1Q19

TOPICS OF INTEREST

Private markets commitment pacing and cash flow modeling

January 2019

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Executive summary

The uncertain pattern of private market investment cash flows poses an implementation challenge for investors with liquidity and risk management constraints. To ensure targets are reliably achieved and maintained over time, forecasting private markets cash flow patterns is critical to implementation of the strategic asset allocation process.

Institutional investors in search of improved returns and greater diversification often turn to private market investments. Based on their liquidity, risk tolerance and performance needs, investors strive to develop appropriate target allocations to the asset class. Unlike traditional asset classes where capital is put to work immediately, private market investors make upfront commitments to funds that are drawn over time at a highly variable rate. Having no control over the timing of either contributions toward commitments or distributions from realizations of investments makes estimating future exposure of private market investments difficult.

An annual commitment pacing plan is designed to manage investor target allocations to private markets while answering questions like:

- How should a new private equity investor size and pace commitments to reach their target allocation?
- What future commitments will be needed to maintain private equity exposure over time?

— How should investors manage long-term private equity commitments through short-term market volatility across their total portfolio?

— What is a prudent upper bound for the private equity allocation before liability and liquidity risks become a real threat?

Introduction

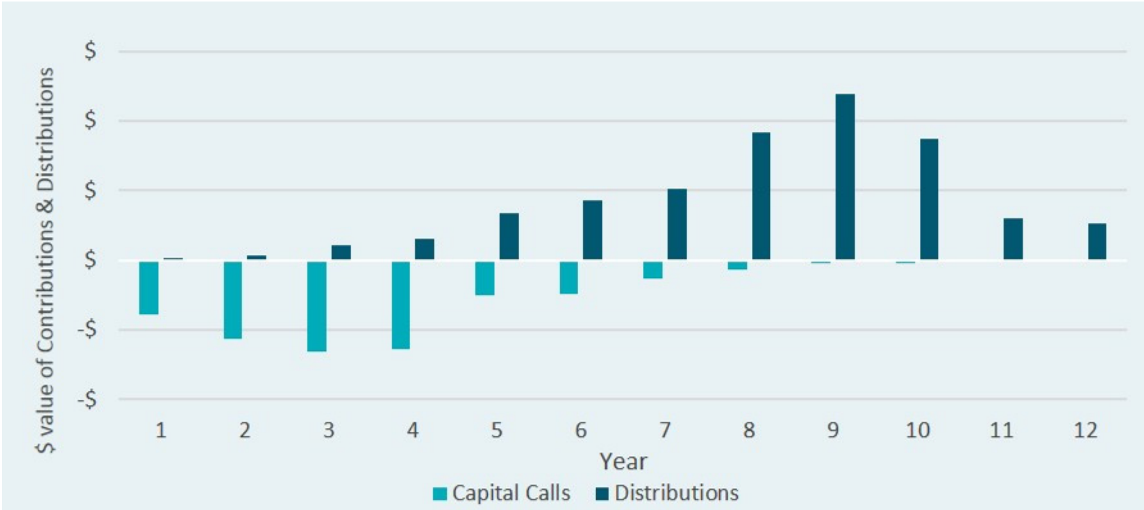
The process of designing and implementing a private markets program occurs over long periods of time; characteristically requiring five to seven years to reach a target allocation, and conceivably even longer for full maturity. As a result, investors must match long-term projections for private market investments with long-term expectations for their total assets. Such estimates include long-term expectations for net growth of total assets, as well as any projected net cash outflows (withdrawals) that are expected to impact total assets over the long-term.

An effective pacing model begins by developing performance and cash flow assumptions for a portfolio of fund commitments, both existing funds and those anticipated to be committed in the future. The performance and cash flow expectations are developed based on actual historical data specific to both existing and similar funds, input from fund managers to the extent available, as well as qualitative evaluations with regards to performance expectations.

In most cases, capital drawdowns of private equity funds are heavily concentrated during the first few years of a fund's life. After high initial investment activity, drawdowns of private equity funds are carried out at a declining rate, as fewer new investments are made and follow-on investments are spread out over several years. Since contributions reduce commitment liabilities, they should be modeled separately from distributions that provide liquidity to fund new investments or cash payouts.

Distributions are more difficult to predict because of the impact of capital market cycles and manager performance. However, by analyzing historical data across multiple cycles, one can model the cash inflows that investors will likely experience over the course of the investment life. Typically, distributions tend to follow the lifecycle of a fund delivering a low rate of distributions early with larger rates of distribution as the fund reaches maturity.

FIGURE 1: BASE CASE CAPITAL CALLS AND DISTRIBUTION PROFILE

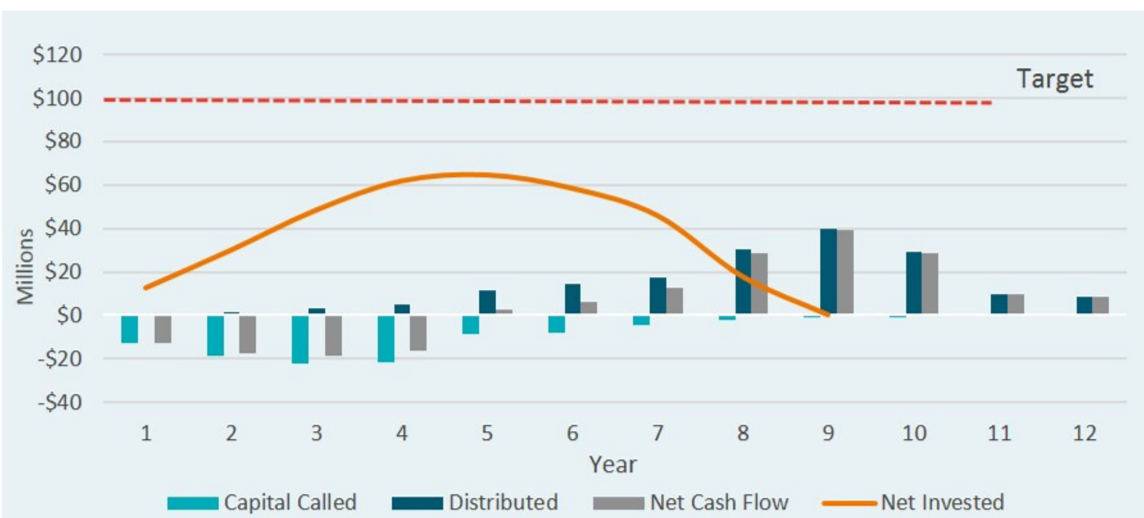


Source: Verus

Committed does not mean invested

Due to the gradual flow of investments by fund managers, which generally lasts multiple years from a fund's inception, cash (distributions) will typically begin to flow back to an investor before the full commitment amount is drawn down. For this reason, even when a fund's commitment is fully drawn down, an investor's investment exposure would generally net to anywhere from 65% to 75%, falling well short of a fund's total commitment amount. Figure 2 shows that despite a $100 million commitment in Year 1, the maximum invested in Year 5 is only $65 million.

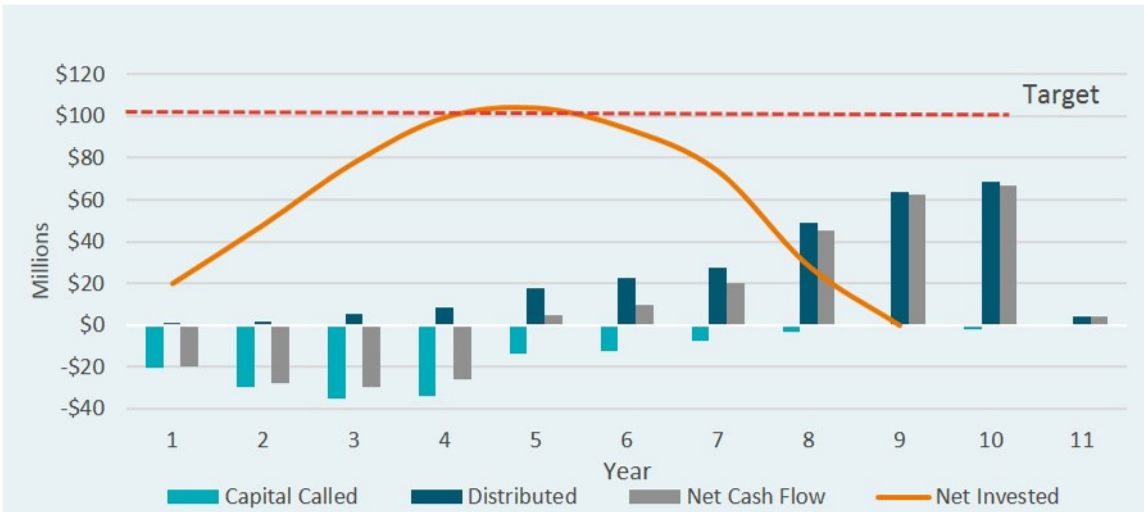
FIGURE 2: COMMITMENT VERSUS INVESTMENT



Source: Verus

To overcome the offsetting nature of cash flows and reach a target exposure to the asset class, investors need to adopt an overcommitment strategy. Investors who want to attain their actual exposure within a stated timeframe, generally five to seven years, should increase the initial commitment to achieve a targeted dollar investment amount to private equity. To illustrate below, by overcommitting in Year 1 to a target allocation of $100 million by 1.65x or $165 million, the maximum investment amount reaches the target in Year 5.

FIGURE 3: OVER COMMITMENT TO REACH A TARGET ALLOCATION



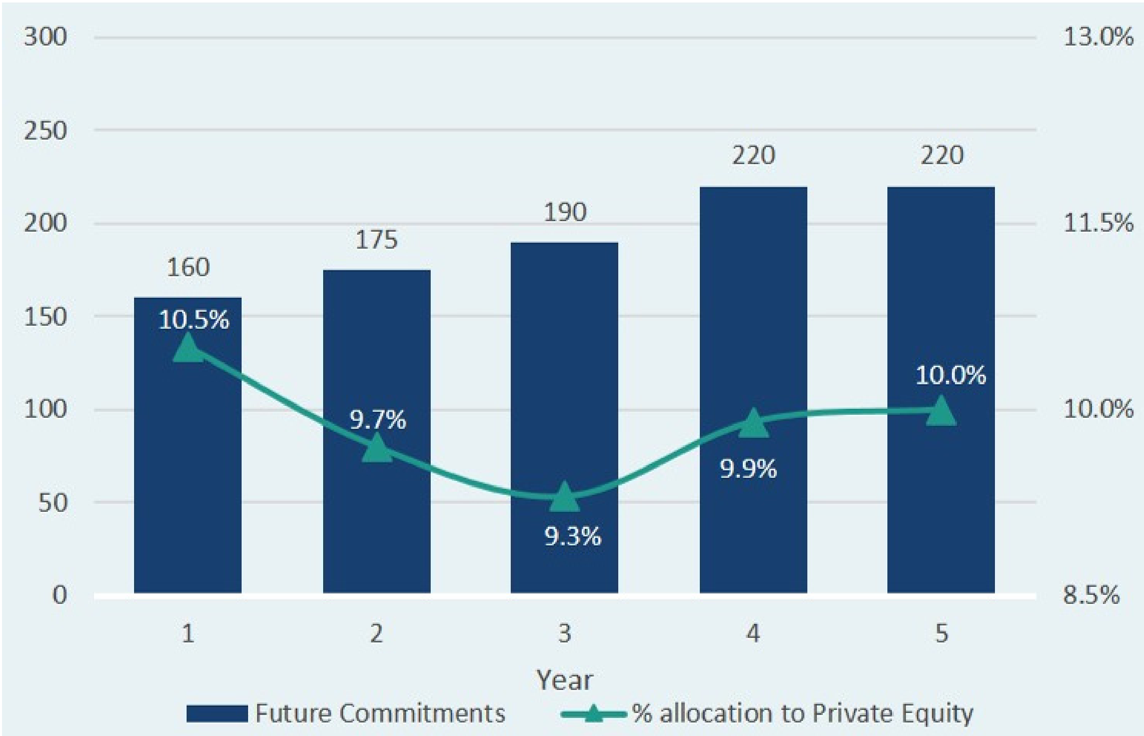
Source: Verus

Maintaining the allocation

Maintaining an existing portfolio is not as straightforward as building up a new allocation. Investors need to account for distributions that will force down private equity exposure, requiring ample commitments to private equity that can sustain exposure over the long term. A recommitment strategy is needed to maintain the target allocation.

A recommitment strategy, however, is not as simple as maintaining an allocation equivalent to the expected growth of the total portfolio. Investors will need to assess the current portfolio strategy composition, maturity and return expectations to develop a future commitment approach. In an active portfolio, the calculation of cash flow projections for existing investments differ from that used for new commitments. Contributions are now modeled as a function of fund age and uncalled capital; and distributions are modeled as a function of fund age, uncalled capital, valuation, and cumulative distributions. This approach incorporates updated and most recent information about existing fund investments into projecting future commitments.

FIGURE 4: HYPOTHETICAL MATURE PORTFOLIO AFTER RECEIVING LARGE DISTRIBUTIONS AND LIMITED CAPITAL CALLS OVER THE RECENT PAST



Source: Verus

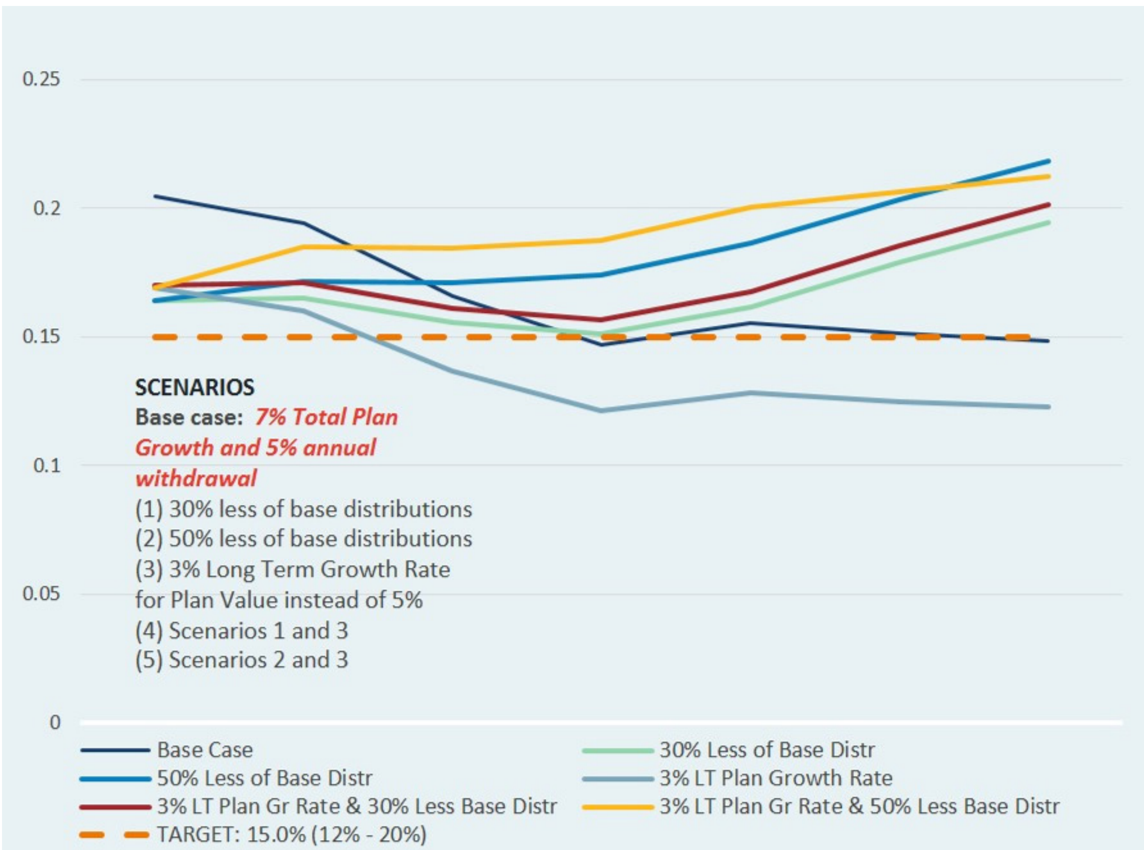
Monitoring liquidity risk

Monitoring liquidity allows investors to prevent undue illiquidity and shortage of cash. In a buoyant economy, proceeds from distributions are generally high and can be used to finance all or part of an investor's open commitments. However, when equity markets contract, private equity managers slow down exit activity significantly (but do not necessarily slow down investment activity), so investors must find alternative ways to finance open commitments. Liquidity tests help investors determine if their private equity portfolio will likely receive enough distributions to fund capital calls, and if not, how much is needed to fund short- and medium-term obligations.

Liquidity tests are usually based on cash flow projections. These can be done "top down" focusing on the overall fund or "bottom up" by looking at individual fund projections data. Stress testing cash flow projections can also be useful, especially given the relative scarcity of publicly available data about private equity. Typical ways of conducting stress tests include making assumptions about accelerated drawdowns, delayed repayments and lower investment returns compared to historically observed patterns. The stress-testing process is important for prudent investment management, as it looks at the "what if" scenarios necessary to detect vulnerabilities and can help estimate the impacts of shifts in the long-term economic environment.

The outcomes of liquidity tests and stress scenarios should be used in liquidity planning and to develop effective contingency plans. To this end, investors also need to consider the relative ease or difficulty with which they can mobilize cash resources from outside their private equity portfolio. Contingency plans include slowing commitment activity or selling stakes in the secondary market.

FIGURE 5: SCENARIO ANALYSIS - PE ALLOCATION PERCENTAGE RELATIVE TO TOTAL PLAN



Source: Verus

Conclusion

In traditional asset classes, an investment strategy can attain target exposures relatively quickly. Not so with private markets where a commitment is drawn down over the course of several years. Furthermore, the rate at which capital is drawn can vary significantly, not only between different fund managers but also from one market cycle to another. This, combined with capital being returned from realizations from investments made in the early years of the life of a fund, make it relatively rare for the invested capital to equal the full original commitment.

This highlights the importance of investment pacing and cash flow modeling to manage exposure and plan capital deployment accurately. However, as forecasting models in private markets are used to forecast several years into the future, the model needs to be comprehensive and flexible enough to be able to incorporate the impact of commitments across the range of private market subsectors or to market cycles.

Notes & Disclosures

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