PitchBook

What Is a Private Capital Fund Worth?

Calculating GP fund economics

PitchBook is a Morningstar company. Comprehensive, accurate and hard-to-find data for professionals doing business in the private markets.

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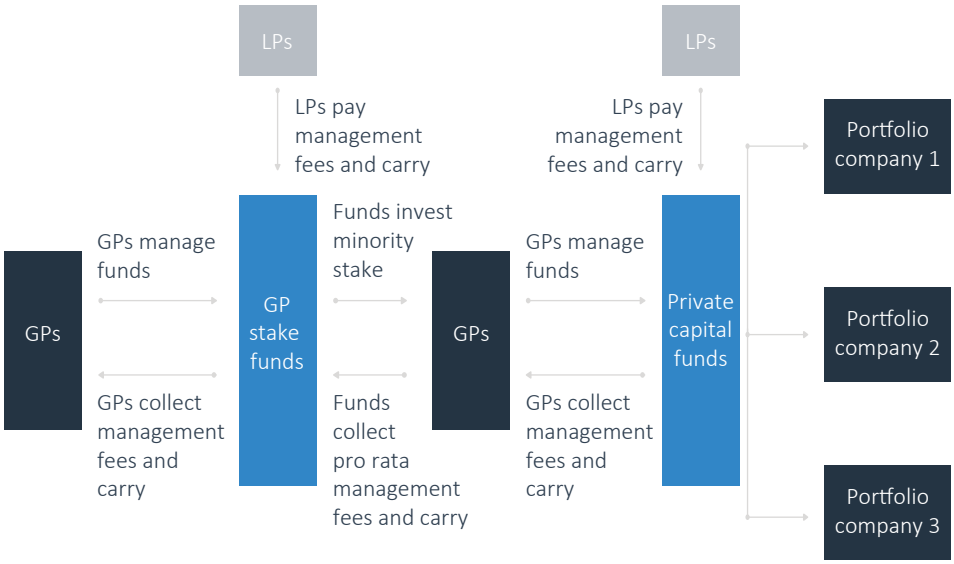
Introduction

The rise of GP stakes investing—whereby GPs accept minority, growth investments from outside investors in lieu of other financing options, such as an IPO—has vaulted discussion around GP valuation to the forefront. Additionally, large GPs including KKR, Blackstone, Apollo, Ares and the Carlyle Group have altered their corporate structures to lift valuations while bemoaning how undervalued they have been by public markets, which has further stoked the flame. Valuing PE management companies can be extremely difficult for even the most sophisticated investor, as we discussed in a previous note.

Example of GP stakes investing



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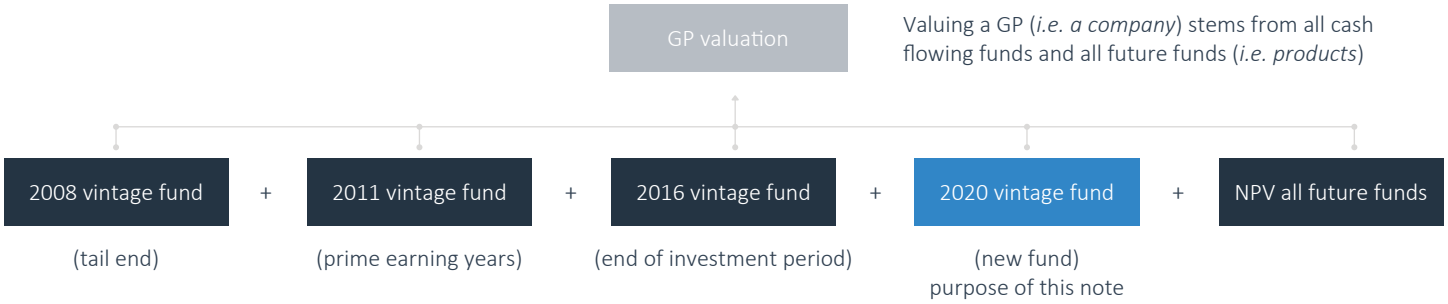
The value of a fund manager is primarily derived from the fees and carry of the collective funds under its management. Given this, it's useful to consider the value of any specific fund on a standalone basis as a building block toward valuing a GP. Firms raise funds that can last 15 years or more with highly variable cash flows depending on performance and the timing of deals and exits. Many investors do not believe current performance can hold due to the elevated transaction multiples we have seen in recent years in addition to the flood of capital entering the market. This means many GPs have been valued almost solely on the most stable cash flows, their management fees and accrued performance fees. If carry is factored into the valuation at all, it is often at substantially higher discount rates. We believe there are several tenable methods to value private funds and the firms that manage them. While predictions around the timing of carry are inexact, we believe taking a longer view that spans multiple fundraising cycles can mitigate the uncertainty. Long-term performance ought to be relatively predictable, allowing reasonable assumptions to be made as to the timing and size of carry. In the end, a dollar of carry is just as valuable as a dollar of management fees, but varying levels of risk relating to those cash flows justify separating them out and discounting them at different rates in some situations.

Example GP valuation

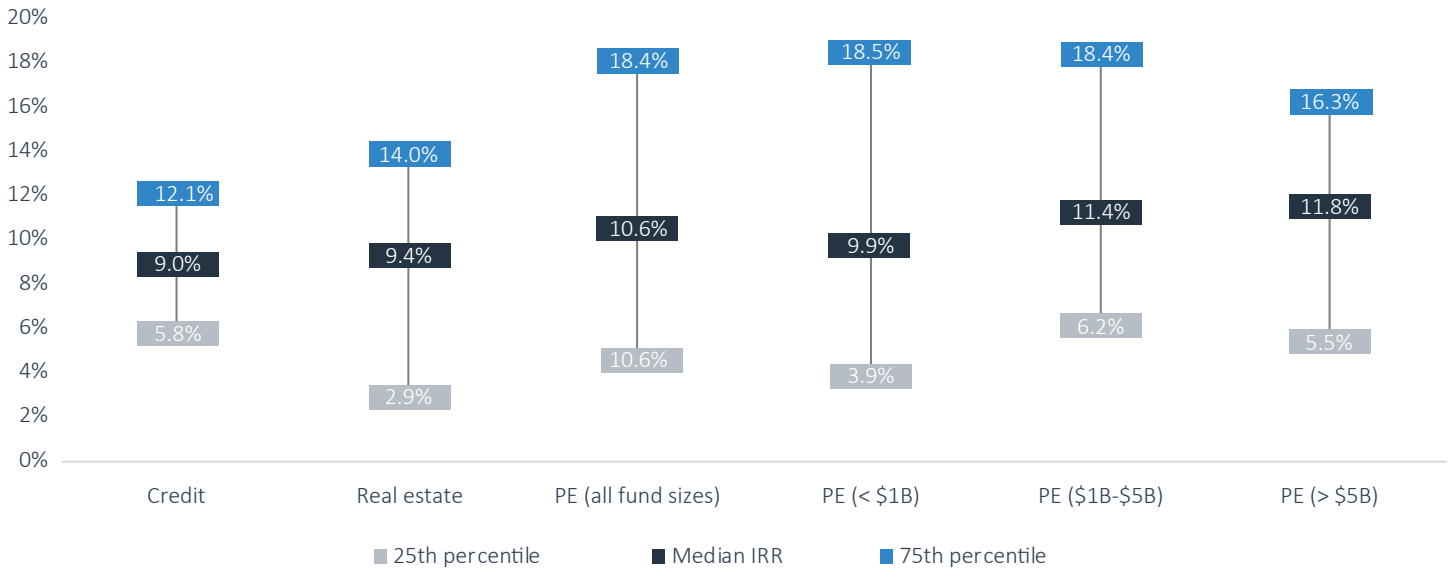


In this note, we will look at some of the inputs and assumptions needed to value private capital funds. Additionally, we will discuss a fund valuation tool we have built internally which is designed to present users with the gross present values (we exclude taxes due to varying taxation on GPs around the world) for private capital funds given a set of inputs. The following analysis also uses the fund valuation model to present the output for a fund and breaks down profitability overall, as well as by source, i.e. from management fees versus carry. The fund valuation model is available to PitchBook clients upon request.

Performance and profitability assumptions

Before investors can determine the value of a GP, they need to make assumptions about the performance and profitability of the funds the GP is managing. If they estimate too high, they risk overvaluing the GP and overpaying; if they estimate too low, they could potentially forgo a worthwhile investment. The 10-year horizon IRRs for three of the most popular private strategies—PE, credit, and real estate—are presented, but these are only a starting point for determining a particular fund's projected performance. Each manager will perform differently, so projections for individual funds should be customized to the GP, fund strategy and anticipated market environment in which the fund will invest. These returns are from the most recent 10 years, but we encourage investors to remark their projections periodically because we have seen PE performance degrade over time as more capital has flowed into the space and prices remain lofty.

10-year horizon IRRs by strategy (net)



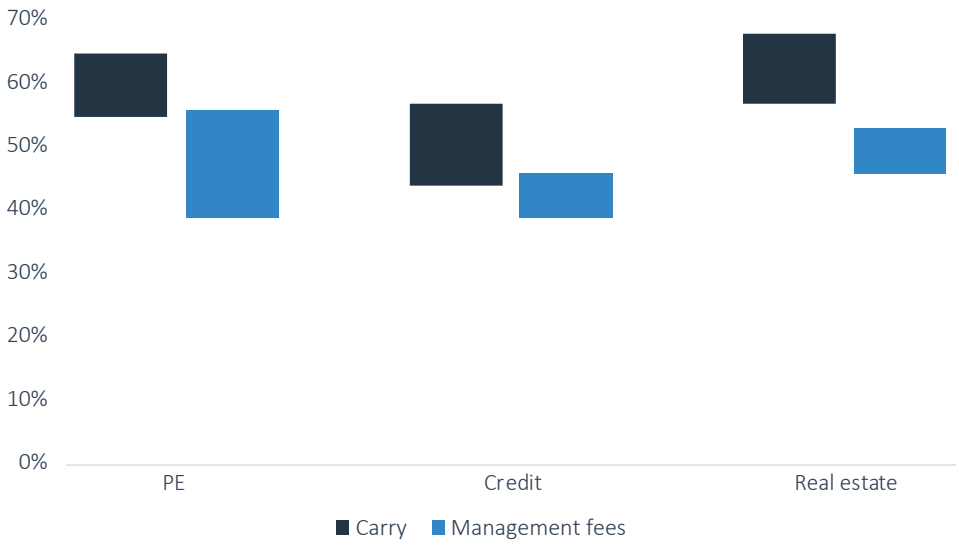
Source: PitchBook | **Geography:** Global
*As of March 31, 2019

We see that PE has remained in the 12% to 15% net IRR range over the past decade, which is somewhere around 16% to 20% gross for the GP after accounting for the standard 2-and-20 fees. As an example of how to bring market expectations into the valuation analysis, we project more subdued private market performance in our example assumptions than the most recent 10 years of outstanding results might suggest.

While all GPs intend to provide top-quartile fund results, the valuation analysis should take into account how widely returns can vary in the private markets. Making an investment into the GP instead of the funds means that an honest assessment of the GP's skills must be made and the performance expectations should reflect the part of the range in which the fund is likely to fall.

With rough fund performance estimates in hand, investors must figure out how profitable each business line is. Using public data from the large public GPs, we have provided approximate margins on a pretax basis. Real estate appears to be the most profitable segment for private capital firms, while credit is the least. We showcase our best estimates in the accompanying chart, lumping growth, mezzanine and buyout into PE and rolling myriad fixed-income strategies up under credit. We should also note here that each strategy will have different fee structures and some GPs may experience higher or lower gross margins.

Gross profit margin range by strategy



Source: Public filings & PitchBook | **Geography:** Global
*As of September 30, 2019

Beyond simple performance metrics, an accurate estimate of fund valuation requires the timing of cash flows to be approximately correct as well. Based on cash flow modeling PitchBook has done, carry is most likely to occur six to eight years into a fund's life.

Fund valuation model

Based on the theory we've outlined, PitchBook has created a private fund valuation model. A custom analysis using this model is available upon request to clients to model out the valuation of single private market funds. This could be aggregated with a GP's other funds to arrive at a total valuation for the GP. The model uses around a dozen variables, each of which can be changed based on assumptions specific to the fund and GP in question. We will be using the inputs shown in the accompanying table in an example to follow, meaning the output to follow will be derived from these assumptions.

Fund valuation model inputs

Fund horizon	16 years
Fund size ($M)	$2,000
Investment period	5 years
Management fee (investment period)	2.0%
Management fee (harvest period)	2.0%[1]
Management fee basis (harvest period)	Invested capital
Management fee margin	40.0%
Management fee discount rate	7.0%
Carry split to GP	20.0%
GP commitment(% of fund size)[2]	3.0%
Carry margin	60.0%
Carry discount rate	12.0%
Fund type	Private equity (all)[3]
Gross IRR	17.0%
Hurdle rate	8.0%

Using PitchBook fund performance data, we can plot out the average cash flow profile for PE, credit and real estate funds. The data has been smoothed with a rolling four-quarter average to give a better representation of the average cash flows over time. The accompanying chart caps the dataset at 16 years. At the 16-year mark, we expect the GP would roll over assets to a continuation vehicle, pursue exits or seek a fund extension or a distribution in kind, which is allowed in most LPAs. With so many options, we treat the final cash flow as a distribution back to LPs and recognize all remaining carry, though the model could be altered to incorporate other possibilities. While 16 years may seem far beyond the average

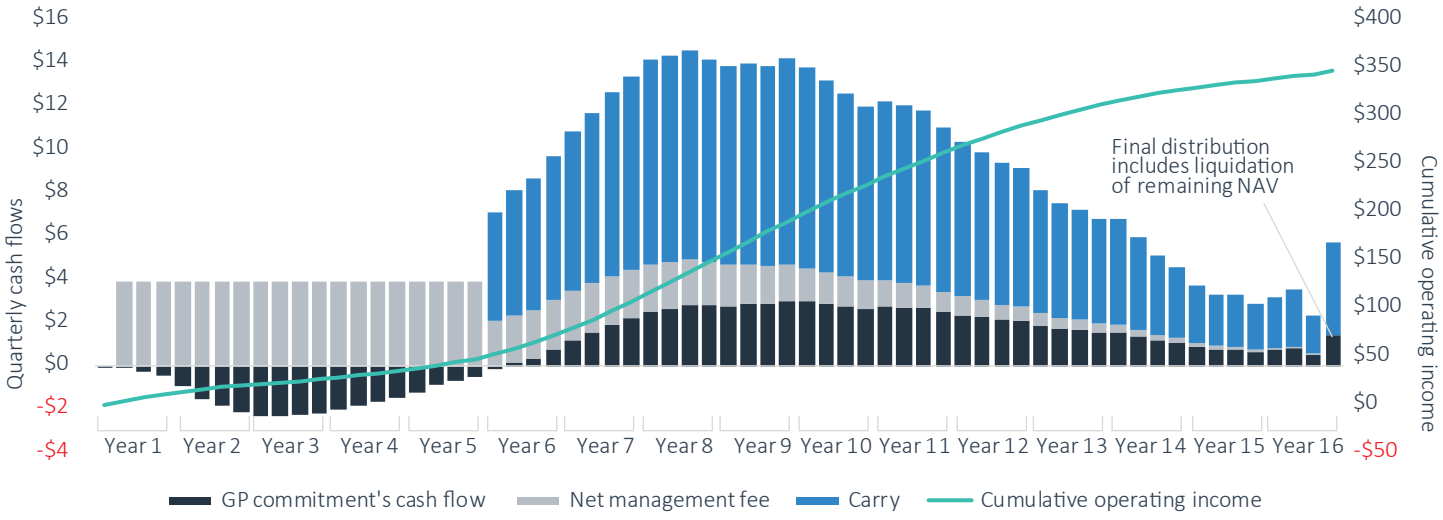
1: We assumed the 2 and 20 fee structure even though it is no longer guaranteed in the industry. Margins on management fees and carry were gleaned from public filings.
2: For the GP's commitment as a proportion of the total fund size, we are assuming this proportion is invested off the balance sheet as one may find with large public GPs. This is not to be confused with the GP partners' investment in the fund, which is their personal capital and helps align LP and GP interests; we do not include this amount in the fund total.
3: We have options for more granular projections for modeling off of past PE fund performance using <$1 billion, $1 billion-$5 billion, and $5 billion funds.

fund length, our data shows that many funds intended to last just a decade regularly hit this mark. For PE funds, the model can be altered to be based off of 12-year or 14-year time frames instead.

Fund valuation model outputs

The following charts and tables are outputs of the fund valuation model. These results pull from the model inputs discussed earlier, meaning we will see the results for a GP that just raised a $2 billion PE fund. The cash flow chart, along with a series of additional charts showing how the GP's revenues and operating income are delivered over time as well as a matrix showing valuation ranges achieved for a variety of assumed discount rates and gross IRRs. In selecting the range of discount rates for the funds, we used the buildup method and CAPM for the public GPs, and our rough estimate for discount rates lies in the 10%-12% range when discounting carry and management fees. However, this is not a one-size-fits-all approach, and a one- or two-percentage point adjustment depending on other variables may be appropriate. Additionally, the fund valuation model allows users to select different discount rates for fees and carry, as we discussed earlier.

Cash flow to GP ($M) by source of capital



The fund ought to increase the management company's (GP's) equity value by approximately $150 million to $170 million, or 8% of the total fund size (minus tax). In practice, if the GP had been worth $800.0 million before this fund, we would expect a valuation of just under $1 billion when accounting for the management company's share of the fund's future profits and balance sheet investments.

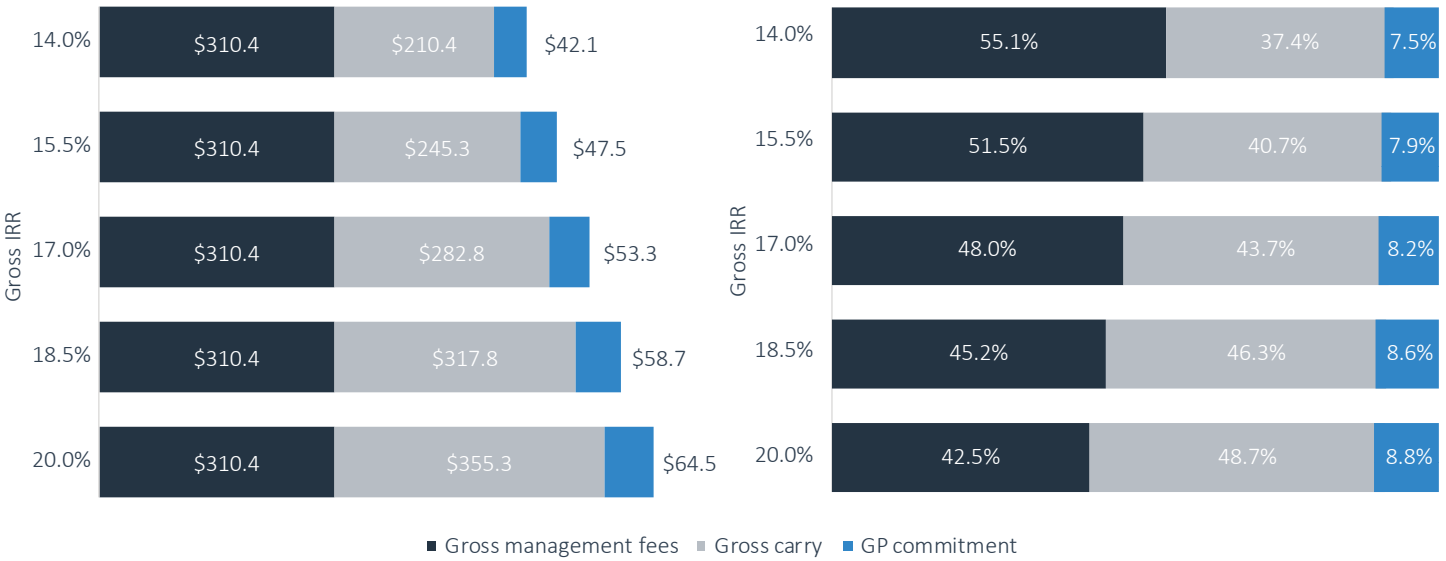
Fund valuation matrix

		Gross IRRs				
		14.0%	15.5%	17.0%	18.5%	20.0%
Carry discount rates	10.0%	$150.8	$162.0	$174.0	$185.2	$197.2
	11.0%	$145.0	$155.4	$166.5	$176.8	$187.9
	12.0%	$139.8	$149.4	$159.8	$169.2	$179.5
	13.0%	$135.0	$143.9	$153.4	$162.4	$171.9
	14.0%	$130.7	$139.0	$147.8	$156.1	$165.0
		8.1%	9.3%	10.5%	11.7%	12.9%
		Net IRRs to LP				

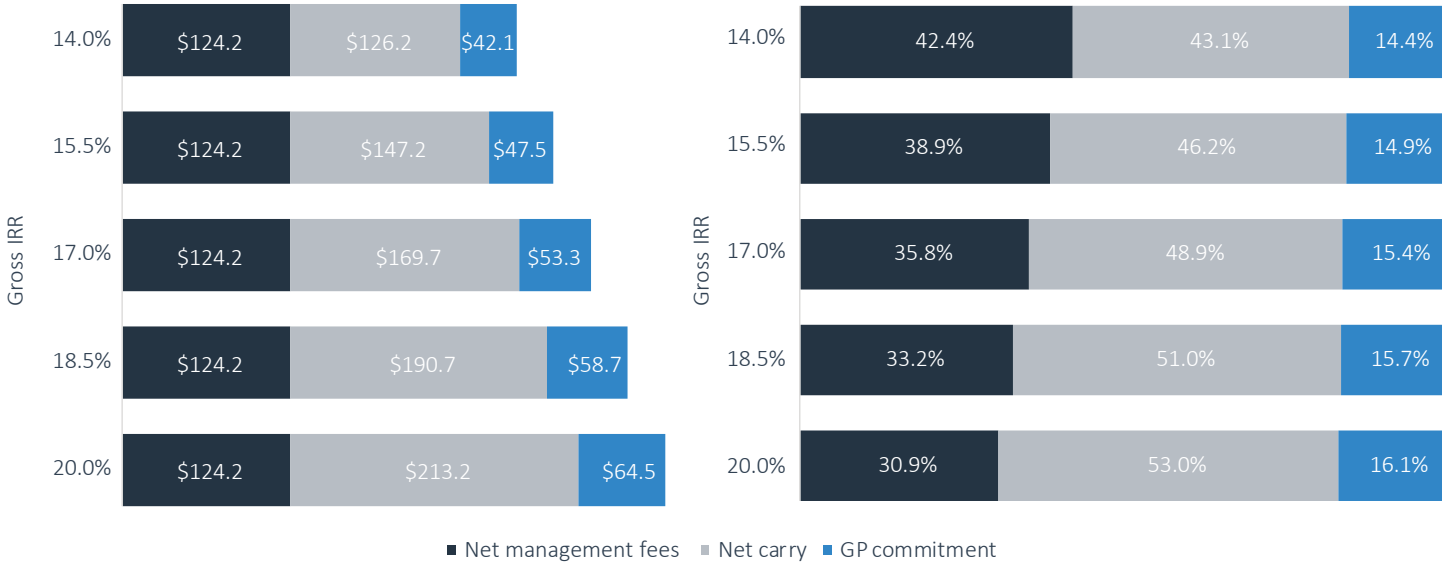
Note: This chart shows the gross present value of a PE fund to the GP depending on the related discount rates and IRRs.

The model also allows us to look at the gross revenue and operating income earned from management fees, carry and the GP's investment. As we see in this example, most of the earnings come from carry, though management fees still account for a healthy percentage. The fund valuation model also allows us to run a sensitivity analysis and understand how tweaks in our performance assumptions alter the management fee and carry balance. We present gross revenues and operating income for a range of gross IRRs and reveal the source of capital.

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

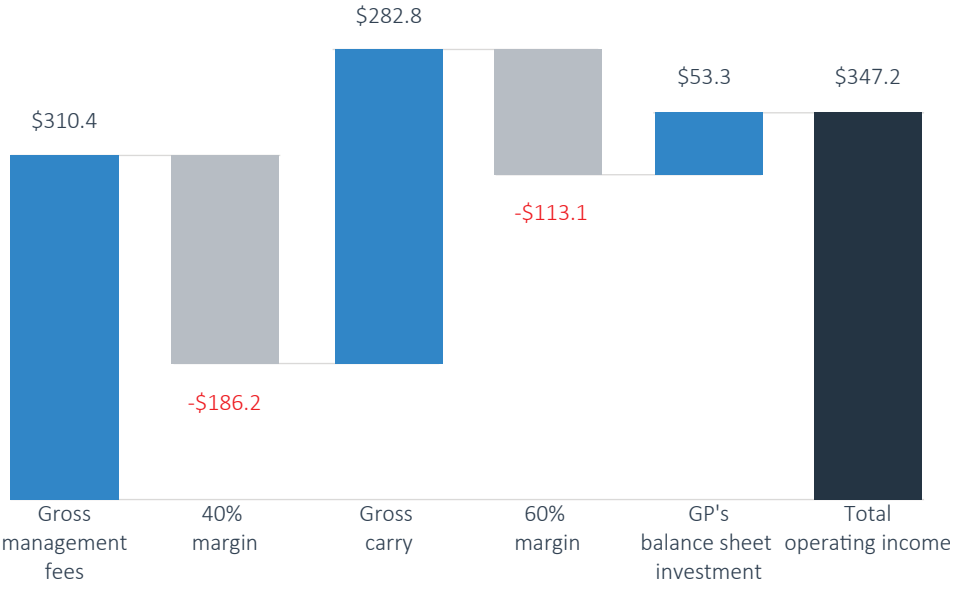


GP's operating income ($M) from fund by source of capital



We can also look at how margin and return assumptions affect the GP's operating income. We use operating income rather than net because taxes are a unique burden born by each GP and must be modeled individually. As we see from the charts, management fees contribute more to gross revenue, but their lower margin means that more carry falls to the bottom line.

Cumulative GP operating income ($M) based on gross IRR of 17.0% (net of 10.5%)



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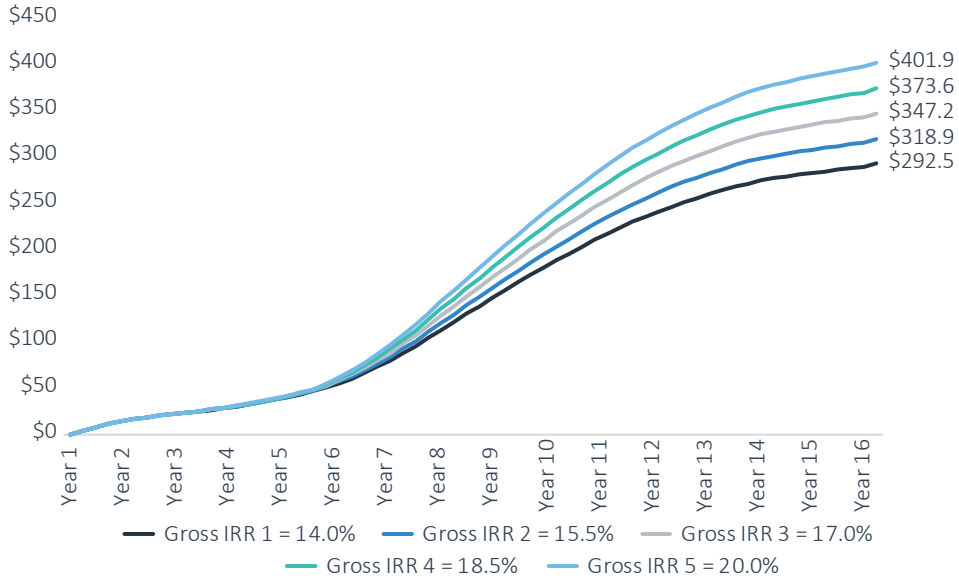
Finally, our fund valuation model allows us to visualize the approximate timing of the cash flows and chart out the operating income growth. We see just how widely the GP's income varies according to performance and how important Years 6 through 10 are with carry coming to the GP as fund investments are realized.

Cumulative GP operating income ($M) from fund



Conclusion

This fund valuation model with other tools to follow is meant to help investors better understand the fund level economics that should be considered when determining a GP's valuation, shedding some light on the profitability and inner workings of a GP's cash flows. These companies are often highly profitable and yet, due to complexities including a difficult-to-predict return profile, they are likely being undervalued in public markets. Our fund valuation model can help examine the implicit assumptions used by the markets and whether these GPs are being fairly valued.