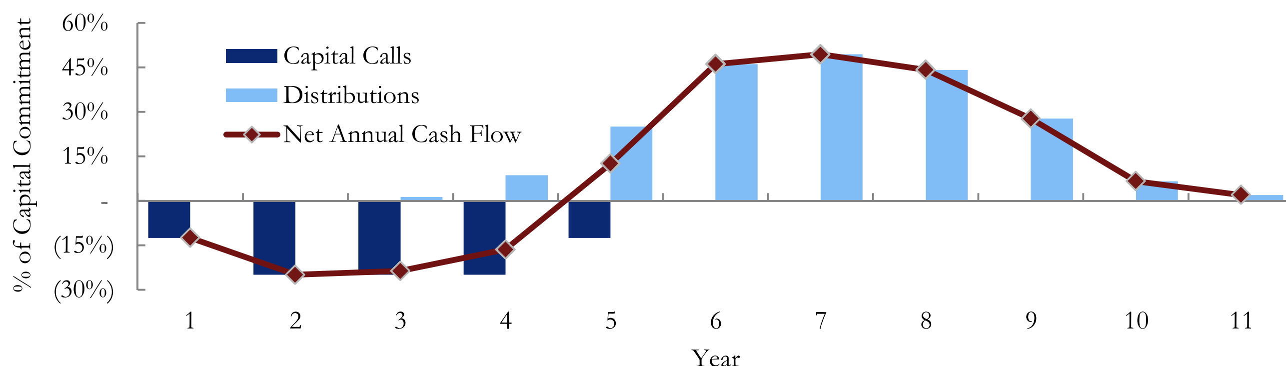
Understanding private equity cash flows and exposure over multiple fund commitments

In this white paper we discuss how an investor's commitment to a private equity partnership translates into annual cash inflows and outflows and, as a result, how that investor's net exposure changes over time. We will then overlay the implications of a serial commitment by that investor to a successor fund.

Cash Flow Characteristics of a Private Equity Commitment:

Distinct from investments in other asset classes in which capital is typically invested all at once, private equity funds invest their committed capital during an "investment period" that typically lasts three to six years. As a result, investor commitments to a private equity fund are drawn down over time as the capital is needed to fund investments. Additionally, the timing of distributions to investors is uncertain as they coincide with liquidity events of the underlying portfolio companies. Liquidity for an investment can come from a single event, such as an outright sale of the company, or over time through a series of events such as dividends (usually in conjunction with balance sheet recapitalizations) or secondary sales of public securities (following an IPO of the company). While most private equity firms plan to hold each portfolio investment for approximately five years, company-specific developments and macro events impact timing and dollar amounts of liquidity events, resulting in investment hold periods that can range from one year to ten years or more. Figure 1 below shows an illustrative example of how the above-mentioned investments and distributions can play out over time from the perspective of the limited partner/investor.

Figure 1: Illustrative capital calls and distributions[1] of a hypothetical private equity commitment



Source: Cohesive Capital Partners

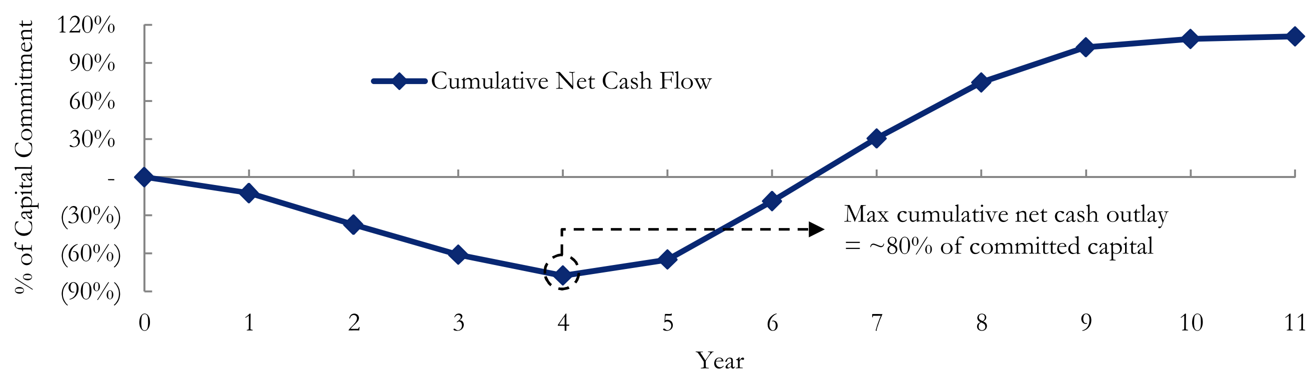
Please refer to the last two pages of this presentation for important assumptions and disclosures regarding the illustrative information presented above.

(1) Distributions are assumed to be net of management fees and carried interest payments, but do not take into account taxes.

Given the variability in portfolio company hold periods, sometimes the earliest investments in a fund may be fully or partially realized prior to the final investment being made. This dynamic is demonstrated in years four and five of Figure 1. These early distributions to investors can serve as a partial/full offset to the later capital calls of the fund, resulting in a cumulative net cash outlay for an investor (capital called less distributions) that never reaches the amount of the investor's committed capital.

Figure 2 below shows the cumulative effect of the illustrative capital calls and distributions from Figure 1, and demonstrates how (in this illustration) the investor's maximum cumulative net cash investment peaks at ~80% of committed capital (in year four). The implication of Figure 2 is that, if an investor was targeting a certain exposure for a single fund commitment, that investor would likely need to make a commitment in excess of that target exposure (i.e. to have a cumulative net cash investment that reaches $1.0 million, an investor would need to commit $1.25 million to the fund in this illustration). As also illustrated in Figure 2 below, the investor receives cumulative distributions equaling ~100% of invested capital in the first ~6.25 years, and realizes the majority of the profits from its investment (in this illustration) in years seven through nine. Please note that actual private equity fund cash flows and returns may vary materially from these illustrations, both in terms of timing and magnitude of returns.

Figure 2: Illustrative cumulative cash flows[1] of a hypothetical private equity commitment



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Fundraising Successor Funds:

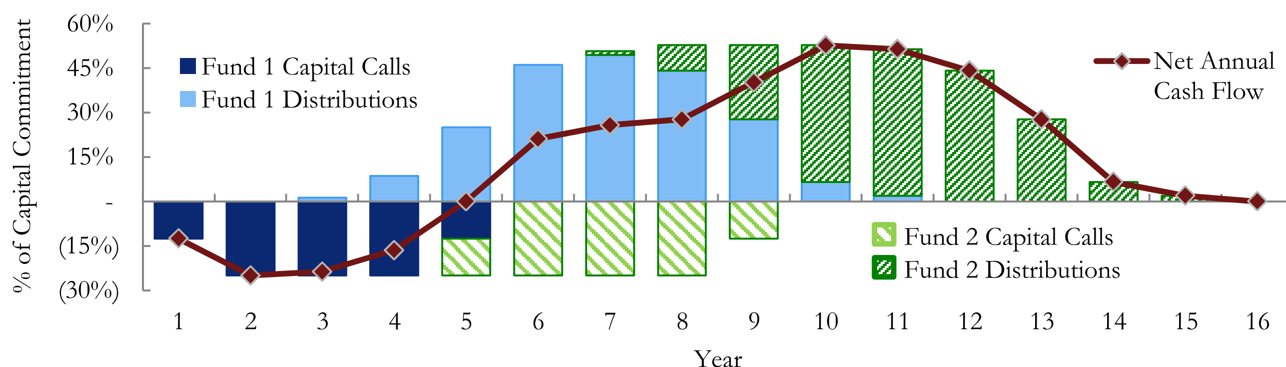
Typically, once a private equity fund is more than ~75% invested, committed to investments, and reserved for follow-on investments, the manager of that fund will seek to raise a new, or successor, fund. A reason that the private equity firm does not wait until its existing fund is fully invested before fundraising for a subsequent vehicle is because the fundraising process for a subsequent vehicle can often take 6-18 months, and the firm does not want to have any periods in which it has no available committed capital to invest, thereby potentially missing out on an attractive investment opportunity or harming their position in the marketplace. Given the typical timing of investments as laid out in the first section of this paper, a private equity firm will typically begin fundraising for its next fund in approximately the fourth year of the investment period of its existing fund.

Investments in Successor Funds:

Now that we have detailed an illustrative example of cash inflows and outflows for a single private equity commitment, we will proceed with an illustration of what an investor's cash flows might look like if it were to make a commitment to a successor private fund. For purposes of this illustration, we have assumed that the second capital commitment is the same size as the investor's commitment to the first fund, and that the second fund has an identical profile to the first fund in terms of both the timing of investments and distributions, and the returns achieved on those investments.

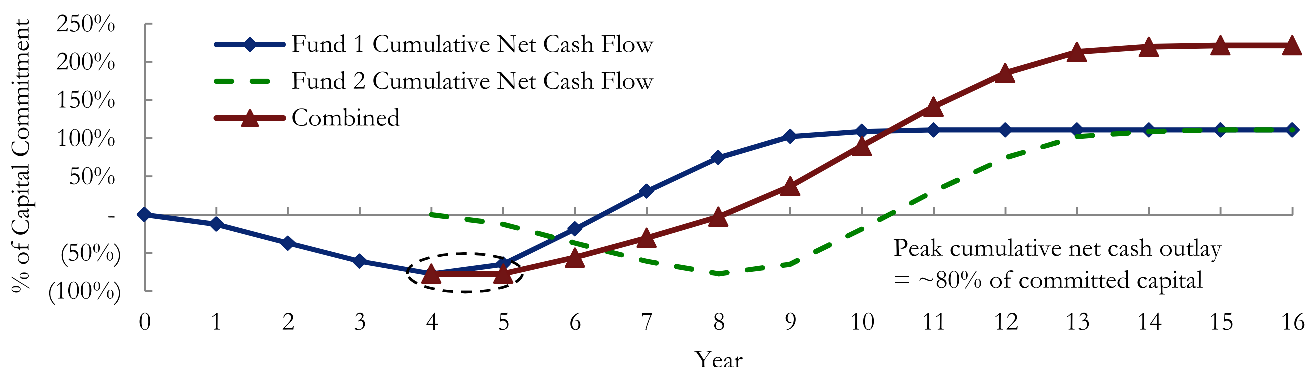
Figure 3 below shows the impact of a commitment into a successor fund that is raised during years four and five, and begins investing midway through year five. Please note that in a real life example, during any period of time that the second fund has committed capital and the first fund has not yet finished investing, it would be typical that all new investments would be split between the two funds based on a pre-determined allocation policy deemed appropriate by the manager of the funds. As illustrated in Figure 3, all of the capital calls for the second fund during years six through nine are more than fully offset by distributions received from the first fund. The net result of that dynamic is shown in the red line of Figure 3, which illustrates how net annual cash flows are essentially zero in year five and are solidly positive in all years thereafter.

Figure 3: **Illustrative capital calls and distributions[1] of two serial hypothetical private equity commitments**



As shown in Figure 4 below, adding an equal sized commitment to a successor fund does not materially impact an investor's peak combined cumulative net amount invested. In this illustration, the peak combined cumulative net amount invested remains at ~80% (roughly flat from the single fund investment shown in Figure 2) but now occurs in year 5.

Figure 4: **Illustrative cumulative cash flows[1] of two serial hypothetical private equity commitments**



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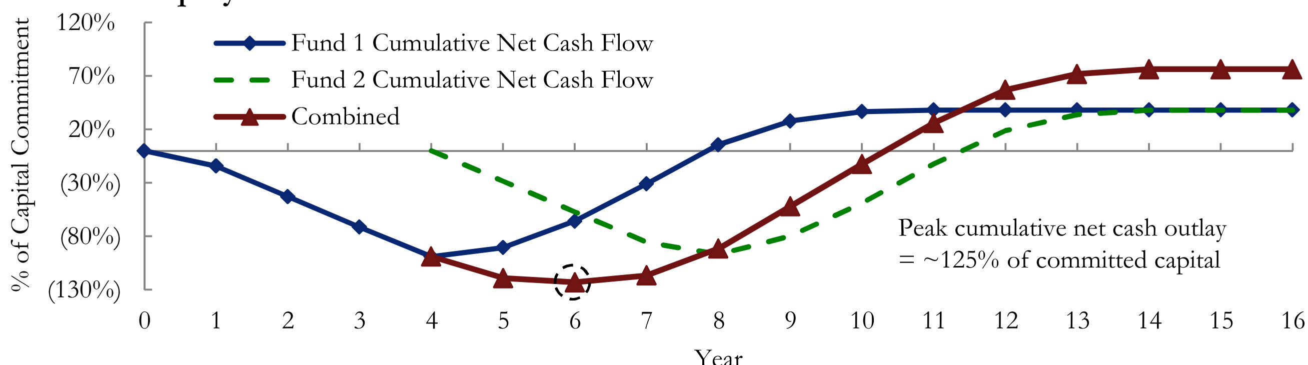
Sensitivity Case:

Please note that if the timing of cash flows or magnitude of returns were different from our base illustration, then the combined cumulative exposure could continue to grow during the first few years of the investment period of the second fund. As shown in Figure 5 below, if our base illustration assumptions were adjusted as shown in a "sensitivity case" on the following page, the peak cumulative net amount invested for a single fund commitment would grow to ~100% of committed capital (vs.~80% in base illustration) and the peak for two combined commitments would grow to ~125% of the commitment amount to the first fund (vs.~80% in base illustration).

Figure 5: Sensitivity Case Illustrative cumulative cash flows[1] of two serial hypothetical private equity commitments



Source: Cohesive Capital Partners

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Assumptions:

In order to develop the illustrations discussed in this paper, we made certain assumptions as we thought appropriate based on our experience in the private equity industry pertaining to the timing of investments, the timing of realization of those investments, the ultimate multiple-of-capital on each of those investments, and the fees and expenses of the fund. The below graphics outline the assumptions used in our base illustration as well as the assumptions for the "sensitivity case" discussed on page 4 of this paper.

Please note that private equity investors have an obligation to contribute up to their full unfunded capital commitment at any time and on relatively short notice. Additionally, **cash flows for an actual private equity fund may differ materially from what has been presented herein**. As a result we would like to remind you that this paper has been prepared for informational purposes only and no reliance should be placed on the illustrations, assumptions or content contained herein when making decisions about private equity commitments, or for any other purpose.

Assumptions for Base Illustration

Timing of Investing the Fund's Committed Capital:	
Fund Capital Invested Over	4.5 Years
Distribution of Portfolio by Duration of Investment:	
% of Invested Capital Returned in 3 Years	10.0%
% of Invested Capital Returned in 4 Years	25.0%
% of Invested Capital Returned in 5 Years	50.0%
% of Invested Capital Returned in 6 Years	10.0%
% of Invested Capital Returned in 7 Years	5.0%
Portfolio Company Returns:	
Gross Multiple-of-Capital (per investment):	2.5x
Fees:	
Annual Mgmt. Fee (investment period):	2.00%
Annual Mgmt. Fee (post-inv. period):	1.50%
Carried Interest:	20.0%

Assumptions for "Sensitivity Case"

Timing of Investing the Fund's Committed Capital:	
Fund Capital Invested Over	4.0 Years
Distribution of Portfolio by Duration of Investment:	
% of Invested Capital Returned in 3 Years	0.0%
% of Invested Capital Returned in 4 Years	10.0%
% of Invested Capital Returned in 5 Years	45.0%
% of Invested Capital Returned in 6 Years	30.0%
% of Invested Capital Returned in 7 Years	15.0%
Portfolio Company Returns:	
Gross Multiple-of-Capital (per investment):	1.5x
Fees:	
Annual Mgmt. Fee (investment period):	2.00%
Annual Mgmt. Fee (post-inv. period):	1.50%
Carried Interest:	20.0%

Disclosures:

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This material includes assumed returns which are purely illustrative and meant to generically represent a hypothetical private equity fund. The hypothetical returns presented herein are shown net of management fees and carried interest payments at rates typically charged by private equity funds. The projected cash flows herein have been prepared by Cohesive on the basis of its own generic estimates and assumptions. These estimates and assumptions are hypothetical and not representative of any actual or anticipated cash flows or returns of any existing or future fund managed by Cohesive.

Although these estimates and assumptions are believed to be reasonable, cash flows of an actual private equity fund commitment may differ materially from the projections presented herein. You should be aware that this information involves a high number of estimates and assumptions and is subject to an unusual degree of uncertainty. Additionally, **hypothetical performance is not indicative nor a guarantee of any actual or future returns**. For these reasons, there are inherent limitations on the value of the information presented herein and Cohesive accepts no liability for any direct or consequential losses arising from its use.