Vanguard

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Benefits of a fund-of-funds strategy in private equity

- A private equity (PE) fund-of-funds (FOF) strategy[1] can help investors achieve broader diversification and superior risk-adjusted returns compared to other PE strategies, while providing access to top-tier PE funds and reducing capital call and operational complexity. Crucially, investors can increase the probability of achieving their PE investing goals by partnering with a skilled PE FOF manager and seeking lower fees.
- In an analysis of historical PE returns, we find that FOFs provide improved diversification and downside protection relative to buyout and venture strategies alone, particularly during previous economic cycle peaks.[2] We also find that a PE program that invests in at least 20 to 30 PE funds would be required to achieve a sufficient level of diversification while still retaining the excess return benefits of PE.
- A historical analysis shows that FOF, secondary, and co-investment funds[3] exhibited higher upside and lower downside return potential relative to historical buyout, growth equity, and venture capital fund performance.[4]

1 A fund-of-fund (FOF) is a managed pooled vehicle that raises capital from investors to invest in multiple other private funds.

2 See Figure 2 for additional detail and important legal disclosures.

3 FOFs can invest in other PE funds, either directly ("primaries"), in the secondary markets ("secondaries"), or by making investments alongside general partners ("co-investments").

4 See Figure 3 for additional detail.

The role of funds of funds in a diversified PE program

Unlike a fund that invests directly in companies, an FOF invests in other PE funds. With one FOF, investors can achieve diversification across PE markets, with a lower required minimum investment. The average FOF invests in approximately 20 funds, resulting in investments in approximately 400 companies.[5]

For many investors, FOFs are the only way to replicate a large, diversified PE program and is preferable to constructing a PE program oneself. We estimate that replicating the level of manager access and diversification of a top-tier FOF across dozens of funds would require a portfolio of more than $1 billion.[6] A top-tier FOF can leverage its scale and industry relationships to provide access to capacity-constrained managers that would otherwise be inaccessible to smaller or less connected investors. Access constraints are most acute in venture, growth, and small and middle market buyout—market segments that can be critical to achieving the greatest PE investment returns.

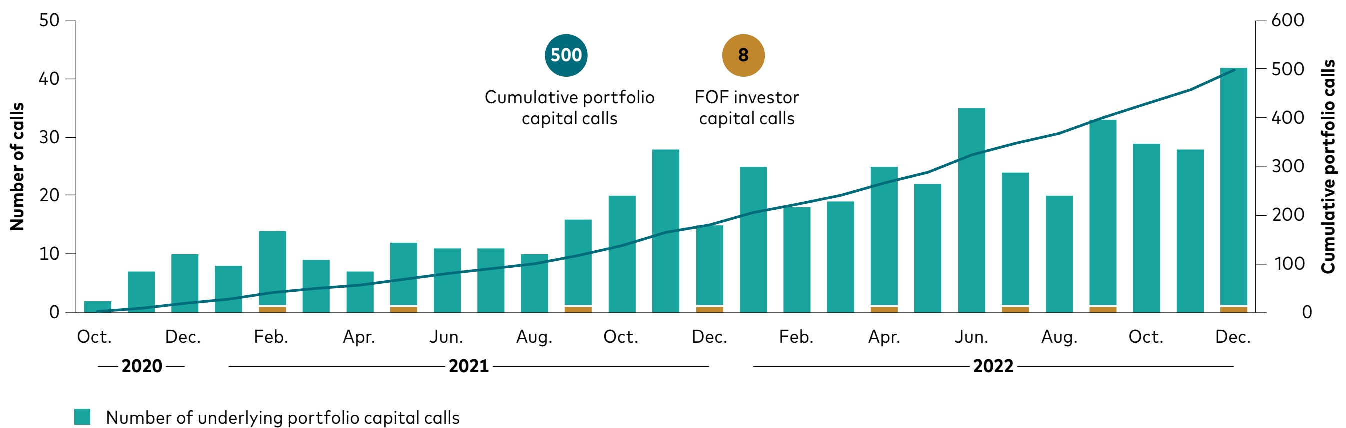
The main value drivers of FOFs can be categorized into operational- and investment-focused. On the operational side, FOFs can reduce both the complexity and capital call requirements of a robust PE program. Program complexity can take the form of manager diligence, optimal portfolio construction, and secondary and co-investment capabilities. Each of these can be difficult for individual investors to replicate.

An important benefit of an FOF is the ability to aggregate hundreds of potential underlying portfolio capital calls into just a few. **Figure 1** shows that the cumulative portfolio calls for a hypothetical FOF diversified across stage and strategy can reach or exceed 500 during a three-year investment period. FOFs can aggregate capital calls on behalf of investors and utilize prudent borrowing strategies to reduce the number of investor capital calls to fewer than 10.

FIGURE 1.

FOFs can reduce the number of capital calls required of investors

Hypothetical FOF investor and underlying capital call activity across a three-year investment period



Note: The chart above is illustrative and does not represent any actual investment or fund experience. The number of cumulative portfolio calls and actual capital calls experienced by an investor in a PE FOF will depend on the specific fund's management and underlying investments.

Source: Vanguard.

5 Harris, Jenkinson, Kaplan, and Stucke (2017). Typical buyout and venture funds make approximately eight to 20 and 30 to 80 investments, respectively.

6 See *The Case for Private Equity at Vanguard* (Vanguard, 2023).

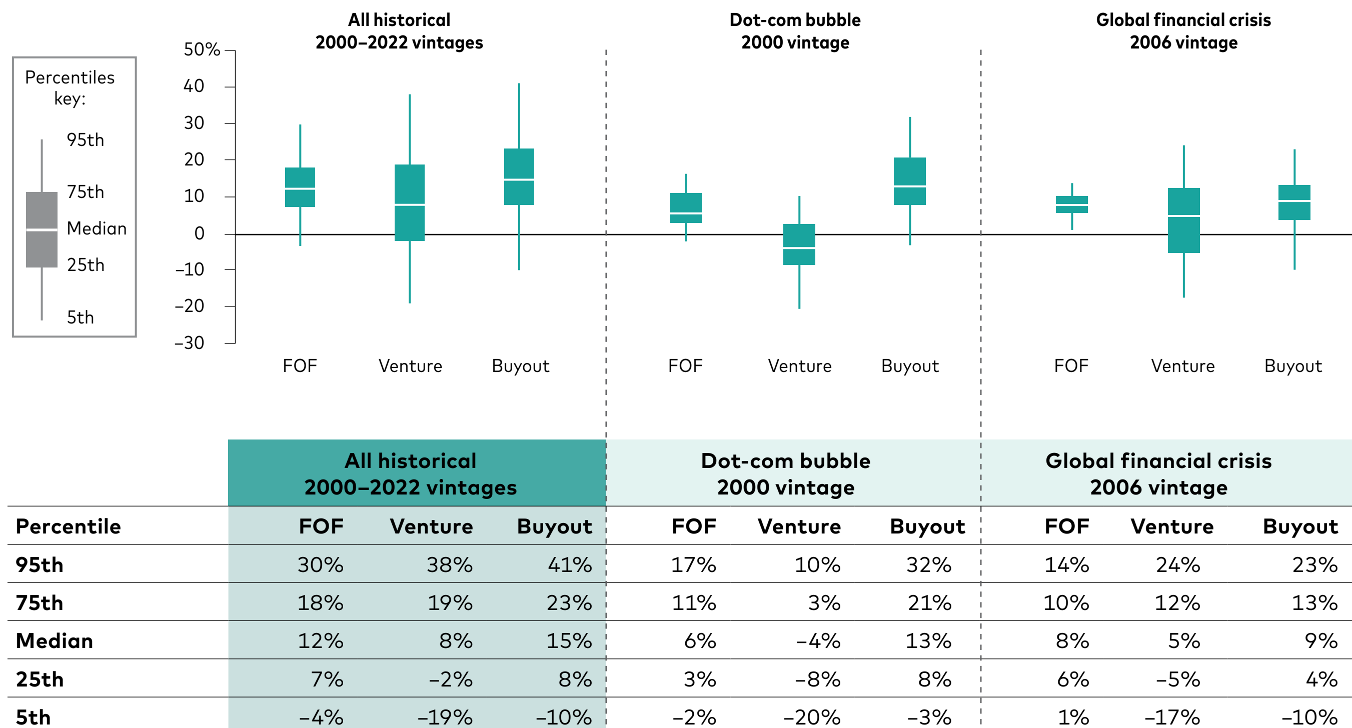
Diversification benefits of investing in multiple PE funds

Private equity has historically exhibited significant dispersion in fund performance.[7] This suggests that investors can achieve high returns if they have superior manager access and selection capabilities and are willing to bear additional downside risk. However, adding funds to a PE portfolio can help increase diversification, especially when access to the best managers is constrained to larger and well-connected PE firms. For example, in **Figure 2**, we find that FOFs have a narrower return dispersion and lower downside risk relative to buyout and venture capital strategies on their own. Specifically, we highlight the diversification benefits for FOF vintages invested at the peak of two previous economic cycles prior to the dot-com bubble and global financial crisis.[8] The bottom 5th percentile of returns for FOFs in 2000 and 2006, as measured by net internal rate of return (IRR), were –2% and 1%, relative to –20% and –17% for venture and –3% and –10% for buyout, respectively.

FIGURE 2.

FOFs exhibit narrower return dispersion than venture or buyout strategies

Net IRR



	All historical 2000–2022 vintages			Dot-com bubble 2000 vintage			Global financial crisis 2006 vintage		
Percentile	**FOF**	**Venture**	**Buyout**	**FOF**	**Venture**	**Buyout**	**FOF**	**Venture**	**Buyout**
95th	30%	38%	41%	17%	10%	32%	14%	24%	23%
75th	18%	19%	23%	11%	3%	21%	10%	12%	13%
Median	12%	8%	15%	6%	–4%	13%	8%	5%	9%
25th	7%	–2%	8%	3%	–8%	8%	6%	–5%	4%
5th	–4%	–19%	–10%	–2%	–20%	–3%	1%	–17%	–10%

Notes: The figure is for illustrative purposes only and does not represent any particular investment. Net IRR is calculated as the discount rate that makes the net present value (NPV) of cash flows equal to zero. 2000 and 2006 represent the vintage years prior to the year in which a recession started, as defined by the National Bureau of Economic Research (NBER). The associated recessions lasted from March 2001 through November 2001 and from December 2007 through June 2009.

Source: Burgiss performance data for global funds of funds, buyout, and venture funds, as of September 30, 2023.

Past performance is not a guarantee of future results.

7 See *The Case for Private Equity at Vanguard* (Vanguard, 2023). Return dispersion is the difference between high- and low-performing funds.

8 Peak of the economic cycle is defined as the calendar year prior to the year with an NBER-defined economic recession in the U.S.

Academic research suggests that a portfolio of approximately 20 to 25 funds may be the optimal size for a primary program that is diversified across stage, vintage, and geography (Dompe 2019). Other research suggests that a PE investment program comprising 50 funds, run economically at scale, would be effectively fully diversified (Gredil, et al. 2024).[9] Without an FOF structure, most individual investors may find it difficult to replicate the diversification, access, and scale of such PE programs.

Benefits of strategy diversification in a historical analysis

While investors can choose to access funds directly, we believe that a primary FOF program that is diversified with secondary and co-investment exposure can produce superior investment outcomes for clients. In **Figure 3**, we show the historical performance of traditional buyout, growth equity, and venture capital funds relative to the performance of FOF, secondary, and co-investment funds across vintages from 1996 to 2022. The diversified category represents primary FOFs along with secondary and co-investment strategies that can enhance diversification and return potential, which are common within diversified FOF offers.

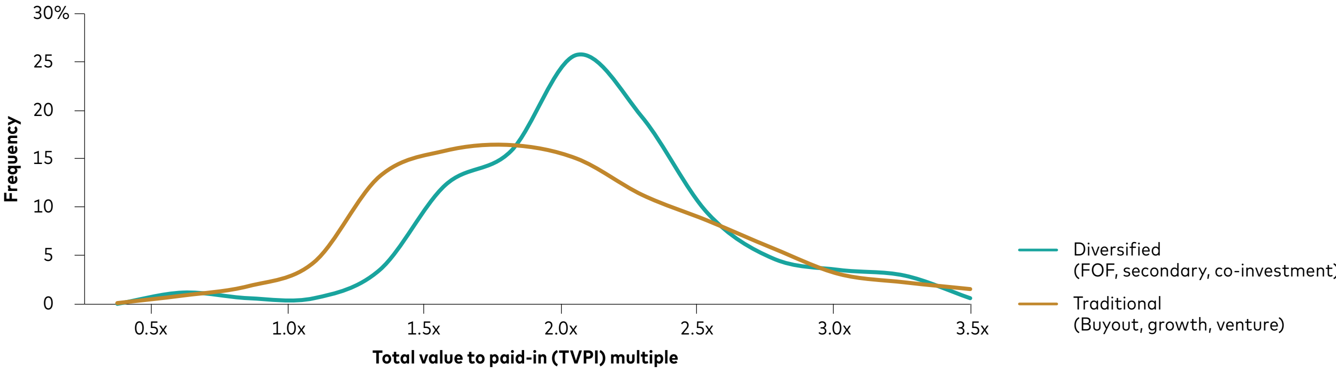
The diversified category exhibits a significantly higher probability of a favorable 12-year performance multiple (1.5x and above) and a lower probability of a suboptimal 12-year performance multiple (less than 1.5x). In addition, the frequency of returns less than 1.0x within the diversified category is just 6%, relative to 20% for the traditional category.

Even at the top end of the performance scale, the diversified category returned >2.0x 40% of the time, relative to 32% of the time for the traditional category. Notably, the historical data is net of all fees, including FOF fees. We believe this analysis demonstrates the value of an FOF strategy that includes primaries, secondaries, and co-investments, relative to the broader buyout, growth, and venture capital fund universe that an individual investor may seek to source directly.

FIGURE 3.

FOF diversification can reduce negative outcomes without sacrificing return

Historical PE investment returns and frequency (net of fees)



Notes: TVPI is the ratio between the total value of an investment's realized distributions and unrealized holdings, compared to an investor's paid-in capital.

Source: Vanguard analysis using latest Preqin fund performance as of May 1, 2024. Includes private equity fund vintages from 1996 to 2022 with greater than $200 million in commitments globally. Diversified category includes FOF, secondary, co-investment, and multi-manager co-investment funds. Traditional category includes buyout, growth equity, and venture capital funds.

9 Practical considerations, such as the cost and complexity of managing a PE program of increasing size, limit the marginal benefit of adding funds.

Fees

Investing through an FOF adds an additional layer of management and performance fees that have historically averaged approximately 2%.[10] This includes management fees up to or exceeding 1% annually and carried interest of up to or exceeding 10% on top of a direct fund's costs.[11] The value provided by an FOF has the potential to exceed these costs through improved diversification and risk-adjusted returns, superior manager access and selection, and capital call and operational simplicity.

Vanguard's internal research shows that the average management fee for a geography, stage, and strategy diversified FOF is approximately 0.8% annually and the average additional carried interest on primaries is 5%. An investor can seek to minimize these fees where possible, including selecting FOFs that charge lower management fees and no additional carried interest on primary investments. Secondary and co-investment programs within an FOF can also add value in offsetting fees if the strategies provide better fund access, additional diversification, and lower underlying manager fees. While fees play an important role in net investment returns, in the PE industry, we believe partnering with a superior FOF provider that has scale, strong investment selection, and access to capacity-constrained strategies is equally critical in delivering superior risk-adjusted performance on a net-of-fees basis.

Conclusion

Our review of academic literature and historical PE returns suggests that FOFs can increase diversification, reduce downside risk, and improve risk-adjusted returns. Top-tier FOF managers can also enhance returns through access to capacity-constrained strategies, superior fund selection, and secondary and co-investment capabilities. Operationally, FOFs can reduce program management and capital call complexity, and—given their lower minimum investment requirement—provide access to a diversified PE portfolio that would otherwise be difficult for most investors to replicate on their own.

For advised Personal Investor clients, Vanguard can customize a PE investment program tailored to specific goals and objectives. We encourage Vanguard self-directed Personal Investor clients who are interested in PE to reach out to their Vanguard relationship manager.

10 McKinsey (2017). The additional layer of fees of an FOF relative to fund investment is approximated as 1.8% and 2.2% when calculating as a percentage of committed capital and as a percentage of net asset value (NAV), respectively.

11 Gredil, Oleg and Liu, Yan and Sensoy, Berk A. (2024).

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Private investments involve a high degree of risk and, therefore, should be undertaken only by prospective investors capable of evaluating and bearing the risks such an investment represents. Investors in private equity generally must meet certain minimum financial qualifications that may make it unsuitable for specific market participants.

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With private equity ("PE") investments, there are five primary risk considerations: market, asset liquidity, funding liquidity, valuation, and selection. Certain risks are believed to be compensated risks in the form of higher long-term expected returns, with the possible exceptions being valuation risk and selection risk. For selection risk, excess returns would be the potential compensation, however, limited partners ("LPs") must perform robust diligence to identify and gain access to managers with the skill to outperform. PE investments are speculative in nature and may lose value.

Market risk: Private equity, as a form of equity capital, shares similar economic exposures as public equities. As such, investments in each can be expected to earn the equity risk premium, or compensation for assuming the nondiversifiable portion of equity risk. However, unlike public equity, private equity's sensitivity to public markets is likely greatest during the late stages of the fund's life because the level of equity markets around the time of portfolio company exits can negatively affect PE realizations. Though PE managers have the flexibility to potentially time portfolio company exits to complete transactions in more favorable market environments, there's still the risk of capital loss from adverse financial conditions.

Asset liquidity risk: Various attributes can influence a security's liquidity; specifically, the ability to buy and sell a security in a timely manner and at a fair price. Transaction costs, complexity, and the number of willing buyers and sellers are only a few examples of the factors that can affect liquidity. In the case of private equity, while secondary markets for PE fund interests exist and have matured, liquidity remains extremely limited and highly correlated with business conditions. LPs hoping to dispose of their fund interests early—especially during periods of market stress—are likely to do so at a discount.

Funding liquidity risk: The uncertainty of PE fund cash flows and the contractual obligation LPs have to meet their respective capital commitments—regardless of the market environment—make funding risk (also known as commitment risk) a key risk LPs must manage appropriately. LPs must be diligent about maintaining ample liquidity in other areas of the portfolio, or external sources, to meet capital calls upon request from the General Partners ("GPs").

Valuation risk: Relative to public equity, where company share prices are published throughout the day and determined by market transactions, private equity NAVs are reported quarterly, or less frequently, and reflect GP and/or third-party valuation provider estimates of portfolio fair value. Though the private equity industry has improved its practices for estimating the current value of portfolio holdings, reported NAVs likely differ from what would be the current "market price," if holdings were transacted.

Selection risk: Whether making direct investments in private companies, PE funds, or outsourcing PE fund selection and portfolio construction to a third party, investors assume selection risk. This is because private equity doesn't have an investable index, or rather a passive implementation option for investors to select as a means to gain broad private equity exposure. While there are measures an investor can take to limit risk, such as broad diversification and robust manager diligence, this idiosyncratic risk can't be removed entirely or separated from other systematic drivers of return. Thus, in the absence of a passive alternative and significant performance dispersion, consistent access to top managers is essential for PE program success.

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