we do not have any data on the net invested capital of the funds in our sample. Hence we use residual values as a proxy for net invested capital. The proxy is expected to be valid for most investments but not all as some investments get written-down or written up.