

The Commitment Conundrum

Understanding the fine art of private capital fund commitments

October 2019

One of the most consistent challenges investors often face is how to size their private capital fund commitments¹ – be they either to direct private capital funds or to fund-of-funds. In this report, we focus on the commitments to fund-of-funds.

The challenge is understandable, since private capital fund interests are usually long-term investment vehicles with difficult-to-predict future cash flows, both as they relate to overall fund performance and, equally important, the timing of capital calls and distributions.

The problem is further compounded for investors attempting to manage to a target allocation within the context of a broader investment program, since their success in achieving that target depends not only on the private capital cash flows, but also on the performance of the remaining portion of their portfolio (equities, fixed income, real estate, hedge funds, etc.).

To help address this challenge, we have developed a model designed to help investors answer questions such as:

- What might the likely pattern of cash flows from a fund-offunds ("FoF") look like?
- How much and how frequently should I commit to a FoF to achieve my target asset allocation?
- · How long will it take to achieve that target allocation?
- What is my maximum "out-of-pocket" exposure for a given commitment size likely to be?

Answering these questions with precision or perfect foresight is impossible. After all, the answers depend on a myriad of factors, ranging from the degree of vintage year diversification that a FoF pursues, to the pace at which underlying managers ("GPs") invest their funds, to the nature of the market climate that influences the timing and extent of distributions.

Moreover, many investors will appreciate additional nuances that impact the nature of future cash flows, including the extent to which GPs and FoF managers actually invest/commit their respective funds, various approaches to recycling investment proceeds and even the nature of GP carry schemes and management fees – all of which, in combination, would seem to suggest an impossible task.

However, given abrdn's experience in private capital investing, we believe we can provide investors with some useful insights into these questions. Throughout our history, we have managed a broad number of distinct FoF vehicles across fairly dramatic private market cycles. Over that time, we have developed a deep understanding of how private capital funds and FoFs play out in different environments.

While we wouldn't endeavor to predict future returns using history and our experience as a guide we think we can give investors a good sense for the most likely patterns of FoF cash flows and provide some useful guideposts and "rules of thumb" to help investors make informed decisions around sizing their FoF commitments.

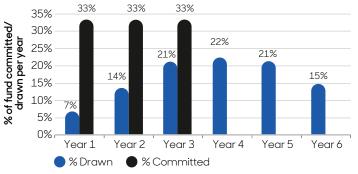
Capital Calls

A key issue investors often wrestle with is the expected profile of future capital calls. Unlike most other asset classes, private capital investors make upfront commitments, which are drawn down over time at an uncertain rate. In a FoF, this pattern of cash outflows depends largely on two critical elements: (i) the length of time over which the FoF makes its commitments to underlying managers and (ii) the pace at which those managers invest the capital. The former is typically related to the specific FoF's investment strategy – and is usually reasonably consistent by design – while the latter depends on both underlying GPs' investment strategies as well as the overall investment climate for new deals, which is clearly the more variable element. We believe strongly in vintage year diversification and deliberately strive to commit our funds over two-to-three vintage years, but this is not the case with all FoFs.

¹ We use the term "private capital" here to represent the sub-classes of Venture Capital (VC), Private Equity (PE) and Real Assets (RA), which typically share similar structures whereby capital is called and distributed over time within a given fund life.

To better understand the typical pace of GP investments, we analyzed historical investment data from more than 100 underlying funds dating back to 1994. After adjusting for the influence of market cycles, considering differences between private equity and venture capital partnerships, and taking into account GP and FoF management fees and carried interest, we are able to construct a hypothetical FoF capital call profile, which is shown here in Exhibit A. While, admittedly, actual fund cash flows will surely deviate from this pattern, we believe this profile is representative of the pace at which an investor could expect to pay in capital to a FoF. Consider this a "Base Case."

Exhibit A: Private Equity FoF - Base Case Commitment & Capital Call Profile²



Source: abrdn, 2019. For illustrative purposes only. Please refer to Exhibit C for additional information in connection with the historical analysis.

A few points are worth noting:

- First, capital is typically called over a period of approximately six years, or roughly the first half of a standard twelve year FoF partnership. Our experience in our core FoFs³ has ranged from a minimum of five years to a maximum of eight years.
- Second, there is a notable "ramp-up" period in the pace
 of capital calls, which results from the multi-vintage year
 approach to committing to underlying funds. On average,
 only 20-25% of a FoF is likely to be drawn over the first two
 years of the fund's life, before picking up to a steady 20%+ per
 annum rate in years three-to-five, and finally rounding out the
 remainder.

As we will discuss further, this Base Case pattern of capital calls has important implications for sizing a commitment and the time required to "get invested" in the asset class.

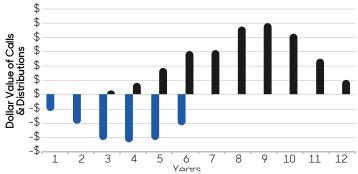
Distributions and Net Cash Flows

Distributions are naturally more difficult to predict, owing to the impact of both capital market cycles and manager performance. However, by again analyzing data from our portfolio of managers across multiple investment cycles, we are able to construct a typical pattern of GP, and hence FoF, distributions. While the magnitude of returns will vary considerably across cycles and vintage years – and is not predictable based on history – our analysis indicates that there is some consistency to the pattern of distributions over time. This is, in part, because GPs have a tendency to manage their portfolios similarly, particularly the timing of exits within a given fund's standard ten year life, from fund to fund regardless of the market cycle.

As a result, for a given return assumption, we are able to model the profile of cash inflows (distributions) that a FoF investor could expect to be most likely to experience over the course of a FoF's life. We show this pattern in Exhibit B for an assumed return case of 1.75x committed capital, and of all fees and carried interest, overlayed against the same capital call profile (inverted) from Exhibit A.

This is not intended to represent a prediction of future returns and cash flows for every FoF, but it is meant to be illustrative of the general pattern of cash flows that we have historically experienced – again, the Base Case if you will.

Exhibit B: Private Equity FoF – Base Case Capital Call and Distribution Profile⁵



Source: abrdn, 2019. For illustrative purposes only. Please refer to Exhibit C for additional information in connection with the historical analysis.

² The capital call pattern indicated here reflects abrdn specific analysis for private equity funds. Cash flow patterns for venture capital FOFs may differ, although abrdn research suggests the general patterns and conclusions are similar.

The analysis assumes that the FOF makes commitments over a three-year period. Actual drawdowns for any specific FOF will differ from this model.

³ Excludes funds from abrdn prior NexGen strategy.

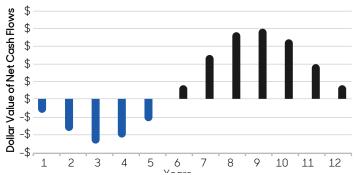
⁴ 1.75x represents the net return carry hurdle for abrdn private equity FOFs.

⁵ Actual cash flows for any given FOF will differ from this model.

⁶ Note that this is not to be confused with fund performance or the "j-curve," since cash flows do not take into consideration the value of the unrealized portfolio. Projected relative cash flows are not a predictor of ultimate fund performance.

This analysis also yields some important observations. First, a FoF structured similar to those managed by our firm are likely to begin making initial distributions by year three or four, accelerating over time and peaking in years six to ten. When combined with capital calls, the resultant pattern of annual net cash flows – shown in Exhibit C for the same 1.75x net return scenario – suggests that annual distributions may begin to exceed capital calls in year six near the mid-point of the FoF's life.

Exhibit C: Private Equity FoF - Base Case Annual Net Cash Flows⁷



Source: abrdn, 2019. For illustrative purposes only.

IMPORTANT: Projections and other information generated by this analysis regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. Hypothetical simulations have many inherent limitations as, unlike an actual track record, simulated results do $not \, represent \, current, ongoing \, investment \, activity. \, No \, representation \, is \,$ being made that any Fund or account will or is likely to achieve results similar to those shown. In fact, there are frequently sharp differences between hypothetical simulations and actual results subsequently achieved by any particular investment program. One of the limitations of hypothetical results is that they are generally prepared with the benefit of hindsight. There are numerous other factors related to the markets and/or investments which cannot be fully accounted for in the preparation of a hypothetical simulation and all of which can adversely affect actual results. There is risk of loss associated with all investments. In addition, it should be noted the results shown reflect the fees / expenses associated with such an investment program. Past performance is not a guarantee of future results

Importantly, because distributions typically begin before 100% of a fund's capital is called, investors rarely end up "out-of-pocket" the full amount of their initial commitment. For example, in our assumed 1.75x net return scenario, a FoF investor is likely to effectively invest only ~65% of their original committed amount, netting capital calls against early distributions. Of course this percentage will vary in reality according to the relative pace of capital calls and distributions for a given fund, as well as the fund's overall performance, but in our opinion, it is unlikely to ever be as high as 100%.

Indeed, many venture capital funds that have struggled to generate timely distributions have experienced higher out-of-pocket ratios; however, in our experience, only on the order of approximately 80%. At the same time, many of the recent

buyout funds that have benefited from early distributions from recapitalizations are experiencing much lower out-of-pocket ratios, closer to 50%. Our history across its core FoFs reveals a range of 51% to 82%.

This has clear implications for investors attempting to get capital to work in the asset class. The practical reality is that investors must commit more capital to achieve a targeted dollar investment amount. In fact, the reciprocal of the out-of-pocket percentage, i.e. the ratio of committed capital to invested capital, yields a convenient rule of thumb: for a net return expectation of 1.75x on a private equity FoF, investors need to commit approximately 1.5x their targeted cash investment amount. This relationship is unique to private capital funds. But it is not static – the higher the return expectation for the fund, the higher the ratio of required commitments to invested capital (since capital tends to be returned faster via larger distributions) and vice-versa. For example, an investor with an expected net return of 2.5x, according to our model, would need to commit 1.7x their targeted investment amount.

Managing to Private Equity Allocations

Taken together, the dual phenomena of multi-year capital call periods and out-of-pocket exposure often results in investors being surprised at how long it can take (and difficult it can be) to build and maintain an allocation in the private capital asset class – a problem that is not only applicable to FoF investors, but also to direct fund investors. When examined in the context of a broader investment program, this challenge comes clearly into view.

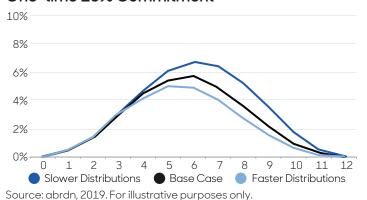
For example, suppose that an investor has determined their optimal allocation to private equity to be 10% of their portfolio. Using our prior assumption of a 1.75x net return from a Private Equity (PE) FoF and further assuming (i) straight-line appreciation of the portfolio's unrealized value and (ii) a 7% rate of return on the investor's broader non-PE portfolio, a one-time 10% commitment to a FoF can get the investor only 5.7% invested in the given asset class – and briefly at that – in year six following their commitment (see the Base Case line in Exhibit D below).

Why is this the case? Because distributions begin coming back before all capital is called and because the broader non-PE portfolio continues to compound over time. Even if one assumes a slower-than-average distribution pace, implying that more of the commitment remains invested longer (the blue line in Exhibit D), the investor will still fall well short of reaching their targeted 10% allocation to the asset class. Moreover, if the broader portfolio performance were to exceed 7% per annum, the investor would have even more difficulty reaching their desired private capital allocation.

⁷ Actual cash flows for any given FOF will differ from this model.

⁸ Includes core FoFs that are mature enough to calculate this statistic (typically, at least five years old).

Exhibit D: PE Market Value % of Total Portfolio – One-time 10% Commitment



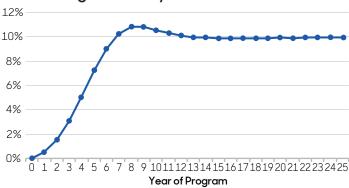
So how should a FoF investor manage the challenge of getting invested?

The investor essentially has three choices: (i) committing more capital relative to their cash investment target, (ii) implementing a program of regular FoF commitments or (iii) employing a combination of (i) and (ii). Our research suggests that in order to achieve a given target private equity allocation within the context of a broader investment program – say 10% – an investor should commit 10% of their overall portfolio to a FoF every three years. As demonstrated in Exhibit E, an investor employing such a strategy would achieve their allocation target on a sustained basis by year seven of the program, all else being equal.

To be sure, that is longer than many investors typically expect. But patience and consistency in approach will ultimately yield the desired result without overly concentrating the private equity investments in a particular vintage year – not unlike building a position in other asset classes by "averaging in" over time. It is worth noting that once this steady state is reached, an investor will actually have 2.5x their targeted private equity allocation outstanding, on average, in the form of open commitments to FoFs – which is higher than many investors expect. This is, however, somewhat deceiving since, based on our analysis, the net unfunded portion of these open commitments will be much lower, fluctuating between 0.5x and 1.1x their targeted allocation between successive three year commitments.

The key is that investors often need to commit more to the asset class than they expect in order to achieve their allocation objectives. As the nature of private capital funds does not lend itself to easily re-balancing quarter-to-quarter or even year-to-year, investors should set a course that leads them to eventually approximate their targeted allocation goal, knowing that their allocation won't ever be exact.

Exhibit E: PE Market Value % of Total Portfolio: Committing 10% Every Three Years



Source: abrdn, 2019. For illustrative purposes only.

Summary

This article only touches on the highlights of the "Commitment Conundrum." Clearly there are many possible scenarios to consider and potential investment strategies to apply when investing in private capital.

These are a few of the key themes that stand out:

- First and foremost, because of the unique patterns of cash flows common to the asset class, private capital investments are very different from their public market brethren.
- As a result, it can take a long time to get fully invested, which can be frustrating to investors that don't fully appreciate the cash flow patterns they are likely to experience.
- It may feel a bit unnerving to investors to have open commitments to numerous vintage years in an effort to achieve a long-term asset allocation target. But, hopefully, this paper begins to shed light on why patience and consistency over the long-term are valuable tenets when tackling the challenge of private capital commitment sizing.

Methodology: In conducting its research, abrdn analyzed underlying manager data from its core FoFs that are at least five years old, collectively representing over 100 venture capital and private equity funds. To arrive at the Base Case pattern of FoF calls and distributions, we first modeled a typical manager investment and realization pace using the historical fund data, and then rolled the manager-level profiles into a FoF structure, taking into account both average GP and management fees and carried interest.

⁹ Assumes a growth rate of 7% for the public portfolio, a FoF return of 1.75x net of fees and expenses and a three year commitment schedule.

Important information

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