

## Mind the Gap!

(Published IRRs are out of reach for many investors)

April 2021

*Our study measures the performance gap between GP-reported IRRs and those that include “placeholder” assets, such as fixed income, that many investors use to reserve for unexpected future capital calls. We find sizeable IRR gaps for both buyout and direct lending funds demonstrating the importance of getting capital deployed faster and charging fees on invested capital rather than committed capital. By rough estimate, published buyout returns should be cut by one-half and direct lending returns should be cut by one-quarter to get a true picture of investment returns.*

Private funds take time to draw, deploy, and distribute capital, shifting the burden of cash management and commitment planning to the investor. While very large institutional investors have pacing plans, and serially commit across managers and vintages to obtain programmatic exposures, non-institutional investors may find this administratively burdensome.

In the case of cash management, a private fund presents not only a burden but also a dilemma. Because capital can be called in any amount, at any time, investors need to maintain ample liquidity to meet capital calls. This raises the question of where the “reserve” for uncalled capital will reside- a money market fund, a low-risk ETF, or proxy asset class ETF subject to volatility?

Each choice impacts liquidity, asset allocation, and ultimately returns.

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Drawdown funds report returns as since inception Internal Rate of Return (“IRR”). IRRs are dollar weighted returns and are indeed accepted as the best way of calculating returns that are subject to variable cash flows<sup>i</sup>. The simple IRR calculation, however, assumes that distributed capital is ‘reinvested’ at the IRR or discount rate that equalizes the capital outlays with the present value of future cash flows. Modified IRR (“MIRR”), by contrast, does not assume distributed capital is reinvested at the constant IRR discount rate and instead uses both a cost of capital and reinvestment rate to calculate a blended or modified IRR<sup>ii</sup>. Modified IRR not only accounts for the rate of return of the drawdown vehicle but also for the rate of return of the capital that sits uncalled and distributed. This is more methodologically correct and representative of a drawdown fund’s ‘true’ IRR<sup>iii</sup>. We limit our use of MIRR to include just the investment return of the “cash alternative” as it sits uncalled by the manger.

## The Data Set

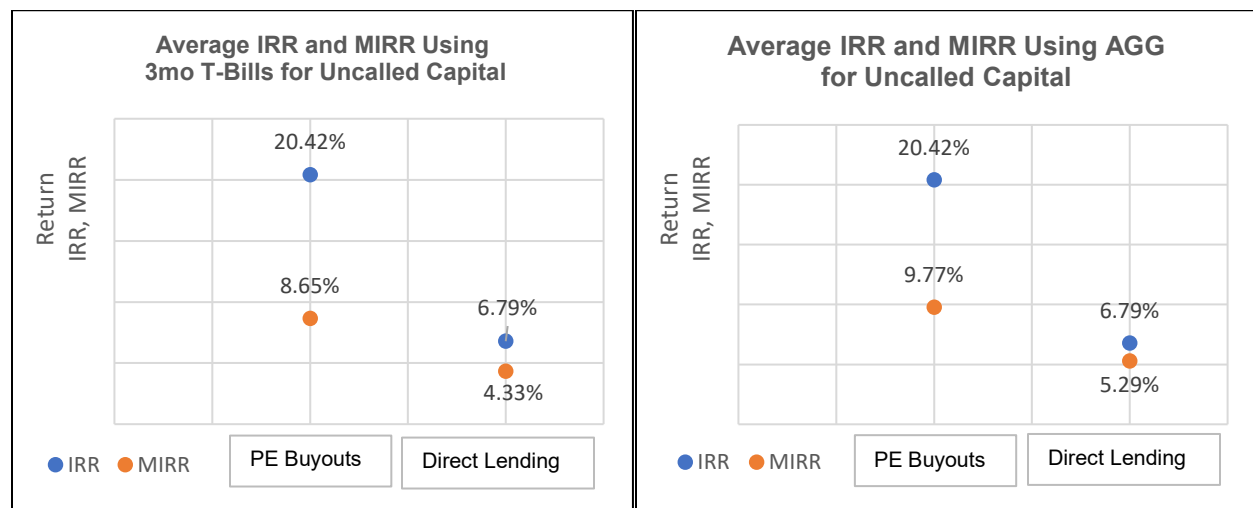
We leverage our access to private, drawdown fund cash flow data to examine the differences between simple IRRs and modified IRRs across the following: i) a randomized sample of twelve 2016 vintage private equity buyout funds, and ii) a randomized sample of thirteen 2016 vintage direct lending funds. We chose 2016 vintage year funds for sufficiency of both number of private fund vehicles and variability of cash flow (both called capital and distributed capital). We surmise that the results would look similar had we chosen 2014, 2015, or other seasoned vintages.

## Cash Management Alternatives

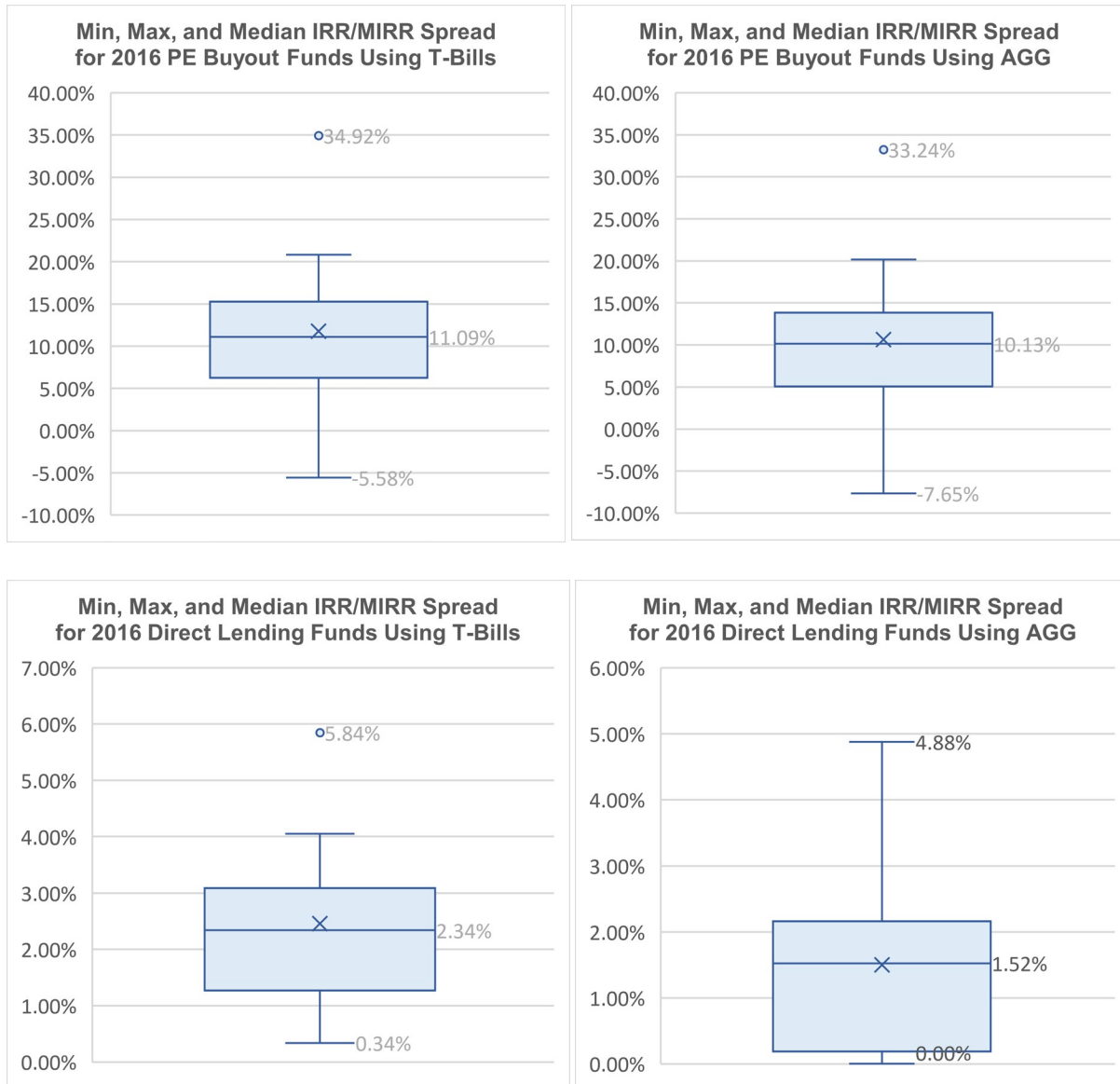
For both the private equity buyout funds and the direct lending funds, we assume that uncalled capital (i.e., when capital is not invested with the manager) is invested in either 3 month T-bills or the iShares U.S. Aggregate ETF (ticker: AGG).

## Observations

We found that when uncalled capital is invested in either of the two cash alternatives, the GP reported simple IRR is indeed higher than MIRR, creating a measurable spread.



The minimum, median, and maximum IRR/MIRR spread for 2016 private equity buyout funds, and 2016 direct lending funds is further summarized below<sup>iv</sup>.



Investors can likely decrease the IRR/MIRR spread by investing uncalled capital in an Index or ETF that more closely matches the return profile of the drawdown fund. In doing so, however, one will have to contend with the increased volatility that comes with the increased return. Downside volatility would potentially leave the investor short of the necessary liquidity or cash to fund capital calls, potentially putting the investor at risk of defaulting on their capital commitment or crystallizing unrealized losses as drawdown commitments are called. Anecdotally, we do not find such practices common, as defaulting on an LP commitment is a bright red line for investors in drawdown funds.

We observed further that the average percentage of unfunded capital for private equity buyout funds was 61.57% over the life of vehicle, and 41.47% for direct lending funds, a factor that likely exacerbates the IRR/MIRR spread.

Fund Reported Net IRRs and Average Unfunded Capital Through Life of Drawdown Fund- Private Equity Buyouts and Direct Lending

2016 Private Equity Buyout Funds	IRR/MIRR Spread	Avg % Unfunded Capital	2016 Direct Lending Funds	IRR/MIRR Spread	Avg % of Unfunded Capital
Fund 1	14.96%	92.82%	Fund 1	2.34%	31.87%
Fund 2	6.00%	83.77%	Fund 2	2.79%	47.03%
Fund 3	10.98%	57.72%	Fund 3	0.34%	12.72%
Fund 4	11.21%	56.60%	Fund 4	3.00%	53.90%
Fund 5	15.35%	77.57%	Fund 5	0.36%	26.85%
Fund 6	14.23%	44.13%	Fund 6	1.25%	47.30%
Fund 7	34.92%	66.93%	Fund 7	4.05%	51.61%
Fund 8	3.42%	61.10%	Fund 8	1.29%	57.62%
Fund 9	2.65%	78.88%	Fund 9	2.23%	41.05%
Fund 10	16.51%	49.79%	Fund 10	5.84%	45.92%
Fund 11	12.00%	36.12%	Fund 11	2.33%	51.08%
Fund 12	15.69%	33.35%	Fund 12	2.99%	17.98%
<b>12 Funds</b>		<b>61.57%</b>	Fund 13	3.17%	54.23%
			<b>13 Funds</b>		<b>41.47%</b>

## Conclusion

Investors should not ignore the shortcomings of the drawdown fund structure. Not only do they require more operational flexibility than their open-ended counterparts, but the calculation of returns can be highly misleading as we have shown. Factors such as the pacing of deployment and the willingness to bear additional risk with undrawn capital can bring about large differences between GP-reported IRRs and end-investor MIRR. Given that over the life of a drawdown fund, uncalled capital can be as high as 60% of invested capital for buyout funds and 40% for direct lending funds, the choice of cash management alternatives will substantially alter the true return picture of a drawdown fund, as evidenced by the spread between IRRs and MIRRs. The spread is larger for buyout funds than it is for direct lending funds, as the IRR/MIRR spread is a function of the performance difference between the manager driven performance of invested capital and cash management performance of uncalled capital.

While the PE style drawdown fund is still the best vehicle for long dated, low cashflow private equity assets, yield and income focused investors might want to consider using open-ended funds to access cash-flowing private assets. The value of the open-ended structure can be observed with private credit assets, as a true yield can be generated on day one without unrealistic embedded assumptions creating an IRR/MIRR spread. The open-ended structure also eliminates the real-world burdens that can come with drawdown vehicles like vintage timing, high minimum investment thresholds, uninvested cash, and cash drag on performance.

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<sup>i</sup> CFA Institute *Global Investment Performance Standards For Firms*, 2020

[https://www.gipsstandards.org/wp-content/uploads/2021/03/2020\\_gips\\_standards\\_firms.pdf](https://www.gipsstandards.org/wp-content/uploads/2021/03/2020_gips_standards_firms.pdf)

<sup>ii</sup> Carlton Collins, CPA *3 Ways to Calculate Internal Rate of Return* February 1, 2017

<https://www.journalofaccountancy.com/issues/2017/feb/calculate-internal-rate-of-return-in-excel.html>

<sup>iii</sup> Ludovic Phalippou *The Hazards of Using IRR to Measure Performance: The Case of Private Equity*

March 27, 2008 [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1111796](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1111796)

iv

2016 Private Equity Buyout Funds	Net IRR	MIRR with 3mo T-Bills	Use of 3mo T- Bill Spread	MIRR with AGG	Use of AGG SPREAD
Fund 1	20.04%	5.08%	14.96%	6.83%	13.22%
Fund 2	9.62%	3.62%	6.00%	5.05%	4.57%
Fund 3	19.67%	8.69%	10.98%	9.65%	10.02%
Fund 4	18.16%	6.95%	11.21%	7.91%	10.24%
Fund 5	20.81%	5.46%	15.35%	6.97%	13.83%
Fund 6	33.18%	18.96%	14.23%	19.36%	13.82%
Fund 7	44.05%	9.13%	34.92%	10.81%	33.24%
Fund 8	6.42%	3.00%	3.42%	3.76%	2.66%
Fund 9	-5.00%	0.58%	-5.58%	2.65%	-7.65%
Fund 10	36.69%	15.86%	20.83%	16.51%	20.18%
Fund 11	19.14%	11.32%	7.82%	12.00%	7.14%
Fund 12	22.21%	15.17%	7.04%	15.69%	6.52%
<b>Equal \$-weighted Averages</b>	<b>20.42%</b>	<b>8.65%</b>	<b>11.77%</b>	<b>9.77%</b>	<b>10.65%</b>

2016 Direct Lending Funds	Net IRR	MIRR with 3mo T-Bills	Use of 3mo T- Bills SPREAD	MIRR with AGG	Use of AGG SPREAD
Fund 1	8.52%	6.18%	2.34%	6.37%	2.15%
Fund 2	7.26%	4.47%	2.79%	6.63%	0.63%
Fund 3	3.70%	3.36%	0.34%	3.69%	0.00%
Fund 4	6.74%	3.73%	3.00%	5.21%	1.52%
Fund 5	2.98%	2.62%	0.36%	2.82%	0.16%
Fund 6	3.96%	2.71%	1.25%	3.80%	0.16%
Fund 7	8.58%	4.53%	4.05%	5.52%	3.05%
Fund 8	5.44%	4.15%	1.29%	5.22%	0.22%
Fund 9	7.48%	5.25%	2.23%	5.81%	1.67%
Fund 10	13.02%	7.18%	5.84%	8.14%	4.88%
Fund 11	4.56%	2.23%	2.33%	3.76%	0.80%
Fund 12	8.82%	5.83%	2.99%	6.73%	2.08%
Fund 13	7.21%	4.03%	3.17%	5.03%	2.18%
<b>Equal \$-weighted Averages</b>	<b>6.79%</b>	<b>4.33%</b>	<b>2.46%</b>	<b>5.29%</b>	<b>1.50%</b>