

Market Statistics: Form PF Performance, Fees, and Allocations

Ulas Alkan, Ross Askanazi, Dominique Brabant, and Joseph R. Simmons¹

January 2025

Abstract

This white paper provides market statistics for private funds and private fund advisers with respect to their net asset values, gross returns, net returns, and margins. We specifically analyze hedge funds, private equity funds, and their advisers. These statistics are based on information reported by private fund advisers on Form PF. Subsequent sections provide more detail on the components of total fees and allocations for each of hedge funds and private equity funds. We also discuss certain caveats and limitations to this analysis, based on variations in typical reporting practices by fund advisers. Because private equity funds typically have a finite life cycle the white paper also analyzes these components by fund vintage for private equity funds.

¹ This white paper is provided in the authors' official capacity as economists in the Commission's Division of Economic and Risk Analysis but does not necessarily reflect the views of the Commission, the Commissioners, or other members of the staff.

I. Introduction

Form PF complements the basic information about private fund advisers and funds reported on Form ADV.² Generally, investment advisers registered (or required to be registered) with the SEC with at least \$150 million in private fund assets under management must file Form PF.³ This paper provides market statistics for private funds and private fund advisers with respect to their net asset values, gross returns, net returns, and margins. We specifically analyze hedge funds, private equity funds, and their advisers. These statistics are based on information reported by private fund advisers on Form PF. To estimate the statistics in this white paper, we rely on the following questions from Form PF:

1. Section 1b, Item B, Question 9: Net asset value of the reporting fund.
2. Section 1b, Item C, Question 17: Provide the reporting fund’s gross and net performance, as reported to current and prospective investors (or, if calculated for other purposes but not reported to investors, as so calculated). If the fund reports different performance results to different groups of investors, provide the most representative results. You are required to provide monthly and quarterly performance results only if such results are calculated for the reporting fund (whether for purposes of reporting to current or prospective investors or otherwise). Each fund reports:
 - a. Last day of fiscal period.
 - b. Gross performance.
 - c. Net of management fees and incentive fees and allocations.⁴

The analysis in this paper undertakes several data processing steps specific to these questions prior to estimating all statistics. These steps are described in the Data and

² *Form PF; Reporting Requirements for All Filers and Large Hedge Fund Advisers*, Investment Advisers Act Release No. 6546 (Feb. 8, 2024), 89 FR 17984, 18033 (Mar. 12, 2024) (“February 2024 Form PF Adopting Release”). Investment advisers to private funds report on Form ADV, on a public basis, general information about private funds that they advise, including basic organizational, operational information, and information about the fund’s key service providers. Information on Form ADV is available to the public through the Investment Adviser Public Disclosure System, which allows the public to access the most recent Form ADV filing made by an investment adviser. *See, e.g.*, Form ADV, available at <https://www.investor.gov/introduction-investing/investing-basics/glossary/form-adv>; *see also* Investment Adviser Public Disclosure, SEC, available at <https://adviserinfo.sec.gov/>.

³ For more detailed background on Form PF, *see, e.g.*, Form PF, SEC, DIVISION OF INVESTMENT MANAGEMENT, PRIVATE FUND STATISTICS, available at <https://www.sec.gov/files/investment/private-funds-statistics-2024-q1.pdf>; February 2024 Form PF Adopting Release; SEC, 2020 ANNUAL STAFF REPORT RELATING TO THE USE OF FORM PF DATA (Nov. 3, 2020), available at <https://www.sec.gov/files/2020-pf-report-to-congress.pdf>. Certain advisers qualify for an exemption from registration under section 203(l) of the Advisers Act or 17 CFR 275.203(m)-1 (rule 203(m)-1) under the Advisers Act, and such advisers are not required to file Form PF. Because this includes investment advisers that solely advise venture capital funds, many venture capital fund advisers do not file Form PF, and so venture capital funds are not included in this paper’s analysis.

⁴ “Allocations” typically refers to fund expenses, adviser expenses being charged to the fund, or any other expense incurred by the fund resulting in a difference between net return and gross return.

Methodology Appendix below. For example, filings that report negative net asset values are dropped. To the extent that fund net asset values or performance net of fees and allocations are correlated with whether a filing exhibits errors that result in getting dropped from the analysis, this paper’s estimates of average net asset value, gross return, net return, margin, and fees and allocations may not represent the average values of the entire industry. The Data and Methodology Appendix describes what portion of Form PF filings remain after these data processing steps.

II. Total Adviser Fees and Allocations

Table 1 provides market statistics on fund and adviser fees and allocations estimated from Form PF. For each fund in Form PF, fees and allocations are estimated as $(\text{Gross Return} - \text{Net Return}) \times (\text{Net Asset Value}) / (1 + \text{Net Return})$.⁵ Form PF does not facilitate a decomposition of fees and allocations into the separate management fee, incentive fee, and allocation components.⁶ These totals are estimated for each of hedge funds and private equity funds from 2013-2023.⁷

Table 1: Form PF Total Fees and Allocations

Fiscal Year	Hedge Funds (in \$MM)	Private Equity
		Funds (in \$MM)
2013	\$55,349.0	\$50,712.1
2014	\$45,799.4	\$50,670.9
2015	\$38,113.4	\$51,658.6
2016	\$40,145.9	\$55,939.8
2017	\$51,434.2	\$62,036.7
2018	\$36,513.0	\$67,379.5
2019	\$47,592.5	\$76,136.4

⁵ The Net Asset Value reported in Form PF, and used here, is as of the end of the filing’s reporting period, which is the end of the adviser’s fiscal period. The Gross and Net Returns are instead reported as of the end of the fund’s fiscal period. We understand that the adviser’s and the fund’s fiscal periods may differ for some funds. Net asset values are divided by $(1 + \text{Net Return})$ to approximate beginning-of-period net asset values, which are a more accurate base to which to apply margins to yield estimated fees and allocations, as end-of-period net asset values are likely already inclusive of the reporting period’s returns. Separately, funds may vary in whether they report net assets on Form PF after fees and allocations have already been deducted. In cases where funds do deduct fees and allocations before reporting net assets, a more accurate estimate of fees and allocations would be given by $(\text{Gross Return} - \text{Net Return}) \times (\text{Net Asset Value}) / [(1 + \text{Net Return}) \times (1 - (\text{Gross Return} - \text{Net Return}))]$. Because gross returns are generally larger than net returns, forgoing adjusting fee and allocation estimates by a factor of $1 / (1 - (\text{Gross Return} - \text{Net Return}))$ yields fee and allocation estimates that are conservatively low. Finally, advisers may vary in whether the performance reported on Form PF includes or excludes the impact of withdrawals and redemptions on performance, which may impact our fee and allocations estimation.

⁶ The fees and allocations here may also not necessarily include all forms of revenue earned by advisers and their affiliates from the management of private funds. For example, fees and allocations on Form PF may not include revenues from consulting arrangements between advisers and portfolio companies in which the funds invest.

⁷ All figures in this paper are in nominal terms, not inflation-adjusted.

2020	\$58,697.6	\$88,419.5
2021	\$58,483.7	\$107,466.3
2022	\$38,793.7	\$108,267.5
2023	\$46,773.5	\$124,054.9
Total	\$517,695.8	\$842,742.1

For hedge funds, total fund management fees, incentive fees, and allocations ranged from approximately \$36.5 billion (in 2018) to approximately \$58.7 billion (in 2021), varying in this range from 2013-2023.⁸ Hedge fund fees and allocations totaled approximately \$517.7 billion from 2013-2023.

For private equity funds, total fund management fees, incentive fees, and allocations ranged from approximately \$50.7 billion in 2013-2014 to approximately \$124.1 billion in 2023. Private equity fees and allocations totaled approximately \$842.7 billion from 2013-2023.⁹

III. Hedge Fund Fees and Allocations

Table 2 provides more detail on the components of Table 1’s estimations of hedge fund fees and allocations. The first six columns summarize the average values of components of fund fees and allocations, providing average values per fund over time. The final two columns present the number of funds and then total fees and allocations for the industry.

The estimation in Table 2 may not reflect the fees and allocations borne by any given investor in a hedge fund. First, while funds are instructed to report their most representative performance results,¹⁰ performance measures reported on Form PF may not reflect performance or fees for all investors in the fund, for example when different share classes have different fee structures or amounts. Also, as discussed above, some funds that the adviser holds out as a private equity fund may be required to report on Form PF as a hedge fund, and so their inclusion

⁸ Some funds that the adviser holds out as a private equity fund may be required to report on Form PF as a hedge fund. This is because Form PF requires that an adviser to a fund to complete the sections of Form PF for hedge funds if the fund is permitted by its fund documents to borrow an amount in excess of one-half of its net asset value (including any committed capital) or have gross notional exposure in excess of twice its net asset value (including any committed capital); or that may sell securities or other assets short or enter into similar transactions (other than for the purposes of hedging currency exposure or managing duration); even if the fund never actually engages in either of these practices. See February 2024 Form PF Adopting Release at 18046. Thus, certain portions of hedge fund fees and allocations may have actually accrued to advisers of private equity funds.

⁹ By comparison, recent literature has estimated that carried interest alone in private equity exceeded one trillion dollars over the last 25 years. Ludovic Phalippou, *The Trillion Dollar Bonus of Private Capital Fund Managers* (June 12, 2024), available at <https://ssrn.com/abstract=4860083> (retrieved from SSRN Elsevier database). Certain caveats to these estimated values for private equity funds are discussed below. See *infra* section IV.

¹⁰ See Form PF, Question 17.

in Table 2 may impact the estimates of typical performance, fees, and allocations borne by bona fide hedge fund investors.¹¹

Table 2 illustrates that hedge fund average net assets were relatively constant from 2013-2019 and have been slightly higher on average from 2020-2023. While average gross returns, net returns, and the margin between them experienced substantial variation over time, there is no clear trend. The number of funds increases, though by only a small amount, over time.

Table 2: Hedge Funds: Average Statistics Per Fund, Number of Funds, Total Fees and Allocations

Fiscal Year	NAV (in \$MM)^a	Gross Return^b	Net Return^b	Margin^c	Fees and Allocations (in \$MM)^d	Number of Funds	Total Fees and Allocations (in \$MM)^e
Average Value Per Fund^f							
2013	\$322.2	14.4%	11.4%	3.0%	\$8.7	6,333	\$55,349.0
2014	\$365.7	6.9%	4.9%	2.0%	\$7.1	6,467	\$45,799.4
2015	\$357.5	1.8%	0.2%	1.6%	\$5.9	6,490	\$38,113.4
2016	\$367.7	6.4%	4.7%	1.8%	\$6.2	6,490	\$40,145.9
2017	\$398.0	11.9%	9.7%	2.2%	\$7.9	6,490	\$51,434.2
2018	\$401.5	0.4%	-1.0%	1.4%	\$5.6	6,510	\$36,513.0
2019	\$395.9	12.5%	10.5%	2.0%	\$7.3	6,536	\$47,592.5
2020	\$406.0	11.9%	9.4%	2.5%	\$9.1	6,437	\$58,697.6
2021	\$433.0	11.4%	9.1%	2.3%	\$9.0	6,523	\$58,483.7
2022	\$404.1	-3.0%	-4.3%	1.4%	\$5.8	6,685	\$38,793.7
2023	\$436.0	11.5%	9.7%	1.8%	\$7.0	6,674	\$46,773.5

^a Form PF, Question 9

^b Form PF, Question 17

^c Gross Return – Net Return

^d Margin × NAV/(1+Net Return)

^e Fees and Allocations × Number of Funds

^f For Gross Return, Net Return, and Margin, the average values are obtained by weighting the individual fund values by NAV/(1+Net Return).

¹¹ See *supra* footnote 8.

IV. Private Equity Fees and Allocations

Table 3 provides more detail on the components of Table 1's estimations of private equity fund fees. The first six columns summarize the average values of components of fund fees, providing average values per fund over time.

A number of factors may influence whether the estimation in this white paper reflects the fees and allocations borne by any given investor in a private equity fund. First, performance measures may vary across private equity advisers in whether they include or exclude the impact of subscription lines of credit. Second, while funds are instructed to report their most representative performance results,¹² performance measures reported on Form PF may not reflect performance or fees for all investors in the fund, for example when different share classes have different fee structures or amounts. Third, some funds may report since-inception internal rates of return (IRRs) for each quarter/year instead of quarterly/annual performance.¹³ Lastly, as discussed above, some funds that the adviser holds out as a private equity fund may be required to report on Form PF as a hedge fund, and so their exclusion from Table 3 may impact the estimates of typical performance, fees, and allocations borne by private equity investors.¹⁴

Table 3 shows that private equity net fund-level assets were relatively constant from 2013-2019 and then increased substantially beginning in 2020. While average gross returns and net returns experienced substantial variation over time, in particular during 2020-2021, there is no clear trend. The average margin between gross returns and net returns, which accounts for fund-level fees and allocations, gradually fell over time, from over 5.5% from 2013-2017, ranging from 5%-5.5% in 2018-2021, and reaching lows of 4.5% in 2022-2023. The number of funds increases substantially over time.

Comparing Tables 1 and 3 shows that Table 1's increase over time of private equity fees and allocations was driven by (1) an increase in the average net assets of private equity funds; and (2) an increase in the number of private equity funds. Table 3 indicates that the increase was not the result of a widening margin between gross returns and net returns, as margins instead declined over time (both in absolute terms and as a fraction of gross returns).

¹² See Form PF, Question 17.

¹³ Our review of fund-level performance indicates few funds show a J-curve that would be typical of reporting since-inception IRRs. *J-Curve*, CORP. FIN. INST., available at <https://corporatefinanceinstitute.com/resources/economics/j-curve/>. However, we recognize that the estimation used in this paper may not accurately reflect fees and allocations charged by the adviser or incurred by the fund when the adviser reports a since-inception IRR on Form PF.

¹⁴ See *supra* footnote 8.

Table 3: Private Equity Funds: Average Statistics Per Fund, Number of Funds, Total Fees and Allocations

Fiscal Year	NAV (in \$MM)^a	Gross Return^b	Net Return^b	Margin^c	Fees and Allocations (in \$MM)^d	Number of Funds	Total Fees and Allocations (in \$MM)^e
Average Value Per Fund^f							
2013	\$227.7	17.2%	11.4%	5.7%	\$11.7	4,343	\$50,712.1
2014	\$221.9	16.1%	10.5%	5.7%	\$11.4	4,456	\$50,670.9
2015	\$220.2	13.7%	8.3%	5.4%	\$10.9	4,735	\$51,658.6
2016	\$216.7	15.7%	10.1%	5.6%	\$11.0	5,083	\$55,939.8
2017	\$220.7	17.9%	12.2%	5.6%	\$11.1	5,598	\$62,036.7
2018	\$236.1	16.9%	11.5%	5.3%	\$11.3	5,967	\$67,379.5
2019	\$231.0	17.8%	12.7%	5.1%	\$10.5	7,235	\$76,136.4
2020	\$263.0	21.0%	15.9%	5.1%	\$11.5	7,669	\$88,419.5
2021	\$268.6	28.1%	22.7%	5.4%	\$11.8	9,106	\$107,466.3
2022	\$269.2	17.6%	13.2%	4.5%	\$10.6	10,223	\$108,267.5
2023	\$283.1	17.0%	12.6%	4.5%	\$11.2	11,074	\$124,054.9

^a Form PF, Question 9

^b Form PF, Question 17

^c Gross Return – Net Return

^d Margin × NAV/(1+ Net Return)

^e Fees and Allocations × Number of Funds

^f For Gross Return, Net Return, and Margin, the average values are obtained by weighting the individual fund values by NAV/(1+Net Return).

Because private equity funds typically have a finite life cycle, we also analyze these components by fund vintage, as is common in academic literature.¹⁵ This informs whether any trends in the industry are driven by changes in existing funds as they age and/or exit, changes in typical characteristics of new entrants over time, or both. Table 4 displays the net assets, gross returns, net returns, margins, fees per fund, numbers of funds, and total fees and allocations over

¹⁵ Andrew Metrick & Ayako Yasuda, *The Economics of Private Equity Funds*, 23 REV. FIN. STUD. 2303 (June 2010), available at <http://www.jstor.org/stable/40604735>. To separate funds into vintages, we identified the first year in which each fund filed Form PF. The analysis begins in 2013 because Form PF filings begin in 2012, and so funds who first filed in 2012 cannot be assumed to be of 2012 vintage. This method of identifying vintages may incorrectly assign vintages to funds when an adviser either begins or ceases aggregating certain of its funds for its filings. For example, an adviser could originate two funds in 2013, and begin aggregating them in 2015. This would result in a fund appearing to be of 2015 vintage, when it is actually of 2013 vintage. Similarly, because advisers must only file on Form PF when the adviser's assets under management are above a regulatory threshold, some funds may only begin reporting on Form PF late in the fund's life, may cease reporting before the fund terminates, or may only report on Form PF intermittently.

time separated by fund vintage. That is, Table 4 first presents these figures for funds who first filed in 2013, then presents these figures for funds who first filed Form PF in 2014, and so on.

Consistent with private equity fund lifecycle effects, Table 4 illustrates that each vintage's net assets grow substantially over the life of the fund, with each vintage from 2013-2019 beginning their filings with approximately similar starting net assets which then grow over time. Table 4 illustrates that at least a portion of Table 3's increase in average net assets was driven by an increase in the starting fund sizes of new entrants in 2020, and not entirely by an increase in the net assets of existing funds. Table 4 lastly illustrates that the trend of private equity declining margins between gross returns and net returns (both in absolute terms and as a fraction of gross returns) was similar across many vintages, but with certain vintages experiencing different trends over time.¹⁶

Table 4: Private Equity Funds: Average Statistics Per Fund, Number of Funds, Total Fees and Allocations for Funds with Different Vintage Years

Panel A: Vintage Year 2013

Fiscal Year	NAV (in \$MM)^a	Gross Return^b	Net Return^b	Margin^c	Fees and Allocations (in \$MM)^d	Number of Funds	Total Fees and Allocations (in \$MM)^e
Average Value Per Fund^f							
2013	\$160.4	13.6%	6.0%	7.5%	\$11.4	662	\$7,519.5
2014	\$192.1	19.9%	10.8%	9.1%	\$15.8	594	\$9,371.1
2015	\$245.9	16.5%	9.2%	7.3%	\$16.5	547	\$9,044.8
2016	\$258.3	19.8%	13.1%	6.8%	\$15.4	497	\$7,675.1
2017	\$296.2	20.5%	14.9%	5.7%	\$14.6	472	\$6,904.0
2018	\$339.9	20.1%	14.7%	5.4%	\$16.1	417	\$6,698.3
2019	\$339.0	17.4%	13.1%	4.3%	\$12.8	450	\$5,760.8
2020	\$361.6	18.9%	14.5%	4.4%	\$13.9	376	\$5,245.1
2021	\$345.8	23.1%	18.7%	4.4%	\$12.8	340	\$4,359.4
2022	\$306.2	13.1%	9.6%	3.5%	\$9.7	308	\$2,986.7
2023	\$317.2	12.4%	8.8%	3.6%	\$10.6	271	\$2,878.3

^a Form PF, Question 9

^b Form PF, Question 17

^c Gross Return – Net Return

^d Margin × NAV/(1+Net Return)

^e Fees and Allocations × Number of Funds

^f For Gross Return, Net Return, and Margin, the average values are obtained by weighting the individual fund values by NAV/(1+Net Return).

¹⁶ For example, Vintage Year 2015 experiences rising margins for several years before margins begin to decline.

Panel B: Vintage Year 2014

Fiscal Year	NAV (in \$MM)^a	Gross Return^b	Net Return^b	Margin^c	Fees and Allocations (in \$MM)^d	Number of Funds	Total Fees and Allocations (in \$MM)^e
Average Value Per Fund^f							
2014	\$195.2	8.2%	2.7%	5.5%	\$10.4	674	\$7,009.0
2015	\$255.6	11.4%	4.4%	7.0%	\$17.1	607	\$10,382.4
2016	\$296.5	17.0%	10.4%	6.6%	\$17.6	544	\$9,590.3
2017	\$366.4	20.2%	14.6%	5.5%	\$17.7	516	\$9,140.9
2018	\$375.5	18.9%	14.0%	4.9%	\$16.0	516	\$8,268.9
2019	\$401.5	18.8%	13.9%	4.9%	\$17.1	502	\$8,604.8
2020	\$470.2	19.8%	15.2%	4.6%	\$18.7	415	\$7,778.2
2021	\$483.2	23.5%	18.7%	4.8%	\$19.5	412	\$8,037.9
2022	\$384.6	17.9%	13.7%	4.2%	\$14.3	391	\$5,576.0
2023	\$391.2	18.1%	13.9%	4.3%	\$14.6	341	\$4,993.2

^a Form PF, Question 9

^b Form PF, Question 17

^c Gross Return – Net Return

^d Margin × NAV/(1+Net Return)

^e Fees and Allocations × Number of Funds

^f For Gross Return, Net Return, and Margin, the average values are obtained by weighting the individual fund values by NAV/(1+Net Return).

Panel C: Vintage Year 2015

Fiscal Year	NAV (in \$MM)^a	Gross Return^b	Net Return^b	Margin^c	Fees and Allocations (in \$MM)^d	Number of Funds	Total Fees and Allocations (in \$MM)^e
Average Value Per Fund^f							
2015	\$181.1	7.8%	1.2%	6.6%	\$11.7	783	\$9,197.3
2016	\$197.8	18.8%	10.2%	8.7%	\$15.6	721	\$11,250.8
2017	\$247.2	22.4%	14.6%	7.8%	\$16.8	695	\$11,699.2
2018	\$283.4	23.3%	16.9%	6.4%	\$15.5	630	\$9,761.1
2019	\$292.2	22.4%	16.6%	5.8%	\$14.6	676	\$9,881.2
2020	\$329.6	23.1%	17.9%	5.2%	\$14.6	628	\$9,161.3
2021	\$340.4	26.9%	21.6%	5.3%	\$14.8	572	\$8,465.2
2022	\$348.5	20.1%	15.7%	4.3%	\$13.1	527	\$6,898.7
2023	\$312.3	18.4%	14.3%	4.2%	\$11.3	460	\$5,220.6

^a Form PF, Question 9

^b Form PF, Question 17

^c Gross Return – Net Return

^d Margin × NAV/(1+Net Return)

^e Fees and Allocations × Number of Funds

^f For Gross Return, Net Return, and Margin, the average values are obtained by weighting the individual fund values by NAV/(1+Net Return).

Panel D: Vintage Year 2016

Fiscal Year	NAV (in \$MM)^a	Gross Return^b	Net Return^b	Margin^c	Fees and Allocations (in \$MM)^d	Number of Funds	Total Fees and Allocations (in \$MM)^e
Average Value Per Fund^f							
2016	\$166.4	6.0%	-0.3%	6.3%	\$10.5	829	\$8,669.6
2017	\$222.5	20.6%	13.3%	7.2%	\$14.2	778	\$11,059.0
2018	\$297.6	17.7%	12.5%	5.2%	\$13.7	710	\$9,759.9
2019	\$315.5	20.9%	16.0%	4.9%	\$13.3	678	\$8,992.7
2020	\$366.9	21.2%	16.7%	4.5%	\$14.0	636	\$8,913.2
2021	\$390.9	27.1%	22.9%	4.2%	\$13.3	579	\$7,687.8
2022	\$375.5	18.7%	15.3%	3.4%	\$11.1	552	\$6,102.3
2023	\$349.2	18.3%	14.5%	3.7%	\$11.4	485	\$5,544.1

^a Form PF, Question 9

^b Form PF, Question 17

^c Gross Return – Net Return

^d Margin × NAV/(1+Net Return)

^e Fees and Allocations × Number of Funds

^f For Gross Return, Net Return, and Margin, the average values are obtained by weighting the individual fund values by NAV/(1+Net Return).

Panel E: Vintage Year 2017

Fiscal Year	NAV (in \$MM)^a	Gross Return^b	Net Return^b	Margin^c	Fees and Allocations (in \$MM)^d	Number of Funds	Total Fees and Allocations (in \$MM)^e
Average Value Per Fund^f							
2017	\$139.3	9.9%	1.7%	8.2%	\$11.3	989	\$11,136.2
2018	\$223.1	16.9%	10.0%	6.9%	\$14.0	759	\$10,616.0
2019	\$253.5	21.3%	15.5%	5.8%	\$12.7	818	\$10,403.6
2020	\$370.4	23.2%	18.8%	4.4%	\$13.7	685	\$9,351.3
2021	\$425.4	34.3%	28.9%	5.4%	\$17.7	650	\$11,511.0
2022	\$371.1	23.0%	18.5%	4.5%	\$14.1	587	\$8,276.7
2023	\$413.9	21.5%	17.1%	4.4%	\$15.5	531	\$8,253.9

^a Form PF, Question 9

^b Form PF, Question 17

^c Gross Return – Net Return

^d Margin × NAV/(1+Net Return)

^e Fees and Allocations × Number of Funds

^f For Gross Return, Net Return, and Margin, the average values are obtained by weighting the individual fund values by NAV/(1+Net Return).

Panel F: Vintage Year 2018

Fiscal Year	NAV (in \$MM)^a	Gross Return^b	Net Return^b	Margin^c	Fees and Allocations (in \$MM)^d	Number of Funds	Total Fees and Allocations (in \$MM)^e
Average Value Per Fund^f							
2018	\$152.1	8.7%	2.6%	6.1%	\$9.0	1,092	\$9,843.6
2019	\$196.0	17.5%	10.6%	6.9%	\$12.3	1,163	\$14,302.3
2020	\$265.7	25.5%	19.8%	5.8%	\$12.8	1,040	\$13,335.4
2021	\$339.0	33.9%	28.2%	5.7%	\$15.0	972	\$14,586.7
2022	\$365.6	21.6%	17.1%	4.5%	\$14.1	896	\$12,591.5
2023	\$381.2	20.4%	16.1%	4.3%	\$14.0	830	\$11,605.0

^a Form PF, Question 9

^b Form PF, Question 17

^c Gross Return – Net Return

^d Margin × NAV/(1+Net Return)

^e Fees and Allocations × Number of Funds

^f For Gross Return, Net Return, and Margin, the average values are obtained by weighting the individual fund values by NAV/(1+Net Return).

Panel G: Vintage Year 2019

Fiscal Year	NAV (in \$MM)^a	Gross Return^b	Net Return^b	Margin^c	Fees and Allocations (in \$MM)^d	Number of Funds	Total Fees and Allocations (in \$MM)^e
Average Value Per Fund^f							
2019	\$180.9	14.4%	7.5%	6.9%	\$11.5	1,142	\$13,173.3
2020	\$254.1	26.5%	18.7%	7.7%	\$16.5	1,042	\$17,199.9
2021	\$325.1	36.2%	29.5%	6.8%	\$17.0	993	\$16,850.4
2022	\$367.4	22.7%	18.0%	4.7%	\$14.5	943	\$13,702.3
2023	\$414.8	20.2%	16.0%	4.2%	\$15.1	837	\$12,631.7

^a Form PF, Question 9

^b Form PF, Question 17

^c Gross Return – Net Return

^d Margin × NAV/(1+Net Return)

^e Fees and Allocations × Number of Funds

^f For Gross Return, Net Return, and Margin, the average values are obtained by weighting the individual fund values by NAV/(1+Net Return).

Panel H: Vintage Year 2020

Fiscal Year	NAV (in \$MM)^a	Gross Return^b	Net Return^b	Margin^c	Fees and Allocations (in \$MM)^d	Number of Funds	Total Fees and Allocations (in \$MM)^e
Average Value Per Fund^f							
2020	\$192.1	16.8%	10.7%	6.1%	\$10.6	1,313	\$13,907.7
2021	\$258.3	32.8%	26.7%	6.1%	\$12.4	1,260	\$15,678.9
2022	\$313.0	19.4%	14.6%	4.8%	\$13.2	1,157	\$15,298.2
2023	\$360.8	17.6%	14.0%	3.6%	\$11.6	1,106	\$12,777.4

^a Form PF, Question 9

^b Form PF, Question 17

^c Gross Return – Net Return

^d Margin × NAV/(1+Net Return)

^e Fees and Allocations × Number of Funds

^f For Gross Return, Net Return, and Margin, the average values are obtained by weighting the individual fund values by NAV/(1+Net Return).

Panel I: Vintage Year 2021

Fiscal Year	NAV (in \$MM)^a	Gross Return^b	Net Return^b	Margin^c	Fees and Allocations (in \$MM)^d	Number of Funds	Total Fees and Allocations (in \$MM)^e
Average Value Per Fund^f							
2021	\$202.0	22.9%	16.5%	6.3%	\$11.0	1,973	\$21,670.0
2022	\$254.1	14.8%	9.8%	5.0%	\$11.5	1,840	\$21,199.3
2023	\$294.6	14.5%	10.3%	4.3%	\$11.4	1,893	\$21,503.9

^a Form PF, Question 9

^b Form PF, Question 17

^c Gross Return – Net Return

^d Margin × NAV/(1+Net Return)

^e Fees and Allocations × Number of Funds

^f For Gross Return, Net Return, and Margin, the average values are obtained by weighting the individual fund values by NAV/(1+Net Return).

Panel J: Vintage Year 2022

Fiscal Year	NAV (in \$MM)^a	Gross Return^b	Net Return^b	Margin^c	Fees and Allocations (in \$MM)^d	Number of Funds	Total Fees and Allocations (in \$MM)^e
Average Value Per Fund^f							
2022	\$190.4	11.0%	5.5%	5.5%	\$10.0	1,813	\$18,046.9
2023	\$236.0	17.1%	11.4%	5.7%	\$12.0	1,854	\$22,302.9

^a Form PF, Question 9

^b Form PF, Question 17

^c Gross Return – Net Return

^d Margin × NAV/(1+Net Return)

^e Fees and Allocations × Number of Funds

^f For Gross Return, Net Return, and Margin, the average values are obtained by weighting the individual fund values by NAV/(1+Net Return).

Panel K: Vintage Year 2023

Fiscal Year	NAV (in \$MM)^a	Gross Return^b	Net Return^b	Margin^c	Fees and Allocations (in \$MM)^d	Number of Funds	Total Fees and Allocations (in \$MM)^e
Average Value Per Fund^f							
2023	\$205.7	10.5%	4.1%	6.3%	\$12.5	1,510	\$18,816.2

^a Form PF, Question 9

^b Form PF, Question 17

^c Gross Return – Net Return

^d Margin × NAV/(1+Net Return)

^e Fees and Allocations × Number of Funds

^f For Gross Return, Net Return, and Margin, the average values are obtained by weighting the individual fund values by NAV/(1+Net Return).

Appendix: Data and Methodology

The data set used for the tables in this paper are derived from multiple questions from Form PF filings. Specifically, each fund's gross and net performance information is from Section 1b Item C Question 17, fund net asset value is from Section 1b Item C Question 9, adviser information is from Section 1a Item A Question 1(a), and fund information is from Section 1b Item A Question 5.

First, the following preliminary data cleaning steps are completed:

- Observations with missing adviser identifiers are dropped.
- Only observations for hedge funds and private equity funds are kept.
- For private equity, vintage year is defined as the first observed fiscal period year (from Question 17 on performance) for which the fund files Form PF.
- Only filings with reported fiscal years from 2013 to 2023 are kept.
- Only observations from the last row of Question 17, which reads “*Reporting fund's* most recently completed fiscal year,” are kept.
- Only observations corresponding to the most recent filing for a given fund and fiscal year combination are kept.
- Only observations with non-negative net asset values, both end of period and estimated beginning of period values, are kept.
- Only observations with non-missing values for gross fund performance and performance net of fees and allocations are kept.

For the tables reporting values by fund vintage year, the data is restricted to observations with vintages between 2013 and 2023. For the tables without vintages, this restriction is not applied. The following steps removing outlier values are applied separately to each of these data sets:

- For each fund type (e.g. Private Equity), values above the 99.5th percentile in net asset value (both end of period and estimated beginning of period values), gross performance, or performance net of fees and allocations are dropped. Similarly, values below the 0.5th percentile by fund type for gross performance or performance net of fees and allocations are dropped.¹⁷
- Total fees and allocations are estimated for each fund as net asset value multiplied by the difference between gross return and net return divided by (1+ Net Return). For each fund type, values of this defined variable above the 99.5th percentile or below the 0.5th percentile are dropped.

Table 5 illustrates what percentage of total Form PF private fund data is kept after these steps, by counts of funds and by net asset value. Counts of funds and NAV totals are summed from 2013-2023.

¹⁷ Negative net asset values were dropped in an earlier step.

Table 5: Data Coverage After Processing, 2013-2023

	Hedge Funds	Private Equity Funds
Number of Fund-Years (All)	95,235	134,923
Number of Fund-Years (Final sample)	71,635	75,489
Coverage: Number of Fund-Years ^a	75%	56%
Total NAV (All) (in \$MM)	\$44,911,690	\$38,683,325
Total NAV (Final sample) (in \$MM)	\$27,944,305	\$18,787,696
Coverage: NAV ^b	62%	49%

^a Number of Fund-Years (Final sample)/Number of Fund-Years (All)

^b Total NAV (Final sample)/Total NAV (All)