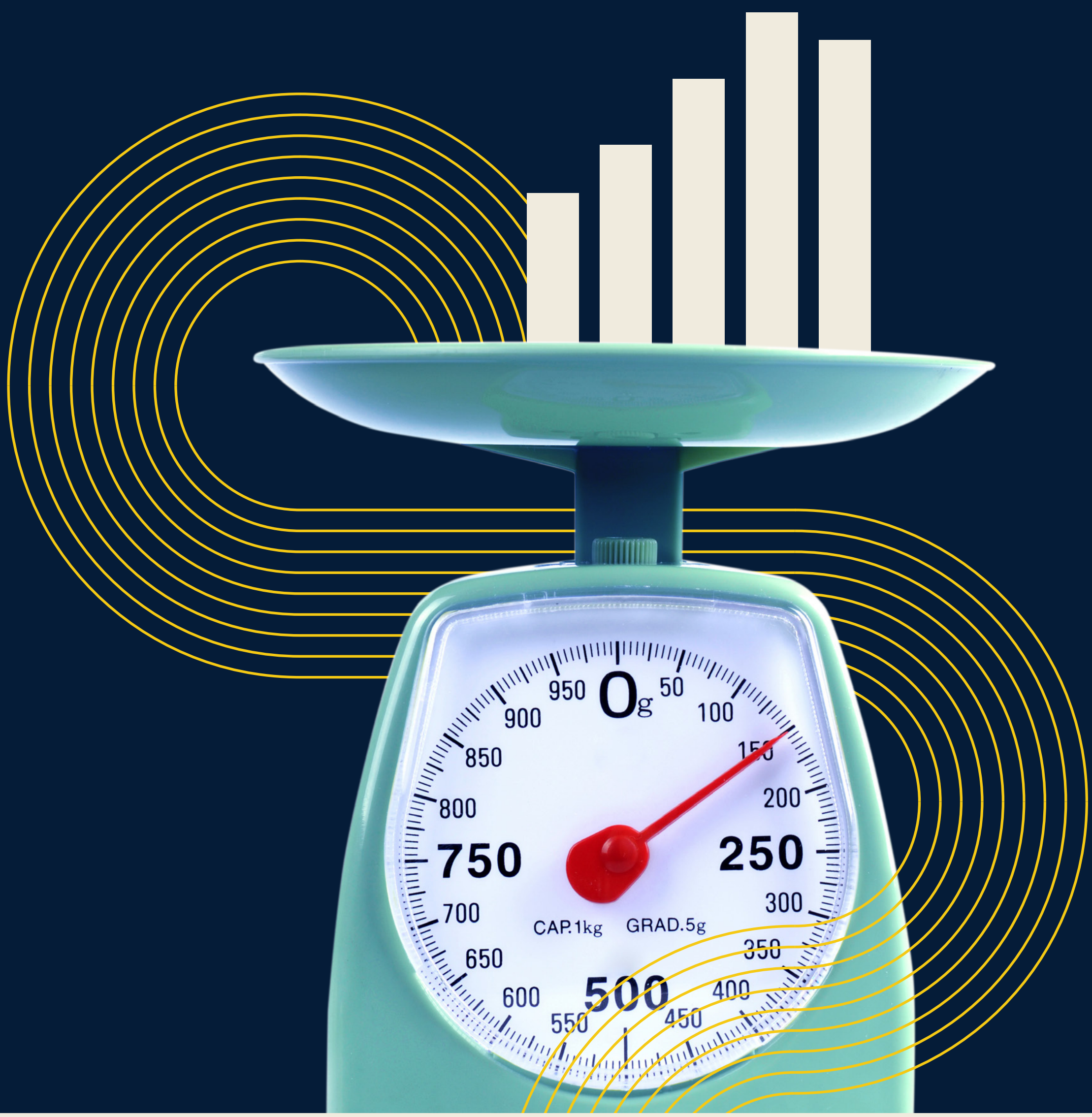
PitchBook

Q1 2023

with preliminary Q2 2023 data

GLOBAL

Fund Performance Report



PitchBook

Contents

Horizon IRRs by strategy*

	Q2 2023**	1-year	3-year	5-year	10-year
Private equity	2.7%	1.0%	25.6%	17.8%	16.4%
Venture capital	-0.3%	-14.5%	20.2%	17.4%	15.5%
Real estate	2.1%	0.8%	13.8%	10.1%	11.7%
Real assets	1.3%	11.1%	15.9%	8.7%	7.6%
Private debt	0.7%	4.2%	10.3%	7.3%	8.0%
Funds of funds	9.6%	-5.5%	21.2%	16.6%	13.5%
Secondaries	0.4%	4.2%	21.4%	16.5%	13.8%
Private capital	**2.2%**	**1.1%**	**20.3%**	**14.3%**	**13.5%**

Source: PitchBook • **Geography:** Global
*Yearly horizons are as of March 31, 2023
**As of June 30, 2023. Q2 2023 data is preliminary.

An accompanying Excel file contains additional charts and all underlying data for this report.

***PitchBook Benchmarks** (as of Q1 2023 with preliminary Q2 2023 data) may be found here. The quarterly report provides greater detail than the Fund Performance Report, with granular IRR, multiple, and PME breakouts for Global, North America, Europe, Private Equity, Venture Capital, Real Estate, Real Assets, Private Debt, Funds of Funds, and Secondaries. Both Excel and PDF versions are available.*

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Click here for PitchBook's report methodologies.
Click here for PitchBook's private market glossary.

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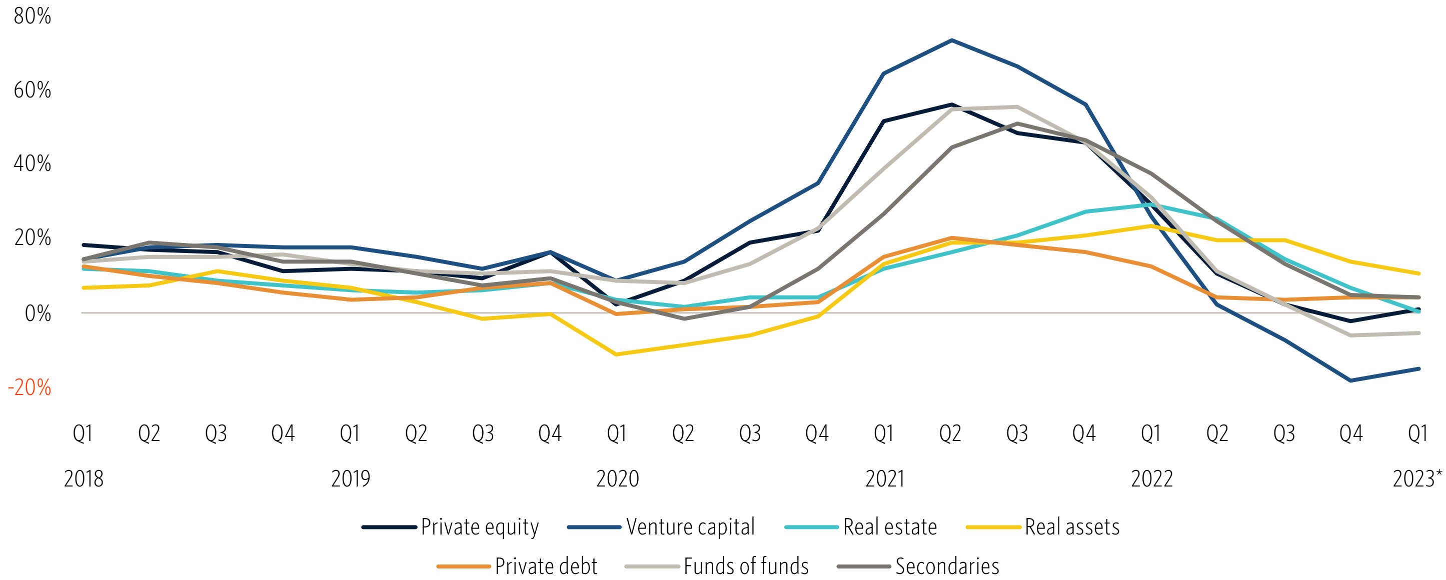
Overview

PitchBook Indexes: Rolling one-year horizon IRRs by strategy



Source: PitchBook • **Geography:** Global
*As of March 31, 2023

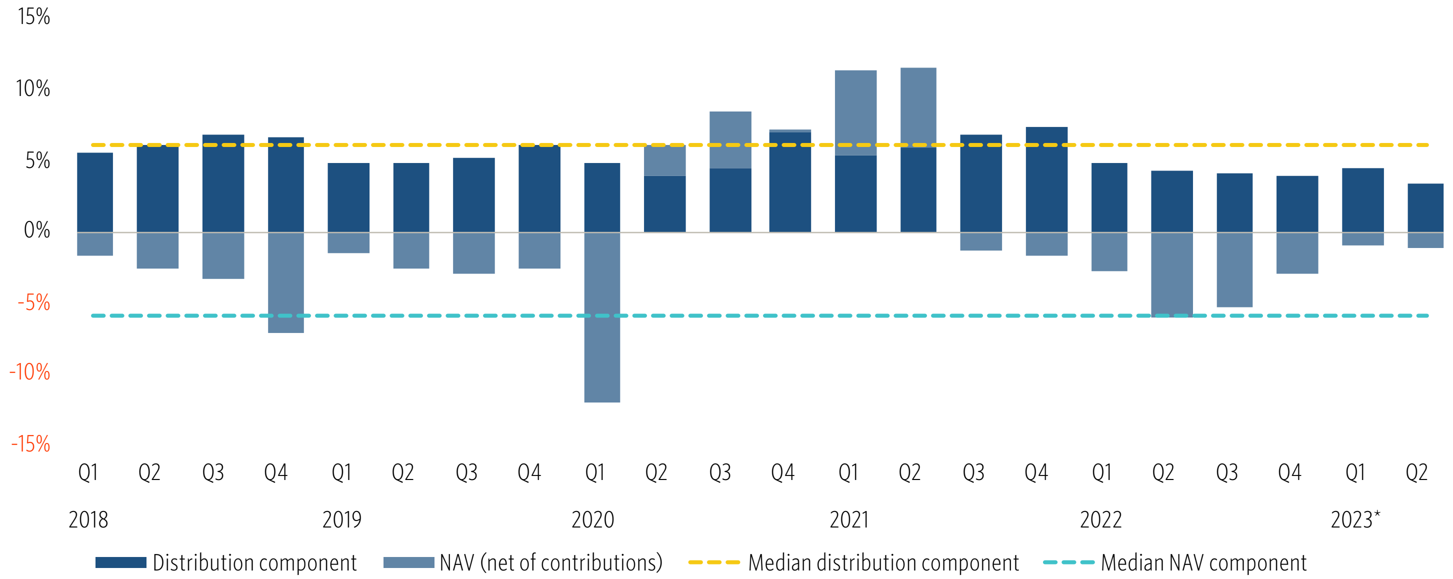
Hilary Wiek, CFA, CAIA
Senior Strategist

The excesses of 2021 are now being walked back in private market fund performance. Every one of the strategies save real assets posted a one-year horizon IRR through March 31, 2023, that was lower than its five- or 10-year average. Real assets never hit the astronomical heights of some of the other strategies in 2021, and so did not have the excessive unrealized gains to write back down. Preliminary figures for Q2 2023 do not show a recovery, save for a surprisingly good result from funds of funds (FoF). That said, reported results for FoF tend to lag those of primary funds, so we expect that preliminary return to come into closer alignment with the private capital numbers as more results come in. Longer-term performance shows that VC has given back enough in recent returns to cause its three-year figure to now be well below that of PE—a marked shift from their relative positions just last quarter. Preliminary figures indicate that PE will have widened the gap in the next iteration of this report.

A new graphic featured in this report is our return by source chart, which indicates how much of a quarterly return has come from realized versus unrealized components, or distributions versus net asset value (NAV) changes. Here we show our total private capital universe, though the graphic is available for each of the underlying strategies in our linked data pack found on the "Contents" page. Until 2020, NAV was almost always a negative component of quarterly returns in the private markets—the reason being that as an investment moves from unrealized to realized, the remaining NAV of the total portfolio will decline while total distributions will increase. In 2020, however, that relationship changed across many strategies. Portfolio holdings in funds were being written up even as distributions were largely in normal ranges. The markups turned to markdowns in Q3 2021, leading to a reversal in valuations as a positive contributor to return. At the same time, distributions slowed markedly, leading to overall returns well below typical levels.

Despite the ups and downs seen across the private capital strategies, in the period from 2016 through the pandemic and up to today, several have outperformed the S&P 500 index. PE, VC, FoF, and secondaries have all done better, even with the recent declines in private markets and the two-quarter uptick in public indexes. The other strategies—real estate, real assets, and private debt—have underperformed public equities over the same period, but they also saw much lower volatility during the uncertainties experienced since the start of 2020.

Private Capital Index quarterly return by source (% of beginning NAV)



Source: PitchBook • **Geography:** Global
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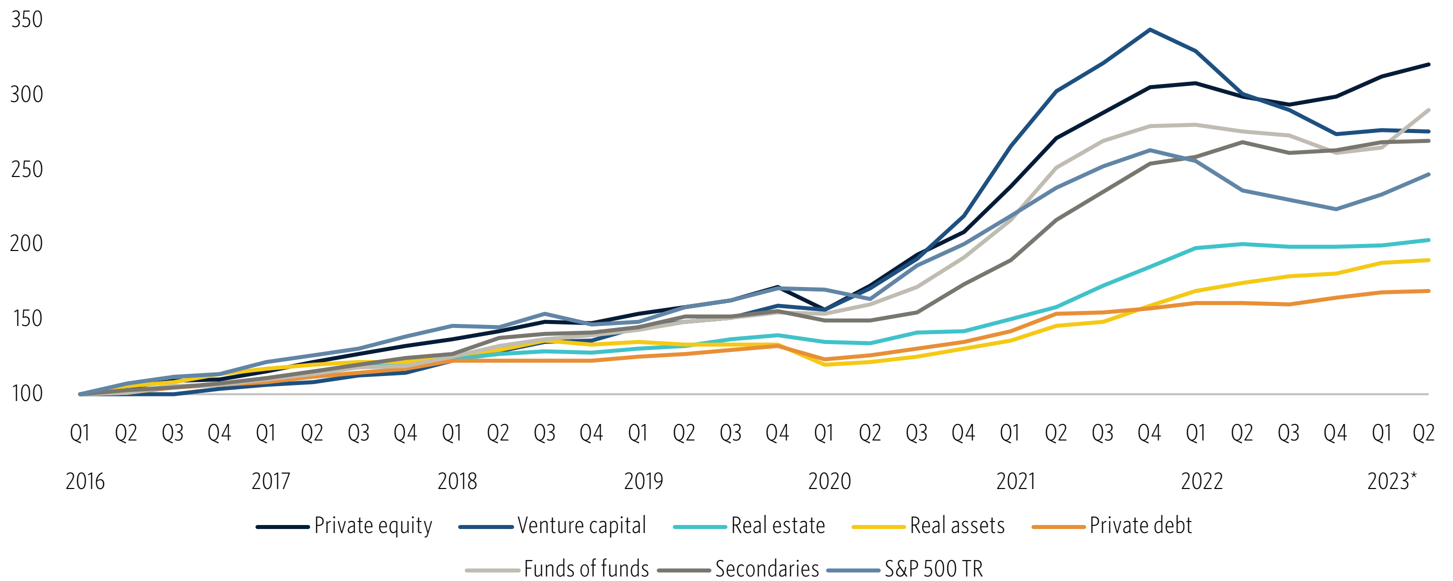
PitchBook Private Capital Indexes



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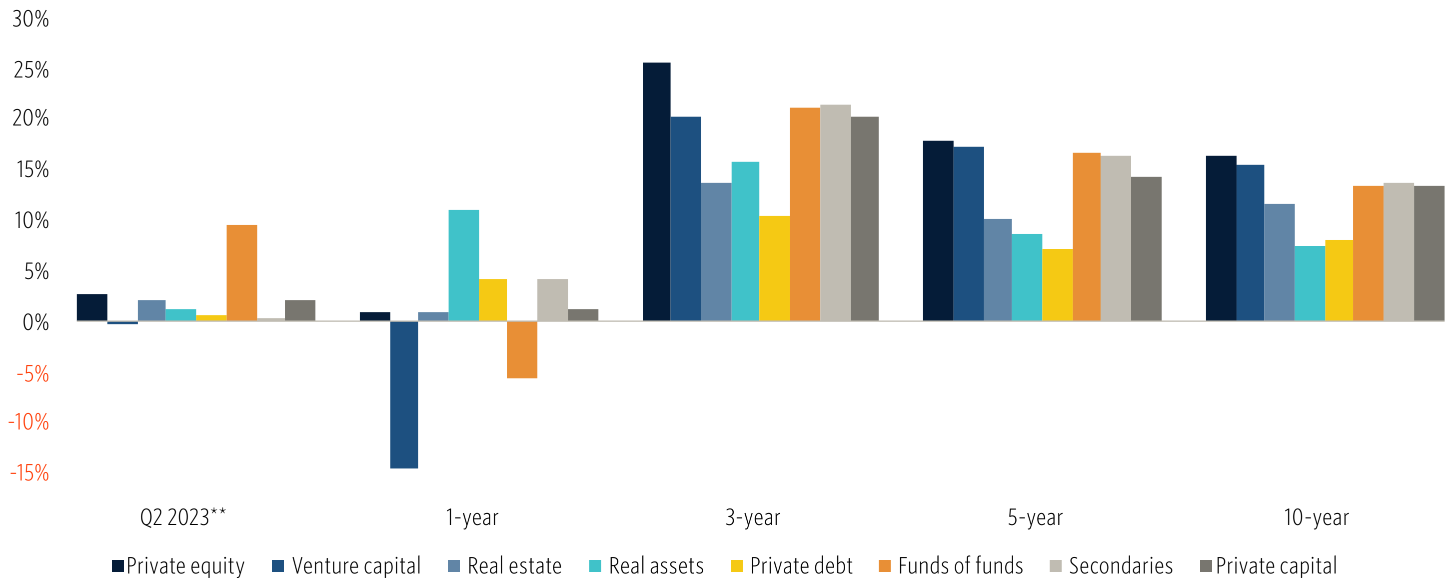
Horizon IRRs by strategy*



Source: PitchBook • **Geography:** Global
*As of March 31, 2023
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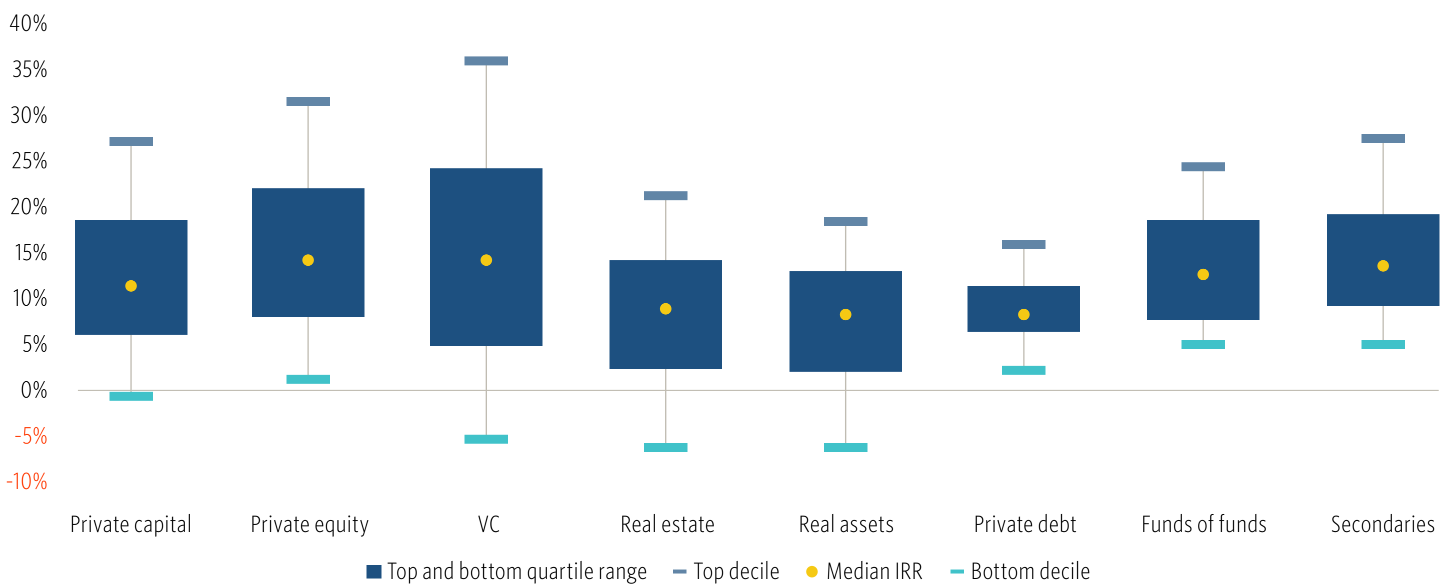
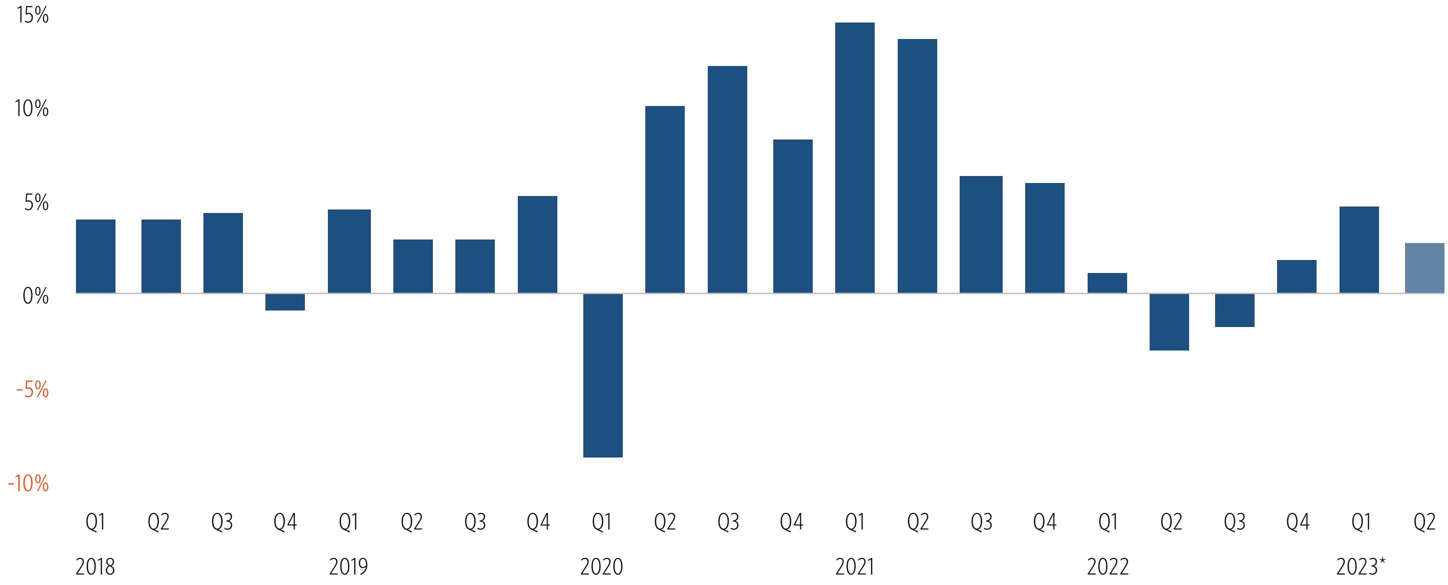
Fund performance dispersion by strategy (vintage years 2005-2018)*



Source: PitchBook • **Geography:** Global
*As of March 31, 2023

Private equity

PitchBook Indexes: PE funds quarterly returns



Source: PitchBook • **Geography:** Global
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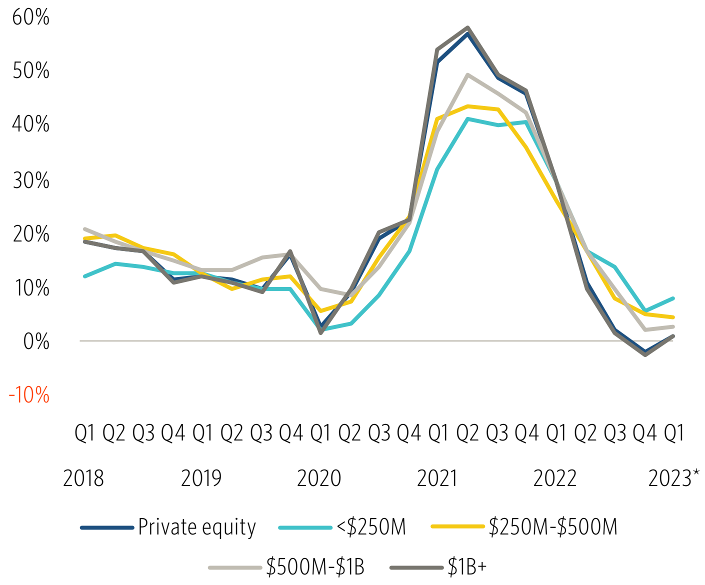
Note: Q2 2023 data is preliminary.

Nalin Patel
Lead Analyst, EMEA Private Capital

In Q1 2023, PE fund returns rose to 4.6%, the strongest quarterly showing since Q4 2021. Overall returns dipped into negative territory in Q2 and Q3 2022, but signs of returns picking up since are evident, which should relieve both LPs and GPs. Our preliminary estimate for PE fund returns in Q2 2023 is 2.7%—directionally still positive, but not a roaring sign of a recovery. The challenging exit environment has hampered returns in recent quarters, and until there is a sustained period of improvement in liquidity options, returns will continue to be dragged down by lengthening hold periods.

Globally, the one-year horizon IRR for PE funds flipped back to positive 1.0% in Q1 2023 after one quarter in the negative at -1.9% in Q4 2022. Regionally, the largest rebound in one-year horizon IRRs was in Europe-based PE funds, which went from -2.6% in Q4 2022 to 5.0% in Q1 2023. The jump in one-year horizon IRRs for European funds marked an inversion from recent trends that have seen North American funds register

PitchBook Indexes: PE funds rolling one-year horizon IRRs by size bucket



Source: PitchBook • **Geography:** Global
*As of March 31, 2023

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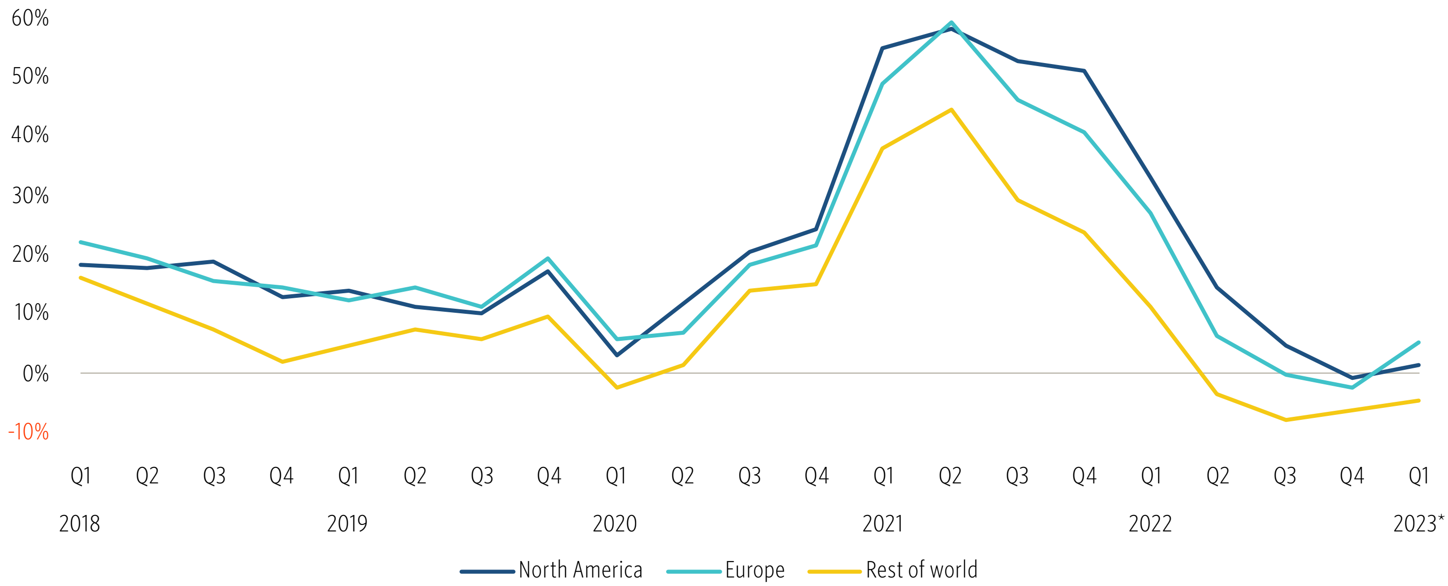
PitchBook Indexes: PE funds rolling one-year horizon IRRs by region



Source: PitchBook • **Geography:** Global
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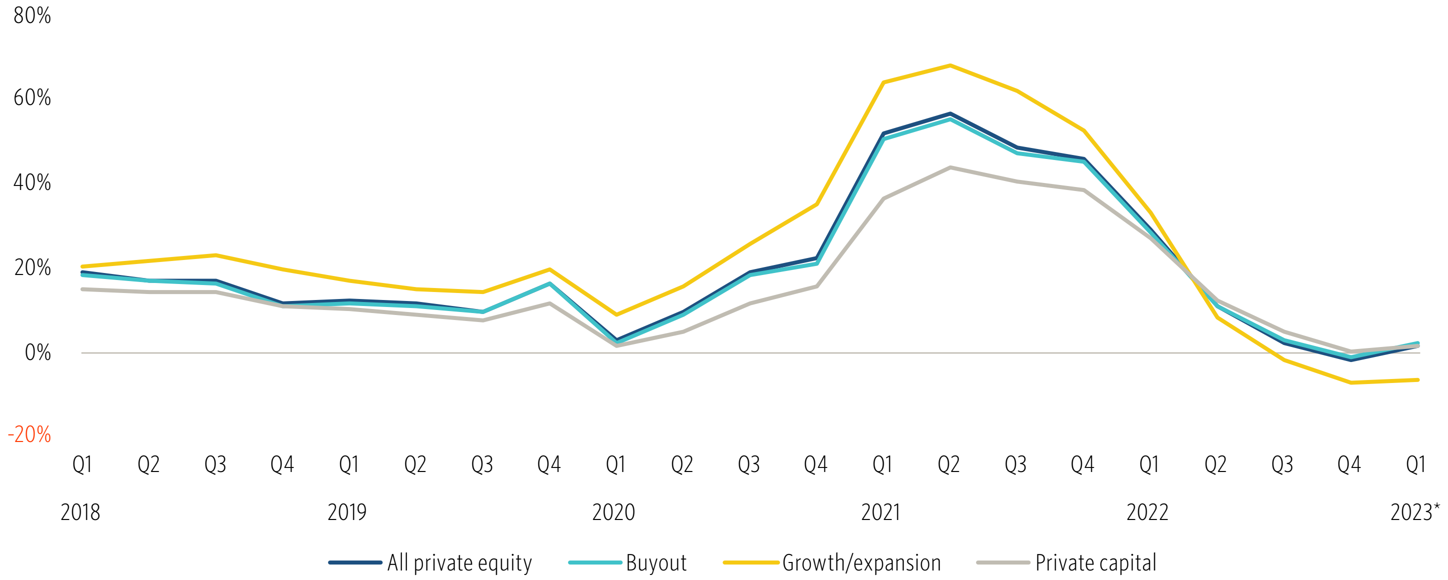
PitchBook Indexes: PE funds rolling one-year horizon IRRs by type



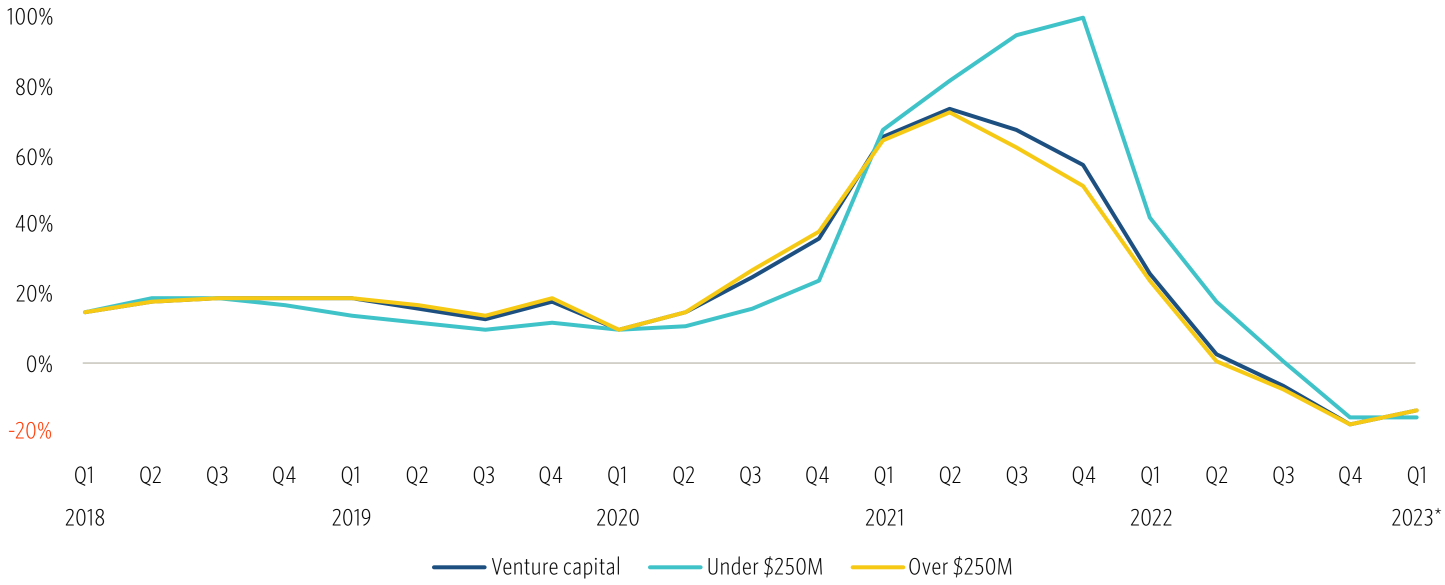
Source: PitchBook • **Geography:** Global
*As of March 31, 2023

the highest regional IRRs going back to Q3 2021. Although returns by region can diverge QoQ, they have largely followed similar trajectories in recent years, which is indicative of the cyclical forces impacting PE returns across the globe.

In our analysis of horizon IRRs by strategy over lengthier time periods, PE funds have displayed resilience. Despite near-term volatility affecting returns across strategies, the three-, five-, and 10-year horizon IRRs for PE remain above overall private capital returns. Given the recent struggles in VC, which had recently been the highest-returning asset class, PE now leads the three-, five-, and 10-year horizon IRRs across all private market strategies through Q1 2023.

Venture capital

PitchBook Indexes: VC funds rolling one-year horizon IRRs by size bucket



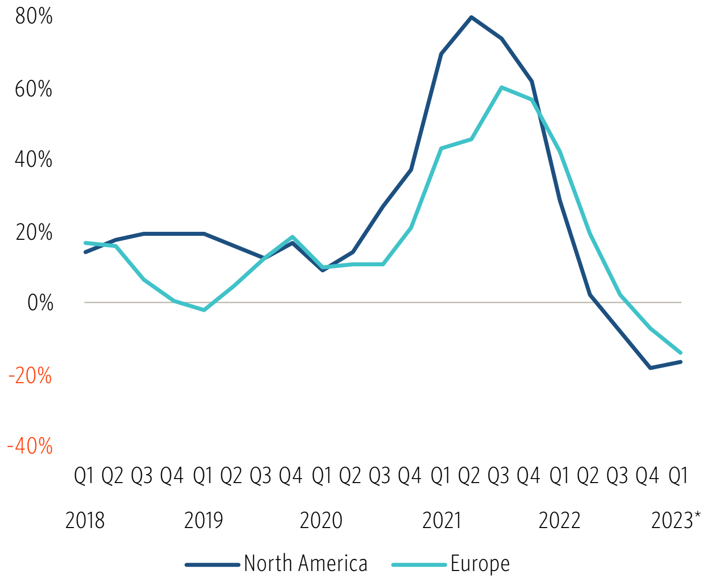
Source: PitchBook • **Geography:** Global
*As of March 31, 2023

Navina Rajan
Senior Analyst, EMEA Private Capital

In Q1 2023, returns for VC funds continued to lag other private market asset classes, with the strategy remaining in negative territory for the third consecutive quarter as measured by one-year horizon IRRs. Through March, the result was -14.5%, albeit inflecting from a trough -17.8% return seen the previous quarter. Declining returns have been driven by the significant downturn that venture valuations have undergone over the last year. Exit markets specifically continue to be the weakest area of the venture ecosystem, driven mainly by continually depressed public listing activity. Whilst there have been some echoes of a pickup, exit value in Europe is a fraction of that of previous years, which means companies that are unable or unwilling to exit via other means such as acquisitions are having to extend cash runways. A lack of exits ricochets further up the flow of capital, thereby adversely impacting fund IRRs and LP returns.

VC fund performance trends across sizes and regions have broadly moved in tandem, though some divergence was evident in the year through Q1 2023. For funds under $250 million, the -16.7% return was worse in Q1 2023 than in Q4 2022, in contrast to most other return slices, which saw some marginal improvement in terms of being down less. This is the first time since 2021 that small funds underperformed larger vehicles, though previous resilience may have been supported by lagged markdowns of portfolio valuations. Larger funds (those over $250 million) also experienced less inflated returns during 2021 and 2022, as larger firms may have had a better view on valuations. Looking ahead, early-stage investments, which are associated with smaller firms, may be more resilient due to the expectation of longer investment time horizons not as tied to exit markets, unlike stages such as venture growth, which tend to necessitate larger funds. In Q1 2023, there was also divergence by region, as European fund returns continued to decline QoQ, but North America came in less negative. This may be driven by a lag in markdowns by European firms.

PitchBook Indexes: VC funds rolling one-year horizon IRRs by region



Source: PitchBook • **Geography:** Global
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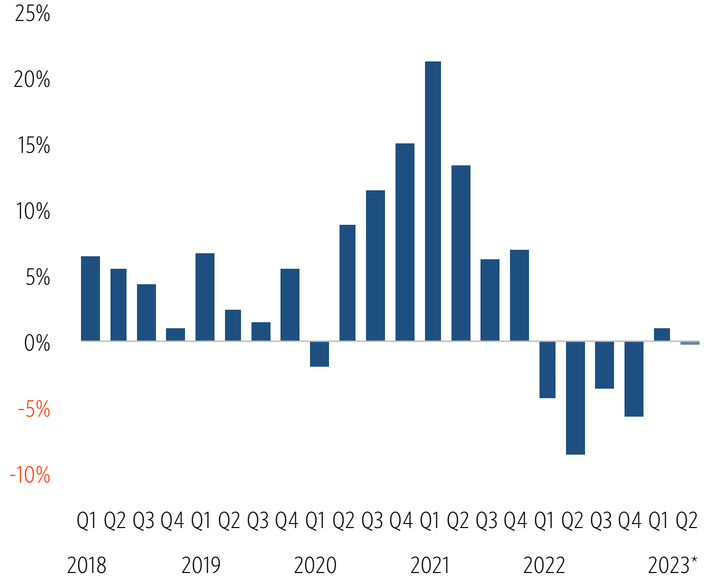
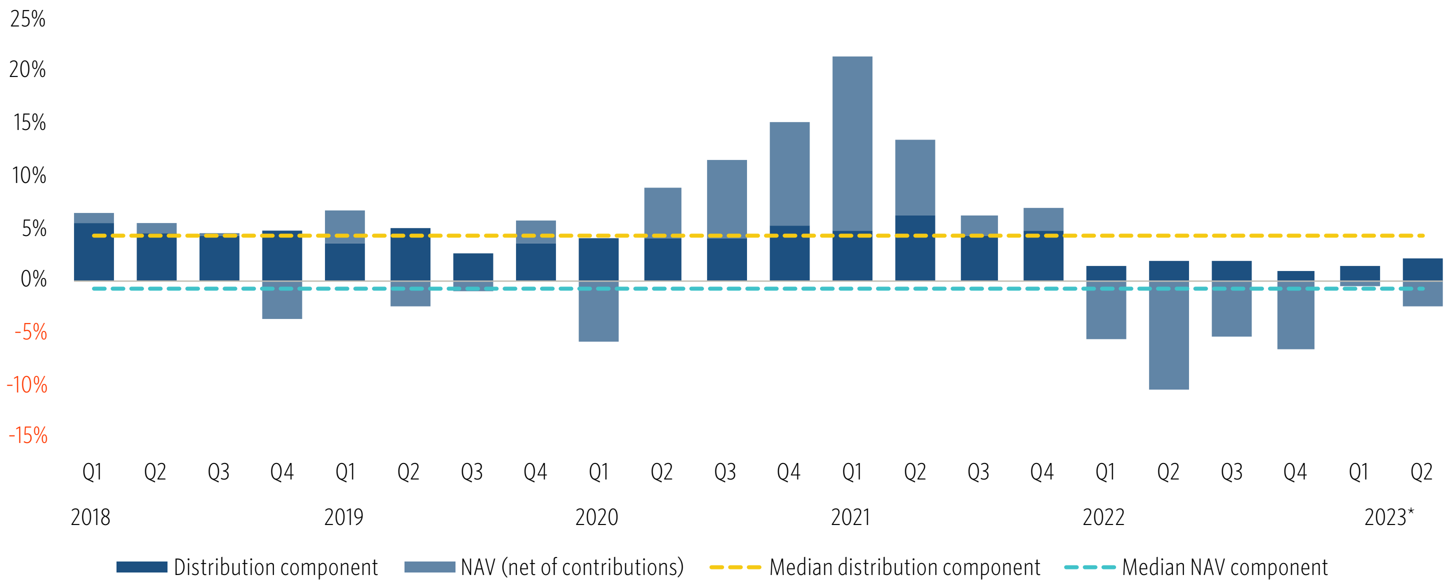
PitchBook Indexes: VC funds quarterly returns



Source: PitchBook • **Geography:** Global
*As of June 30, 2023
Note: Q2 2023 data is preliminary.

VC Index quarterly return by source (% of beginning NAV)



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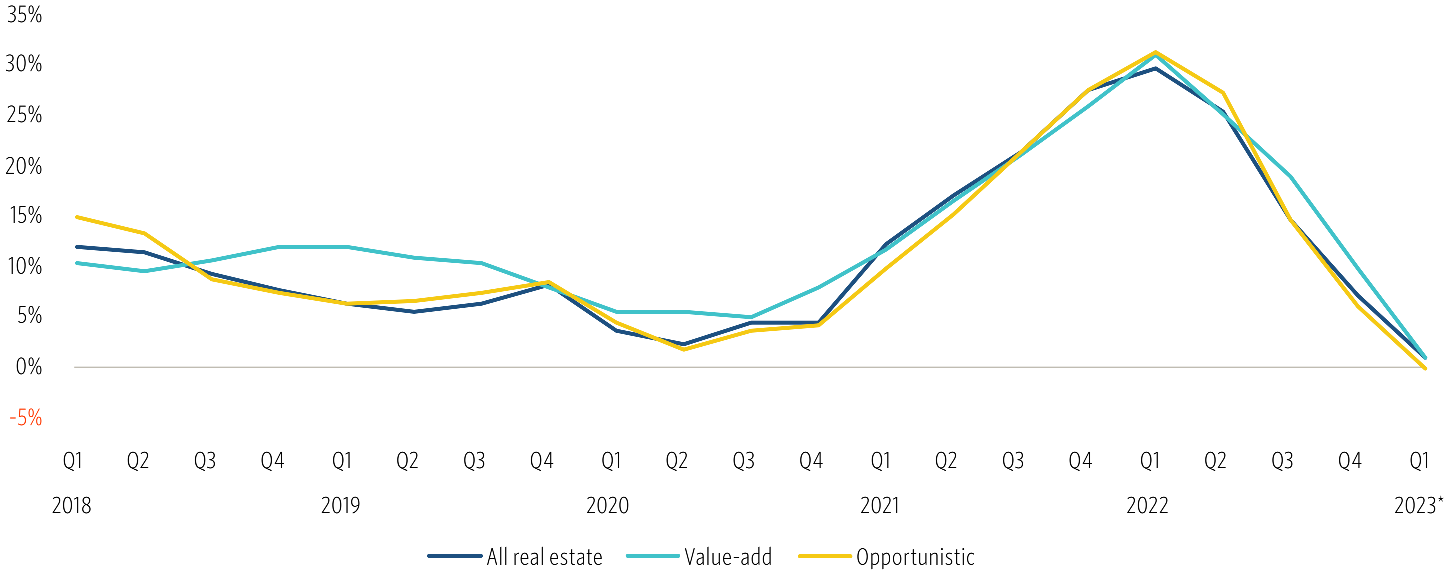
Note: Q2 2023 data is preliminary.

Real estate

PitchBook Indexes: Real estate funds rolling one-year horizon IRRs by type

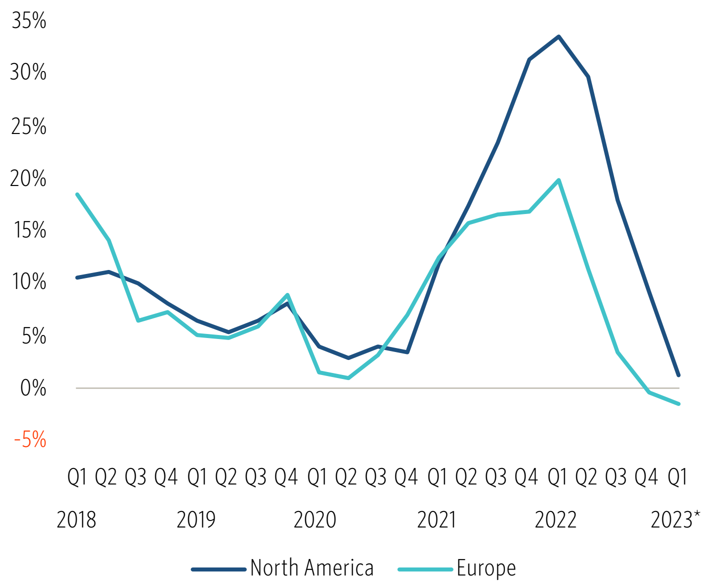


Source: PitchBook • **Geography:** Global
*As of March 31, 2023

Anikka Villegas
Analyst, Fund Strategies & Sustainable Investing

Real estate's rolling one-year IRR hit a 12-year low of 0.8% in Q1 2023, attributable both to the ongoing macroeconomic pressures and market corrections—actual and widely expected—in major real estate sectors such as office and residential. Opportunistic and core & core plus fund returns went negative, at -0.2% and -2.0%, respectively, while value-add came in at 0.8%, and distressed remained the outperformer, with an 8.8% return, per our Real Estate Benchmarks as of Q1 2023. Asset managers have been careful to reinforce that returns vary substantially by sector, with many industry participants bullish on more niche property types outside the "core four" of office, retail, industrial, and multifamily such as senior housing or life sciences. Even within the core sectors, deliberate distinctions are being made. For example, there is optimism around the upcoming performance of necessity-based retail in the US, but less so for its non-necessity-based counterpart.

PitchBook Indexes: Real estate funds rolling one-year horizon IRRs by region



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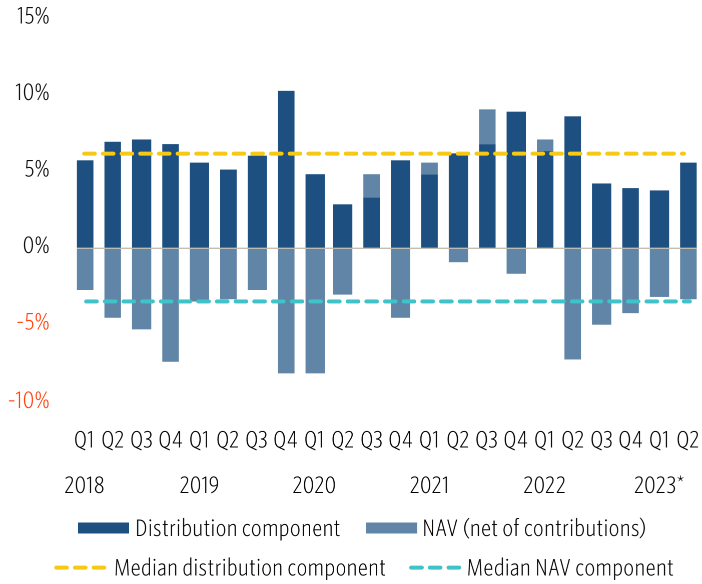
*As of March 31, 2023

PitchBook

Looking at performance by geography, European funds have been faring worse than those domiciled in North America, with -1.6% and 1.3% one-year IRRs in Q1 2023, respectively. "Rest of world" vehicles have been outperforming, with a 2.1% one-year return as of Q1, but preliminary Q2 quarterly returns suggest that there may be a reversal of these dynamics. Funds in the Rest of world grouping had a 0.8% preliminary figure, down from 2.7% in Q1 2023, while North America results are indicating a 2.3% return, up from 0.1% in Q1. Europe appears to be holding steady at 1.6%. Concerns about the future of the Asia-Pacific (APAC) real estate market, exacerbated by looming defaults such as that of Chinese developer Country Garden,[1] may be partly to blame. Shifts in investor sentiment over the past few quarters have played a considerable role in the movement of returns, with continued NAV markdowns creating drag. Still, overall, quarterly returns were positive in Q1 2023, at 0.5%, and preliminary Q2 numbers were stronger, at 2.1%.

Real Estate Index quarterly return by source (% of beginning NAV)



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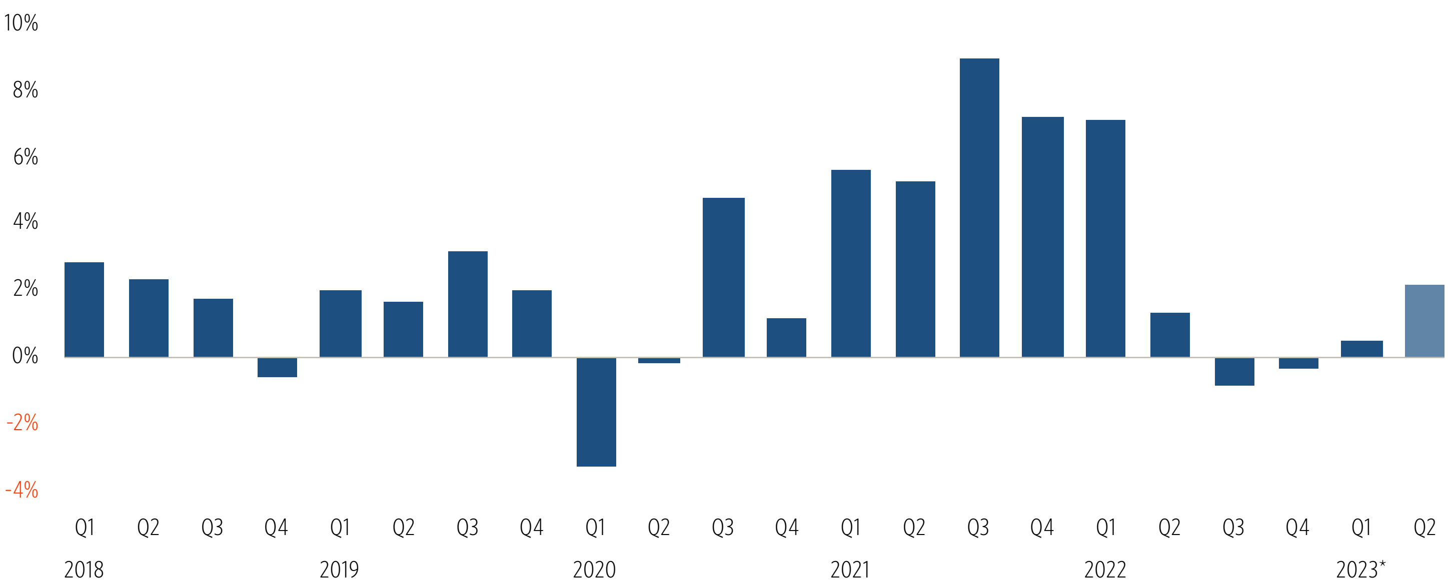
PitchBook Indexes: Real estate funds quarterly returns



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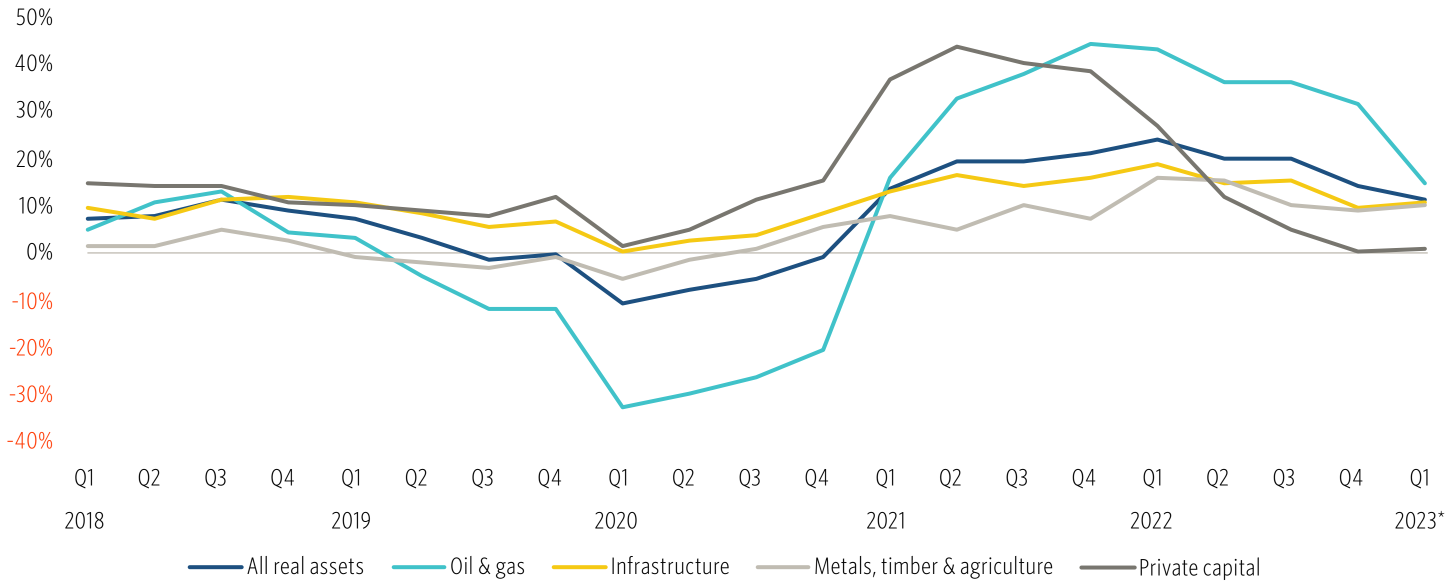
1: For more on the Chinese real estate market, read our H1 2023 Global Real Estate Report.

Real assets

PitchBook Indexes: Real assets funds rolling one-year horizon IRRs by type



Source: PitchBook • **Geography:** Global
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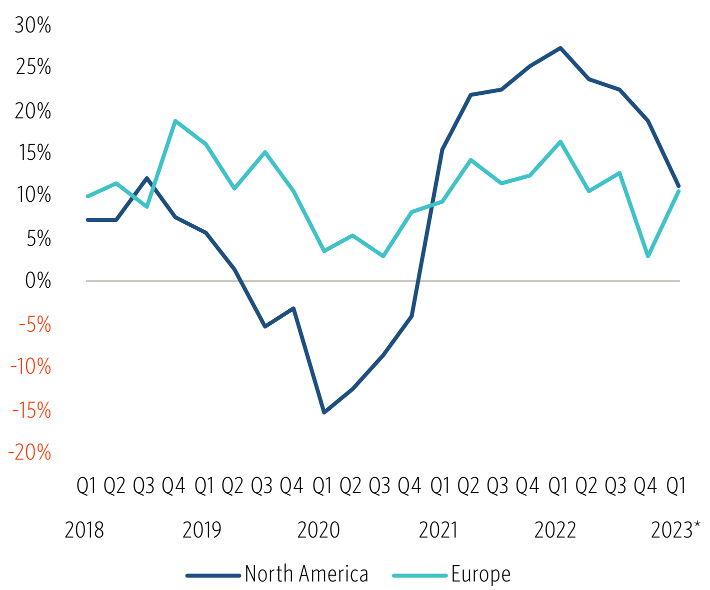
Anikka Villegas
Analyst, Fund Strategies & Sustainable Investing

In Q1 2023, real assets maintained its position as the private capital strategy with the best one-year performance for a third consecutive quarter, with an 11.1% IRR. Its returns do appear to be moderating, however, as oil & gas funds are no longer providing as significant of an upward force as in previous quarters, with a 14.7% one-year IRR as of Q1. Infrastructure performance was still robust, in line with its five-year and 10-year numbers, at a 10.5% one-year return through the first quarter of the year. When examining performance by geography, it is important to keep in mind how much North America's numbers—having fallen 16.0 percentage points over the past year to an 11.1% one-year IRR—are affected by oil & gas performance. European funds, less volatile due to their more infrastructure-heavy composition, achieved a 10.7% one-year IRR, as the region continued to rely on domestic energy sources and infrastructure more than ever before with no end in sight for the Russia-Ukraine war.

PitchBook Indexes: Real assets funds rolling one-year horizon IRRs by region



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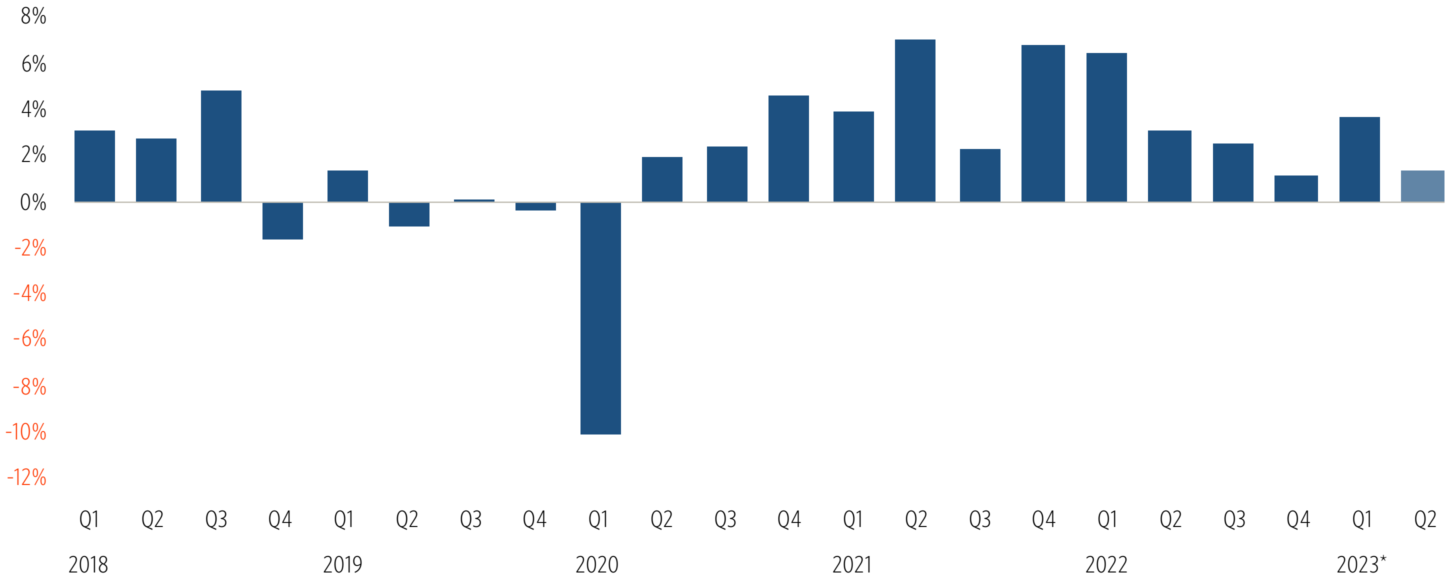
PitchBook Indexes: Real assets funds quarterly returns



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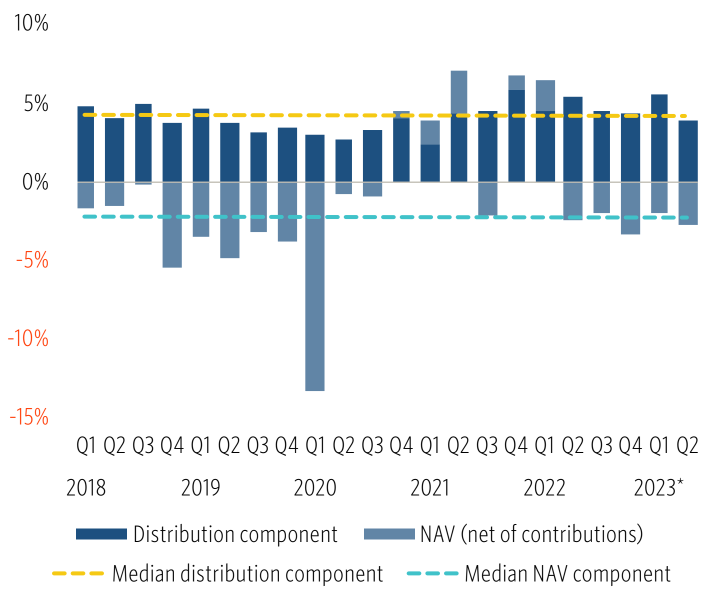
Quarterly returns for the asset class remained positive in Q1, at 3.7%, with a 1.3% preliminary return for Q2. After several quarters of markups between Q4 2020 and Q1 2022, recent NAV markdowns have been weighing on returns, albeit not overwhelmingly. Many of these likely came from oil & gas funds, which experienced a -2.8% quarterly return in Q1 and a -1.1% preliminary quarterly return in Q2, per our Real Assets Benchmarks as of Q1 2023. These returns mirror the movement of oil & gas prices, which fell in the first half of 2023 but recovered in Q3,[2] as will likely be reflected in the coming quarter's performance data. On the opposite end of the spectrum, vehicles in the "Other natural resources" category, encompassing metals, timber, and agriculture, earned a Q1 2023 quarterly return of 8.6% and a lofty preliminary Q2 return of 20.5% as industry participants debated whether a new commodity bull supercycle was underway.[3, 4]

Real Assets Index quarterly return by source (% of beginning NAV)



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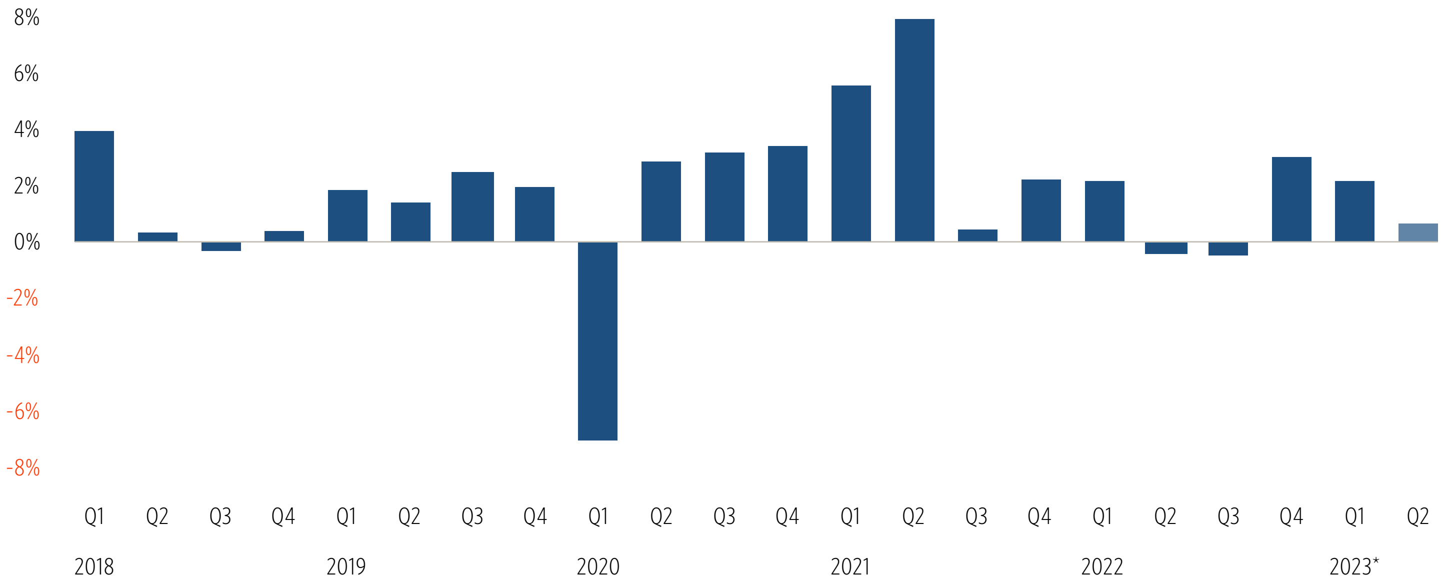
2: "Crude Oil Prices: West Texas Intermediate (WTI) - Cushing, Oklahoma," FRED, October 18, 2023.
3: "The World Isn't in a Commodity Supercycle, but It Should Be," S&P Global, Dave Ernsberger and Simon Redmond, January 13, 2023.
4: "The Commodity Bull Super-Cycle," Wells Fargo Investment Institute, John LaForge and Mason Mendez, March 30, 2023.

Private debt

PitchBook Indexes: Private debt funds quarterly returns



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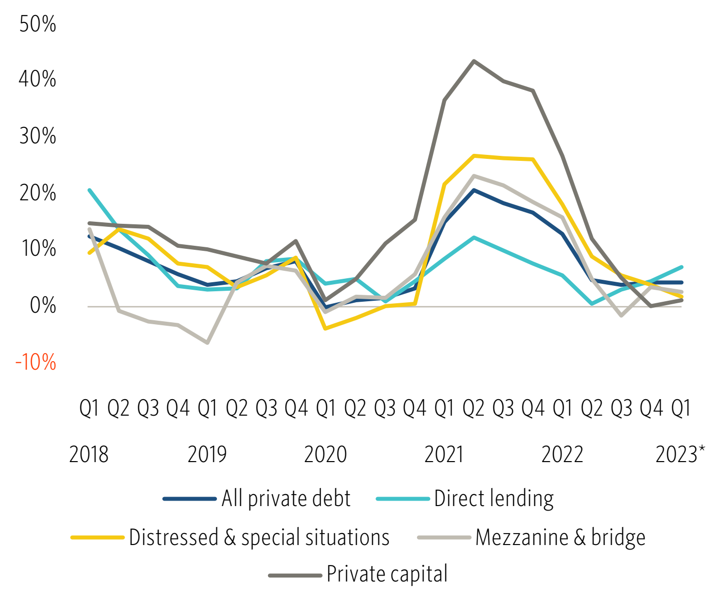
Tim Clarke
Lead Analyst, Private Equity

In the recent global market sell-off, year-to-date returns from floating-rate loans have nearly drawn even with stocks. Debt returns are not supposed to equal or exceed equity returns in a rising rate environment, but floating-rate vehicles have defied expectations in the current cycle. This has 60/40 allocators scrambling again to reevaluate the merits of private debt funds, the majority of which are invested in floating-rate leverage loans. The bellwether index for these loans, the Morningstar LSTA Index, has returned 10.2% YTD through October 20. This compares to 12.9% on the S&P 500 index and mostly negative returns in US fixed income, with the exception of corporate high yield, at 4.0%.

Private debt funds have mirrored this strong performance, inching up the performance table to now rank second highest among private capital strategies, with a one-year horizon return through Q1 2023 of 4.2%, second only to real assets and in a dead heat with secondaries. Our final performance estimate for Q1 was 2.1%, and our preliminary estimate for Q2 is 0.7%. It is far too early to peer into Q3, but given that the LSTA Index pushed higher during the 5%-to-7%

PitchBook Indexes: Private debt funds rolling one-year horizon IRRs by type



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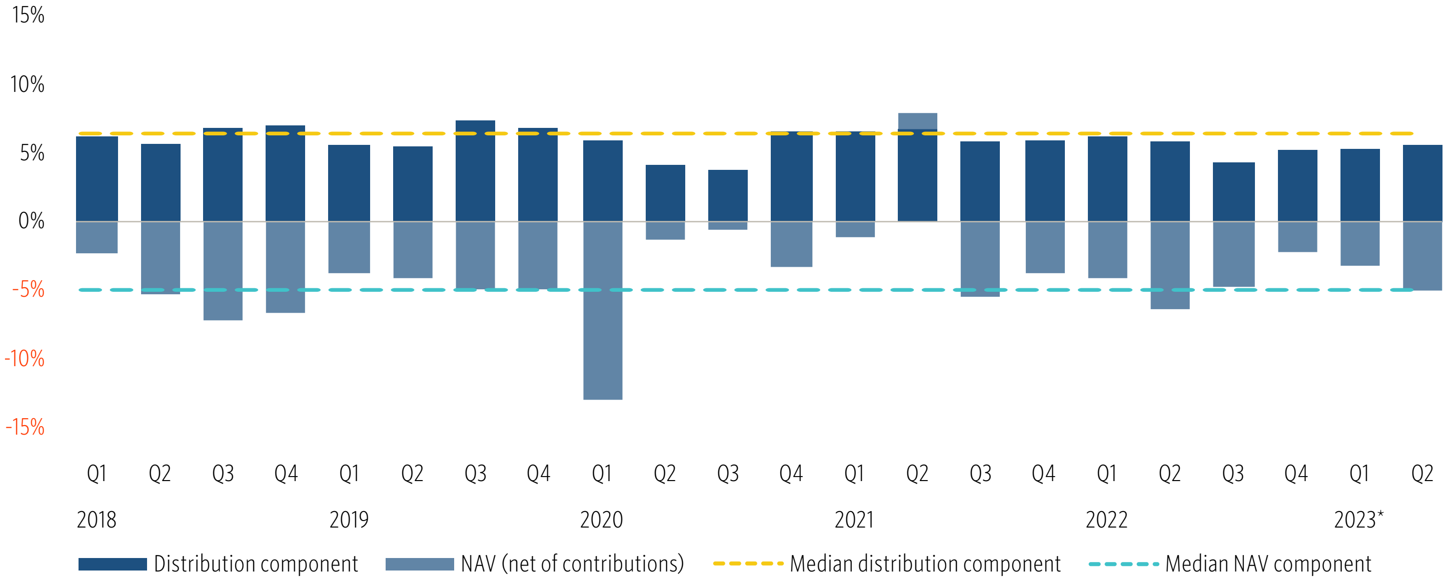
Private debt funds quarterly returns by source*



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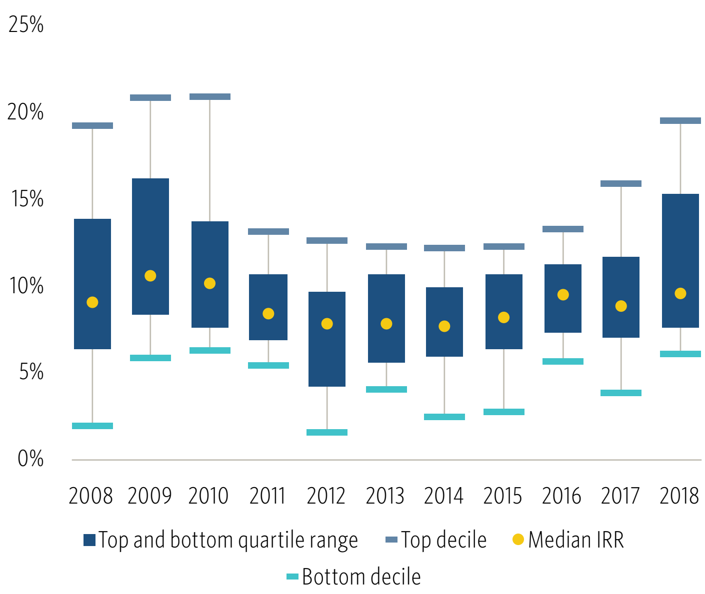
late summer and early autumn decline in stock and bond indexes, continued outperformance by private debt funds appears likely.

Drilling down to the major substrategies, direct lending has pulled away from what was a much tighter pack, with a one-year horizon return of 6.9% as of Q1 2023. This compares to a one-year return of 1.7% and 2.7%, respectively, for distressed/special situation funds and mezzanine funds. This continues a five-quarter trend of returns from these riskier strategies barely equaling or falling short of more secure direct lending. While these strategies may well revert to form, in the short term, distressed strategies in particular are contending with a low level of distress to target. The distressed subset of the LSTA Index has contracted to $53.2 billion as of September 30, down 39.5% from the March bank-crisis-related highs.[5] This would seem counterintuitive given the stresses building on interest coverage ratios; however, default rates defied expectations by easing in August and September in the private credit and syndicated loan markets. Most observers expect that to change for the worse in coming quarters, which will present the next test for the resilience of private credit returns and NAVs.

Private debt funds performance dispersion by vintage*



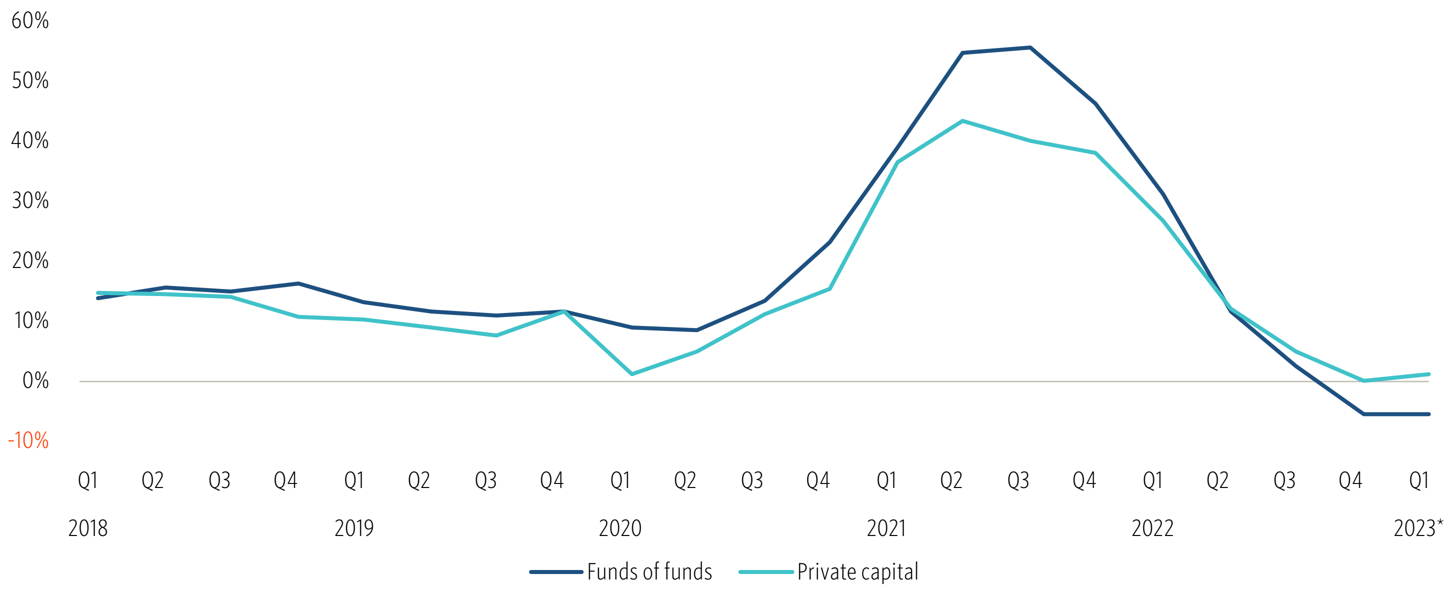
Source: PitchBook • **Geography:** Global
*As of March 31, 2023

5: "Global Distressed Credit Weekly Wrap," PitchBook-LCD, October 13, 2023.

![PitchBook]

Funds of funds

PitchBook Indexes: FoF rolling one-year horizon IRRs



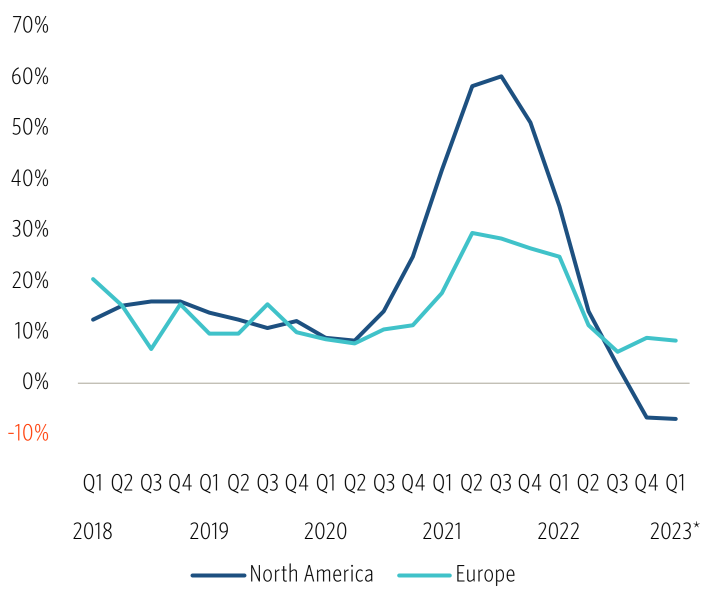
Source: PitchBook • **Geography:** Global
*As of March 31, 2023

Juliet Clemens
Analyst, Fund Strategies

FoF one-year returns came in at -5.5% through Q1 2023, marking the fourth consecutive quarter that the strategy underperformed against the broader private capital universe. FoF was the second-lowest-performing strategy after venture capital, missing the private capital mark by a 6.6% margin. The one-year horizon IRR for FoF is considerably below the three-year horizon IRR of 21.2% and even the 10-year figure of 13.5%, demonstrating the significant disparity between current and long-term FoF returns.

PE FoFs and VC FoFs account for the majority of FoF capital, comprising 50% to 60% and 20% to 30% of FoF capital, respectively. We are able to collect a higher proportion of returns from VC FoF than primary VC funds, so VC is a smaller proportion of our overall private capital universe than the FoF universe.[6] The underperformance of FoFs is thus due to the proportional influence of PE and VC: PE FoF returns stand at -2.9%, and VC FoF are -12.9% over the same period, as discussed in our PitchBook Benchmarks as of Q1 2023. A higher weight to venture in FoF thus explains

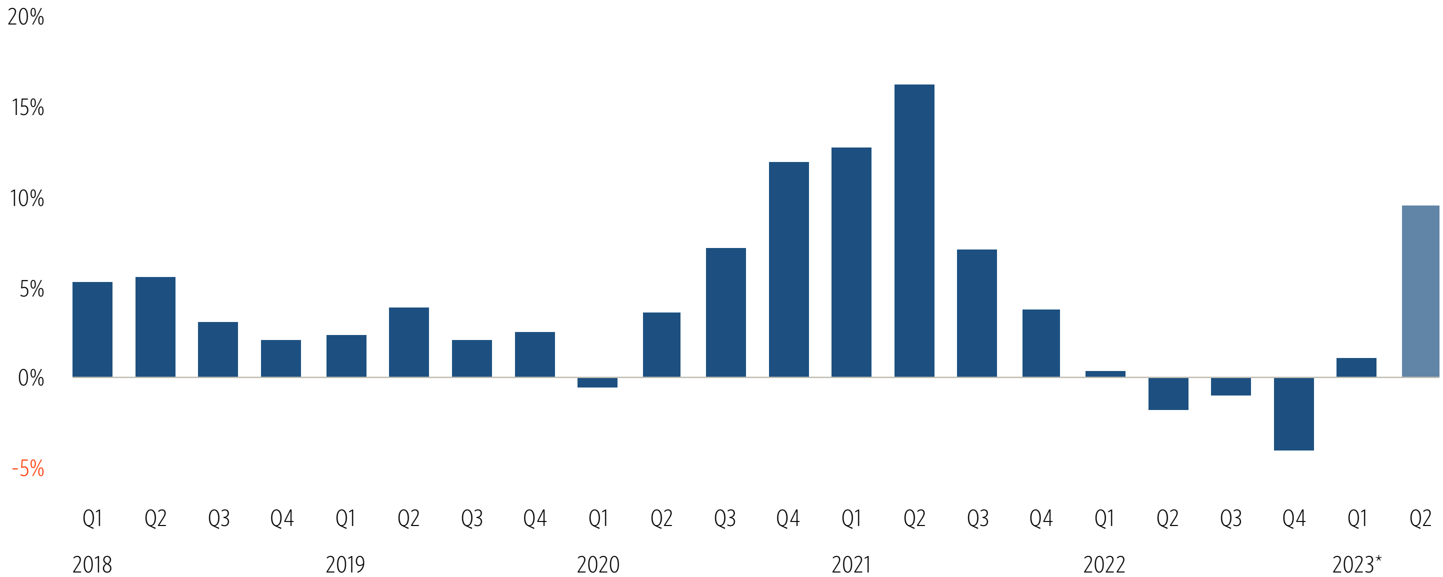
PitchBook Indexes: FoF rolling one-year horizon IRRs by region



Source: PitchBook • **Geography:** Global
*As of March 31, 2023

6: "Q1 2023 Private Capital Indexes," PitchBook, Zane Carmean, August 7, 2023.

PitchBook Indexes: FoF quarterly returns



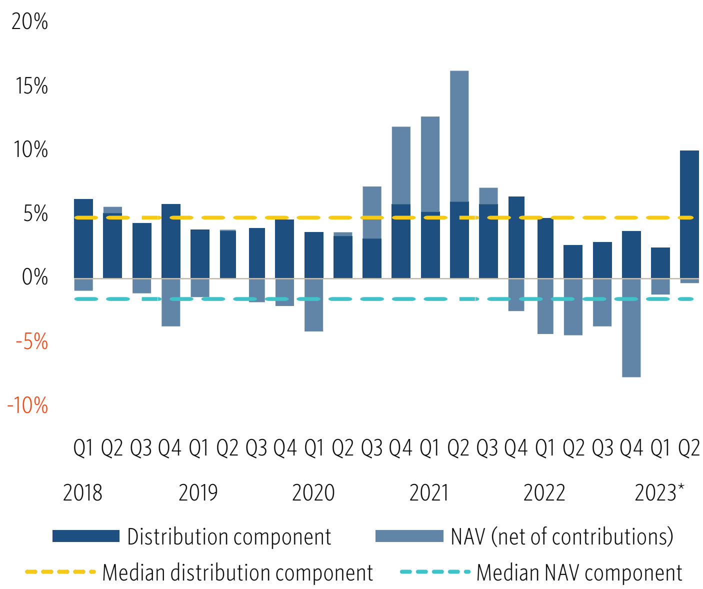
Source: PitchBook • **Geography:** Global
*As of June 30, 2023
Note: Q2 2023 data is preliminary.

the underperformance of the overall FoF universe. While private debt FoF and real assets FoF managed to post positive returns—rising interest rates have driven attractive yields in private debt, and historical underinvestment in real assets is driving a commodities supercycle, as highlighted in PitchBook's Q1 2023 Real Assets Report—these strategies comprise only a small portion of the FoF universe.

In the year through Q1 2023, there was massive divergence between North American and European FoF returns, at -7.0% and 8.5%, respectively. If we assume that venture is less represented in European FoF, and we saw in the PE section that Europe has seen better results than North American PE, the results are fairly clear. Such wide differences do not typically last, however, so we expect some reversion in coming quarters.

Q1 2023 was the first quarter that distributions back to LPs outweighed negative NAV marks to generate a positive quarterly return of 1.1% since turning negative in Q2 2022. Preliminary Q2 2023 figures are at a remarkable 9.6%; however, FoFs tend to lag even more than most private capital funds in their reporting, so we expect these returns to moderate as more data is collected.

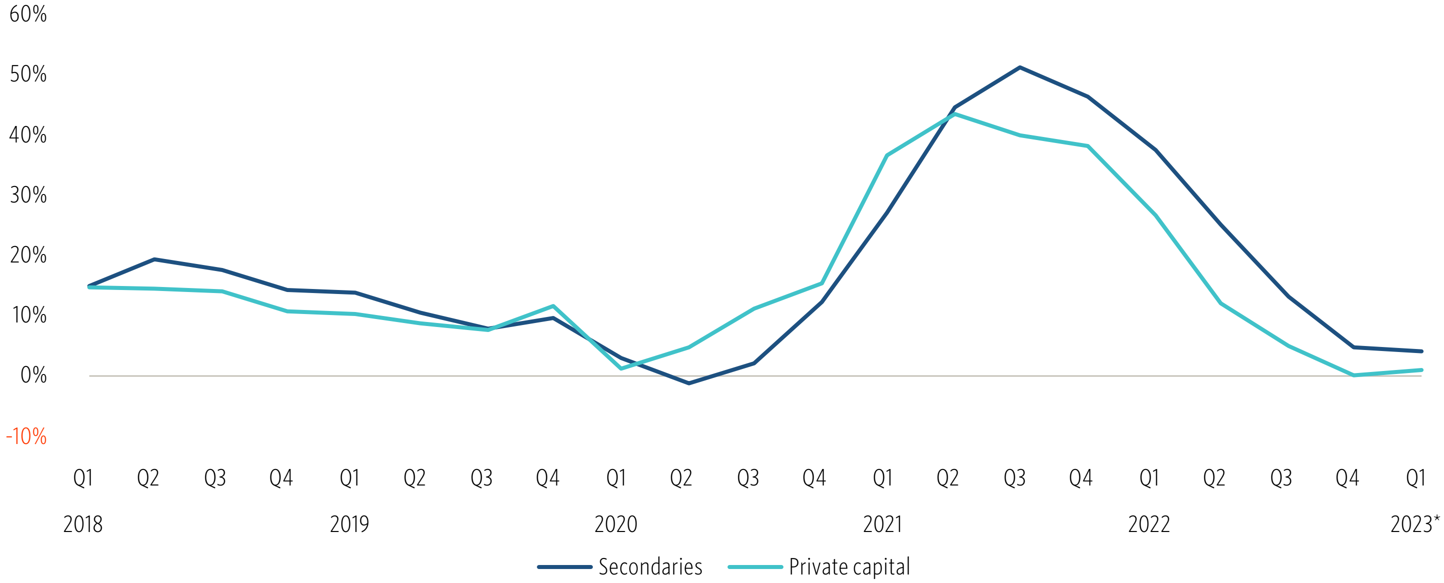
FoF Index quarterly return by source (% of beginning NAV)



Source: PitchBook • **Geography:** Global
*As of June 30, 2023
Note: Q2 2023 data is preliminary.

Secondaries

PitchBook Indexes: Secondaries funds rolling one-year horizon IRRs



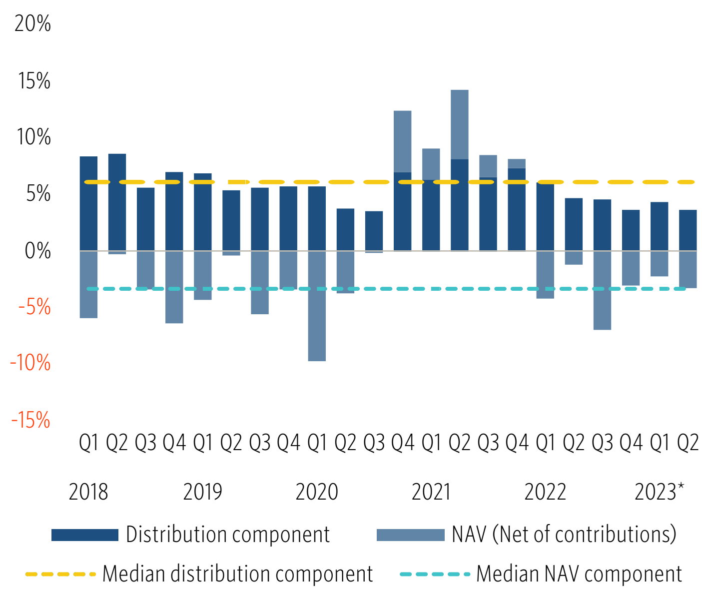
Source: PitchBook • **Geography:** Global
*As of March 31, 2023

Juliet Clemens
Analyst, Fund Strategies

Secondaries tied with private debt for the second-best-performing private capital strategy, with a one-year IRR of 4.2%. This marks the seventh consecutive quarter that the secondaries strategy has outperformed the overall private capital universe. However, despite this outperformance, one-year IRRs have been on a steady downward trajectory since Q4 2021, when the strategy generated remarkable—and unsustainable—returns of 46.4%. In fact, between 2013 and 2019, one-year IRRs fell between 4.4% and 19.3%, indicating that current returns are outside even recent ranges.

The chart highlighting secondaries return by source demonstrates the degree to which 2021's outsized performance of the strategy was driven primarily by markups in NAV. The conditions of 2022 caused a swift reversal in this trend as NAVs began to get marked down across the broader private capital universe starting in Q1, reverting returns to normal levels. With the exception of Q3 2022, distributions

Secondaries Index quarterly return by source (% of beginning NAV)

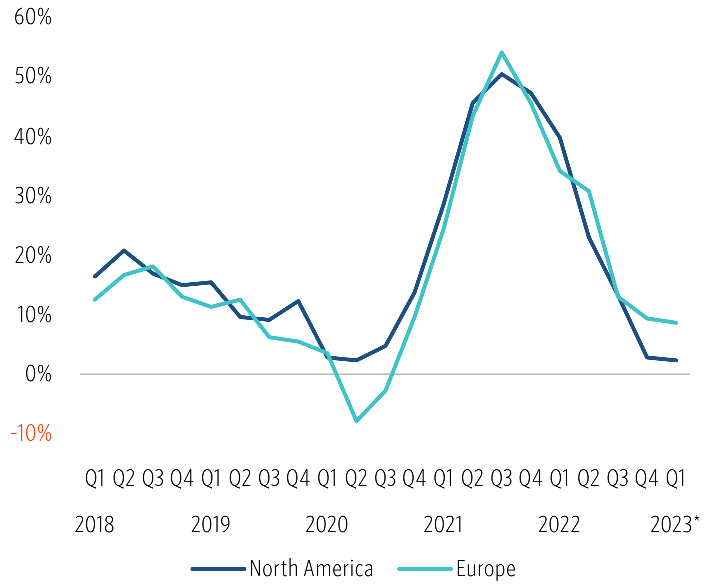


Source: PitchBook • **Geography:** Global
*As of June 30, 2023
Note: Q2 2023 data is preliminary.

to LPs managed to buoy returns, keeping them in positive territory despite markdowns of unrealized value.

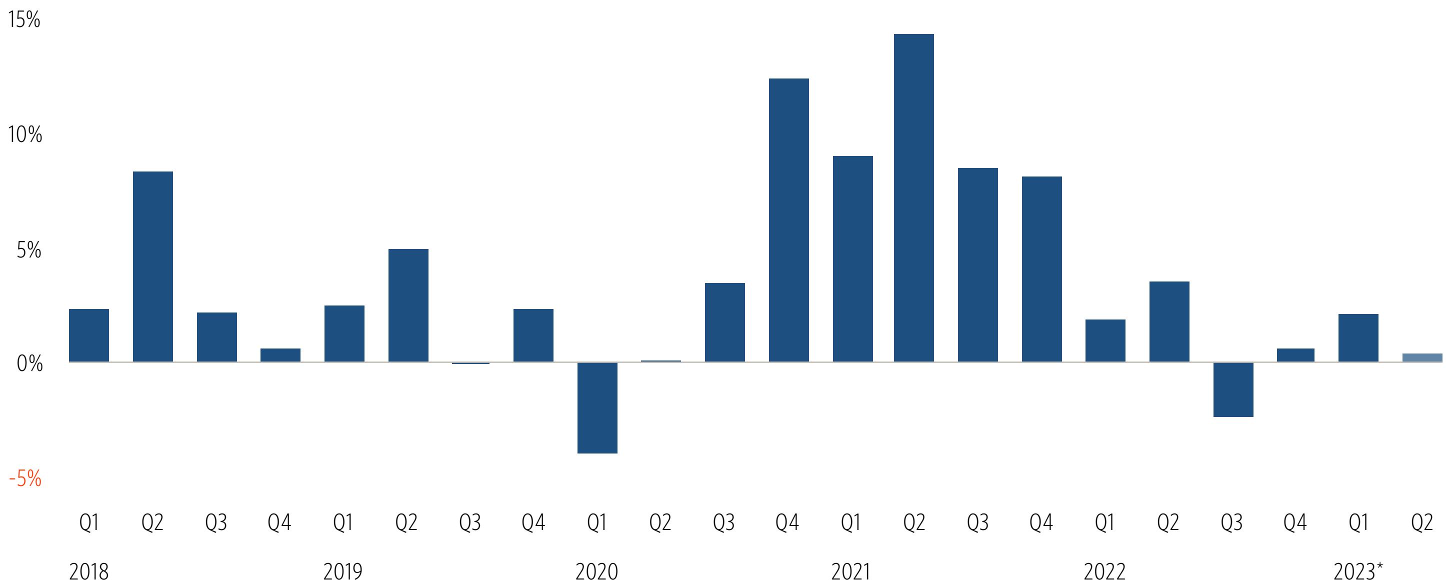
Turning to specific strategies as illustrated by the PitchBook Benchmarks Report as of Q1 2023, VC secondaries unsurprisingly remained the lowest performer, with a one-year IRR of -15.2% as the strategy experienced the most severe asset markdowns in 2022. On the other end of the spectrum were real asset secondaries, which, due to tailwinds discussed in the Q1 2023 Real Assets Report, managed to deliver a 16.4% return over the same period. PE secondaries and the sector-agnostic general secondaries posted one-year returns of 7.9% and 4.1%, respectively, highlighting the wide divergence in performance between secondaries strategies.

PitchBook Indexes: Secondaries funds rolling one-year horizon IRRs by region



Source: PitchBook • **Geography:** Global
*As of March 31, 2023

PitchBook Indexes: Secondaries funds quarterly returns



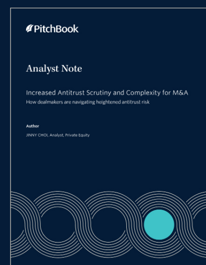
Source: PitchBook • **Geography:** Global
*As of June 30, 2023
Note: Q2 2023 data is preliminary.

Additional research

Private markets

2023 PitchBook Benchmarks (as of Q1 2023)

Download the report here



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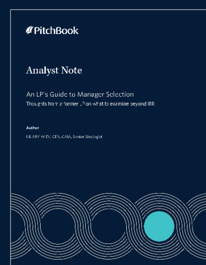

Q3 2023 Analyst Note: An LP's Guide to Manager Selection

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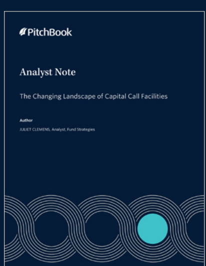

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