MANAGER RESEARCH | June 2025

The State of Semiliquid Funds

Credit Is King

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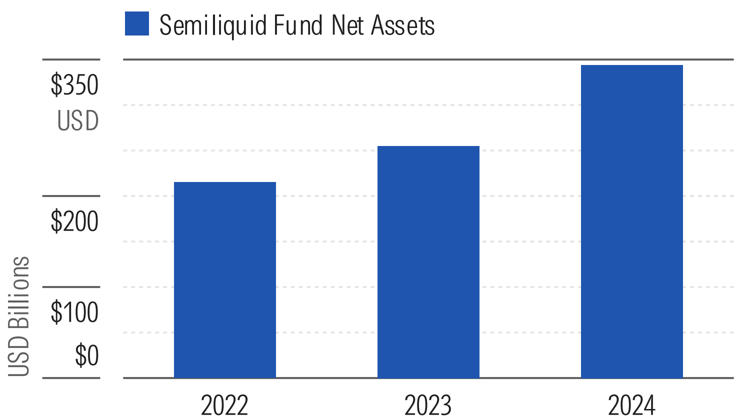
Key Takeaways

- The expansion of private market access is well under way.
- Assets in funds that offer limited liquidity and exposure to private assets approached USD 350 billion in net assets at the end of 2024, up from USD 215 billion at the end of 2022.
- This report focuses on semiliquid funds accessible to investors with less than USD 5 million in investable assets.

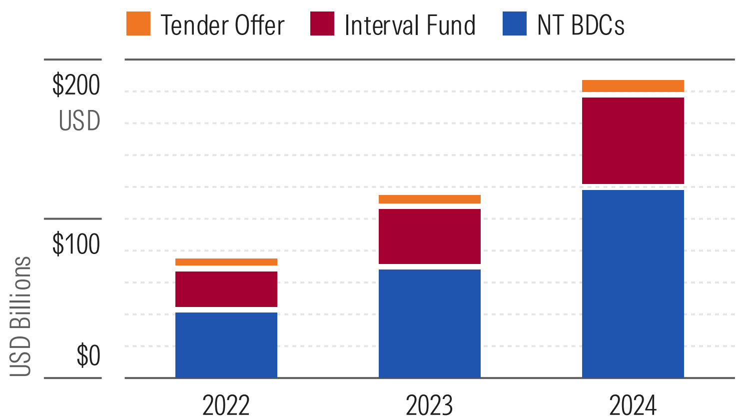
- Credit overtook real estate/infrastructure as the largest semiliquid broad asset class in 2024.
- Credit semiliquid funds held USD 188 billion in net assets at the end of the year, up from USD 75 billion at the end of 2022.
- Nontraded business development companies are the most popular vehicle for private credit, typically offering higher distributions on account of higher leverage limits.

- Interval funds have become the preferred vehicle for new product development of semiliquid funds.
- Almost 20 interval funds have launched this year through May. We expect this year to surpass 2024's record of 27 launches.
- Tickers and predetermined redemption schedules make interval funds more operationally friendly than other semiliquid fund structures for brokerage and wealth management platforms.

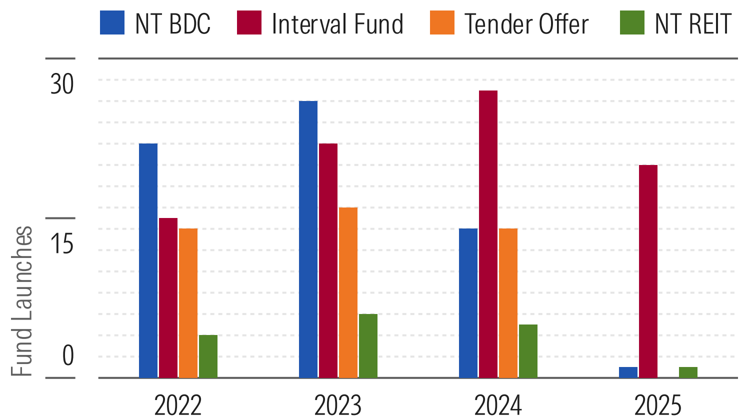
Net Assets in Semiliquid Funds Are Up 60% Since 2022



Credit Semiliquid Funds See Massive Growth



Interval Fund Launches Are on a Blistering Pace



Source: Morningstar Direct, SEC filings. Data as of Dec. 31, 2024; 2025 Data through May 30, 2025.

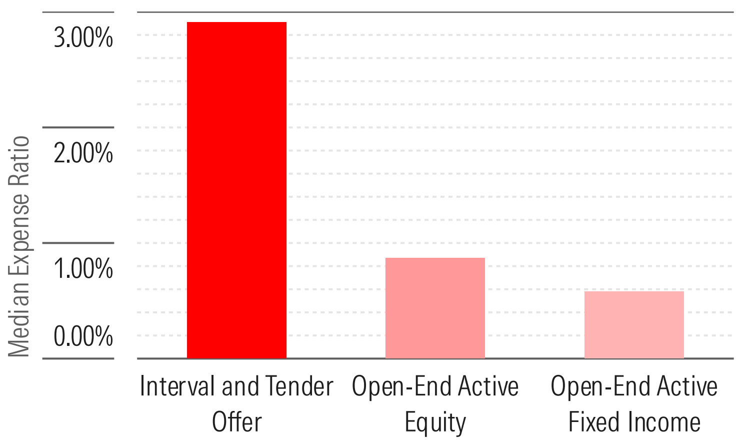
Key Takeaways

- Semiliquid funds are making private markets more accessible but are much pricier than public market funds.
- Fees for semiliquid funds can be 2-3 times higher than open-end funds when incentive fees are included.
- Incentive fees tied to income often include hurdle rates, but full-catch-up provisions make the hurdles more symbolic than beneficial to shareholders.

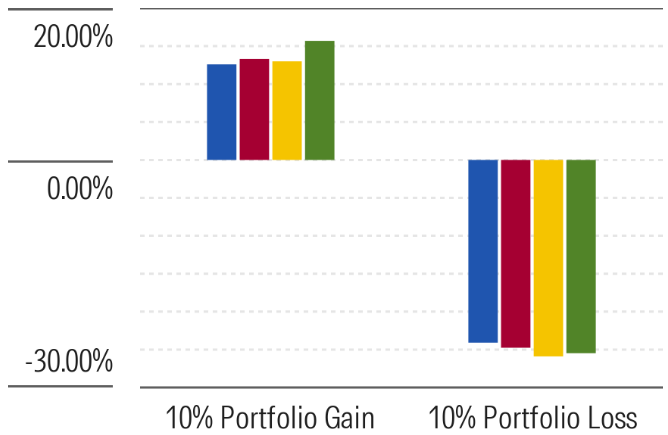
- Semiliquid funds frequently make use of portfolio-level leverage, particularly in credit and real estate.
- The use of leverage has helped semiliquid credit funds perform better than public market peers.
- The risks borne by leverage may be obscured by some semiliquid funds owing to infrequent pricing of holdings.

- Providers are eyeing USD 12 trillion in defined-contribution assets, but fees, liquidity, and transparency remain obstacles.
- Semiliquid funds are not available directly to consumers on the three largest retail brokerage platforms (Charles Schwab, Vanguard, and Fidelity) as of May 2025.
- Most semiliquid funds are available only through financial advisors.

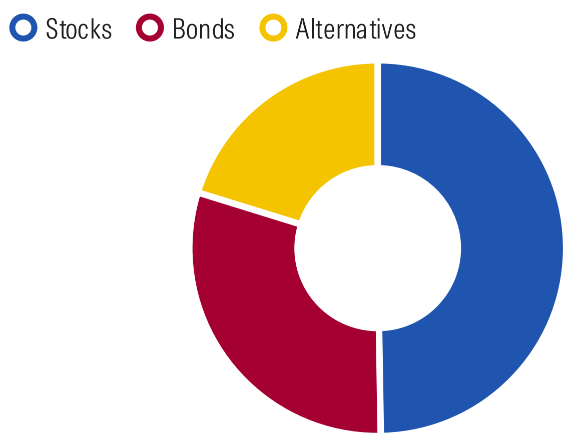
Expect to Pay a Premium for Semiliquid Funds



Effects on Leverage on Hypothetical Portfolio Returns



Is 50/30/20 the New 60/40?



Source: Morningstar Direct, SEC filings, Investment Company Institute

An Introduction to Semiliquid Funds

Who's Buying Semiliquid Funds?

- Semiliquid funds are primarily available through financial advisors. Individuals have limited access to purchase them directly.
- Charles Schwab, Fidelity, and Vanguard, the three largest retail brokerage firms, don't allow individuals to purchase interval funds.
- Asset managers are pushing for retirement plans to add private market exposure through target-date strategies and managed accounts, but plan sponsors' appetite isn't clear.
- Investor eligibility standards vary across semiliquid funds and can also vary by platform.
    - Some large wealth management platforms may still restrict sales to accredited investors, those with more than USD 1 million in investable assets, even if the fund itself doesn't have that restriction.
    - Many private equity semiliquid funds are available only to qualified clients, those with more than USD 2.2 million. Restricting sales to qualified clients allows the fund to charge incentive fees on capital gains.
    - In May 2025, the SEC issued updated guidance that allows semiliquid funds that own more than 15% in private funds to be available to anyone; they were previously limited to accredited investors.

Semiliquid Funds Are Aimed at Financial Advisors; Are Retirement Plans Next?

Source: Morningstar.

Not All Semiliquid Funds Are Created Equal

Basic Vehicle Comparison

Different semiliquid fund structures offer pros and cons. For those with access to Morningstar Direct, click here to view the interval fund universe and here to view the tender-offer fund universe.

Type	Exchange-Traded?	Leverage Limit	Continuously Offered?	Subscription Frequency	Redemption Frequency	Repurchase Requirements	Investor Eligibility (aka Investor Suitability)
Interval Fund	Nontraded. Transact at NAV.	33.33% of total assets	Yes	Daily	Required intervals; often quarterly but also monthly and semiannually	Minimum 5% of assets at each repurchase offer	Varies, but typically open to all investors
Tender-Offer Fund	Nontraded. Transact at NAV.	33.33% of total assets	Yes	Monthly	Irregular; board discretion	Board discretion	Varies, but typically eligibility requirements
Business Development Company	Nontraded. Transact at NAV.	66.67% of total assets	Yes	Monthly	Irregular; board discretion	Board discretion	Eligibility requirements
Real Estate Investment Trust	Nontraded. Transact at NAV.	No limit, often 30%-60% debt/assets	Yes	Monthly	Irregular; board discretion	Board discretion	Eligibility requirements

Defining Investor Eligibility

Investor Eligibility Comparison

Investors must meet at least one requirement to meet eligibility at the relevant tier

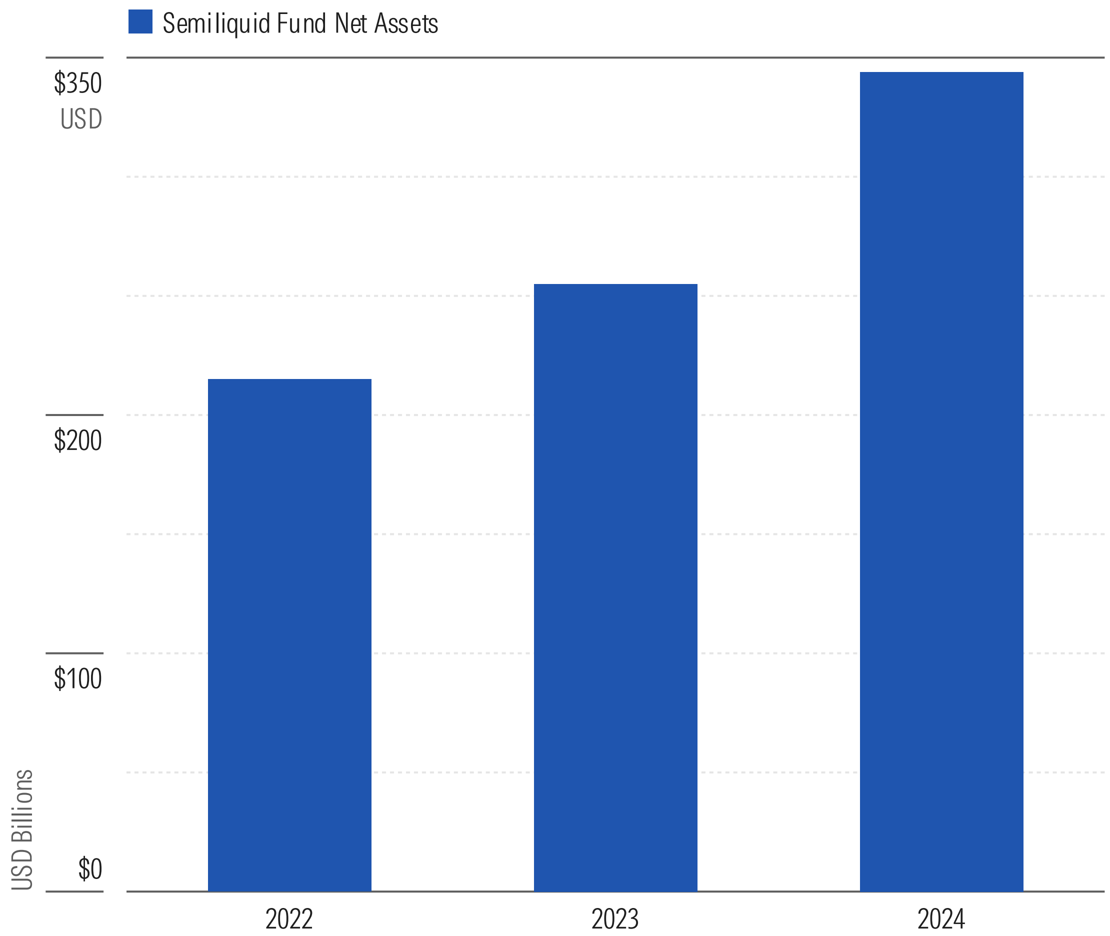
Type	Annual Income Requirement	Net Worth Requirement	Certification Requirement	Other Ways to Meet Eligibility	Entity-Level Requirements	Fund Access
Accredited Investor	USD 200,000 individual/ USD 300,000 joint married	Over USD 1 million net worth excluding primary residence	Series 7, 65, or 82;	RIAs; Employee of private fund (to invest in that fund only); LLCs or family offices with over USD 5 million in assets	Trusts or entities with over USD 5 million in assets, or owned solely by accredited investors	Can invest in Reg D Private Placements: 506(b) and 506(c)
Qualified Client	N/A	USD 2.2 million net worth excluding primary residence	N/A	Officer or director of fund manager, or investment-related employee of investment advisor	N/A, same as individual requirements	Can invest in funds that levy incentive fees on capital gains/appreciation
Qualified Purchaser	N/A	USD 5 million in investments (not net worth)	N/A	N/A	At least USD 25 million in discretionary investments; or family-owned companies meeting USD 5 million threshold; or trusts if all beneficiaries are QPs	Can invest in 3(c)(7) funds

Assets, Flows, and Competitive Landscape

Assets in Semiliquid Funds for Nonqualified Purchasers Approached USD 350 Billion in 2024

- As private markets open to investors who don't meet the high bar of qualified purchaser status, interest in private credit and equity fuels a surge in assets held by semiliquid funds.
- Semiliquid funds include interval funds, tender-offer funds, nontraded business development companies, and nontraded real estate investment trusts. This report covers those that aren't restricted to qualified purchasers.
- Assets in semiliquid funds grew to USD 344 billion at the end of 2024, up 60% from the end of 2022 when they held USD 215 billion in assets.
- Most semiliquid funds invest in private equity, private credit, or private real estate to varying degrees.
- Asset growth comes from investors looking for higher and seemingly smoother returns from private markets than public stocks and bonds, but these funds also court significant risk even if the returns appear to be less volatile.
- To help investors navigate these new opportunities, Morningstar has launched a new ratings methodology to evaluate semiliquid funds. The Morningstar Medalist Rating for Semiliquid Funds will debut in Fall 2025.

Semiliquid Fund Assets Surged in 2024



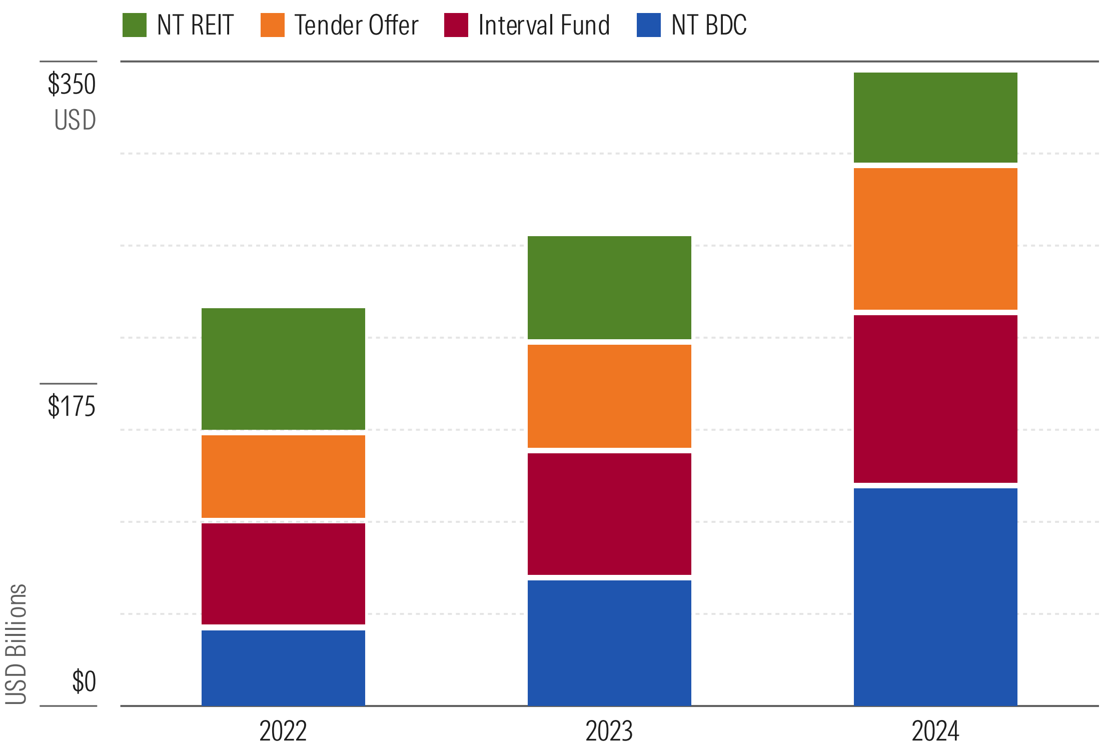
Source: Morningstar Direct, SEC filings. Data as of Dec. 31, 2024.

How Semiliquid Vehicles and Asset Classes Stack Up

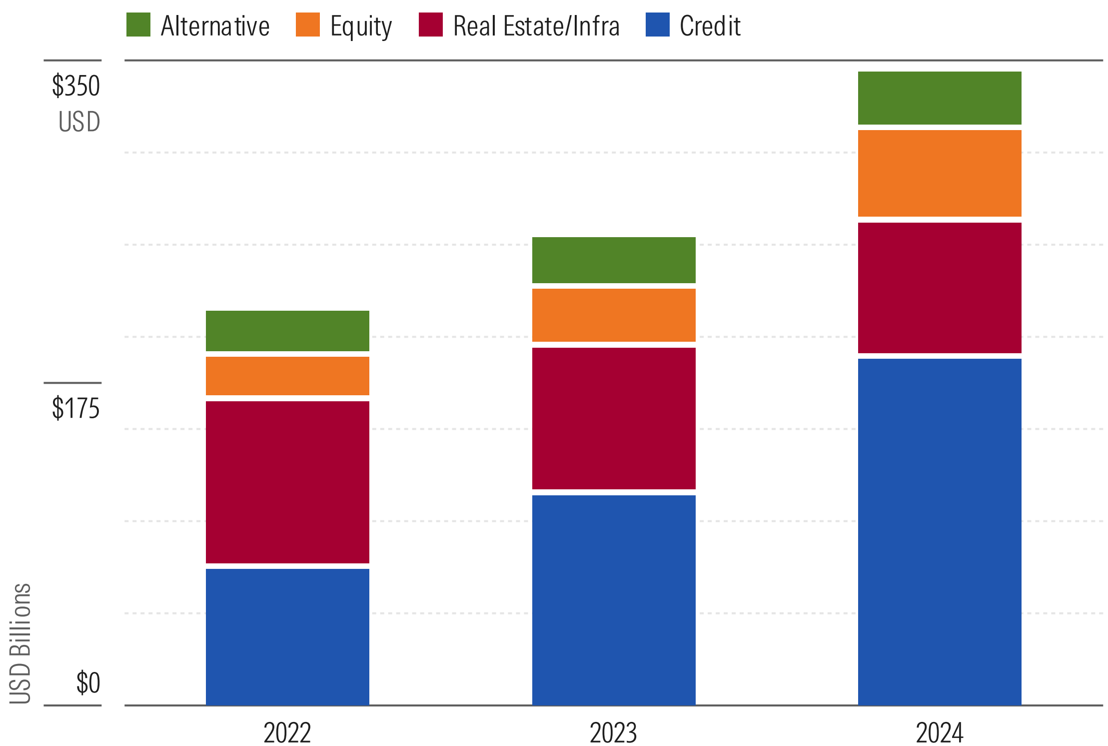
Private credit has been the biggest driver of growth for semiliquid funds over the past three years, and nontraded business development companies have been investors' preferred vehicle. They typically have higher payout rates because they can use more leverage than interval and tender-offer funds.

Credit semiliquid funds typically have higher distribution rates than daily liquid funds thanks to leverage. Unlike with private equity, investors don't have to wait to get paid since the distributions are typically monthly. That has helped boost credit to the most popular broad asset class in semiliquid funds.

Nontraded Business Development Companies Hold the Most Semiliquid Assets



Real Estate/Infrastructure Semiliquid Funds Are on the Decline



Source: Morningstar Direct, SEC filings. Data as of Dec. 31, 2024.

Alternative Asset Managers Have the Lead

The 10 Largest Managers of Semiliquid Funds

Firm	Semiliquid Fund Assets (USD Billions)	Semiliquid Market Share	No. Funds
Blackstone	66	19%	3
Cliffwater	31	9%	3
Blue Owl Capital	21	6%	4
Partners Group	16	5%	3
Apollo Global Management	16	5%	5
Ares Management	11	3%	5
HPS Investment Partners	9	3%	2
Alkeon Capital Management	9	3%	1
Affiliated Managers Group	5	2%	4
Pimco	5	2%	7

➢ Semiliquid fund assets are predominantly managed by alternative asset firms that have few, if any, assets managing public market funds.

➢ Blackstone, the largest alternative asset manager, oversees the two largest semiliquid funds: Blackstone Private Credit, a nontraded BDC, and Blackstone Real Estate Income Trust, a nontraded REIT. In 2025, the firm launched its first interval fund, Blackstone Private Multi-Sector Credit and Income.

- Cliffwater manages the largest interval fund, the private credit-focused Cliffwater Corporate Lending. In 2024, it acquired Cascade Private Capital to round out its offerings.

- Pimco is the only asset manager that's predominantly public market-focused on the top 10 list. It launched its first interval fund, Pimco Flexible Credit Income, in 2018 amid a dry spell in traditional closed-end fund IPOs. It has since launched six more interval funds, mostly focused on public credit and municipal bonds. Although these funds aren't primarily private market-focused, they do use leverage to boost returns and can own less-liquid securities.

- In 2024, BlackRock, the largest asset manager in the world, announced it would be acquiring HPS Investment Partners. The deal is expected to close later in 2025.

Source: Morningstar Direct, SEC filings. Data as of Dec. 31, 2024.

It's Going to Be a Record-Breaking Year for Interval Fund Launches

- Interval funds are expanding fast as traditional managers step into private markets. Their mutual-fund-like structure also makes them easier to implement on investment platforms than nontraded BDCs or nontraded REITs, which face state-by-state suitability rules.

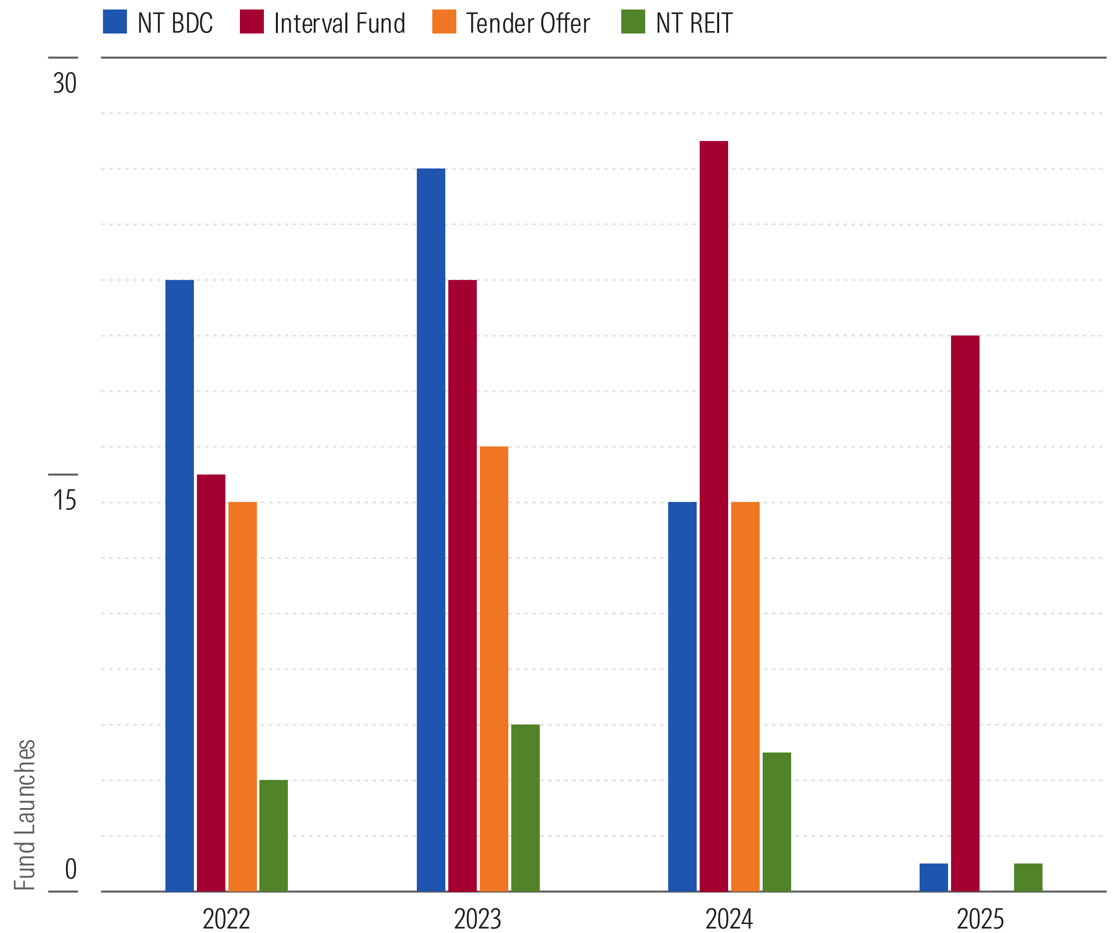
- There have been 19 new interval funds launched this year through the end of May, quickly approaching the record of 27 launches in 2024.

- Recent launches in 2025 include Capital Group KKR Core Plus+ and Capital Group KKR Multi-Sector+, blending public and private credit, comanaged by Capital Group and KKR. With expense ratios of 0.84% and 0.89%, they're well below the 2.53% interval fund average, though higher than public bond mutual funds and exchange-traded funds.

- Coming in the fourth quarter of 2025 is WVB All Markets, a multi-asset interval fund from Wellington Management, Vanguard, and Blackstone. It will invest across public and private stocks and bonds. More products from this trio are expected in 2026.

- Access remains limited. Despite rising media attention, individual investors still can't buy interval funds directly through major platforms like Schwab, Vanguard, or Fidelity (as of May 2025) without a financial advisor.

Semiliquid Fund Launches, by Vehicle, by Year

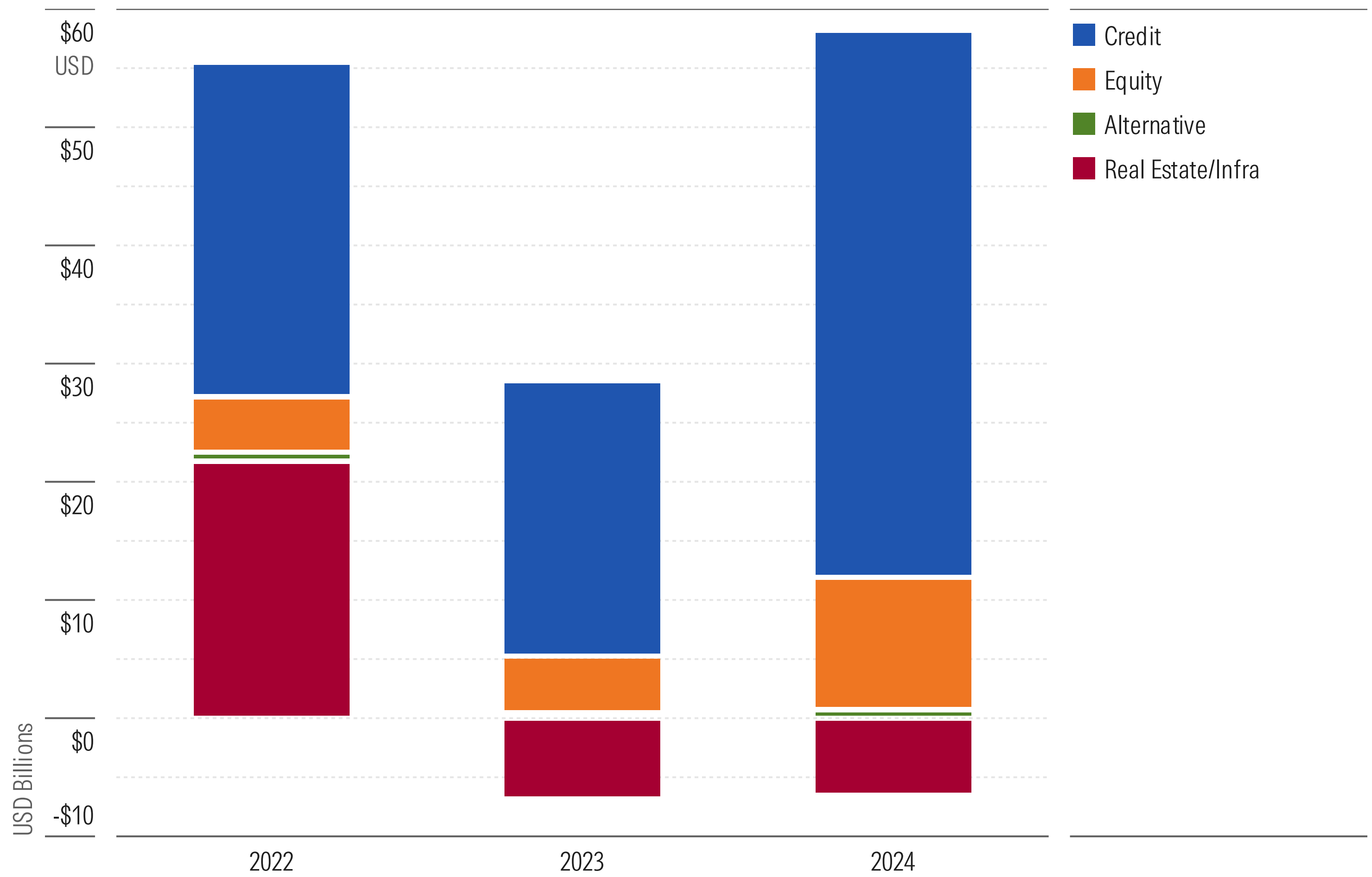


Source: Morningstar Direct, SEC filings. Data as of May 30, 2025.

The Largest Semiliquid Funds' Net Flows Show a Shift Away from Real Estate and Toward Credit

- Net inflows into this cohort rose to approximately USD 56 billion in 2024, up from USD 21.7 billion in 2023.
- The largest semiliquid credit funds saw net inflows double to USD 46 billion from USD 23 billion over that period.
- Equity semiliquid funds also saw a large jump in net inflows. In 2024, the largest ones gathered USD 11.2 billion in net new money, up from USD 4.8 billion in 2023.
- After taking in USD 21 billion in 2022, real estate/infrastructure semiliquid funds have been in net outflows for the past two years.
- Outflows from real estate/infrastructure funds would have been larger, but the largest funds limited redemptions in 2023, highlighting the importance of understanding the liquidity profile of these funds.

Net Flows Into the 10 Largest Semiliquid Funds by Asset Class



Source: Morningstar Direct, SEC filings. Data as of Dec. 31, 2024.

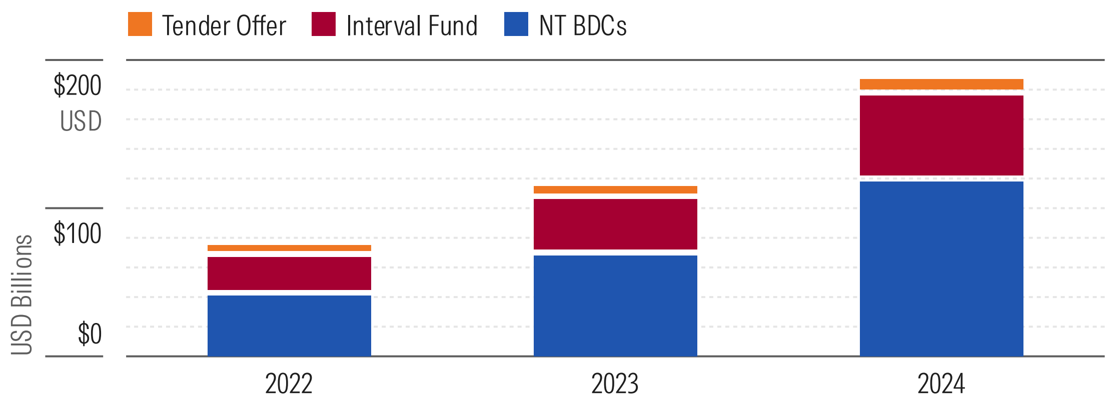
Credit Semiliquid Funds Have Experienced the Fastest Growth

- Semiliquid funds that focus on credit, particularly private credit, have been the fastest-growing segment of the semiliquid universe. Net assets in credit semiliquid funds grew to approximately USD 188 billion in 2024, up from USD 115 billion in 2023 and USD 75 billion in 2022.
- Nontraded BDCs have been the most popular choice for investors to get access to private credit. At the end of 2024, nontraded BDCs had approximately USD 118 billion in net assets, up from USD 68 billion in 2023 and USD 48 billion in 2022.
- Nontraded BDCs have higher leverage limits than interval and tender-offer funds. They can borrow up to USD 2 for every USD 1 of net assets, whereas interval and tender-offer funds can only borrow USD 1 for every USD 2 of net assets.
- Higher leverage typically leads to higher distribution rates: in 2024, Blackstone Private Credit Fund had a 10.4% 12-month yield, about 3 percentage points higher than the average 12-month yield for credit interval funds.
- Cliffwater Corporate Lending, the second-largest credit semiliquid fund, has kept pace and at times has had a higher distribution rate. In 2024, its 12-month yield was 11.3%. It has significant investments in other private credit funds that can also use higher leverage to boost returns.

The 5 Largest Credit Semiliquid Funds

Fund Name	Vehicle	Net Assets (USD Millions)
Blackstone Private Credit Fund	NT BDC	42,192
Cliffwater Corporate Lending	Interval Fund	27,852
Blue Owl Credit Income Corp	NT BDC	16,269
Apollo Debt Solutions BDC	NT BDC	11,369
HPS Corporate Lending Fund	NT BDC	9,638

Credit Semiliquid Fund Net Assets by Vehicle Type



Source: Morningstar Direct, SEC filings. Data as of March 31, 2025.

Assets and Flows for the 10 Largest Credit Semiliquid Funds

Money Keeps Flowing Into Private Credit

		2025		2024		2023		
Fund Name	**Vehicle**	**Net Assets**	**Net Flows**	**Net Assets**	**Net Flows**	**Net Assets**	**Net Flows**	**Net Assets**
Blackstone Private Credit Fund	NT BDC	42,192	2,949	38,958	10,321	28,679	5,027	22,685
Cliffwater Corporate Lending	Interval Fund[1]	27,852	2,727	24,568	9,043	15,512	5,370	10,060
Blue Owl Credit Income Corp	NT BDC	16,269	1,898	14,521	5,556	8,892	3,332	5,786
Apollo Debt Solutions BDC	NT BDC	11,369	1,917	9,546	5,380	4,123	1,809	2,154
HPS Corporate Lending Fund	NT BDC	9,638	904	8,733	3,417	5,185	1,542	3,455
Ares Strategic Income Fund	NT BDC	7,441	1,559	5,900	4,080	1,761	1,572	148
Goldman Sachs Private Credit Fund	NT BDC[2]	6,145	1,265	4,905	3,139	1,591	1,589	N/A
Cliffwater Enhanced Lending	Interval Fund	5,317	619	4,557	2,042	2,506	1,222	1,174
CION Ares Diversified Credit	Interval Fund	4,487	231	4,304	1,099	3,187	607	2,454
Sixth Street Lending Partners	NT BDC[2]	4,111	42	4,036	2,192	1,817	1,193	546

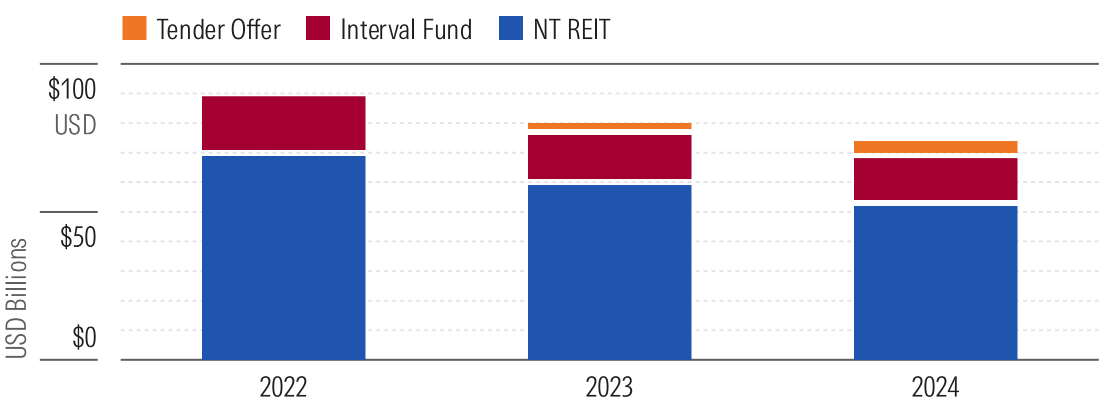
Source: Morningstar Direct, SEC filings. Data as of March 31, 2025. Assets and flows are in USD millions. (1) Requires a firm minimum investment of USD 10 million. (2) Restricted to accredited investors.

Investors are Backing Away From Real Estate/Infrastructure Semiliquid Funds

The 5 Largest Real Estate/Infrastructure Semiliquid Funds

Fund Name	Vehicle	Net Assets (USD Millions)
Blackstone Real Estate Income Trust	NT REIT	31,041
Starwood Real Estate Income Trust	NT REIT	4,900
Blue Owl Real Estate Net Lease Trust	NT REIT	4,626
Bluerock Total Income+Real Estate	Interval Fund	4,106
Apollo Diversified Real Estate	Interval Fund	4,046

Real Estate/Infrastructure Semiliquid Fund Assets by Vehicle



- Real estate/infrastructure semiliquid funds are the only broad asset class group to see assets decline over the past three years.
- Net assets in real estate/infrastructure semiliquid funds fell to USD 74 billion at the end of 2024, from USD 80 billion in 2023 and USD 91 billion at the end of 2022.
- The asset class has been in net outflows since the end of 2022, when Blackstone Real Estate Income Trust began limiting the amount of money investors could withdraw.
- Limiting withdrawals protected investors who weren't trying to cash out from seeing a fire sale of assets to meet withdrawals, but it was the first high-profile semiliquid fund to have to take such measures, and that rattled investors.
- More recently, in 2025, Starwood Real Estate Income Trust has also faced significant selling pressure, signaling there may be future shrinkage in the asset class.
- The challenges investors have faced with liquidity in this asset class have served as a stark warning sign of what could happen in other semiliquid fund vehicles.

Source: Morningstar Direct, SEC filings. Data as of March 31, 2025.

Assets and Flows for the 10 Largest Real Estate/Infrastructure Semiliquid Funds

Investors Have Been Heading for the Exits

		2025		2024		2023		2022	
Fund Name	**Vehicle**	**Net Assets**	**Net Flows**	**Net Assets**	**Net Flows**	**Net Assets**	**Net Flows**	**Net Assets**	**Net Flows**
Blackstone Real Estate Income Trust	NT REIT	31,041	-1094	34,694	-6,151	43,622	-4,872	50,200	8,424
Starwood Real Estate Income Trust	NT REIT[2]	4,900	-67	5,194	-671	7,092	-1,900	10,091	4,295
Blue Owl Real Estate Net Lease Trust	NT REIT[2]	4,626	607	3,948	2,281	1,820	1,249	736	771
Bluerock Total Income+ Real Estate	Interval Fund	4,106	-142	4,277	-550	5,417	-468	6,970	3,085
Apollo Diversified Real Estate	Interval Fund	4,046	-137	4,240	-570	4,901	-415	5,781	1,123
FS Credit Real Estate Income Trust	NT REIT[2]	2,728	-3	2,767	-11	2,791	552	2,317	1,412
Versus Capital Real Estate	Interval Fund[1]	1,809	-70	1,877	-266	2,262	-311	2,901	84
Nuveen Global Cities REIT	NT REIT	1,650	31	1,647	63	1,706	-2	1,836	1,018
Ares Industrial Real Estate Income Trust	NT REIT[2]	1,523	4	1,623	-225	1,794	-369	2,553	823
JLL Income Property Trust	NT REIT[2]	1,613	58	1,603	-184	1,850	-125	2,096	548

Source: Morningstar Direct, SEC filings. Data as of March 31, 2025. Assets and flows are in USD millions. (1) Requires a firm minimum investment of USD 10 million. (2) Restricted to accredited investors.

Tender-Offer Funds Are the Vehicle of Choice for Private Equity

- Private equity has taken a backseat to private credit in semiliquid funds, but net assets have more than doubled in funds focused on equities since 2022.

- At the end of 2024, there was approximately USD 50 billion in net assets in equity semiliquid funds, up from USD 32 billion in 2023 and USD 24 billion in 2022.

- More than 90% of equity semiliquid fund assets are in tender-offer funds. Since tender-offer funds aren't required to have a fixed liquidity schedule like interval funds, there's a better match between liquidity and the long-term nature of investing in private companies.

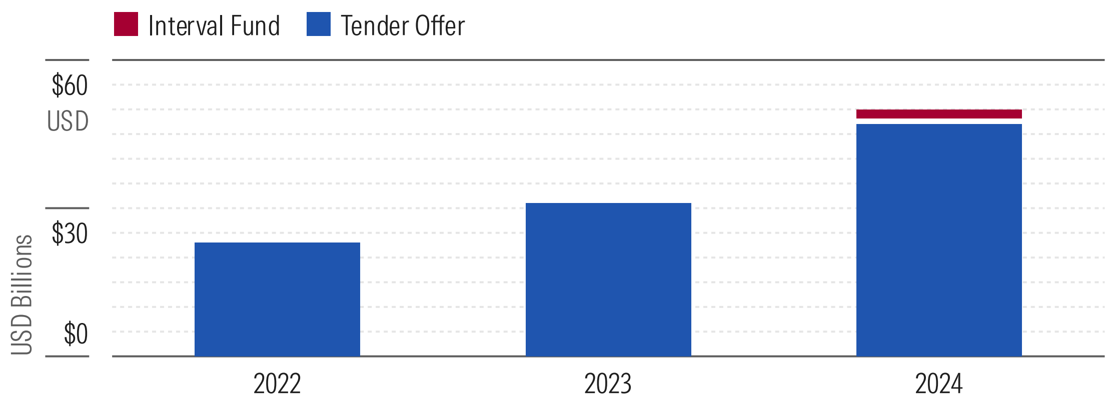
- Many of the equity semiliquid funds are restricted to investors who meet the standards for a qualified client. That allows the funds to charge incentive fees on capital gains.

- Interval fund Cascade Private Capital has seen a surge in assets since Cliffwater acquired it in 2024. Although it's not among the five largest equity semiliquid funds as of March 31, 2025, it's been one of the fastest-growing. In 2024, it had net inflows of USD 1.6 billion, up from USD 20 million in 2023.

The 5 Largest Equity Semiliquid Funds

Fund Name	Vehicle	Net Assets (USD Millions)
Partners Group Private Equity	Tender Offer	15,775
AMG Pantheon Master	Tender Offer	5,025
StepStone Private Markets	Tender Offer	4,200
Hamilton Lane Private Assets	Tender Offer	3,628
Ares Private Markets	Tender Offer	2,725

Equity Semiliquid Fund Net Assets by Vehicle



Assets and Flows for the 10 Largest Equity Semiliquid Funds

Not as Popular as Private Credit, but Still Growing

		2025		2024		2023		2022	
Fund Name	**Vehicle**	**Net Assets**	**Net Flows**	**Net Assets**	**Net Flows**	**Net Assets**	**Net Flows**	**Net Assets**	**Net Flows**
Partners Group Private Equity	Tender Offer[3]	15,775	165	15,902	1,116	14,278	819	12,893	2,602
AMG Pantheon Master	Tender Offer[3]	5,025	413	4,761	1,423	2,835	1,005	1,536	676
StepStone Private Markets	Tender Offer	4,200	479	3,684	1,616	1,077	737	904	570
Hamilton Lane Private Assets	Tender Offer[3]	3,628	395	3,108	1,549	1,384	779	502	150
Ares Private Markets	Tender Offer[3]	2,725	401	2,262	1,383	704	348	261	270
Cascade Private Capital	Interval Fund	2,615	617	1,935	1,568	156	20	116	0
StepStone Private Venture & Growth	Tender Offer[3]	1,903	422	1,373	901	353	165	137	120
Pomona Investment	Tender Offer[2]	1,900	25	1,854	411	1,388	499	857	356
Carlyle AlpInvest Private Markets	Tender Offer[3]	1,865	449	1,348	918	311	276	N/A	N/A
BBR ALO	Tender Offer[2]	1,648	8	1,644	210	1,410	-44	1,171	86

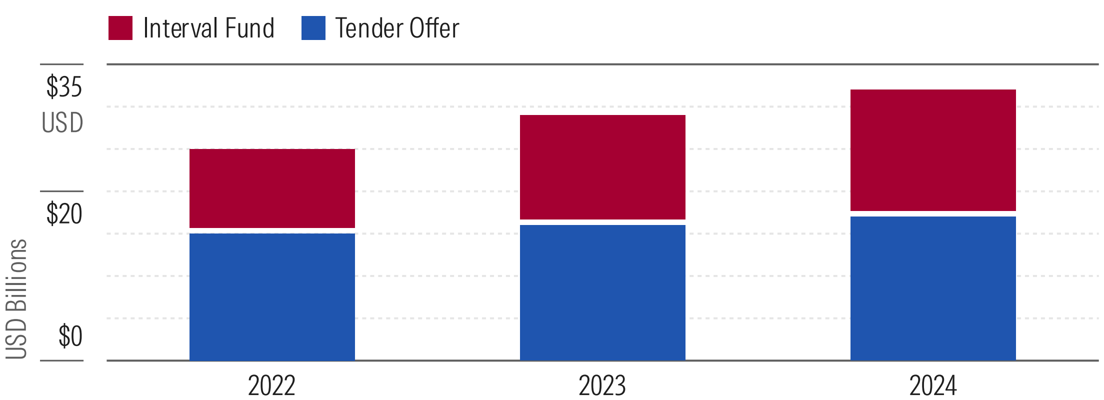
Units: USD Million Source: Morningstar Direct, SEC filings. Data as of March 31, 2025. Assets and flows are in USD millions. (2) Restricted to accredited investors. (3) Restricted to qualified clients.

Alternative Semiliquid Funds Include a Wide Range of Strategies

The 5 Largest Alternative Semiliquid Funds

Fund Name	Vehicle	Net Assets (USD Millions)
ACAP Strategic	Interval Fund	8,142
Ironwood Institutional Multi-Strategy Fund	Tender Offer	5,402
First Trust Alternative Opportunities Fund	Interval Fund	2,557
Advantage Advisers Xanthus	Tender Offer	2,373
SkyBridge Opportunity Fund	Tender Offer	1,390

Alternative Semiliquid Fund Assets by Vehicle



- Alternative semiliquid funds use strategies commonly found in hedge funds, like long-short investing across one or more public asset classes.
- Net assets in alternative semiliquid funds reached USD 32 billion at the end of 2024, up from USD 29 billion in 2023 and USD 22 billion in 2022.
- There has been no clear preference for a semiliquid vehicle type for alternative strategies. Interval and tender-offer fund assets have been mostly even over the past three years.
- Some alternative semiliquid funds may not have much private market exposure, but the semiliquid funds allow the strategies to reach a broader group of investors than traditional hedge funds while still allowing the managers to charge incentive fees, which they couldn't do in a daily liquid alternative fund or ETF.
- Having long and short exposures, like in a multistrategy fund, can allow the managers to isolate the portfolio from the movements of global stock and bond markets and create a return stream that has a low correlation to public markets.

Source: Morningstar Direct, SEC filings. Data as of March 31, 2025.

Assets and Flows for the 10 Largest Alternative Semiliquid Funds

Alternative Fund Flows Have Been Mixed

		2025		2024		2023		2022	
Fund Name	**Vehicle**	**Net Assets**	**Net Flows**	**Net Assets**	**Net Flows**	**Net Assets**	**Net Flows**	**Net Assets**	**Net Flows**
ACAP Strategic	Interval Fund[3]	8,142	-107	8,606	-674	7,273	-790	6,323	-810
Ironwood Institutional Multi-Strategy	Tender Offer[2]	5,402	219	5,280	185	4,882	489	4,447	1,082
First Trust Alternative Opportunities	Interval Fund	2,557	322	2,215	880	1,316	730	573	356
Advantage Advisers Xanthus	Tender Offer[3]	2,373	7	2,467	-241	2,117	-201	1,815	-140
SkyBridge Opportunity	Tender Offer[2]	1,390	21	1,563	-160	1,328	-81	1,130	-291
CPG Focused Access	Tender Offer[2]	1,044	55	1,004	-86	904	-193	1,057	273
AB Multi-Manager Alternative	Tender Offer[2]	1,044	12	1,025	-61	1,078	106	1,037	144
Beacon Pointe Multi-Alternative	Interval Fund	538	207	331	330	N/A	N/A	N/A	N/A
Alpha Core Strategies	Tender Offer[2]	537	-16	556	-102	616	-43	633	-30
A&Q Multi-Strategy	Tender Offer[3]	333	12	320	-45	446	41	397	-36

Source: Morningstar Direct, SEC filings. Data as of March 31, 2025. Assets and flows are in USD millions. (2) Restricted to accredited investors. (3) Restricted to qualified clients.

How Much Do Semiliquid Funds Really Cost?

Interval and Tender-Offer Fund Fees Are Significantly Higher Than Public-Market Mutual Funds or ETFs

Investors used to mutual funds and ETFs are in for sticker shock when they look at semiliquid options. The average annual report net expense ratio for semiliquid funds was 3.16% as of their latest disclosed reports. Meanwhile, the average annual net expense ratio for passive mutual funds and ETFs was 0.37%, while active ones charged 0.97% on average. The implication is obvious: Private market return premiums will need to be significantly above public markets to overcome these fee hurdles.

Annual Report Net Expense Ratios: Interval and Tender-Offer Funds Fees Dwarf Mutual Funds and ETFs

Semiliquid funds are significantly more expensive than your typical mutual fund or ETF

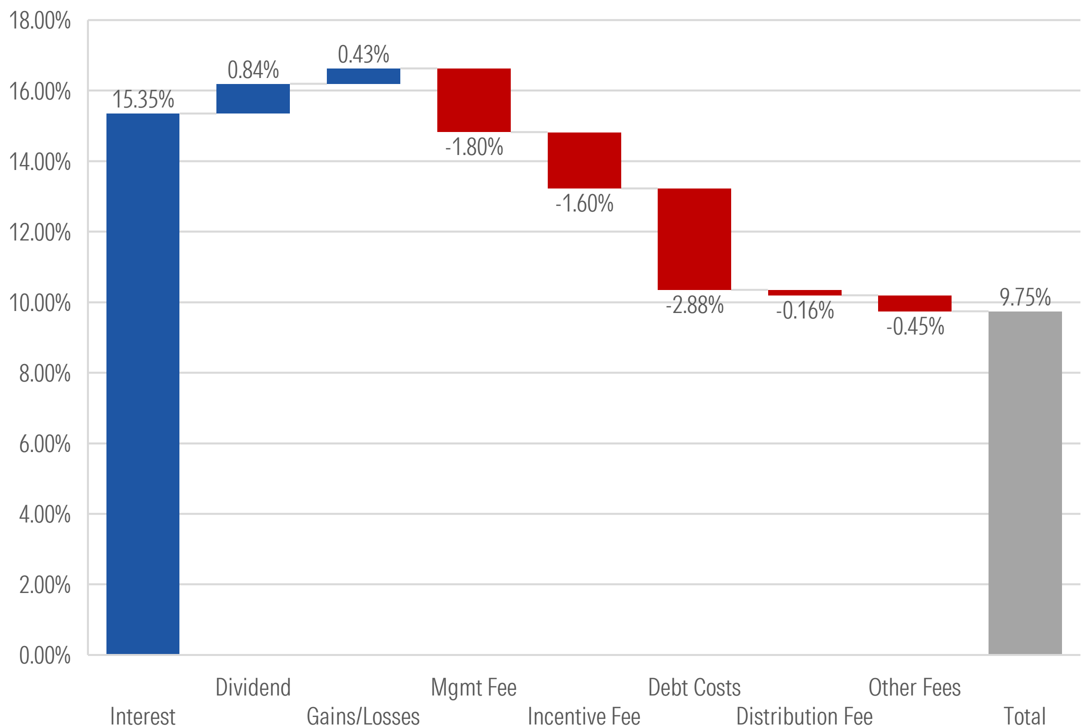
Source: Morningstar Direct. Data as of latest annual report.

Fee Structures Are More Complex in Semiliquid Vehicles

Semiliquid funds generally have more complex fee structures than mutual funds or ETFs. First, they usually employ leverage, which is the use of debt or debtlike instruments to increase the fund's asset base. That leverage comes with borrowing costs. Additionally, semiliquid funds often charge incentive fees, which can be material and sometimes rival—or even exceed—the management fee in terms of magnitude. Finally, some funds have substantial "acquired fund fees," which are fees paid to underlying funds held in the portfolio.

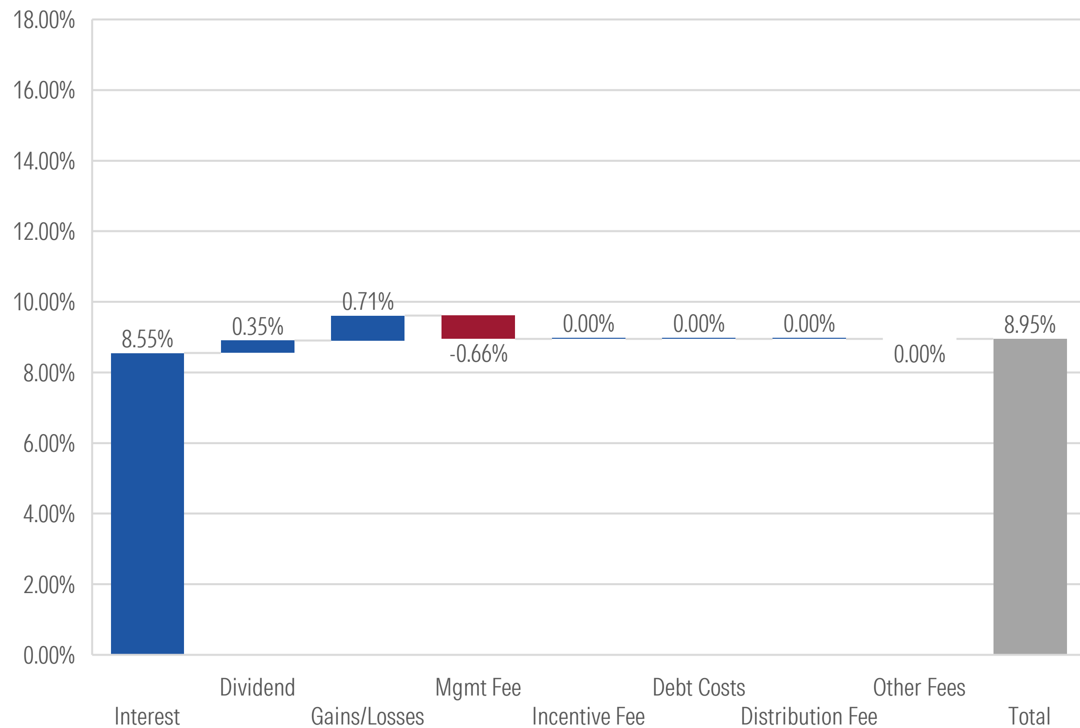
Example Interval Fund Net Return Waterfall: CION Ares Diversified Credit

Borrowing costs and incentive fees eat into the extra yield



Typical Mutual Fund Fee Waterfall: Invesco Senior Loan ETF

Far fewer—and smaller—fees

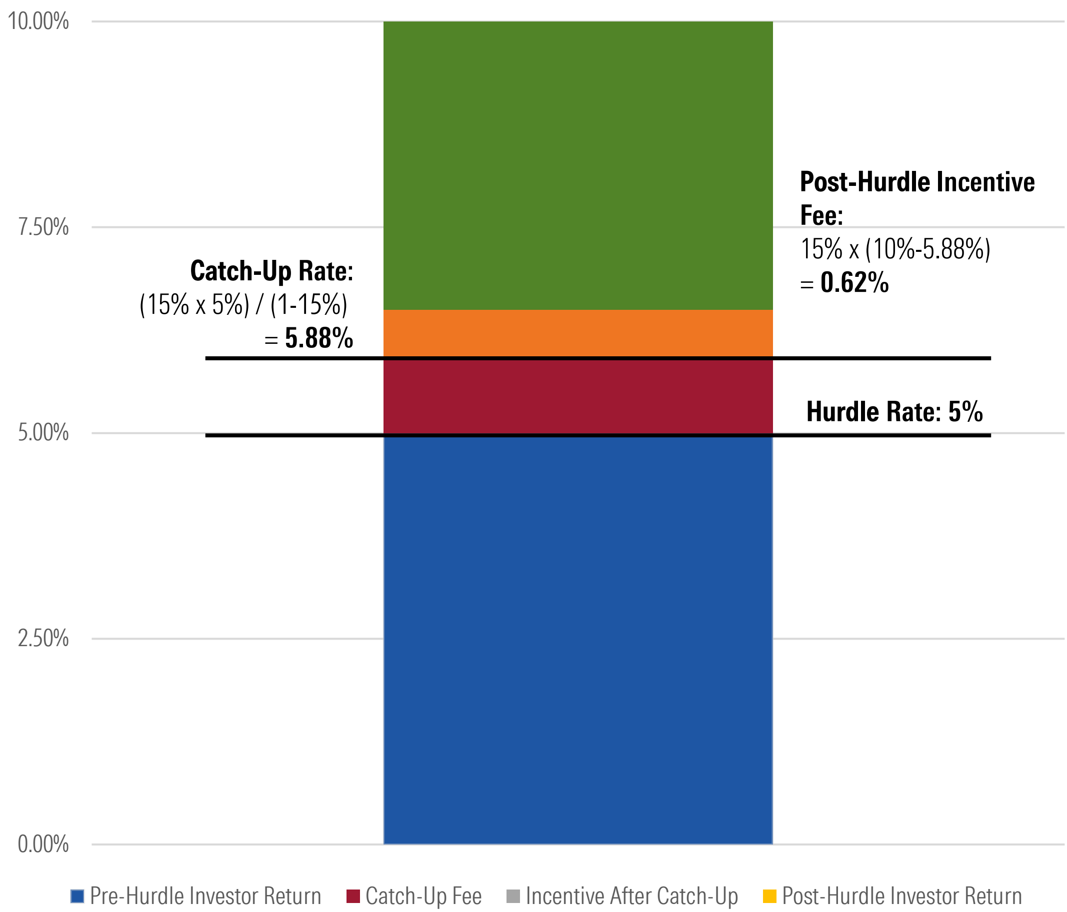


Source: SEC filings. Data is for illustrative purposes only. Income and expenses expressed as a percentage of year-over-year average net assets.

How Incentive Fees Work and Why It May Surprise You

Hypothetical Fund: Incentive Fee Breakdown

Catch-up provisions allow funds to collect incentive fees on the whole return



There are typically three parts to incentive fees (sometimes called performance fees): the actual incentive fee, the "hurdle rate," and the "catch-up." The "incentive fee" is a percentage of the fund's return that the fund company earns should the fund clear its "hurdle rate." Importantly, once the fund clears the hurdle, the incentive fee then gets applied to the *whole* return, not just the amount above the hurdle rate.

This works via the funds' catch-up provision. A catch-up allows a fund to take all the excess return over the hurdle rate until its share of the total return is equal to the incentive fee. So if a fund's incentive fee is 15%, it gets to keep 100% of profits above the hurdle rate until its share of the total return is 15%. Mathematically, this catch-up rate (the upper limit on catch-up fees) is represented below:

$$\frac{Incentive\ Fee\ \times\ Hurdle\ Rate}{(1-Hurdle\ Rate)}$$

In the example shown, imagine a fund that returned 10% and had a 15% incentive fee, a 5% hurdle rate, and a 100% catch-up provision. The catch-up rate is therefore 5.88%. At 5.88%, the fund would keep the full 0.88% above the hurdle rate, which equals 15% of the fund's total return to that point (0.88%/5.88%). The fund then keeps 15% of any return above that amount, in this case 0.62% (which is 15% of the 4.12% return above 5.88%). In total in this example, investors would have paid 1.50% (0.88% + 0.62%) in incentive fees, an amount equal to the incentive fee (15%) applied to the total return.

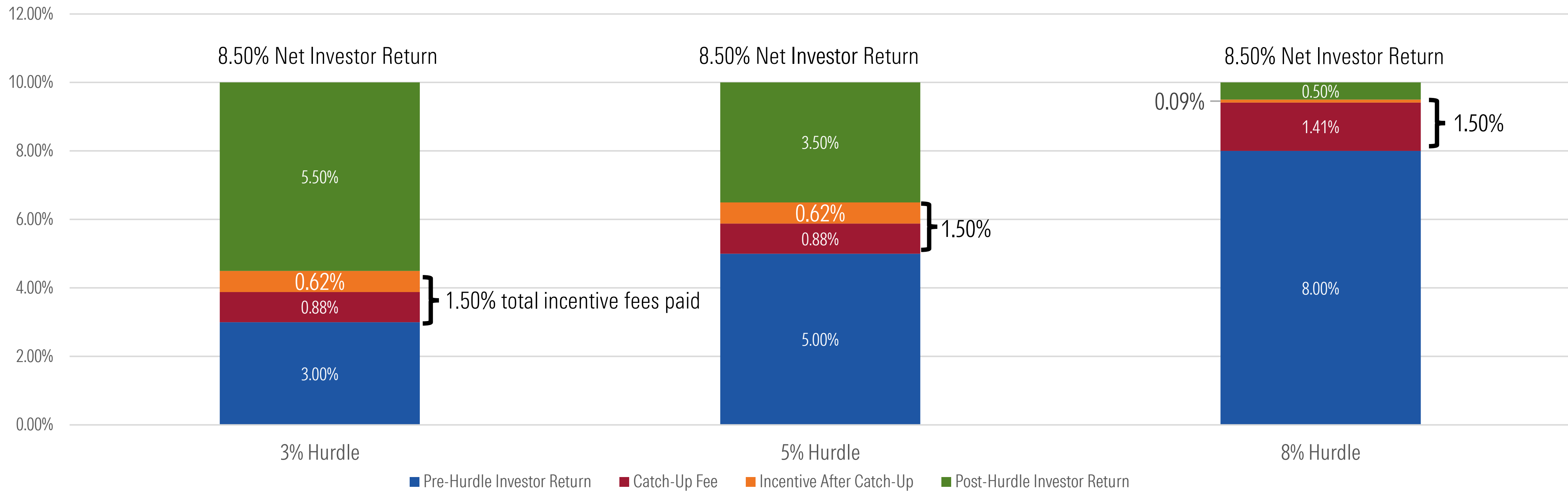
For illustrative purposes only.

Catch-Up Provisions Make Hurdle Rate Distinctions Less Relevant

Because most funds employ a 100% catch-up provision, the level they set their hurdle rate at can be effectively irrelevant, provided that the fund earns at least enough to capture its full catch-up. In the below example, a fund that returned 10% would pay the same incentive fees with a 3%, 5%, or 8% hurdle. It's not until the return converges on the hurdle rate that differences can arise.

Investors Should Focus on the Incentive Fee, Not the Hurdle Rate

With 100% catch-up provisions, the hurdle rate is effectively meaningless if it's set too low



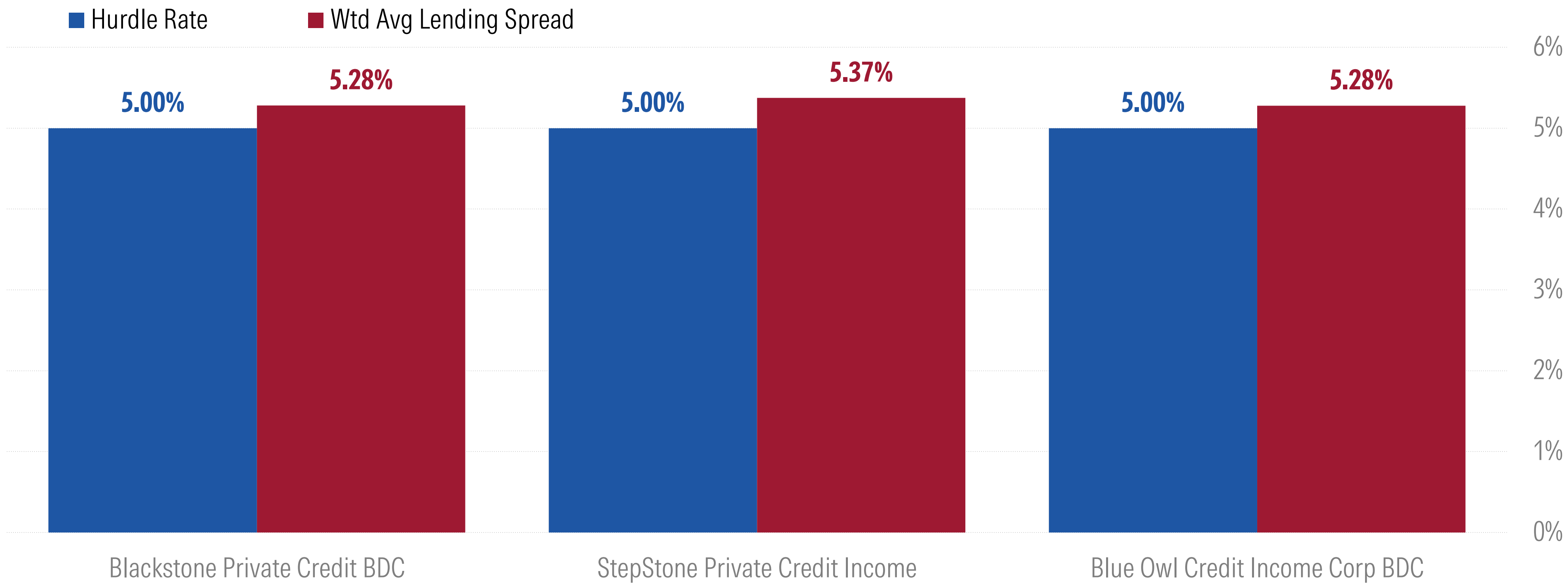
For illustrative purposes only.

Is It an "Incentive Fee" If It Always Gets Paid? Private Credit Investors Should Expect to Almost Always Pay These Fees

Incentive fees in fixed income present multiple issues. The first is that they are calculated on income and capital gains separately. So, a fund can lose value (via a decline in NAV), but if the income yield still clears the hurdle rate, the fund manager still gets to collect its income-based incentive fee. Additionally, clearing the hurdle is not a difficult task for credit managers, as they have direct control over their lending rates and, thus, their income yield. Sprinkle in leverage, and the hurdle rate is even easier to clear.

Funds With Incentive Fees Generally Lend at Rates Above Their Hurdle Rate

Provided the funds' credit underwriting is merely adequate, they should have little trouble meeting their incentive fee targets, especially if using leverage

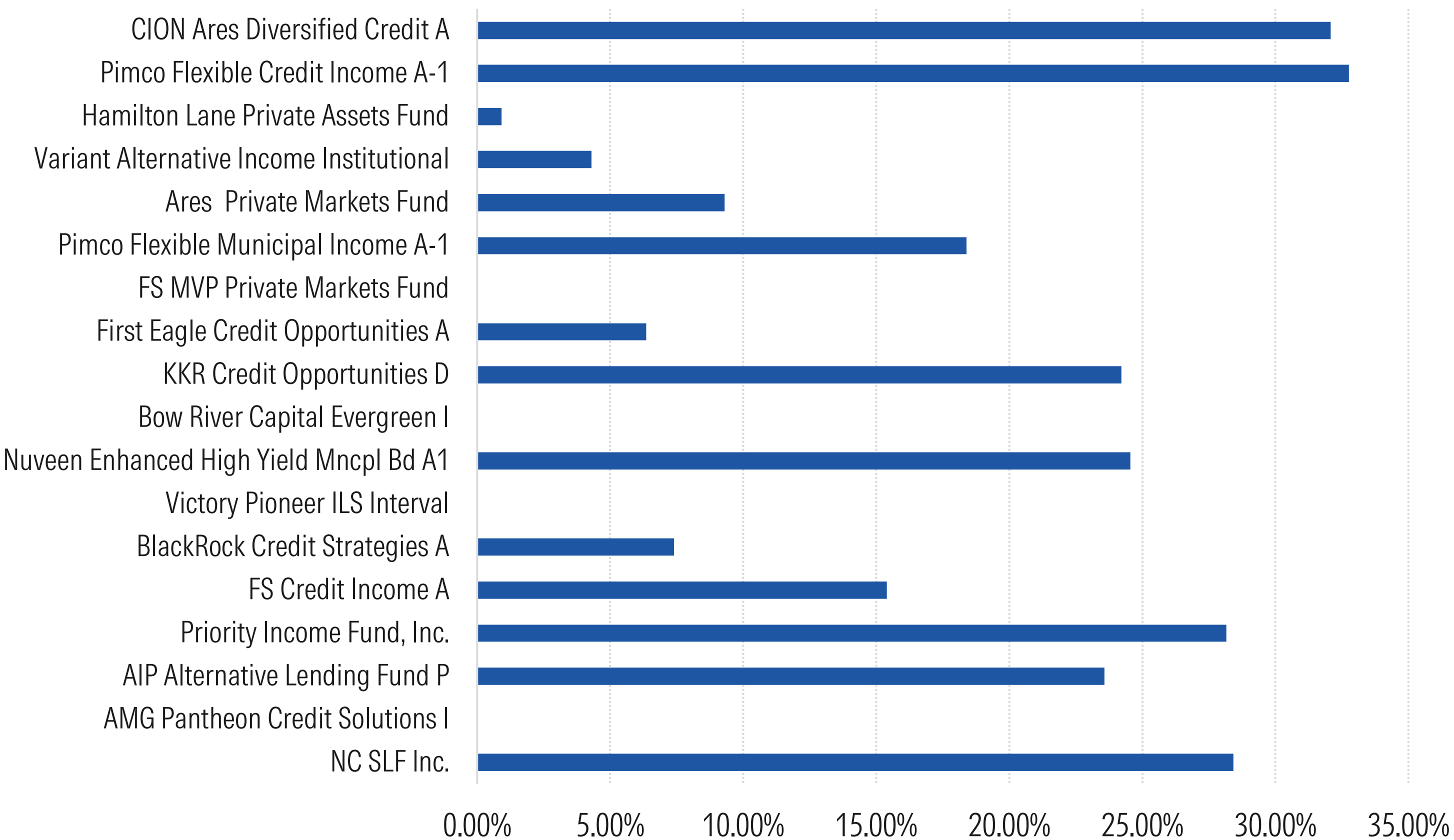


Data from latest annual reports filed with the SEC. Weighted average spread is calculated from the holdings which report a spread over a reference rate. Includes lending to noncontrolled entities only.

Some Semiliquid Funds Charge Fees on Total Assets—A Questionable Practice

Leverage Ratios for Semiliquid Funds That Charge Fees on Total Assets

BDCs generally do not charge on total assets, while some interval funds do



Virtually all mutual funds and ETFs charge investors on the fund's NAV. However, some semiliquid funds charge fees on total assets, which include assets purchased with money borrowed by the fund. Of the semiliquid funds with more than USD 500 million in assets as of year-end 2024, about 30% charged fees on total assets.

We believe charging on total assets is a disservice to shareholders. The primary issue is that it can incentivize overleveraging a fund, as more assets equal more fees for the asset managers. As described in more detail on the next slide, funds must be able to lend at spreads above the costs they charge shareholders. Failure to do so means that fundholders are being charged for nothing.

Funds are required to disclose their fees as a percentage of net assets in their prospectuses, but some funds will include their management fee as a percentage of total assets (which is lower) before the net number. This can be confusing to investors, and funds should make the net number the primary focus.

Source: SEC filing. Includes only funds with over USD 500 million in total assets as of December 2024. Leverage ratios are total borrowings divided by total assets in latest annual and semiannual reports.

Funds Must Have Access to Low-Cost Debt to Justify Charging Fees on Total Assets

For funds that charge fees on total assets, the incremental income generated using leverage must more than offset both the borrowing costs and the additional fees generated by a higher asset level.

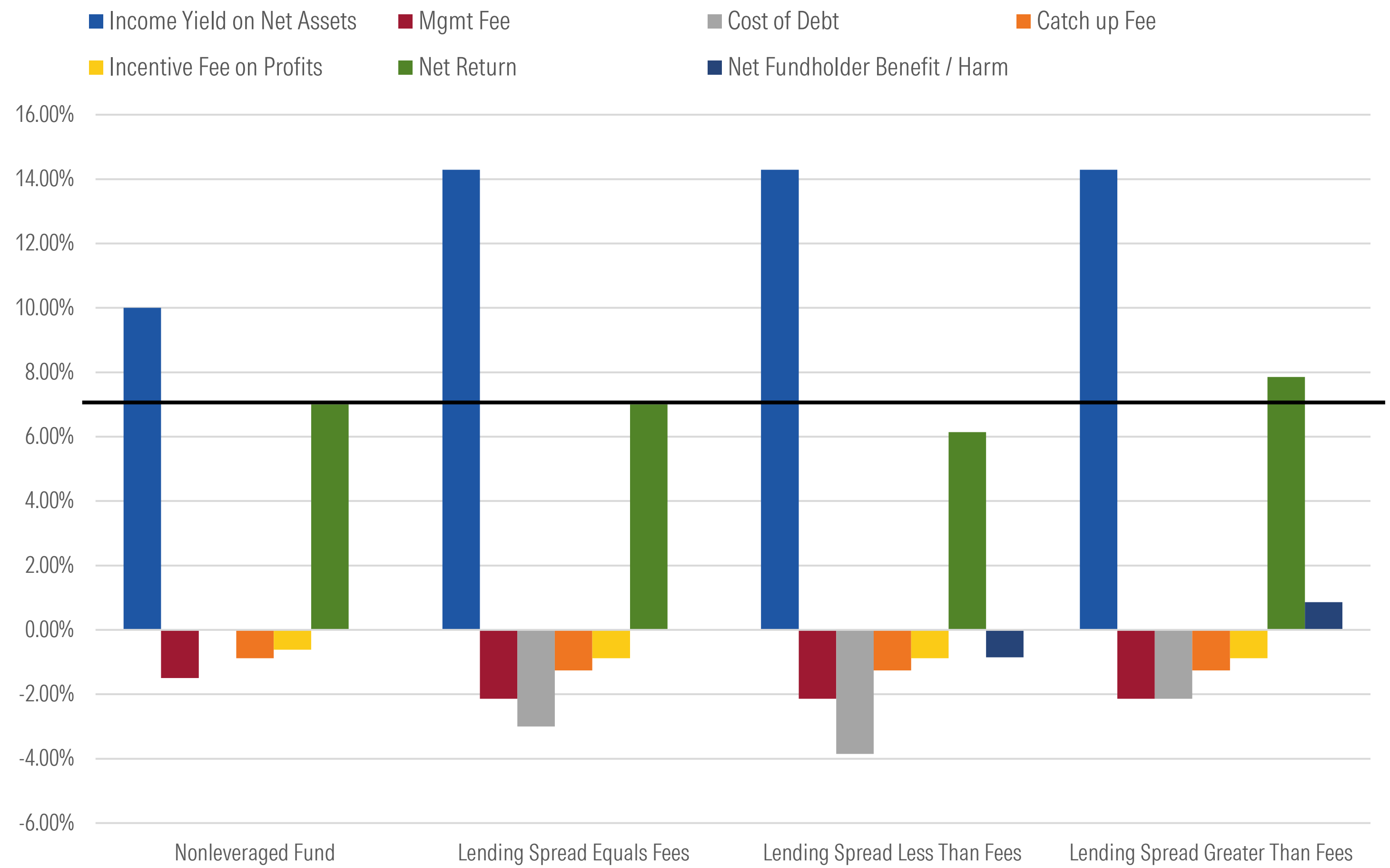
This means that all funds must have a lending spread—the difference between the yield it earns on borrowed money and the interest rate it pays on that money—that is at least higher than its management fee and other recurring fees. If the lending spread is below its fee ratio, fundholders are being disadvantaged.

If funds charge incentive fees as well, then the lending spread must be even wider. In those cases, the funds must lend at a spread that is wider than the management fee plus the incentive fee times the fund's return (assuming the full catch-up is met).

This lending spread can compress for many reasons, including a higher cost of debt, removal of fee waivers, or investment losses.

In Certain Scenarios, Charging Fees on Total Assets Is Highway Robbery

Funds must be able to generate a yield on borrowed money in excess of incremental fees



Data is for illustrative purposes. The example shown assumes a fund with 30% leverage, a 10% yield on its assets, a 1.5% management fee, a 5% hurdle rate, and a 15% incentive fee. In this case, a 3% lending spread covers the fees generated from the leveraged assets (1.5% management plus 1.5% of incentive fees). The lower spread scenario assumes lending at a 1% spread over borrowing costs, while the higher spread scenario assumes lending at a 5% spread over borrowing costs

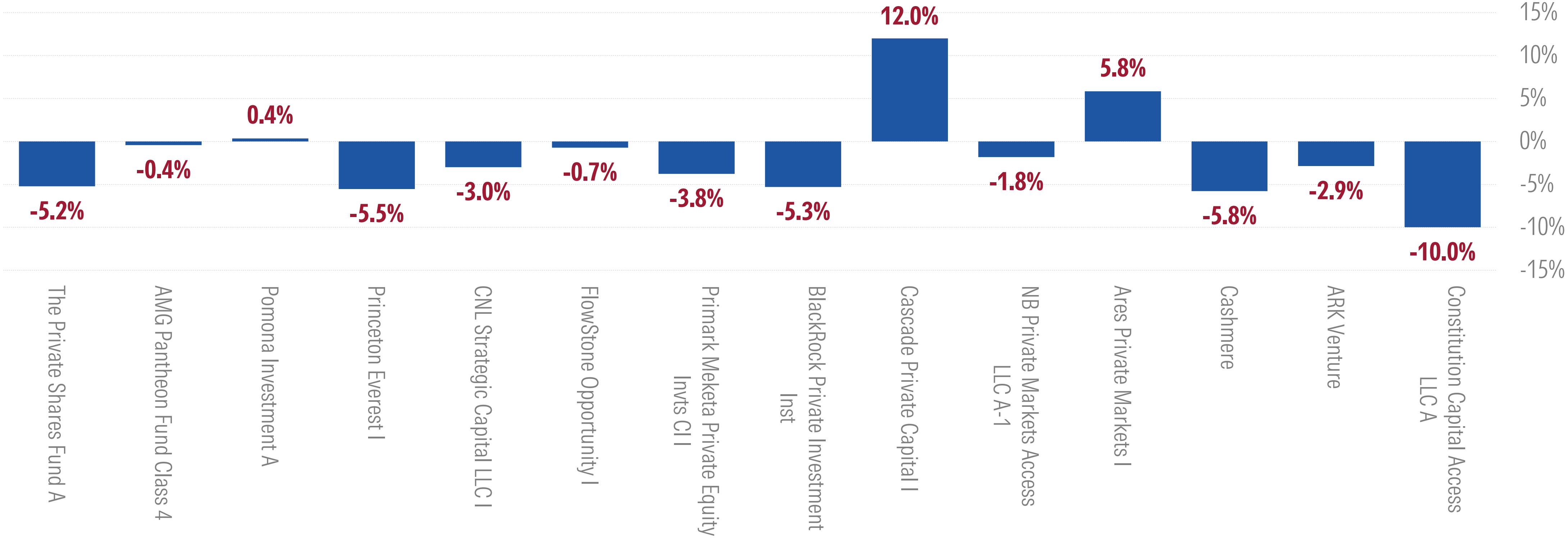
Performance and the Impact of Leverage

It's Early, But Private Equity Returns Have Disappointed in Semiliquid Structures

Outside of just a couple of funds, most semiliquid funds that focus on private equity or venture capital have failed to beat the S&P 500 since their respective inceptions, though many are still relatively new funds. Pomona Investment has edged out the S&P 500 over its roughly decade-long tenure. Cascade Private Capital has produced eye-popping results, though the returns are mostly unrealized gains.

Semiliquid Private Equity and Venture Capital Funds: Annualized Excess Returns Since Inception Versus S&P 500

Outside of just a couple of funds, investors largely haven't reaped an "illiquidity premium" to date

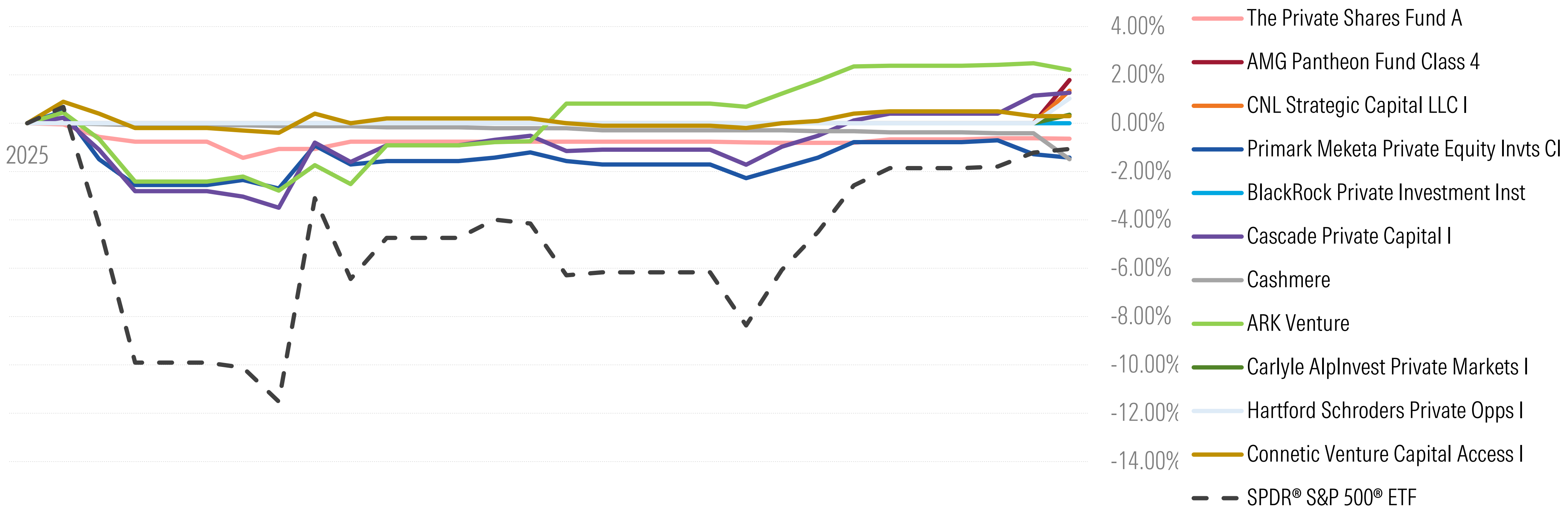


Source: Morningstar Direct; fund websites. Includes funds with data in Morningstar Direct that allocate at least 80% to private equity or venture capital and includes only funds that were launched before 2023. Performance is oldest share class and is as of May 2025 or latest available date.

Semiliquid Equity Funds Showed Tepid Responses to the April 2025 Tariff Tantrum

As the public equity market sold off precipitously in early April 2025, semiliquid equity funds were not quick to write down holdings' valuations. This highlights both one of the features and one of the bugs of private equity and venture capital, which these funds generally invest in. On the feature side, not seeing volatility can help keep fundholders invested for longer and presumably help combat the tendency to buy high and sell low. On the other hand, it means the NAVs probably don't reflect true fair value and therefore don't reflect the true risk within these portfolios.

Semiliquid Private Equity and Venture Capital Funds: April 2025 Returns Versus the S&P 500



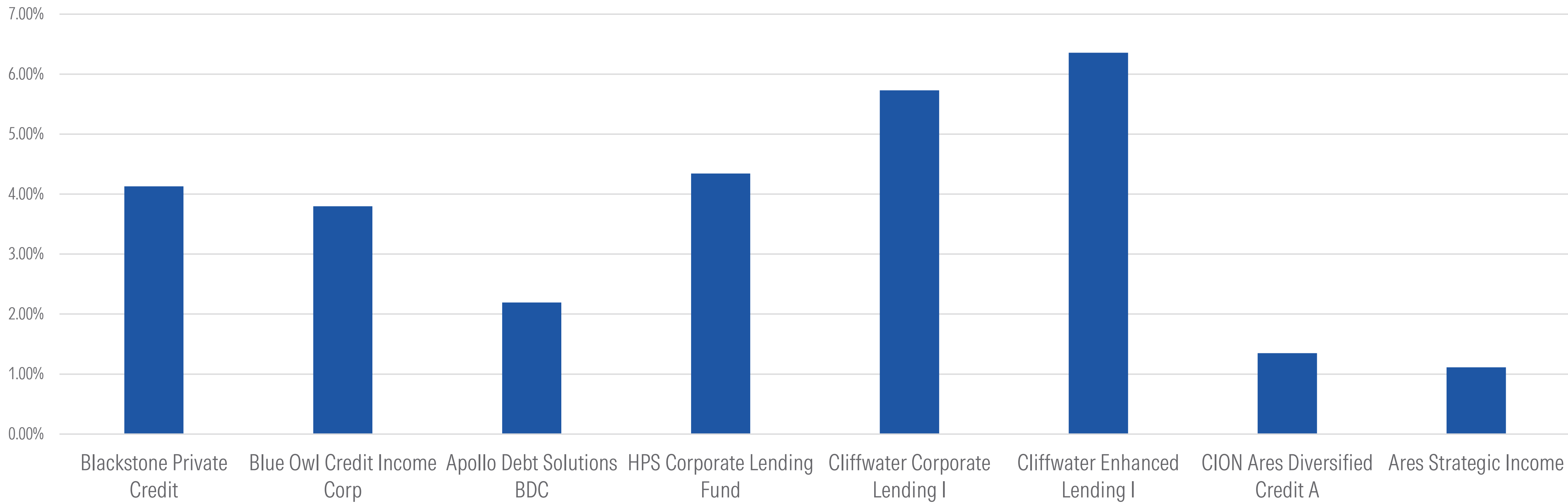
Source: Morningstar Direct; fund websites. Includes funds that allocate at least 80% to private equity or venture capital. Performance is the oldest share class and as of April 30, 2025, or the latest available date.

Private Credit Has Fared Better, But Leverage Can Distort Things

Private credit has done relatively well for itself so far. The largest semiliquid private credit funds have provided investors with a return greater than could be had in leveraged loans, for example. However, most private credit funds use leverage, while indexes are generally unleveraged. Leverage magnifies both losses and gains, but in private credit, the upside is easily seen, while the downside risk can be masked until a credit cycle occurs.

Largest Semiliquid Private Credit Funds: Excess Return Versus Morningstar LSTA Leveraged Loan Index Since Inception of Oldest Share Class

Private credit funds have done well compared with leveraged loans



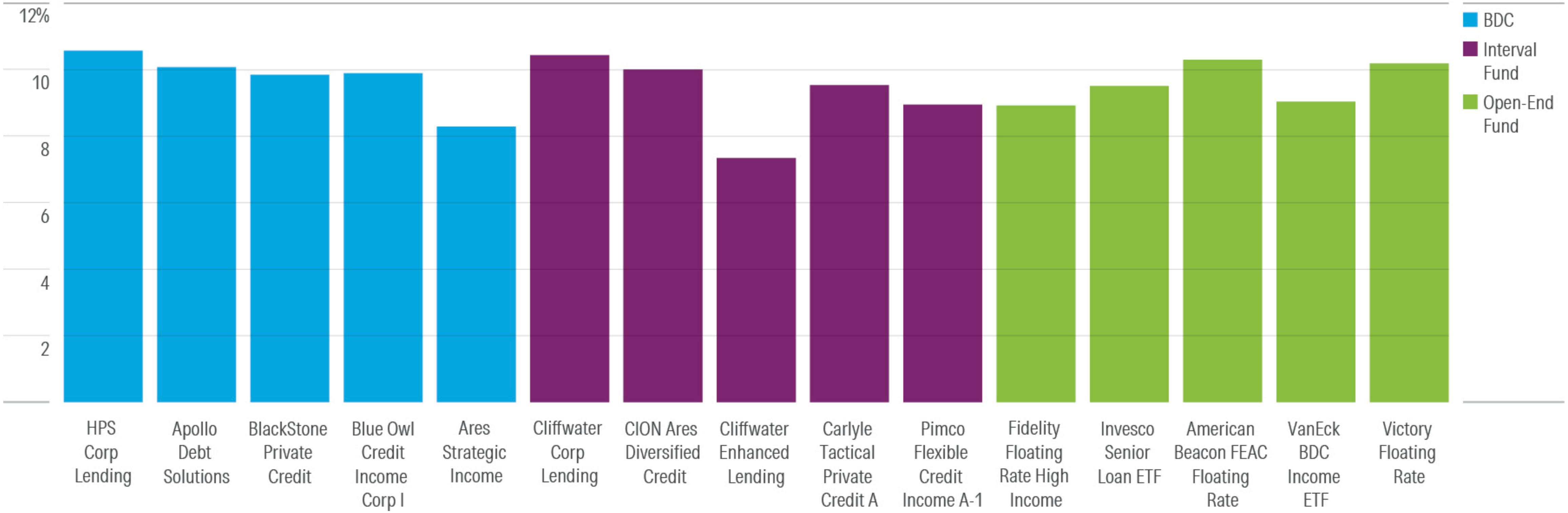
Source: Morningstar Direct

Is It Just the Leverage? Private Credit Gross Yields Are Similar to Higher-Yielding Bank-Loan Funds.

Private credit funds tend to offer higher headline yields than what investors see in the mutual fund and ETF universe. However, that extra yield is mostly the product of fund-level leverage rather than lending money at higher rates. For investors, that is perhaps good and bad. The good news is that the funds do not appear to be lending to materially riskier businesses, if yields are a good proxy of risk. On the other hand, the use of leverage means there is perhaps more downside risk in these than their mutual fund and ETF counterparts. The chart below excludes payment-in-kind income, which is when interest is paid by adding principal to the loan balance rather than with cash.

Gross Income as Percentage of Average Total Assets: Private Credit Interval Funds Versus BDCs Versus Open-End Bank-Loan Funds

Measured against average *total* assets, private credit funds' income is not substantially higher than open-end floating-rate funds



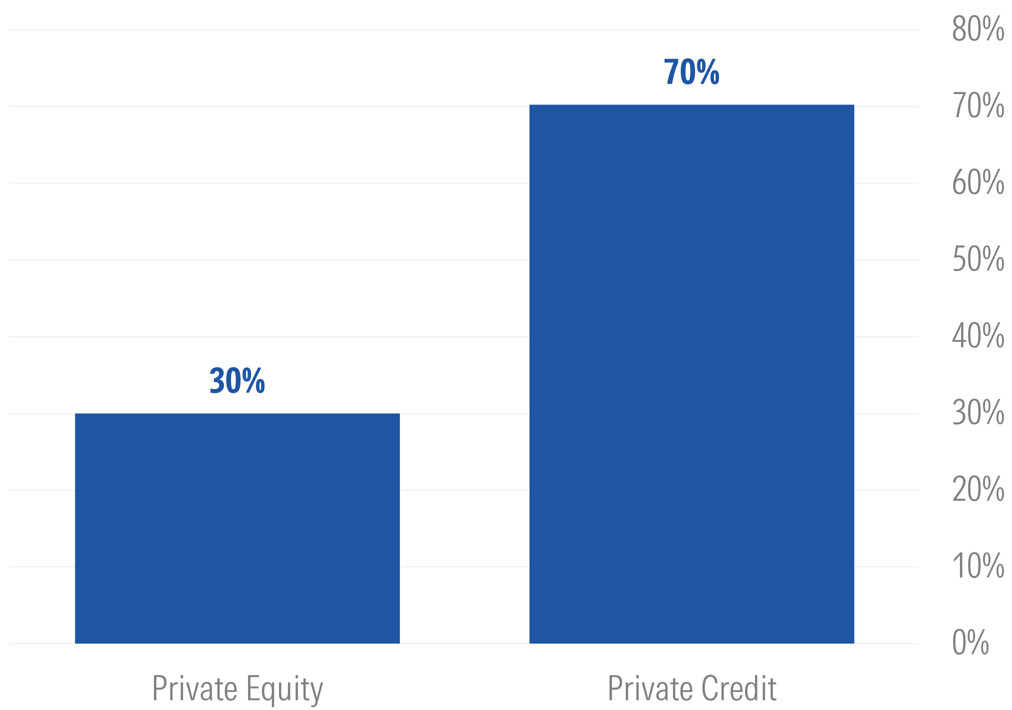
Source: SEC filings as of May 2025. Interest income does not include payment-in-kind income but does include distributions from fund holdings. For interval funds and mutual funds/ETFs, average total assets is a simple average of the last two annual reports and the intervening semiannual report. For BDCs, it is the average quarterly assets over the trailing year. Note: Funds have different reporting frequencies, and floating-rate interest income can be sensitive to the periods examined.

Fund-Level Leverage Is Common in Private Credit, Less Common in Private Equity

Many private credit funds use fund-level borrowing to increase their asset base and, thus, their potential to generate income and yield for investors. Leverage comes at a cost, though, and adds additional risk. Private equity funds will occasionally take on leverage, but they are more likely to use it as a liquidity tool to help meet redemptions or bridge financing gaps in acquiring a company. Adding fund-level leverage on private equity or venture capital assets would be particularly risky owing to their long-duration, lumpy return streams and the fact that they tend to be even less liquid than private credit.

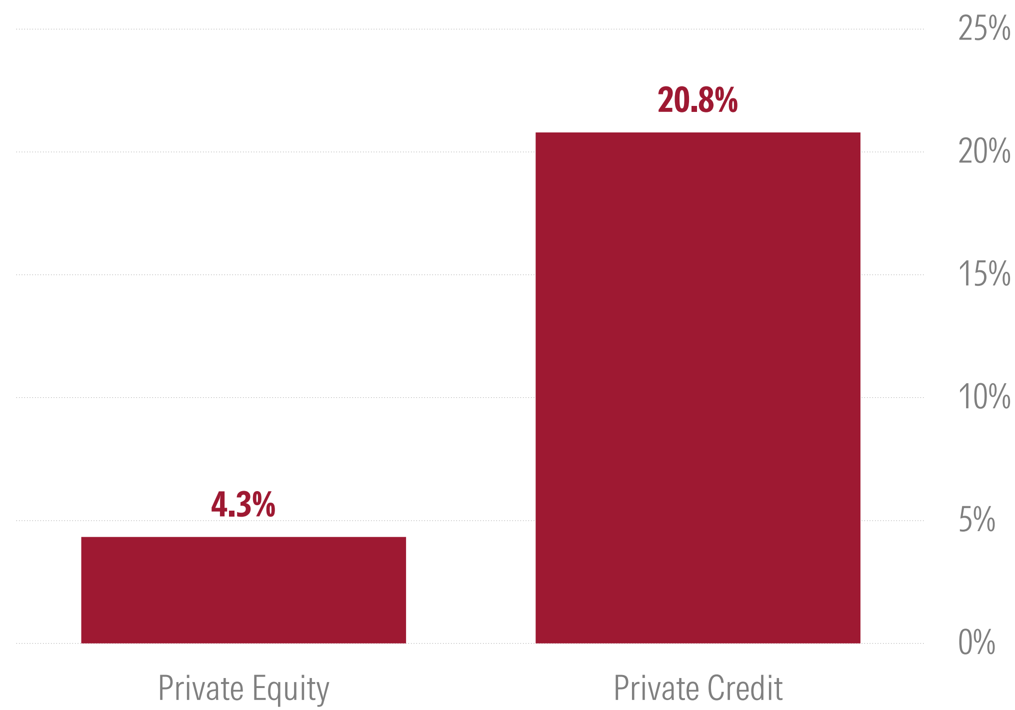
Percentage of Semiliquid Funds Employing Fund-Level Leverage by Asset Class

Fund-level leverage is more common in private credit than in private equity



Average Financial Leverage by Asset Class

Private credit funds use more leverage than their equity counterparts



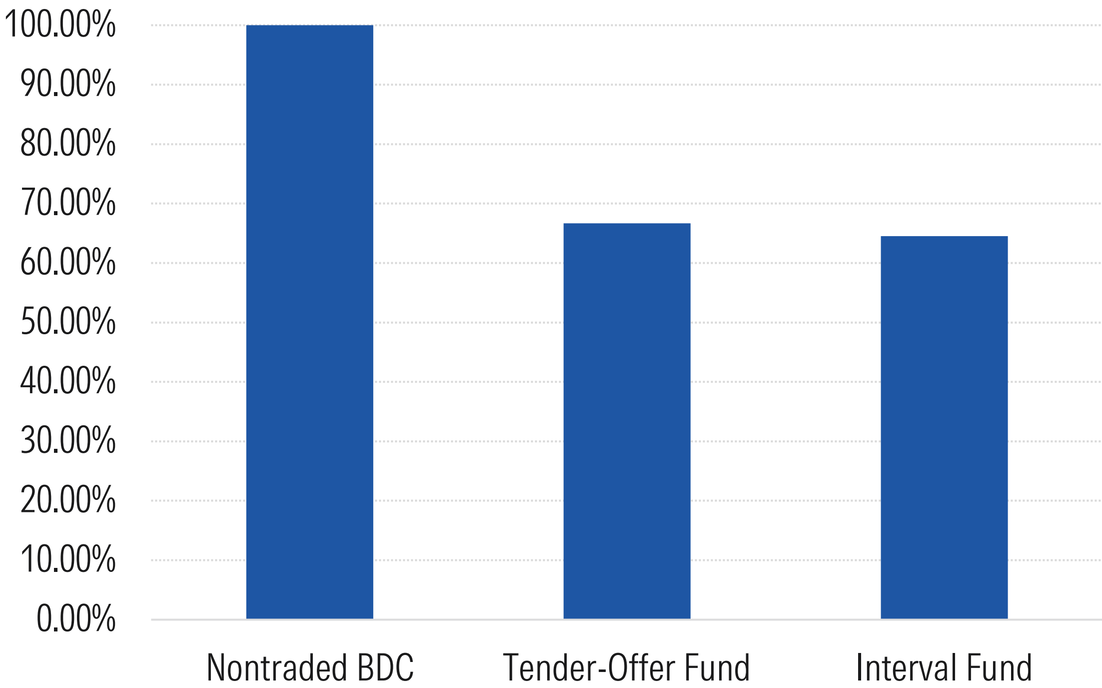
Data includes tender-offer funds, interval funds, and business development companies. Leverage is defined as total debt divided by total assets. Average excludes funds that do not make use of leverage.

In Private Credit, Nontraded BDCs Tend to Employ More Leverage Than Interval or Tender-Offer Funds

Interval and tender-offer funds are limited to 33.33% leverage, while nontraded BDCs can and occasionally do go as high as 66.67%. Given the different regulatory constraints, it's no surprise that nontraded BDCs are more frequent and heavier users of leverage than other semiliquid vehicles.

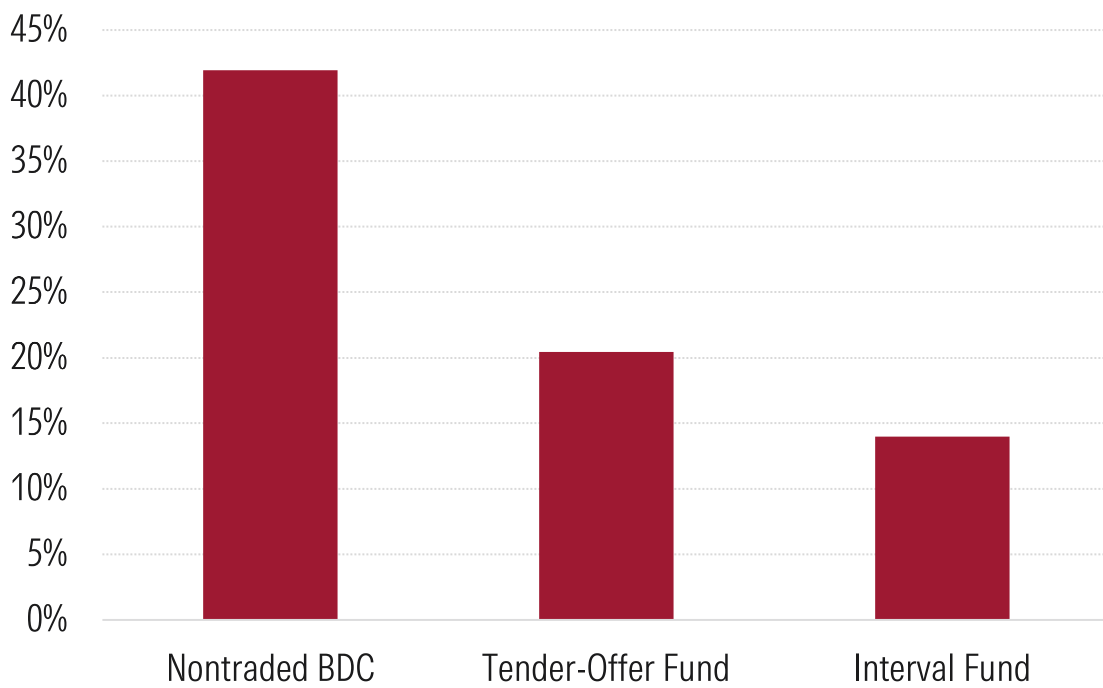
Private Credit: Percentage of Funds Employing Leverage by Vehicle

Most semiliquid credit funds employ leverage, including all nontraded BDCs



Private Credit: Average Fund Leverage by Vehicle (% of Total Assets)

Nontraded BDCs are heavier users of leverage than either interval or tender-offer funds



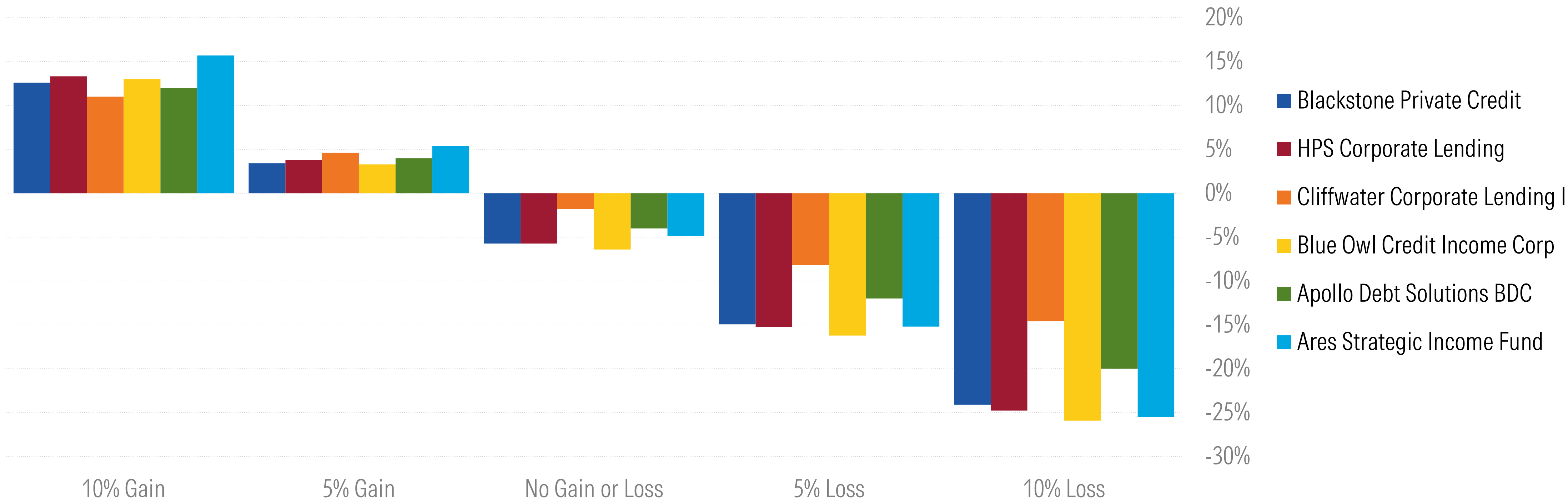
Source: SEC filings, author's calculations. Leverage is calculated as fund-level debt divided by total assets as of the last known balance sheet date as of May 2025.

Leverage Can Go Wrong, But Its Downside Can Be Obscured, at Least Temporarily

Funds generate returns through income and capital appreciation. Private credit funds' returns are primarily income, so a net loss must necessarily be borne from a write-down in the value of the assets. However, the private credit lenders, as well as any private equity sponsors, often go to great lengths to avoid that. This includes payment-in-kind interest, in which the interest is paid by adding principal to the loan balance rather than with cash, and liability management exercises, which attempt to defer obligations or restructure the borrower's debt to avoid defaulting. Deferring write-downs in turn defers the negative impact of leverage on returns, but it avoids that risk only temporarily and does not eliminate it.

Impact of Leverage on Returns of Private Credit Semiliquid Funds Given Different Return Scenarios

The impact of leverage is more acutely felt on the downside—provided the fund company is honest about valuations



Hidden Liabilities: Unfunded Commitments

- Semiliquid funds whose assets include drawdown funds are likely on the hook for future capital calls, or "unfunded commitments."
- These unfunded commitments are not treated as a typical liability and do not appear in the annual report's list of assets and liabilities. Instead, they appear in the "Notes to Consolidated Financial Statements" portion of the annual report.
- These unfunded commitments are legally binding and can't be avoided without trading the relevant fund out of the portfolio, a tricky proposition for these often-illiquid assets.
- It's unknown when that capital may be called, and one risk is that it may be called while the fund is in the middle of its periodic redemption process. Cash that was raised to return to fund shareholders might instead be diverted to meet these commitments.
- This risk is most pronounced in interval funds, which are required to offer regular redemptions. Other semiliquid products are more insulated, but unexpected demands on cash can still create a headache.
- It's improbable that all of a fund's commitments will be called at once. But it wouldn't be a surprise if an above-average amount were called during a market dislocation—exactly the environment that can spook investors into withdrawing cash—or when the asset manager may want to make new investments. The demands on cash multiply.
- Funds can draw on a revolver to help manage these cash flows, but that transforms a non-interest-bearing liability into an interest-bearing liability. Risk can only be transformed, not destroyed.

Unfunded Commitments in Cascade Private Capital CPEFX
As of March 2025

Name	Amount
Cash	$8,368,416
Money Market Fund	$485,382,958
Total Liquid Assets	$493,751,374
Standard Liabilities	$373,131,014
Liquid Assets minus Standard Liabilities	$120,620,360
Unfunded Commitments	$568,353,223
Liquid Assets minus All Liabilities	($447,732,863)

Source: Authors' calculations. Data taken from Cascade Private Capital Fund March 2025 Annual Report
https://www.cliffwaterfunds.com/data/pdfs/literature/CascadePrivateCapitalFundAnnualReport.pdf?v=1750087622384

Retirement Plans: The Final Frontier

Are Semiliquid Funds Coming to Your Retirement Plan?

There Are Many Hurdles to Offering Private Markets on Retirement Plans

- There's been a growing chorus of regulators, asset managers, and politicians pushing for more access to private markets through defined-contribution plans., which have more than USD 12 trillion in assets as of 2024.
- Adding a semiliquid fund, or funds, to a target date is one way asset managers could add private markets. However, it also likely increases fees and reduces transparency, and it's not a sure thing that it will lead to higher returns.
- State Street Global Advisors, which has more than USD 180 billion in target-date assets, is the largest firm thus far to announce it will start offering a target-date strategy with private market exposure through a semiliquid fund. We expect others to follow this year, though it remains to be seen whether they will gain traction.
- In 2020, the US Department of Labor issued a statement that 401(k) plan fiduciaries could include private market exposure within a diversified multi-asset portfolio, like a target-date fund.
- Target-date funds are the most popular investment choice on 401(k) plans as they are typically used as the default option. At the end of 2024, they held more than USD 4 trillion in assets, according to the Morningstar Target-Date Landscape.
- Several target-date strategies do offer exposure to direct real estate, but there has been little uptick in the use of private equity or private credit since 2020.

Source: Investment Company Institute

Pros and Cons of Adding Semiliquid Funds to a Target-Date Fund

Pros

- Target-date funds that include private market investments may offer higher long-term returns than those limited to public markets.
- Investing in private markets through a target-date strategy allows professional asset allocators to determine things like position size, fund selection, and the best rebalancing policy.
- As many companies now stay private longer, incorporating them into a target-date fund can expand its investment universe and capture more growth opportunities.
- The long investment horizon of target-date funds, often 40 years or more, aligns well with the illiquidity and extended time frames typically associated with private market investments.

Cons

- Higher fees can erode returns and may prompt litigation. Excessive fee lawsuits against fund companies have been more common in recent years, and any plan sponsor that increases fees would need to be wary.
- There may be less transparency around the total fees charged and holdings. The few semiliquid collective investment trusts that have launched through May 2025 own shares of other private funds and do not invest directly in equities and fixed income.
- The limited liquidity may make it harder for plan sponsors to switch target-date strategies if they decide it's in the best interest of participants. Larger plans may have to wait several quarters or more to fully transition out of the semiliquid fund.

Source: Morningstar.

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