Chief Investment Office GWM
Investment Research

Private Markets Extended

3Q23

Karim Cherif, CIO Head Alternative Investment
Antoinette Zuidweg, Alternative Investment Strategist
Daniel Scansaroli, Head of Portfolio Strategy & UBS Wealth Way Solutions, CIO Americas
Jennifer Liu, Private Markets Strategist

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This document serves as additional information for clients who are interested in more detailed information about CIO's view on private markets. We advise you to read this document in conjunction with other CIO publications on private markets which can be found on the Investment Views section in your E-Banking or in Quotes.

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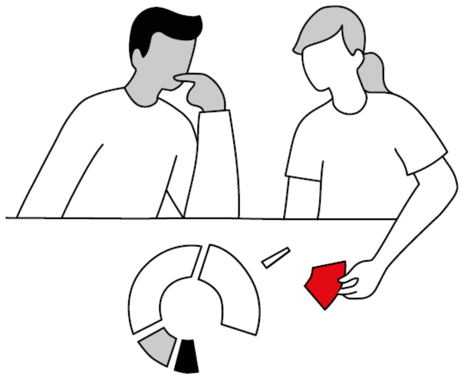


- Private assets can play a key role in a long-term investment plan with benefits both in terms of potentially better risk-adjusted performance over traditional asset classes and enhanced diversification.
- Over the long run, we expect portfolios that include private assets to outperform those that do not, as less efficient markets and active ownership should offer greater opportunities to capture a premium.
- Capital allocation shifts across the economy are also making these assets harder to ignore today. The number of listed companies in developed markets is in structural decline as companies stay private for longer. Traditional lender disintermediation since the GFC, has led the private credit market to grow and to become an equally important and competing source of funding compared to high yield or leveraged loans. And with ongoing uncertainty about if and when inflation can hit central bank targets, the need to preserve purchasing power and generate attractive inflation adjusted returns has increased.
- We think private assets can help investors fill various gaps in portfolios, thereby gaining exposure to part of the economy underrepresented in public markets, to boost and diversify income streams and to build strategic inflation hedges.
- In today's market, we see good entry points across private market strategies.
- **In private equity**, we currently seek exposure to value-oriented buyout and secondaries funds. Thematic private equity also represents an opportunity for investors who seek to capture long-term growth in areas such as software, health, education, and climate-related solutions.
- **In private credit**, return prospects for direct lenders have improved amid higher yields and stronger covenants on newly issued loans. Tactically, we see good opportunities in distressed and special situation funds.
- In **real assets**, the case for private real estate as a diversifier remains intact. But we stay selective and recommend focusing on assets benefiting from strong fundamentals such as logistics, multifamily and data centers. Meanwhile, we see infrastructure assets as attractive, especially those supported by government stimulus and benefiting from inflation-hedged and GDP-resilient cash flows.
- Investors looking to invest in private assets should consider the risks related to these strategies that are described on slide 3.

Key risks of investing in private markets

Investors in private market funds must consider the following risks:

Illiquidity. When investing in a private markets fund, investors must be prepared to accept significant illiquidity. This illiquidity is what allows access to more inefficient markets. On the other hand, investors cannot expect to access their capital or receive distributions with any regularity. Their only potential option for liquidity is to try to sell their stakes in the secondary market, where there may be no bid at all, or they may have to sell at a significant discount to fair value, if the fund manager even permits.

Uncertain cash flows. Amount and timing of the cash flow is at the manager's discretion. LPs need to fund a "capital call" within a certain time frame. Unpredictable cash flows apply to early stage capital calls as well as to distributions to investors at later stages

Fees. Private markets fund managers charge both management fees (typically in the 1.5-2.0% range) and incentive fees (typically in the 15-20% range). These levels are high compared to traditional asset funds, but the incentive fee helps to align objectives as the manager only gets paid if the investor achieves attractive returns. Most funds specify a hurdle or preferred return below which the manager does not receive incentive pay.

Lack of control. Investors in private market funds cede control over investment decisions, pace of investments and exits, strategic and operational matters, and other significant decisions to the third-party fund manager. While this eliminates investors' ability to "vote with their feet" to express displeasure with the manager, ceding control gives the manager the necessary tools to seek outperformance for investors.

Limited disclosure. Disclosure on performance of underlying investments is periodic and can be more limited given that managers need time and flexibility to work with underlying companies and are focused on long-term value creation. Also, valuation of private assets involves subjectivity and assumptions, and as such may not necessarily be indicative of long-term performance or potential.

Blind pool risk. Investors must make long-term commitments to private markets funds in advance, without knowing what the underlying investments will be. This is known as blind pool risk. This dynamic can be mitigated through familiarity with the general partner and its track record as well as proper due diligence.

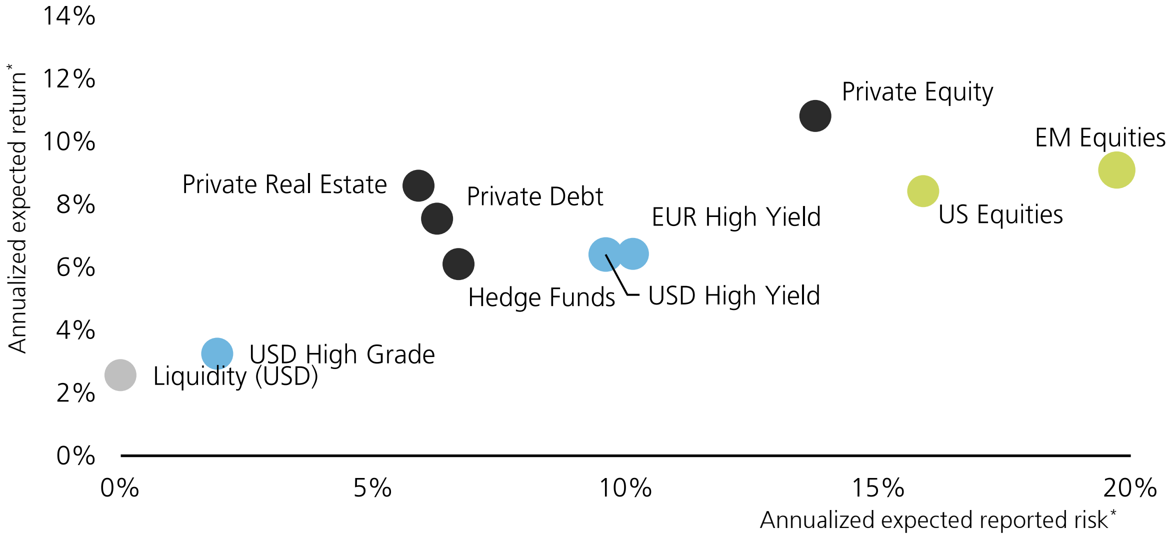
Use of leverage. This is not a blanket risk. Certain private markets strategies such as buyout use significant leverage which poses potential default risk if the company encounters stress, but many PM strategies do not involve any leverage. Prudent leverage in the right situation has historically shown to help enhance returns without significant incremental risk.

Maintaining a long-term view to support legacy goals

Taking advantage of less efficient markets and active ownership to generate higher returns

Over the course of a full economic cycle, we would expect private assets to outperform most traditional assets

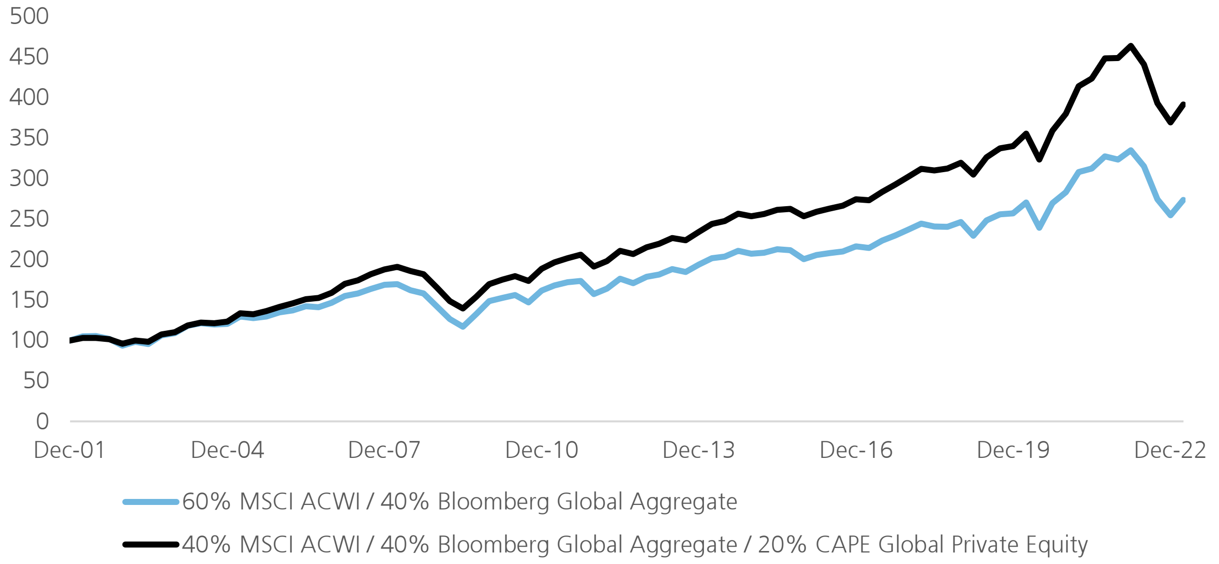
Expected annualized risk and return for traditional and private market investments



Source: Source: UBS GWM Chief Investment Office (CIO)*Note: Annualized expected risks / return figures are based on the CIO Capital Market Assumptions (CMA) 2023. Forward-looking expected returns such as CMAs are forecasts and are not a reliable indicator of future performance. The CMA assume a full investment exposure to each asset class during the investment period. Expected returns are equilibrium returns p.a. (arithmetic returns), risk is measured as volatility of annual log-returns. Volatility measures reflect reported volatility which for private market asset classes are typically subject to a smoothing effects. Illiquidity, related risks and foregone flexibility - an additional dimension of portfolio construction - are not reflected in this two-dimensional graph.

Adding a strategic core allocation to private assets in a portfolio has historically improved long-term returns

Adding private equity to portfolios: Historical analysis 2001-2022



Source: Bloomberg, Cambridge Associates, UBS October2023

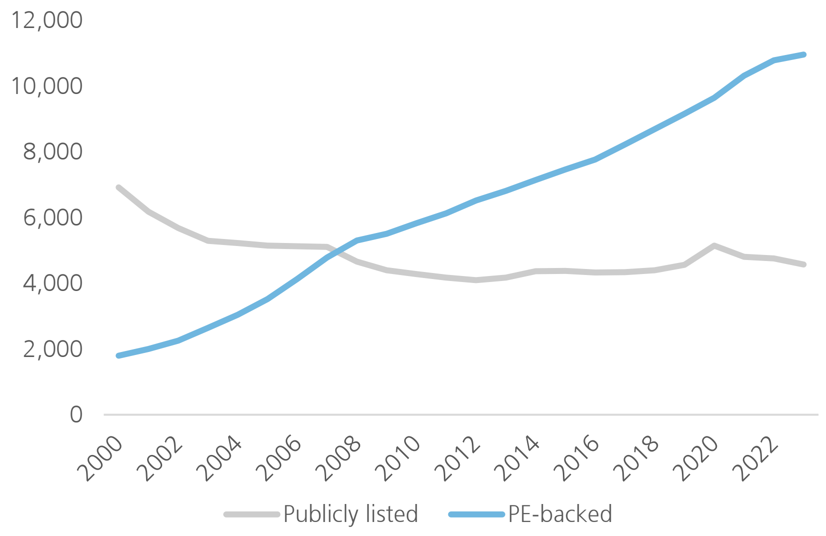
- Maintaining a long-term view, especially in times of elevated uncertainty, can provide perspective. Historically, including private markets in a portfolio has led to better outcomes across a full economic cycle.
- We think investors should review their liquidity and risk tolerance and adjust to the new economic environment where and if needed.
- But they should also make sure to stay on course with their long-term return objectives and potentially take advantage of attractive entry points.

Filling potential gaps in asset allocations

Private assets to capture growth, boost income and build strategic inflation hedges

Accessing fast-growing businesses through listed equities only is becoming harder

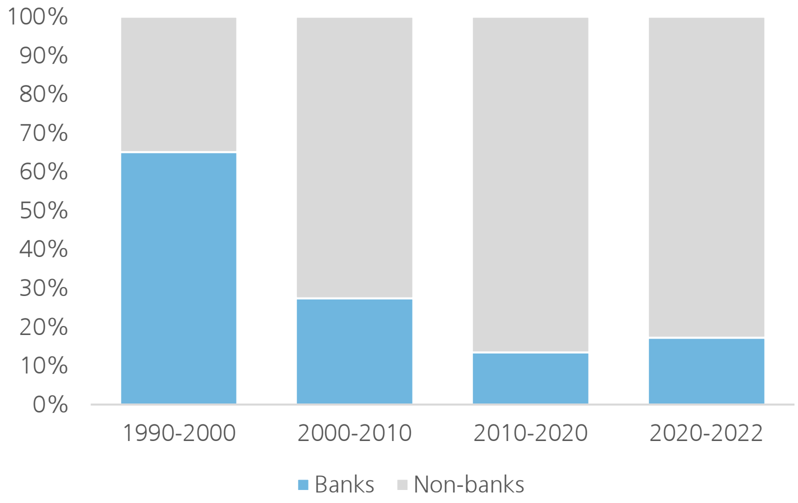
Number of PE-backed vs domestic listed firms on NYSE and Nasdaq



Source: Pitchbook, UBS October 2023

The relevance of private debt in funding the economy is unlikely to abate

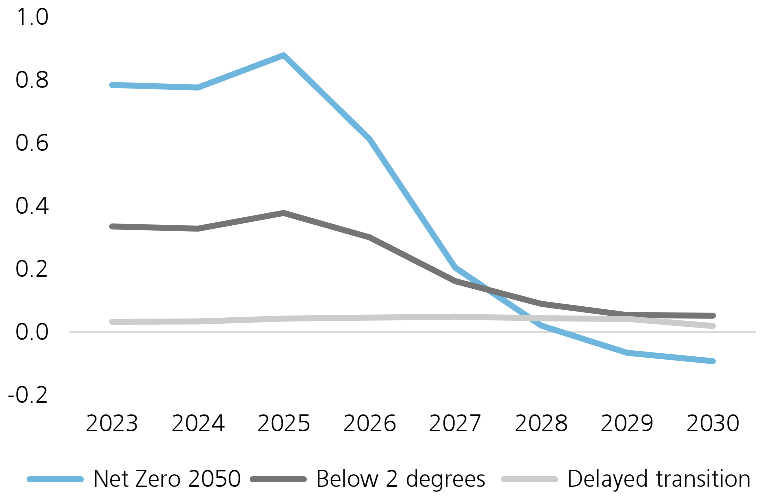
Banks share of participation in the U.S. syndicated leveraged loan market in %



Source: Source: Pitchbook, LCD, UBS October 2023

Inflation is likely to remain a key topic in the coming decade

Impact on US inflation rate under various climate paths, in %



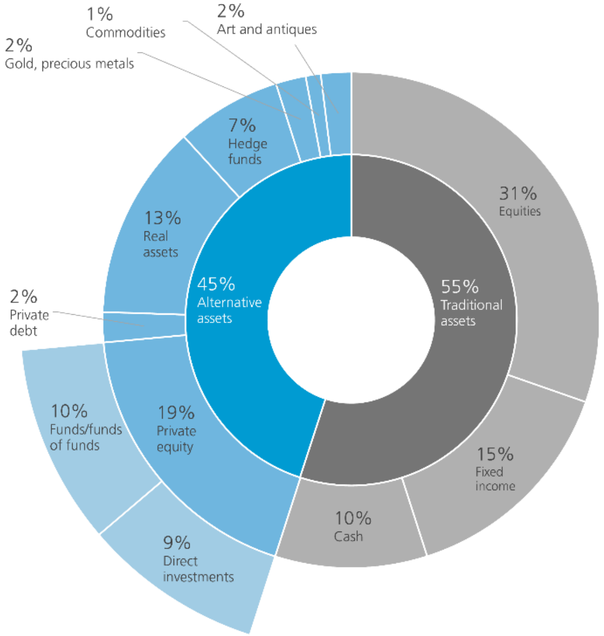
Source: NGFS, UBS, October 2023

- Innovation requires significant amount of capital. And private market managers, with their ability to provide funding through equity or debt investment to companies at different stages of their lifecycle, have a key role to play in building tomorrow's economy. Yet, gaining exposure to fast-growing and innovative businesses through listed equities only is becoming harder due to the limited supply of new listed firms. More companies are choosing to stay private, delay listings, or avoid them altogether, a trend that we do not expect to reverse. This means that 1) a portion of the value creation that was formerly captured by public markets has now accrued to private investors, 2) there is a need to include such assets to capture some of these long-term opportunities otherwise risking underexposure to an attractive sector of the economy.
- Traditional lenders' ability to provide credit is likely to remain constrained especially following banking sector turmoil in the US. Around the globe, governments are also confronted with the challenging task of reducing debt ratios while supporting growth and spending. We see these as supportive of a wider role of non-traditional lenders in funding the economy.
- In general, we also expect inflation to fall back toward central banks' targets of about 2%. However, navigating this path while attempting to preserve growth will be difficult. This is made even more complicated by the de-globalization and de-carbonization trends, which increase inflationary pressures. We see risks of inflation not returning to the levels of the last decade, and some transitory inflation may even arise. In such an environment, we see benefits in allocating to asset classes that exhibit "inflation hedging" characteristics, especially if they are also supported by structural tailwinds.

Family offices favor private assets in portfolios

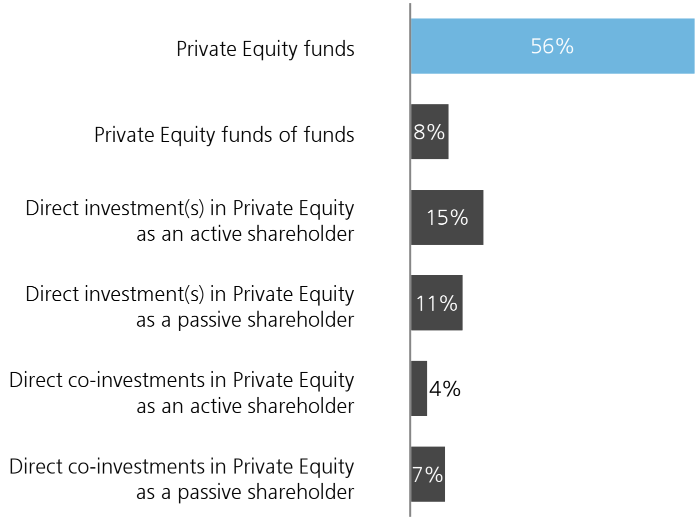
2023 UBS GFO report indicates that 66% of family offices believe that illiquidity can boost returns

Average GFO portfolios in 2023 seek to allocate 34% in private assets



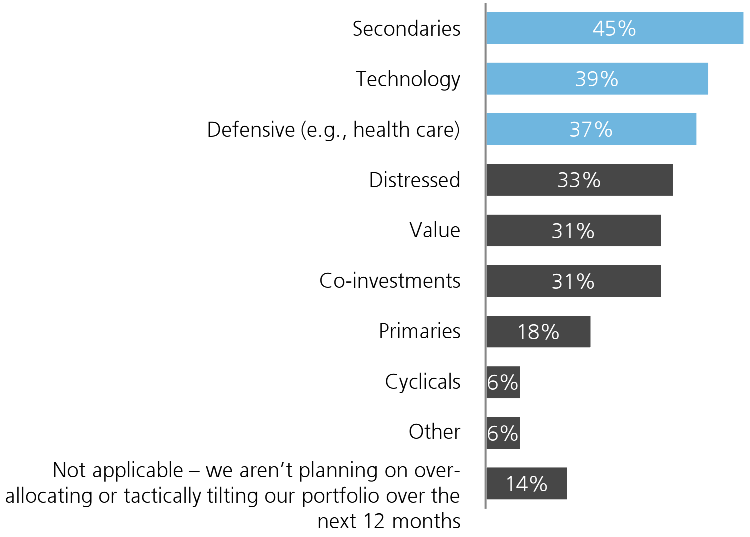
Family offices with private equity investments use funds as the main vehicle of investment

Proportion of PE investments family offices allocate per type



Family offices plan to tactically allocate to secondaries, technology and healthcare

Planned tactical allocations over the next 12 months



Source: UBS Global family office report 2023, UBS Evidence Lab, October 2023

- The UBS GFO report gathers insights from 230 family offices worldwide amounting for a total wealth of USD 495 bn.
- The 2023 survey indicates continued interest in allocating to private markets which now represents 34% in portfolios. Family offices however are making changes to their allocation mix and seek to strengthen diversification by reducing direct equity allocations and increasing allocations to fund investments, private debt and infrastructure.
- By sector, key areas of focus include technology and healthcare. By strategy, secondaries and distressed funds are viewed as most attractive over the next 12 months.

Private equity

Key views

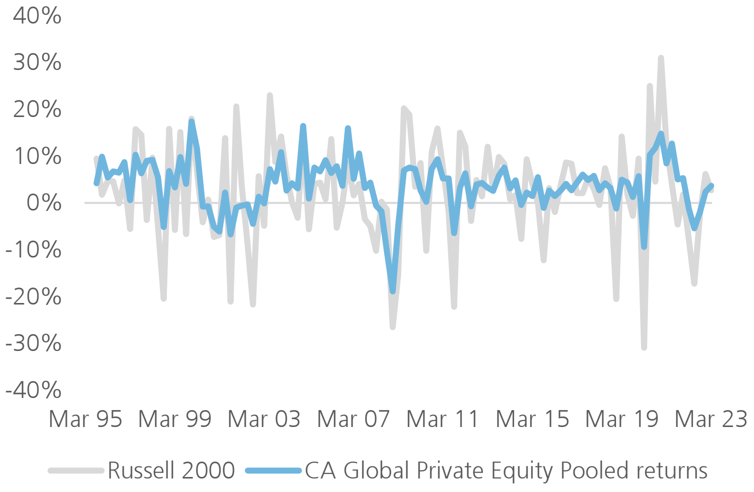
- Private equity performance, measured by the Cambridge Associates global private equity index posted 3% gains in 1Q23 with preliminary data for Q2 also indicating positive returns in the 1-3% range.
- Fundraising activity however continues at a slower pace amid lower distribution recycling and increased investor selectivity.
- Deal activity is adjusting to the higher for longer interest rates environment. While overall volumes are lower, they remain at healthy levels indicating that GPs are more selective with capital deployment focusing on smaller deals notably in the middle market.
- Pricing dynamics are moving in favor of buyers and this is a welcome change for investors. US LBO entry multiples fell in the first half of 2023 albeit with significant dispersion across sectors. Managers sought dislocations in various sectors of the economy. They are also favoring smaller deals in market segments that offer more attractively valued opportunities.
- We observe increased activity in add-on deals, carve outs, and divestitures and the middle market more broadly. We also note that these deals require less leverage and are generally better priced. To take advantage of these opportunities, we prefer exposure to value-oriented buyout strategies and especially those managers who can secure lower entry valuations and deliver more operational value creation.
- Secondaries remain very attractive in our view. While strong public equity performance has lessened forced selling this year, we think secondaries still trade at unusually wide discounts to NAV of around 16%.
- Lastly, investors should not lose sight of long-term growth opportunities—notably in themes such as the transition to the green economy, growing healthcare needs, AI and digitalization.
- Investors looking to invest in private assets should consider the risks related to these strategies that are described on slide 3.

Private equity vs. public equity performance

1Q23 registered a moderate pick up in fund NAVs. 2Q23 is likely to show further improvements.

Private equity funds benefitted from the rebound in public equity valuations

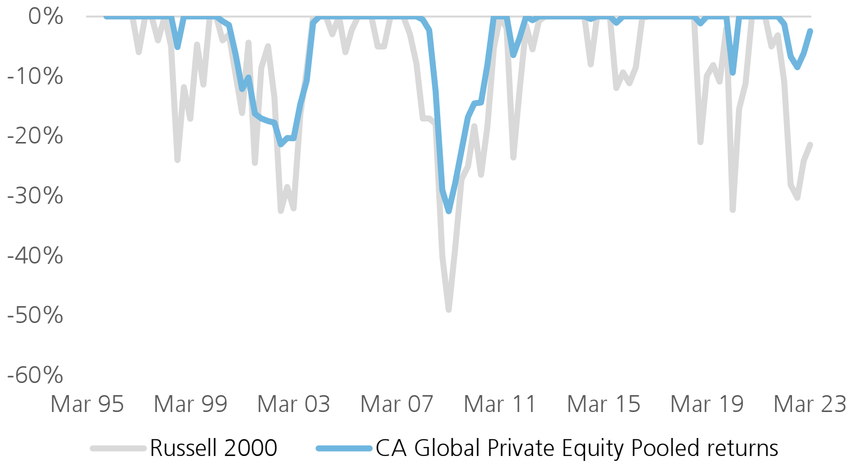
Private equity vs. public equity quarterly returns, in %



Source: Bloomberg, Cambridge associates, UBS October 2023. Note: includes global buyout and growth equity funds

Lower sentiment sensitivity & control over portfolio companies limited negative impacts

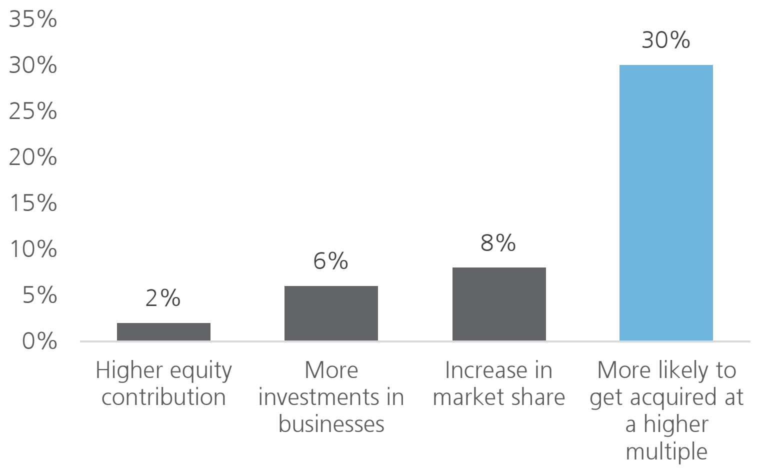
Private equity vs. public equity max drawdowns in %



Source: Bloomberg, Cambridge associates, UBS October 2023. Note: includes global buyout and growth equity funds

Active ownership typically helps underlying portfolio firms to better weather storms

Comparison of UK PE-backed vs. non-PE-backed companies in the UK during and post-GFC



Source: HBS, Bernstein, Lerner, Mezzanotti, "Private Equity and Financial Fragility during the Crisis", January 2018. UBS, October 2023

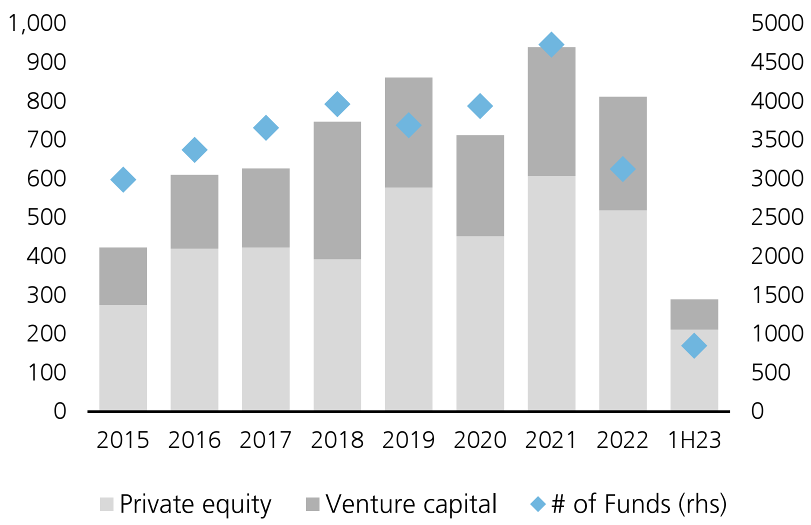
- Private equity performance, measured by the Cambridge Associates global private equity index posted 3% gains in 1Q23 while preliminary data for Q2 also indicates positive returns in the 1-3% range. Higher public market valuations, better-than-expected macroeconomic dynamics and healthy revenue/ EBITDA growth of LBO backed private companies supported the repricing of NAVs higher.
- By strategy, buyout fared better than VC funds. VC funds remain in correction mode given ongoing funding needs, downrounds and limited exits.
- Moving forward a soft landing of the US economy should help stabilize NAVs. Yet investors should continue to expect high fund return dispersion especially between those who 1) followed a prudent underwriting/capital deployment plan in the past years and 2) actively engaged with underlying companies to alleviate ongoing funding stress versus those who did not.

Private equity – fundraising activity

Slower pace compared to recent years but not falling off the cliff

Fundraising activity has slowed down

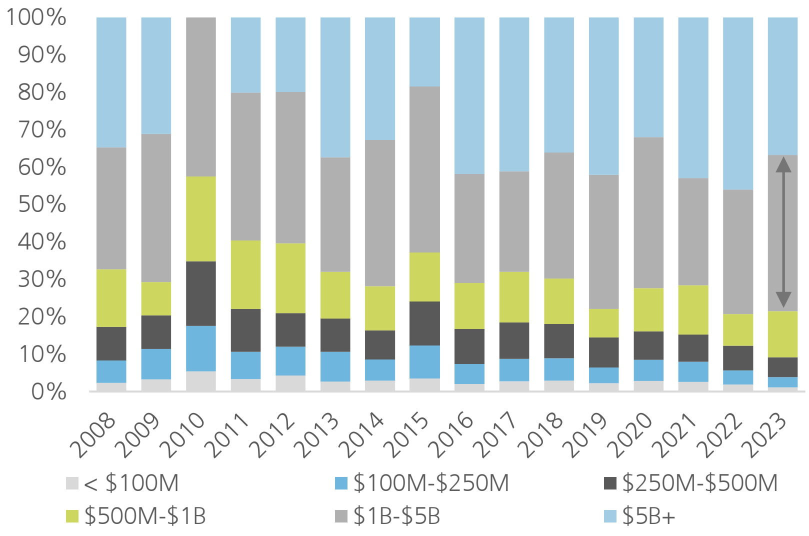
Global private equity fundraising, in USD bn



Source: Pitchbook 1H23, UBS October 2023

Investors are increasingly looking into smaller and middle market funds

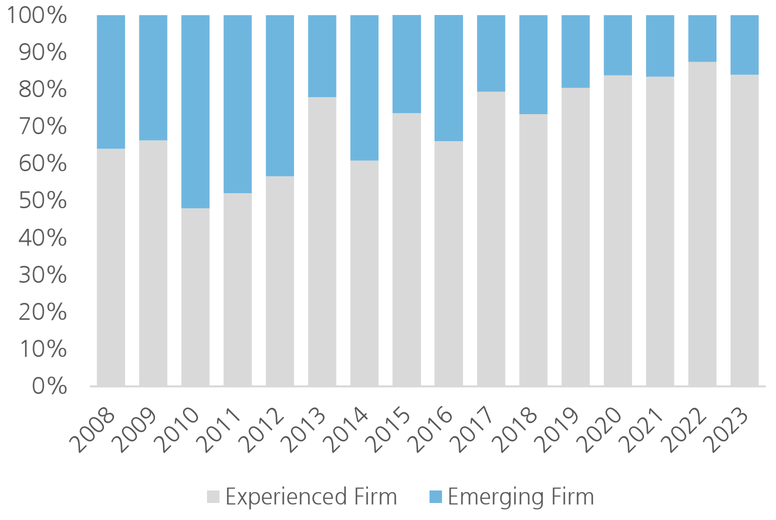
Global private equity capital raised by fund size, in %



Source: Pitchbook LCD, 1H23, UBS October 2023

Experienced managers with proven track record are still favored

Global private equity capital raised by manager experience, in %



Source: Pitchbook 1H23, UBS October 2023. Emerging managers are those who raised three or fewer funds firmwide

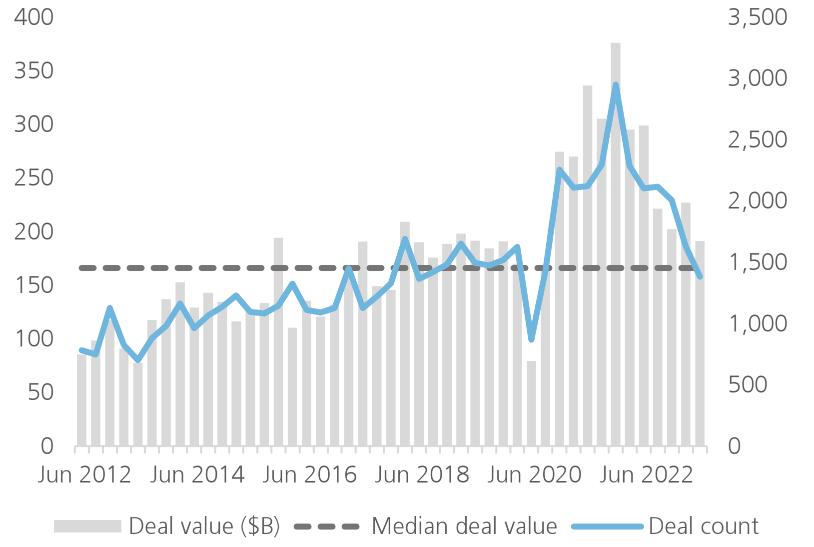
- Global private equity fundraising activity fell in the first half of 2023. According to Pitchbook, about USD 290 bn was raised across 848 private equity and VC funds globally in 1H23. This represents a 9% and a near 50% y/y contraction in dollar terms for PE and VC respectively, respectively, compared to 1H22.
- Lower distribution, recycling and increased investor selectivity favoring smaller and more experienced funds were key factors weighing on fundraising activity. Capital raising for buyout strategies however, proved more resilient compared to VC funds a trend we expect to continue. Within buyout funds, interest in dedicated middle market strategies has increased.
- Improving public market performance and better than expected macroeconomic prospects should help alleviate some of the ongoing pressures. We expect more funds to close in the second half of the year but full normalization will take a few more quarters. Interestingly, for investors that can deploy capital today, the current environment could present an opportunity to access highly sought after funds otherwise oversubscribed.

Private equity – transactional activity

Acquisition activity is adjusting lower. Exits activity shows signs of improvement. Selectivity remains high.

Transactional activity is trending downward

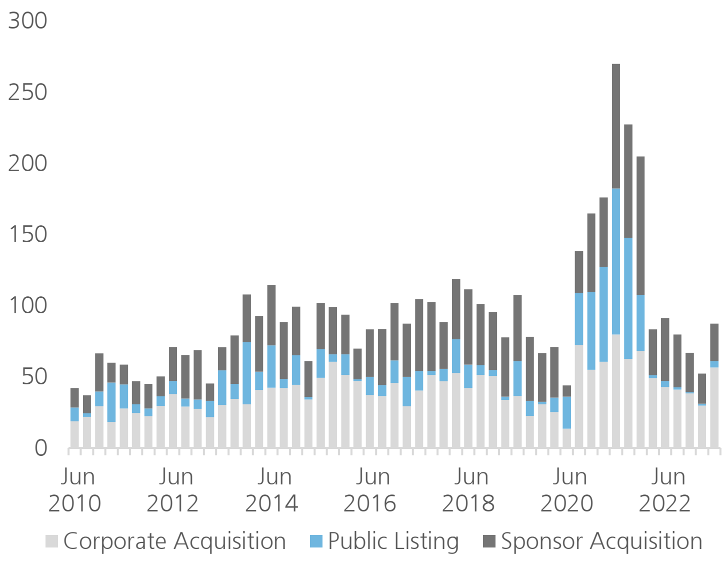
US private equity quarterly deal value and deal count, in USD bn



Source: Pitchbook 2Q23, UBS October 2023

Exits saw a pickup in 2Q23, driven by large corporate acquisitions

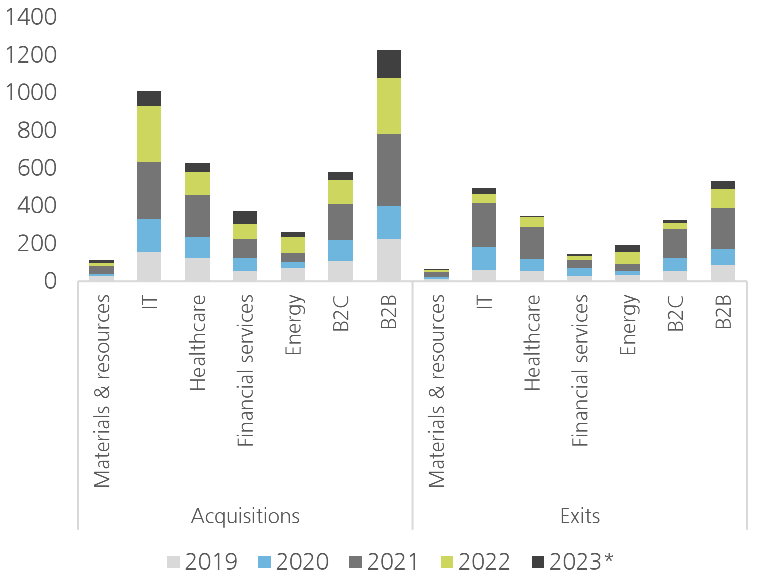
in USD bn



Source: Pitchbook, 2Q23, UBS October 2023

B2B, IT and healthcare remain key acquisition targets

Acquisition vs. exit volumes (in USD bn)



Source: Pitchbook 2Q23, UBS October 2023

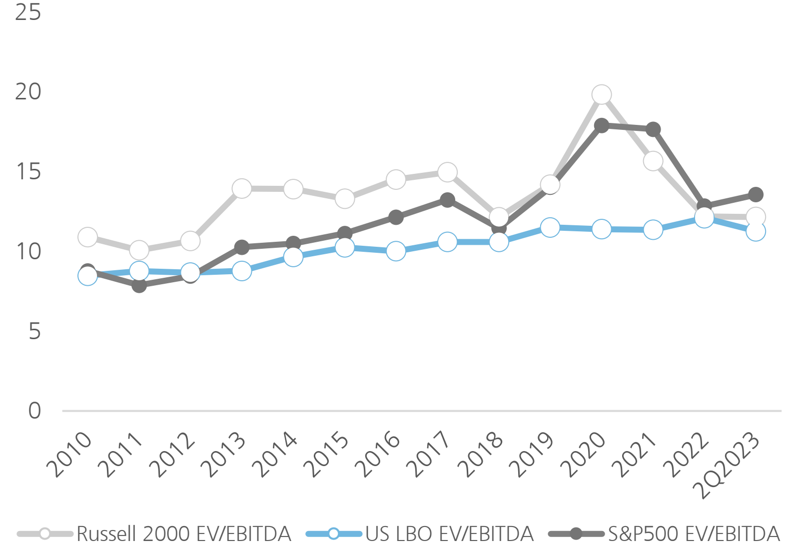
- US LBO transactions continue to trend lower in dollars and in deal counts. Overall volumes still hover around pre-COVID levels — a sign that GPs can find opportunities to deploy capital, notably in public-to-private deals (P2P), carveouts and add-on acquisitions. A reacceleration of acquisition volumes will take time given the currently high cost of debt. GPs are increasingly creative with financing structures (pref equity, minority stakes,…). But they are also increasingly selective with capital deployment, favoring high conviction and better valued deals, often smaller and requiring less leverage.
- Meanwhile, exit activity, albeit soft, shows signs of improvement driven by cash-rich strategic buyers a key factor to the market's revival. IPO activity is also warming up (i.e Kodiak Gas Services, Savers Value Village and more recently Arm and Instacart). We also note more sponsor acquisitions. While encouraging, a full normalization will require improved financing conditions (and firmer public markets) which may only happen in 2024.
- In terms of sectors, PE managers continued to show most interest in acquiring B2B, healthcare and IT businesses given their long-term attractiveness supported by structural growth trends. In terms of exits, B2B and energy businesses were most actively sold.

Private equity – purchase price multiples

Entry multiples have started to come down

LBO entry multiples contracted about 7-8% in 1H23

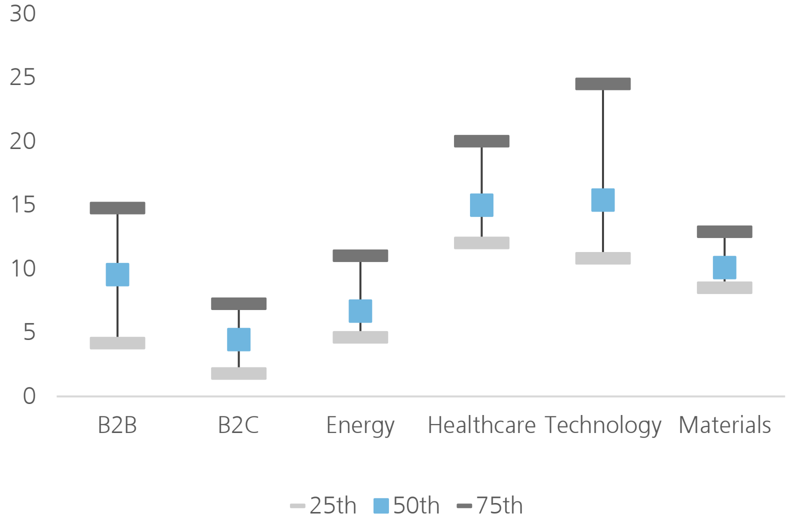
Public equity multiples versus US buyout purchase price multiples



Source: Pitchbook LCD 2Q23, FactSet, UBS October 2023

Beneath the surface, sector & deal dispersion is high

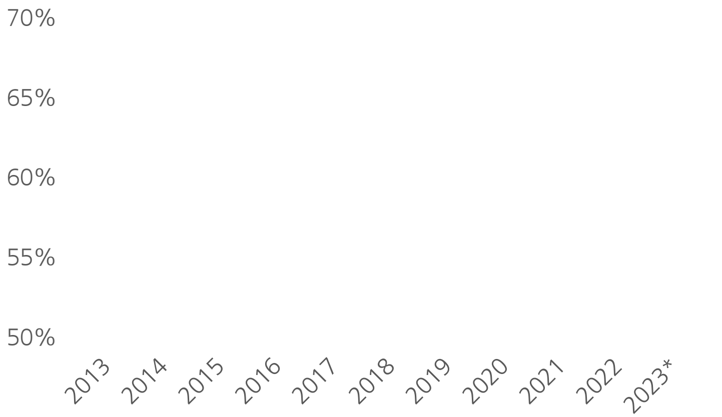
2023 Q2 LBO EV/EBITDA multiples



Source: Pitchbook, UBS October 2023. Note: Low deal count for energy and materials

Managers are increasingly focusing on the middle market to seize value opportunities

US PE middle-market buyout value as a share of all PE buyout



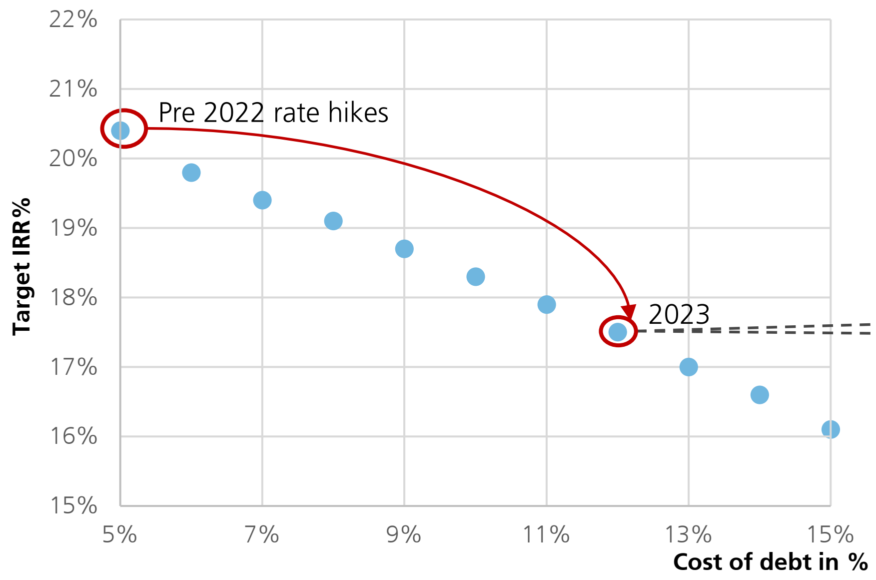
Source: Pitchbook *1H23, UBS October 2023.

- Pricing dynamics are moving in favor of buyers, and this is a welcome change for investors . US LBO entry multiples fell in the first half of 2023 albeit with significant dispersion across sectors.
- Managers sought dislocations in various sectors of the economy. They are also favoring smaller deals in market segments that offer more attractively valued opportunities. Evidence of that can be seen for instance in the higher number of LBO acquisitions in the middle market which accounted for 70-75% of overall buyout deal activity.
- With GPs continuing to face high costs of debt, we expect purchase price multiples to further come down. As we explain on the next page, seeking deals that offer lower entry multiples is one of the levers GPs can use to mitigate higher costs of debt and still hit return targets.

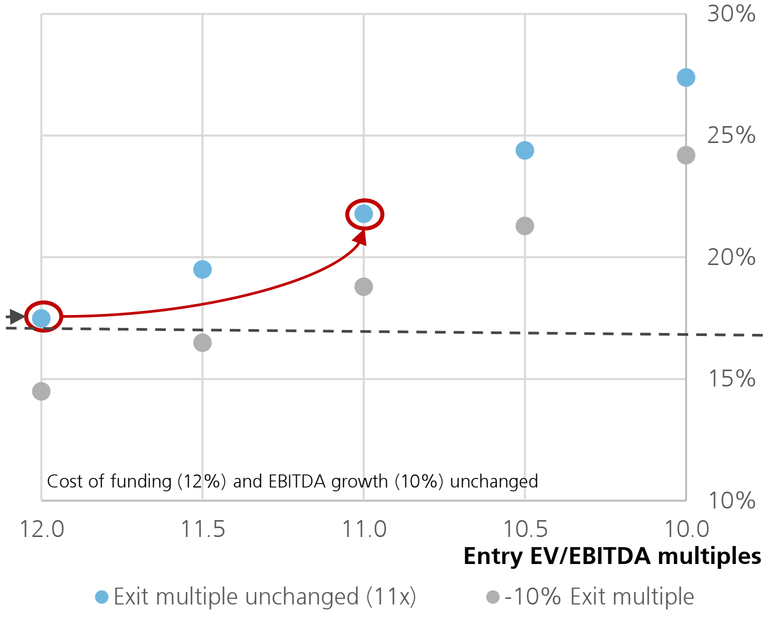
Private equity – deal mathematics in a higher interest rate environment

Illustration of how GPs can use different levers to drive returns going forward

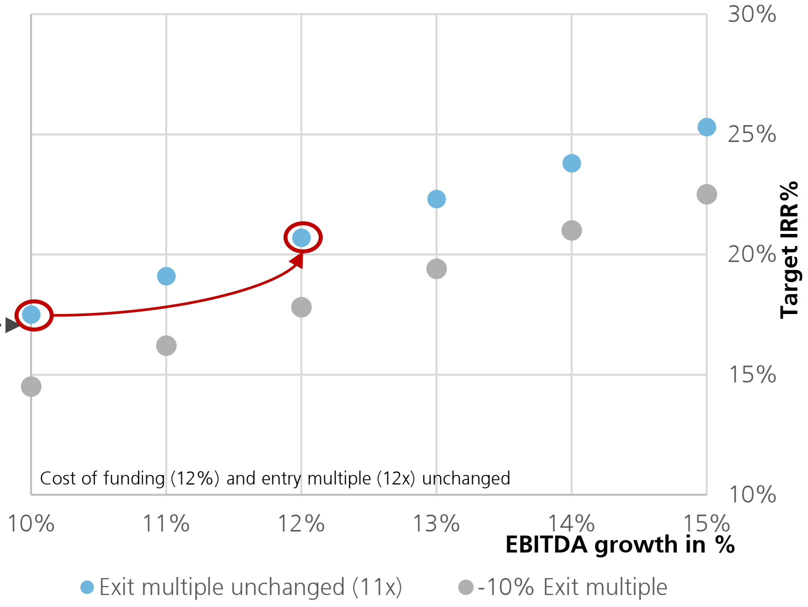
Higher cost of debt and reduced leverage capacities imply lower returns all else equal



Yet by targeting lower entry multiples and...



... focusing on increasing operational value creation, managers can mitigate higher costs of debt and still hit return targets



Source: UBS CIO, October 2023 ; Note: Simulated LBO deal IRR sensitivity to interest rates, entry EV/EBITDA multiples and EBITDA growth. Initial assumption: entry EV/EBITDA of 12x, EBITDA growth of 10%, 50%/50% Equity/Debt split, Exit multiple of 11x. Illustrative scenario only.

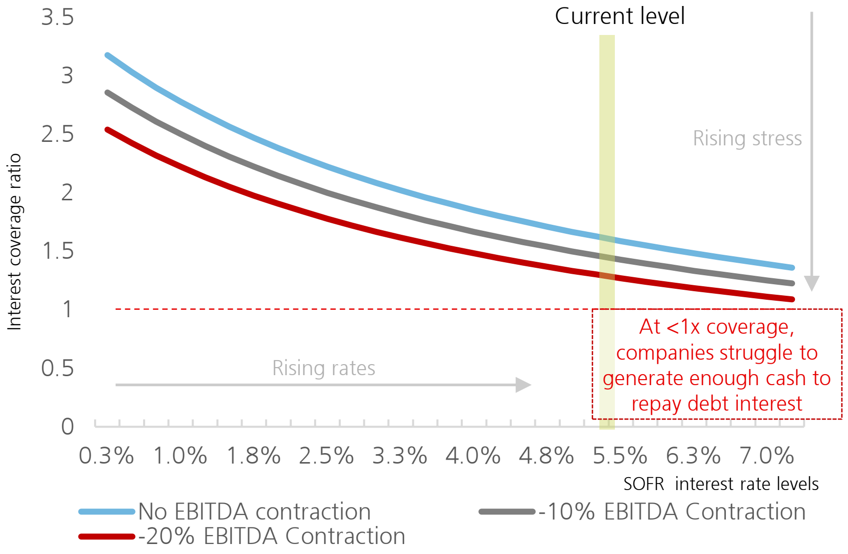
- A higher cost of debt creates headwinds for buyout strategies that make use of leverage to acquire target companies. The above hypothetical scenario shows that underwriting deals at current cost of funding with similar assumptions in terms of entry/exit multiples and EBITDA growth to those prior the 2022 rate hikes may only generate mid-teen returns.
- However, by focusing on lowering entry multiples (i.e seeking add-on acquisitions or targeting more attractively market segments) and/or driving more operational value creation (i.e. expanding EBITDA growth, streamlining costs, improving productivity,…) managers could potentially achieve high-teen returns even when assuming some multiple contraction at exit and higher for longer interest rates.
- In our base case, we expect the Fed to lower its policy rate by up to 100 bps by end 2024, partially (but not fully) alleviating some of the financing cost pressures. We think managers who can secure lower entry valuations today and deliver more operational value creation are likely to outperform.

Private equity – interest rate impact on coverage ratios

A soft landing of the US economy and lower benchmark rates in 2024 should prevent coverage ratios from thinning further

Rising rates/recessionary dynamics impact the ability to repay debt

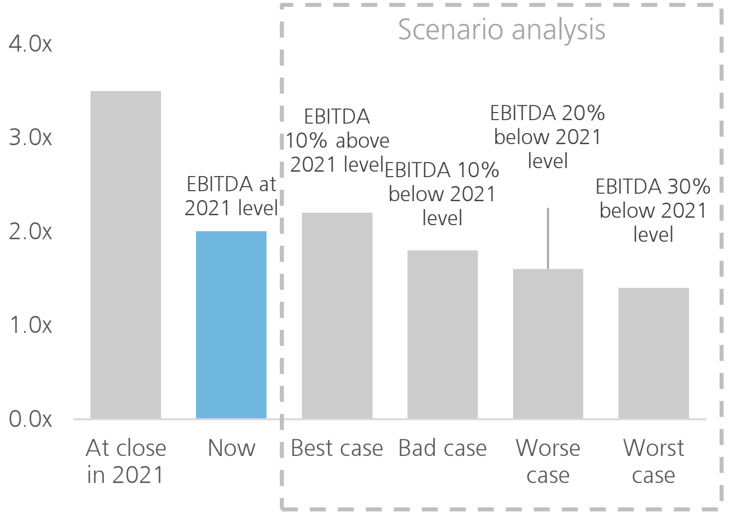
Impact of rising cost of debt and EBITDA changes on interest coverage ratios



Source: UBS October 2023. Assumes 50% LTV, average all-in spread of 5.5%, EV/EBITDA multiple of 12x

Interest coverage ratios have thinned yet still hover at acceptable levels

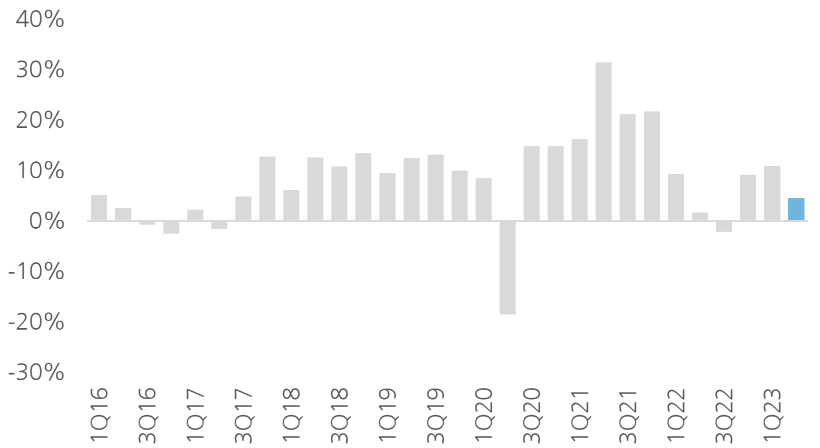
Interest coverage ratio of 20 largest 2021 LBOs



Source: Pitchbook LCD, based on 20 largest buyouts financed in the US BSL market, using 3m Libor as of May 2023 and pro forma EBITDA as per information memorandum, UBS October 2023

EBITDA growth remains resilient

Y/y middle market private company EBITDA growth, in %



Source: Golub Capital 2Q23, UBS October 2023

- Interest rates impact the cost and availability of debt financing. Combined with recessionary pressures and EBITDA contractions, private companies can run into financial stress and risk not generating enough cash flow to repay debt interest. Because of rising benchmark rates, interest coverage ratios deteriorated throughout 2022/23 yet remained at acceptable levels on average. In a May study conducted by Pitchbook LCD, the 20 largest LBOs financed in the US's broadly syndicated market in 2021 (i.e., pre-rate hike) have seen coverage ratios drop from an average 3.3x (at closing) to 2.2x currently (1.6x for companies with floating debt only).
- We also note that throughout this period, private companies continued to generate healthy EBITDA growth which helped offset some of the negative impact of interest rates. Given our base case of a soft-landing and lower rates in 2024, coverage ratios should stabilize. However, a delayed impact of monetary policy tightening on economic growth leading to a hard landing and/or additional rate hikes in an effort to tame persistent core inflation remain key risks that could push companies into the danger zone.
- Private equity sponsors, as active owners, are actively using different levers to alleviate financial stress on underlying portfolio companies. Some have hedged interest rate risk, others have reduced leverage and/or injected new equity, and all are focusing on EBITDA growth preservation. Many businesses have adjusted but some may still need restructuring. According to S&P Global, of the 338 US companies that sought bankruptcy protection in the first half of the year, 54 had private equity or venture capital backing.

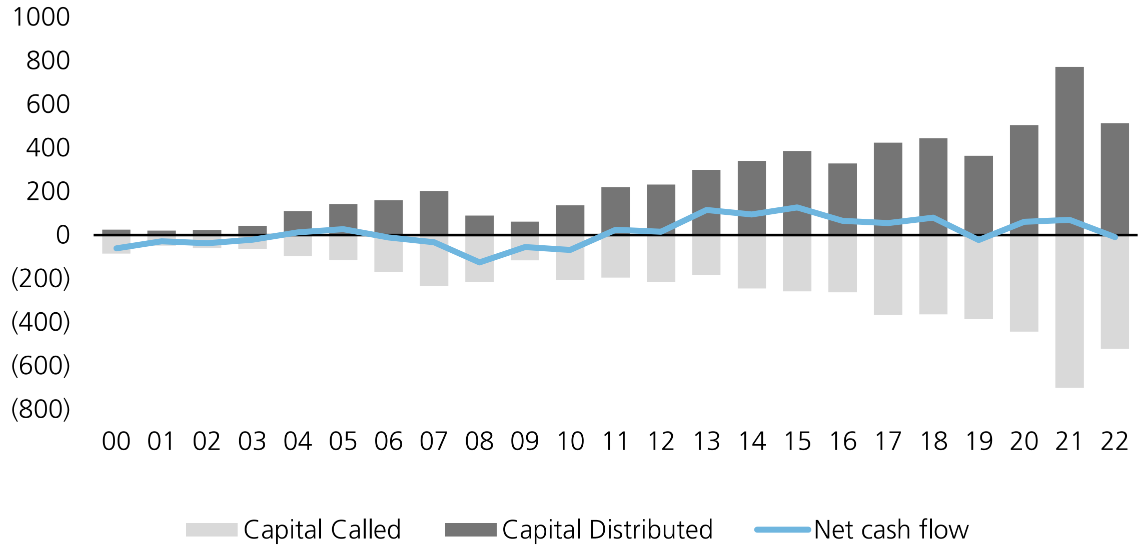
Charts and scenarios are for illustrative purposes only. Historical performance and forecasts are no guarantee for future performance.
Please see important disclaimer and risk information at the end of the document.

Private equity – cash flow dynamics

Expect negative cash flows to persist for a little longer

Net cash flows turn negative in stress periods and take a few quarters before returning to positive territory again.

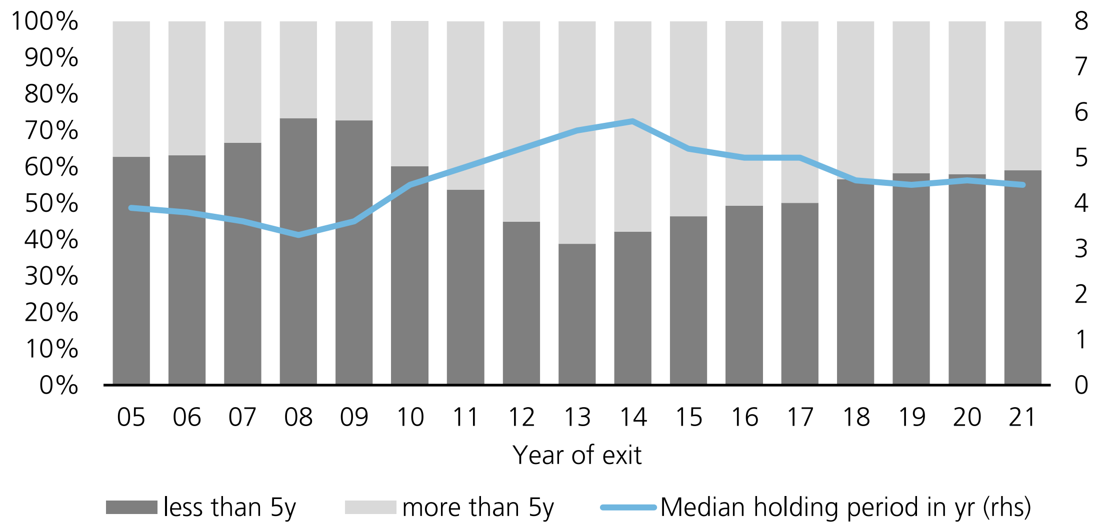
Global private equity capital called, distributed, net cash flow, in USD bn



Source: Pitchbook, , UBS October 2023

Investment holding periods typically extend longer, as GPs are not forced sellers and wait for better market conditions.

Median holding period of global buyout investments by year of exit



Source: Pitchbook, UBS October 2023

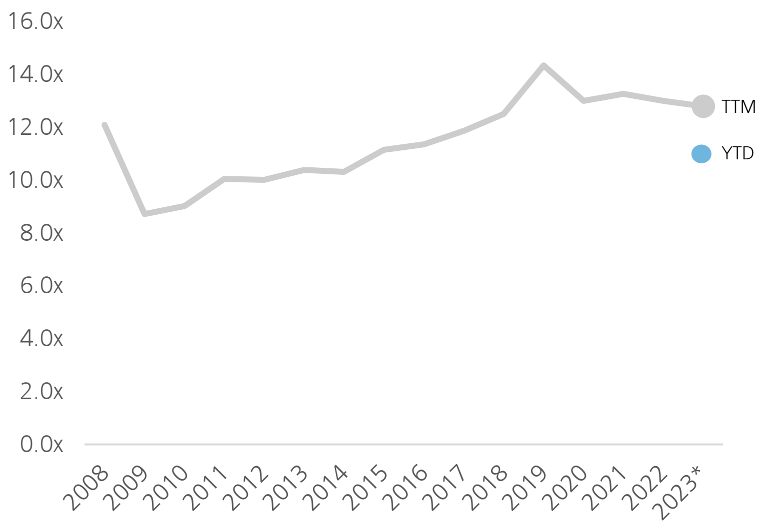
- Slower asset sale realizations from March 2022 onward have created distribution delays and forced net cash flows to dip into negative territory. This is not unusual. Distributions typically decline almost immediately after significant market events as the industry encounters a more challenging exit environment. Fund managers are not forced sellers and generally hold onto existing portfolios until the exit environment improves. Meanwhile, capital calls come down at a slower pace than distributions as sponsors pay down credit lines, support existing investments, and potentially engage in selective offensive opportunities.
- The recent rebound in exit activity in 2Q23 is a first encouraging sign that distributions could eventually improve soon. But as previously argued, this may only happen in 2024 and assumes that our base case of a soft landing of the economy is proven correct.
- Conversely, a prolonged period of lackluster asset sales and longer holding periods could negatively impact IRRs for investments made prior 2022 (but not necessarily multiples on investment).

Private equity – spotting value

Focus on managers with a value bias that can seize opportunities through add-ons, carveouts, and divestitures

Middle market valuations have moved lower offering better value

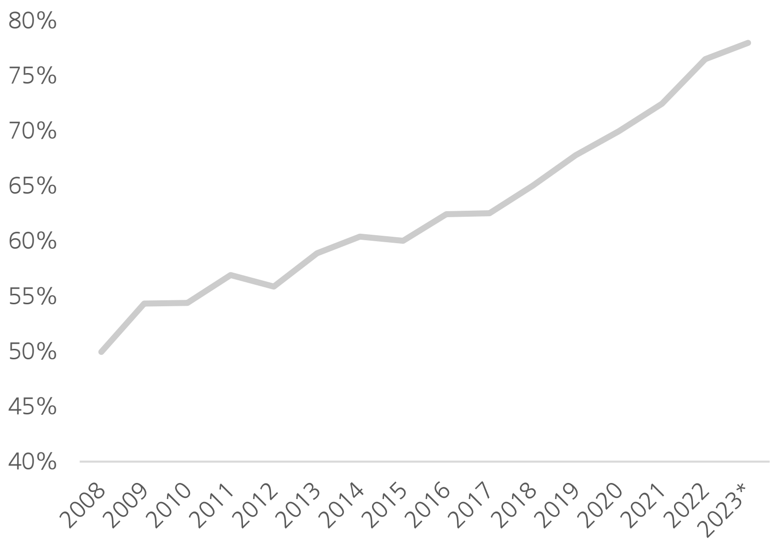
Median PE middle-market EV/EBITDA multiples



Source: Pitchbook *2Q23, UBS October 2023

Increasing underlying company market share and building value

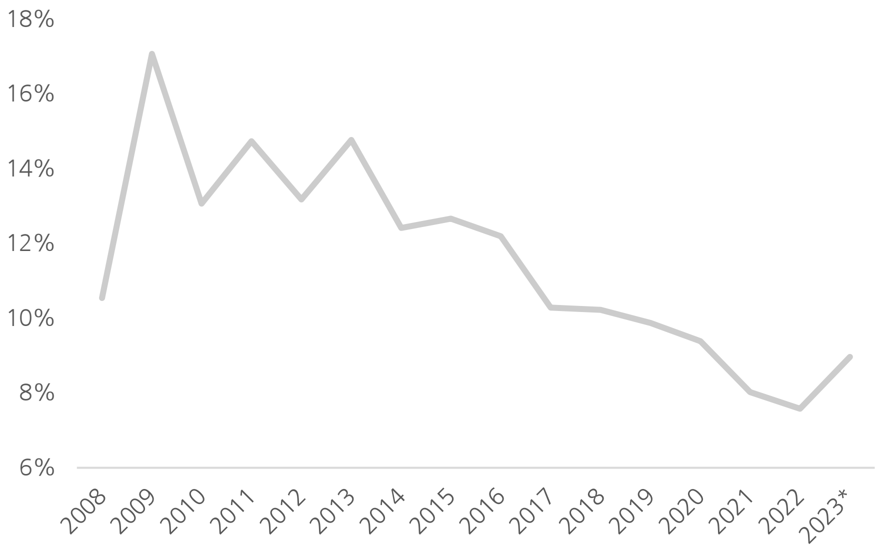
Add-ons as a share of all US buyout deal activity



Source: Pitchbook *2Q23, UBS October 2023

Acquiring new businesses through corporate restructuring/ repositioning events

Carve-outs and divestitures as a percentage of US buyout deals



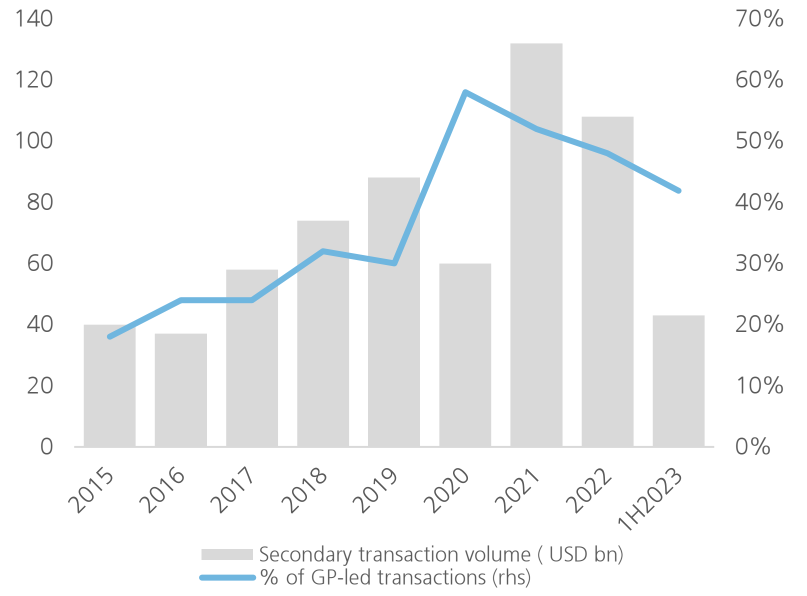
Source: Pitchbook *2Q23, UBS October 2023

- We think managers who can identify and capitalize on lower entry valuations while adding operational value are well positioned to outperform in the current environment. The middle market (< USD50mn EBITDA) for instance offers increasingly better value for those managers who can seize them. According to Pitchbook, North America and European EV/EBITDA declined to 10.3x YTD in 2Q23 (12.8x on a trailing twelve months basis).
- Add-ons meanwhile remain a powerful tool in the PE playbook to offset growth and interest rate pressures, given their potential for multiple arbitrage, cost/revenue synergies and growth acceleration. Generally easier to finance, they nevertheless carry integration risk and require extra selection skills and strict risk underwriting.
- We continue to expect carveout and divestiture volumes to pick up as the economic environment slows down and companies spin out non-core and underperforming assets. According to Pitchbook, carveouts made up 10.3% of buyout deals in Q2 and 9% of all US buyout deals in 2023 so far, up from 7.6% last year.

Private equity – securing seasoned and quality assets at a discount

Secondary funds can offer LPs the opportunity to build private market exposure faster and take advantage of price discounts

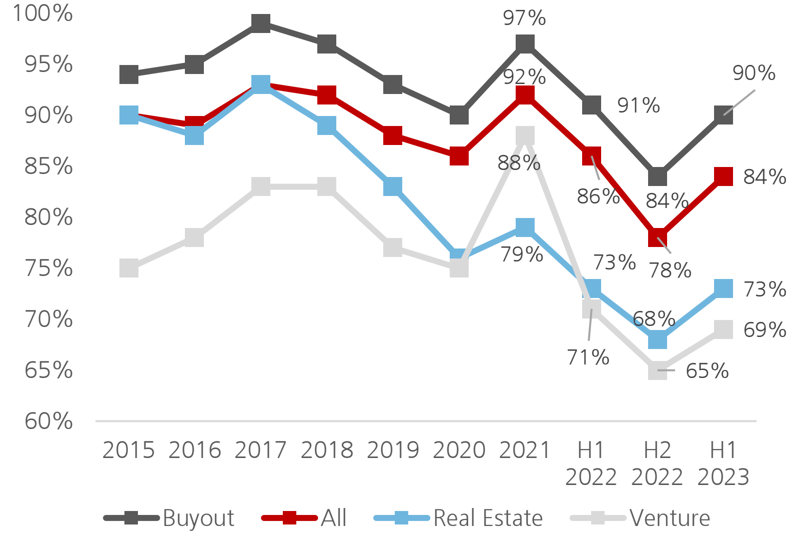
Resilient market despite tougher macro conditions, driven by increased LP-led volume



Source: Jefferies Global Secondary Market Review 1H2023

Pricing declined with noticeable dispersion across strategies

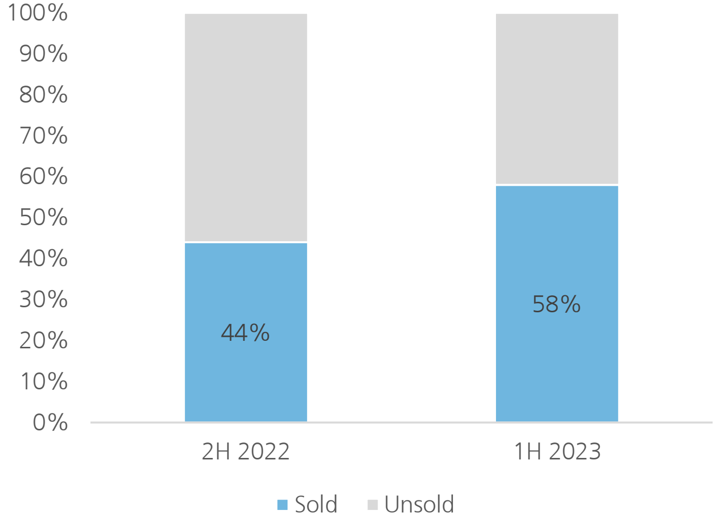
Pricing as % of NAV



Source: Jefferies Global Secondary Market Review 1H2023

Improved pricing environment is helping transactions close

Closing rate on recent transactions (% of NAV marketed)



Source: Jefferies Global Secondary Market Review 1H2023

- Secondaries entered 2023 with meaningful discounts. Now, prices have bounced back, supported by improving public valuations and optimism about the economic outlook. But with discounts to NAV at around 16% on average, they still present very attractive entry points to investors, in our view.
- Both buyers and sellers are still incentivized to transact. While investors are less concerned about portfolio “overallocation” and distressed selling, many (especially pension funds) are still seeking to generate liquidity events. Meanwhile, capital dedicated to the strategy has increased. Pitchbook fundraising data indicate that funds focused on secondaries have raised near USD 31bn in the first quarter, or two-thirds of the total funding obtained in 2022.
- With improving pricing dynamics, and motivated buyers and sellers, we expect bid ask spreads to further narrow and transactional activity to pick up in the second half of 2023. Jefferies data, while indicating contracting volumes, show a higher closing rate on recent transactions (58% in 1H23 compared to 44% in 2022), which bodes well for the second half of the year.

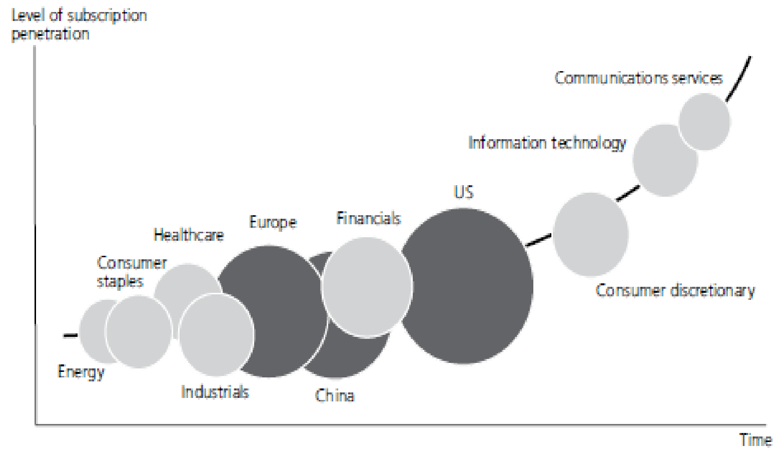
Private equity – focus on key secular themes

Digitalization, healthcare, sustainability, and the energy transition

Tech is permeating all sectors, and digitalization trends are likely to accelerate

Digital subscription penetration curve

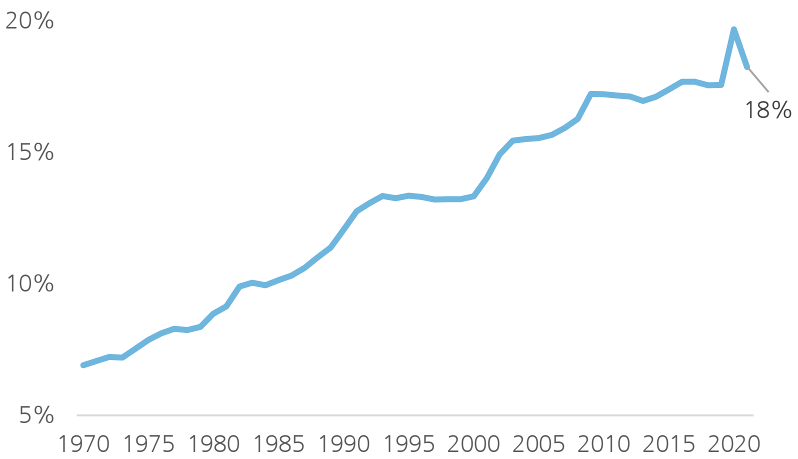
Relative subscription penetration in different segments, size of bubble indicate relative revenue size



Source: UBS

Rising healthcare costs require new solutions to improve efficiency

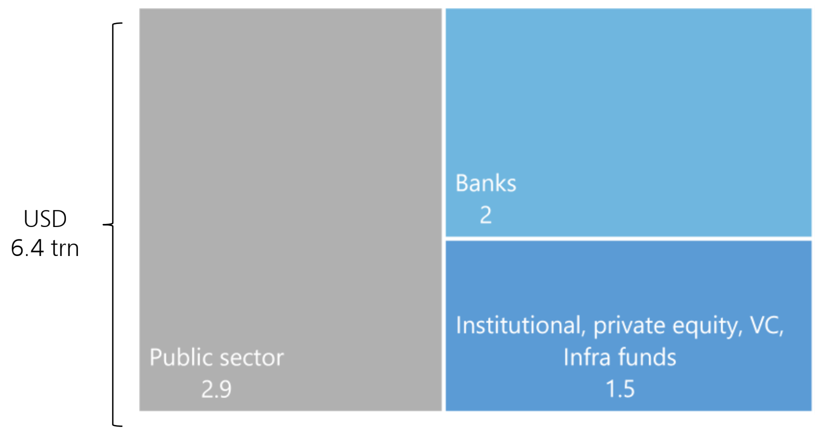
Healthcare spending as % of GDP in the US



Source: KFF, UBS, October 2023

Attaining net zero carbon targets will require significant PE investments

Average annual investment needs for low emission assets 2022-2050, USD in tr



Source: Network for Greening the Financial System Net Zero 2050, McKinsey's Transition Finance Model, estimates, UBS, October 2023

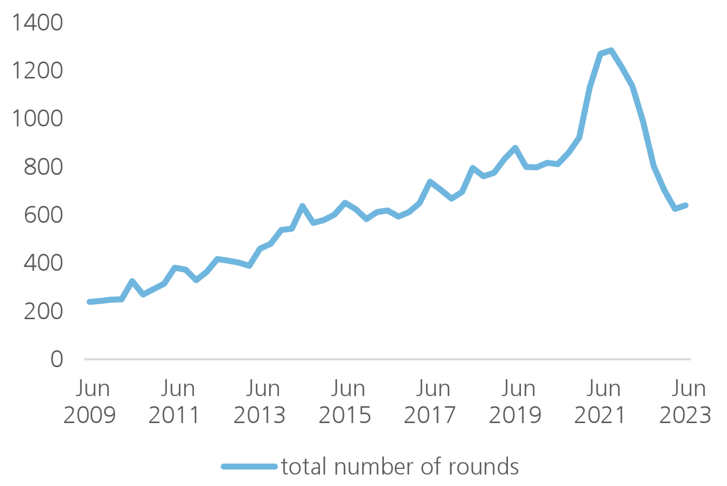
- Trends in companies adopting new technologies and data to increase flexibility/agility, control costs, reach new markets and improve overall competitiveness are unlikely to abate anytime soon and support further investment in the tech sector. We maintain a focus on B2B mission critical companies notably in software, automation and cybersecurity which historically have been more resilient to negative macro environments.
- Equally, the health sector continues to offer attractive long term investment opportunities amid aging demographics and the need for new diagnosis and treatment solutions to improve efficiency and reduce spending costs.
- Lastly, private equity managers are taking an active role in the transition into a greener economy. We see opportunities across clean power generation, energy storage, waste management/recycling and other climate tech businesses.

Spotlight on venture capital – activity continues to slow down

Startups have yet to accept lower valuations

The number of funding rounds has come down dramatically since early 2022

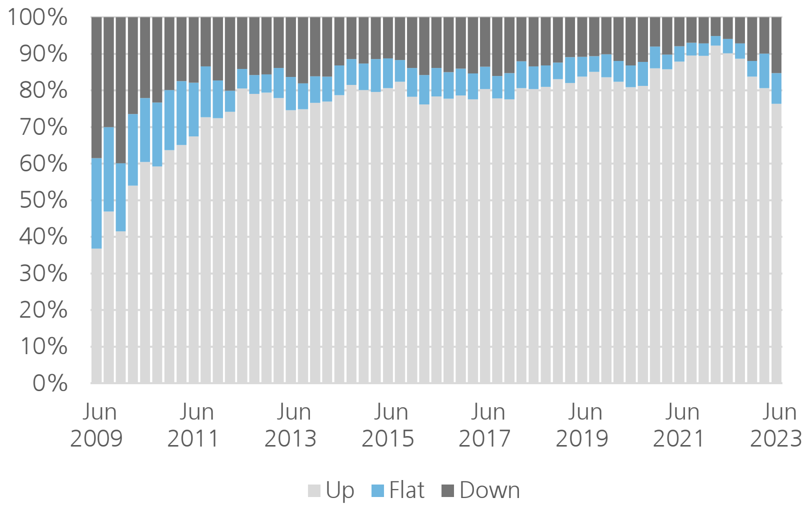
US startup funding activity, total funding rounds (#)



Source: Pitchbook 2Q23, UBS October 2023

Down rounds have picked up in 1H2023 and could accelerate

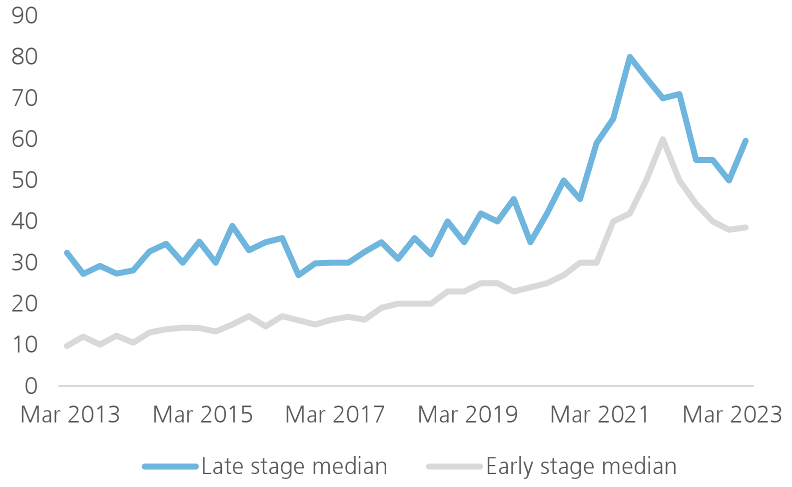
Up, flat, and down rounds, in %



Source: Pitchbook 2Q23, UBS October 2023

Capital scarcity is forcing a valuation reset

Median pre-money valuations, in USD mn

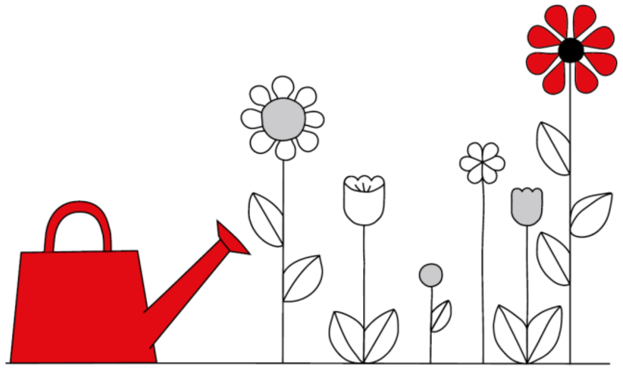


Source: Pitchbook 2Q23, UBS October 2023

- Funding scarcity remains an important headwind for the VC landscape. With investors hesitant to commit fresh capital given the risk of dilution and the extended time to exit, the number of funding rounds has declined throughout 1H23 to 640 from a peak of about 1,200 in 2021. Founders continue to seek to lengthen the runway through increased capital efficiency, cost cutting and offering prior round extensions. Still, down rounds are on the rise reaching 15.2% in 2Q their highest level since 2017.
- Valuations remain subdued in both early and late stage segments down (–22% y/y) and (–16% y/y) respectively. Slightly firmer late stage pre-money valuations in 2Q23, primarily reflects investor's flight to quality and willingness to back the very best performing businesses with solid fundamentals only. It cannot be used as a firm indication of a bottoming market yet. But there is light at the end of tunnel. With the IPO market showing signs of a revival, buyers and sellers may be able to better gauge valuations which should ultimately lead to more transactions in the coming quarters. We also note that the current environment is increasingly investor-friendly. GPs are able to negotiate larger equity stakes, anti-dilutive provisions, increased veto rights, higher dividends and liquidation preferences.
- For now, we continue to recommend caution and focus on selective impact opportunities in education and bio technologies (e.g., within virology).

Private credit

Key views



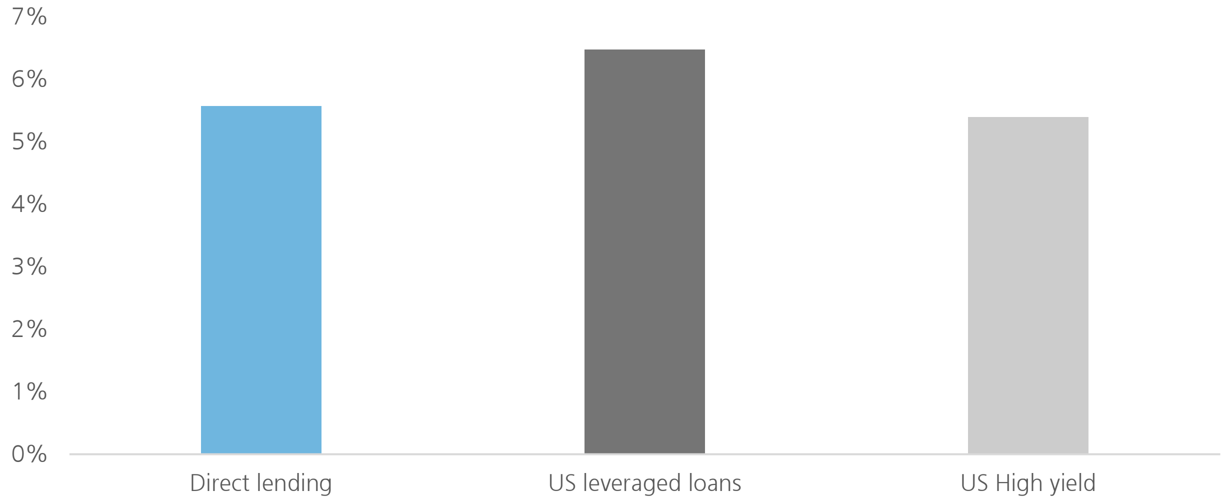
- Private loans posted solid returns so far this year with the Cliffwater Direct lending index gaining 5.6% year to date through 2Q23.
- Fundraising activity points to still strong investor interest while special situations and mezzanine funds also recorded fresh capital.
- Private lenders continued to work hand in hand with PE managers and largely dominated LBO financing activity. We note a slowdown in lending volumes, but this does not necessarily indicate a lack of opportunity to lend. Non-LBO US transactions financed by private credit exceeded those financed by the broadly syndicated market in each of the last five quarters.
- Pricing for new loans looks attractive, with yields reaching 12.3% at the end of July 2023. Relative to US high yield and leveraged loans, this represents a 200–400bps yield pick up for investors searching for additional yield.
- Tighter bank lending standards have supported direct lender's ability to dictate terms and negotiate stronger covenant protections. Newer deals are also utilizing less leverage and more equity.
- Default rates have been on a moderate uptrend since summer 2022 but recent data shows encouraging signs of a peak. Our base case of a US economic soft landing is supportive of default rates stabilizing around lower-to-mid-single digits. But higher rates could still have lagged effects in fueling over-levered borrower distress and defaults. While idiosyncratic events could still lie ahead, we think current yields more than compensate for potential credit losses.
- In distressed debt, we do not expect a broad-based default cycle. Instead, we think the distressed opportunity is likely to be more focused in areas of the market where damage has already been done with commercial real estate a clear area of focus. The maturity wall of the leveraged loan market over the next 2-3 years should also provide decent deal flow.
- Investors looking to invest in private assets should consider the risks related to these strategies that are described on slide 3.

Private credit – performance overview

Direct lending strategies gained 5.6% in the first half of 2023

Direct lending strategies extended gains in 1H23…

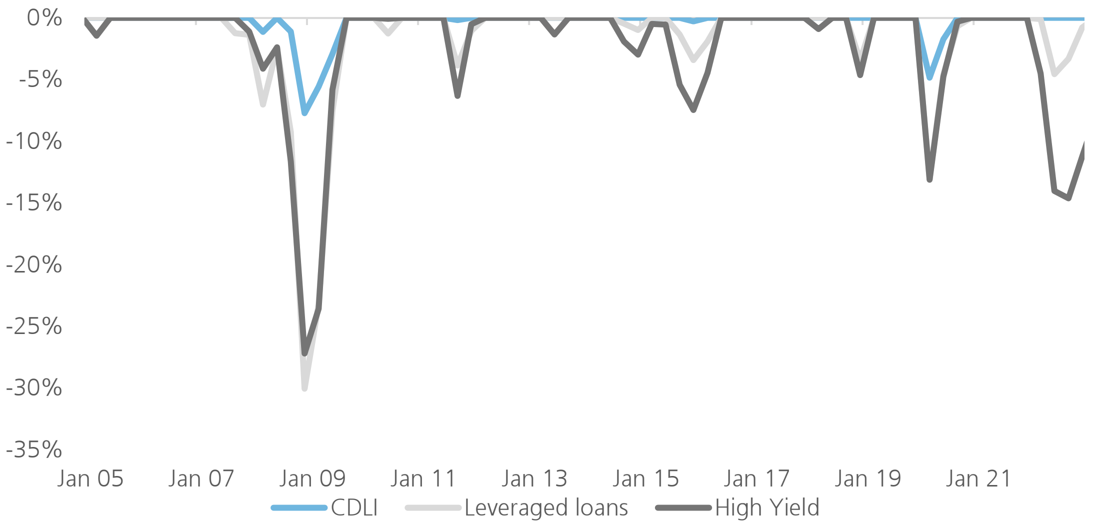
Performance across credit segments year-to-date through 2Q 23



Source: Cliffwater 2Q23, BofA US High Yield, LSTA Leveraged Loan Index, Bloomberg, October 2023. Returns for the CDLI are unlevered gross of fees

… after exhibiting more resilience compared to other credit segments in 2022

Drawdown of various segment indices, in %



Source: Cliffwater Direct Lending Index, 2Q23, Bloomberg, UBS, October 2023. Returns for the CDLI are unlevered gross of fees

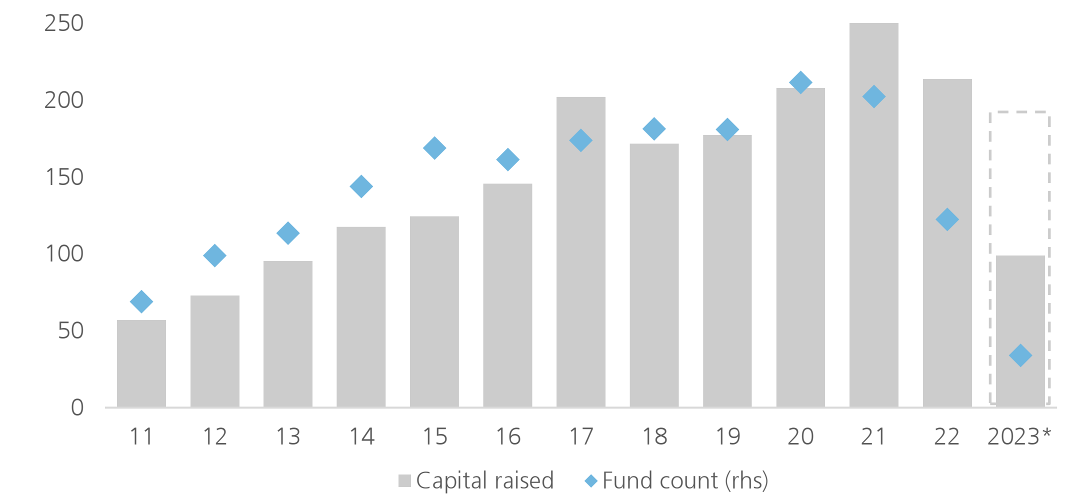
- Direct lending extended gains in the first half of 2023 with private loans on average delivering 5.6%, compared to 6.5% and 5.4% for listed loans and high yield, respectively. For reference, in 2022, direct lending returned 6.3%, outperforming US high yield (–11.1%) and leveraged loans (–0.8%).
- The asset class continues to offer interesting characteristics in the current environment, in our view: **1)** private loans are short duration and benefit from a floating rate structure, and thus exhibit lower interest rate sensitivity; **2)** private loans are senior in the capital structure and terms are privately negotiated to form stronger covenants to protect investors, thus providing better protection against losses; **3)** the non-listed nature of the asset class makes it less prone to fund flows, so valuations react only moderately to public market volatility and changes in risk sentiment.
- For the remainder of 2023, we expect private lending strategies to continue to generate attractive income. Defaults remain a risk to monitor potentially causing some short-term volatility and credit loss.

Private credit – fundraising activity

Continued demand with a shift in strategy preferences

Healthy fundraising activity amid continued investor interest

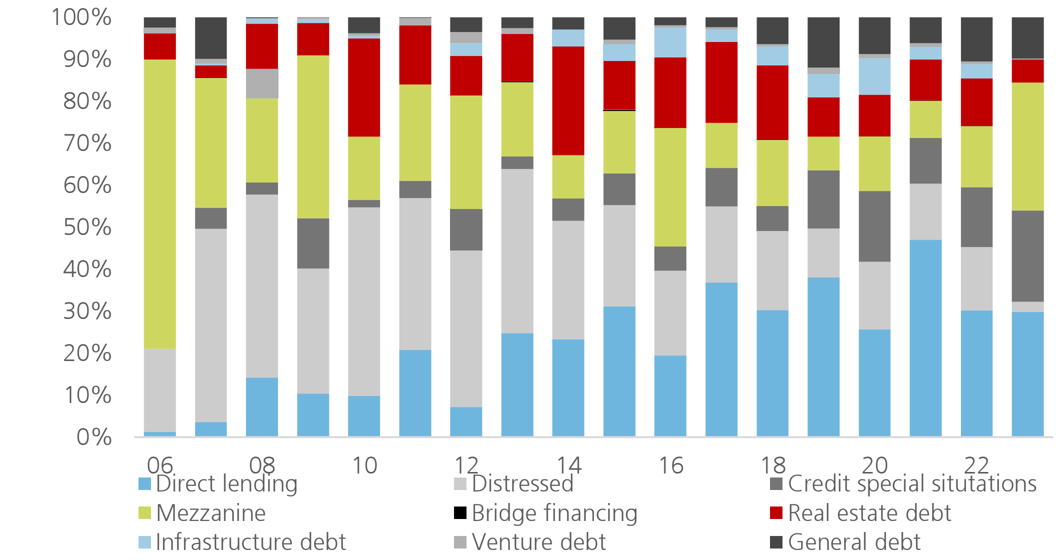
Global private debt fundraising, in USD bn



Source: Pitchbook *1H23, Bloomberg, October 2023

Investors added to mezzanine and special situation funds to complement direct lending exposures

% of global fundraising



Source: Pitchbook *1H23, Bloomberg, October 2023

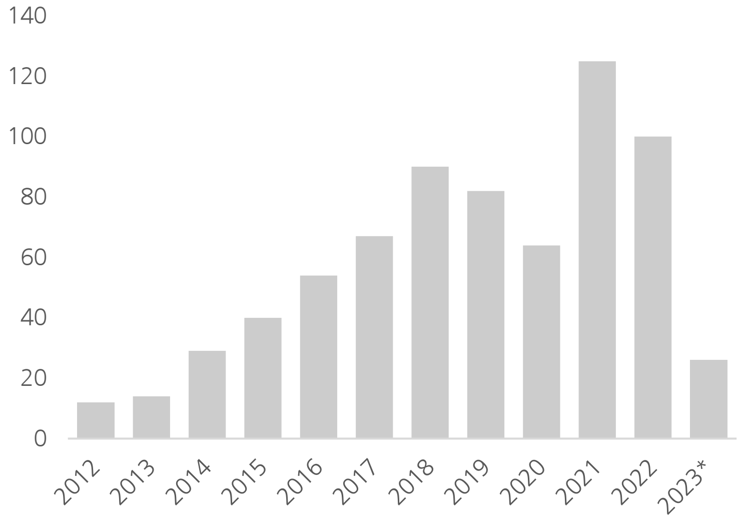
- Despite higher yields on listed fixed income, investors continue to show interest in allocating to private debt funds. The first half of 2023 saw USD 99bn of fresh capital committed (Pitchbook), which bodes well for the remainder of the year.
- In terms of strategy, however, we note a shift in investors' preference from direct lending to credit special situations and mezzanine strategies to take advantage of credit dislocations.
- We expect private debt fundraising volumes to remain well supported driven by: 1) A growing use of private debt funding by private equity sponsors, 2) investor demand for carry with lower sensitivity to broad public market price movements, 3) a fruitful opportunity set.

Private credit – transaction activity

LBO lending volumes are contracting relative to last year but managers continue to find opportunities to deploy capital

Lending activity shows moderation

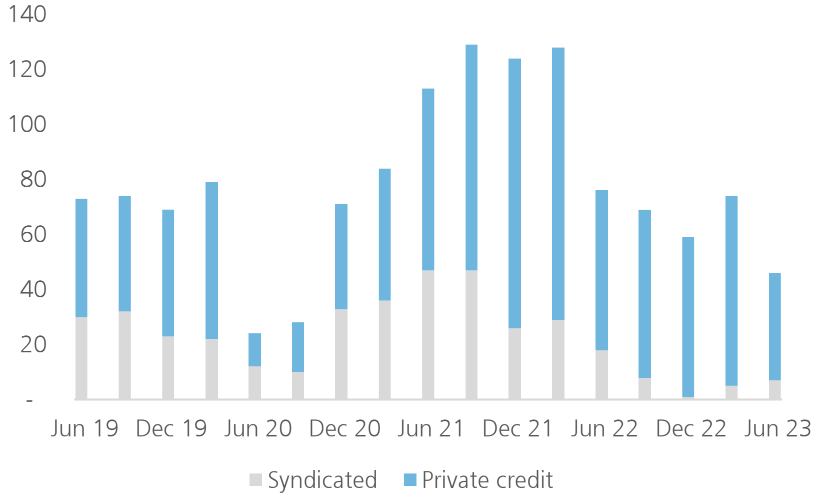
Direct lending deal volume, in USD bn



Source: Refinitiv, *2Q23, October 2023

Still private lenders remain the financing of choice for buyout funds

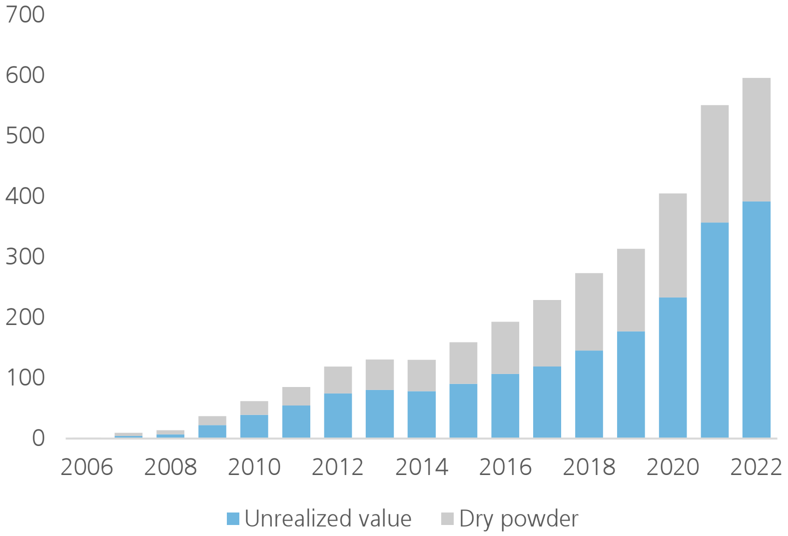
LBO deal count per source of funding



Source: Pitchbook, LCD 2Q23, Bloomberg, October 2023

Healthy dry powder levels suggests competition for market share will continue

Direct lending AuM, in bn USD



Source: Pitchbook 4Q22, October 2023

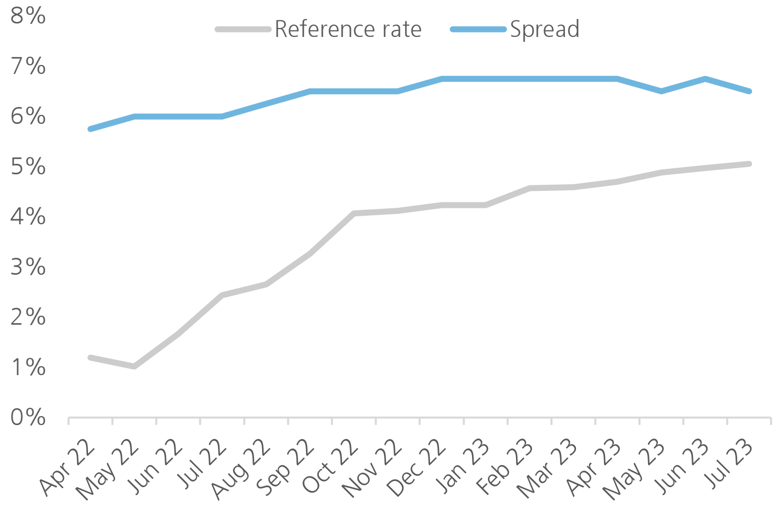
- Private lenders continued to work hand in hand with PE managers and largely dominated LBO financing during the first half of 2023. According to Pitchbook LCD, 120 LBOs closed during 1H23 and 108 used private lending as a source of funding, compared to only 12 executed through the syndicated market.
- In dollar terms, however, we note a slowdown in LBO volumes, as both private debt and private equity managers are becoming more selective and are increasingly focused on smaller deals with less leverage. This trend, however, does not necessarily indicate a lack of opportunity to lend. According to Pitchbook, the number of non-LBO US transactions financed by private credit exceeded those financed by the broadly syndicated market in each of the last five quarters.
- Direct lenders still hold a sizable amount of dry powder and remain in a good position to take advantage of further bank retrenchment. Opportunities to deploy capital are plentiful and have increased following recent banking stress in the US. The FDIC proposal in July 2023 to strengthen capital requirements on a large set of US banks (including smaller ones) may require balance sheet de-risking and asset shedding. Direct lenders are in a good position to act as liquidity providers. Selectivity, however, will likely continue to increase, and underwriting activity should moderate year-over-year as appetite for risk is continuously reassessed.

Private credit – loan pricing trends

Newly issued loans are offering attractive yields amid higher spreads and higher benchmark rates

Moderate spread contraction in recent months

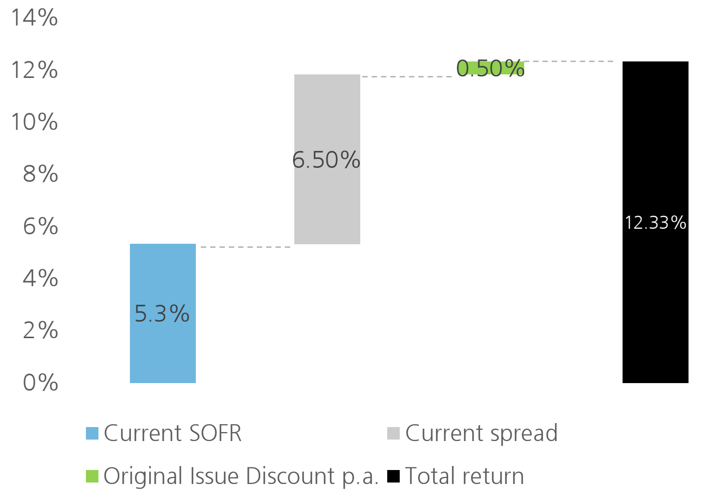
Newly issued private loan spreads vs. SOFR



Source: JPM, dataset of 455 new deals and add-ons, UBS October 2023

At current levels, new loans are yielding double-digit income returns

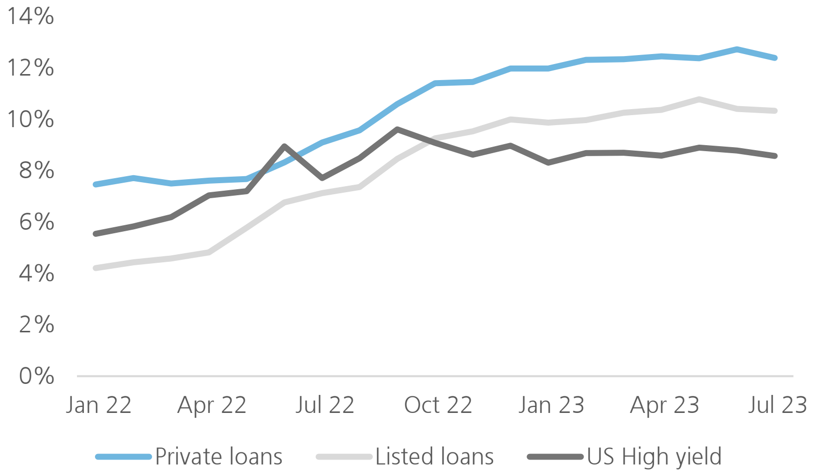
Estimated total return for newly issued private loans



Source: JPM, dataset of 455 new deals and add-ons, UBS October 2023

Despite listed fixed income yields resetting, private loans still offer better returns

Yield-to-maturity across fixed income instruments



Source: JPM, dataset of 455 new deals and add-ons, Pitchbook LCD, Bloomberg, UBS, October 2023.

- New loans offer very attractive yields. Using JPM data, the median private credit transaction in July originated at all-in spread of 650bps over the reference rate. At current levels, private loans are yielding a coupon of close to 12.3% p.a. on an unlevered basis.
- Relative to public markets, this represents a yield pick up of about 200bps relative to syndicated loans and 400bps relative to high yield.
- With interest rates likely to remain elevated throughout 2023 and our expectation of moderate cuts in 2024, the pricing environment remains supportive for new loans.

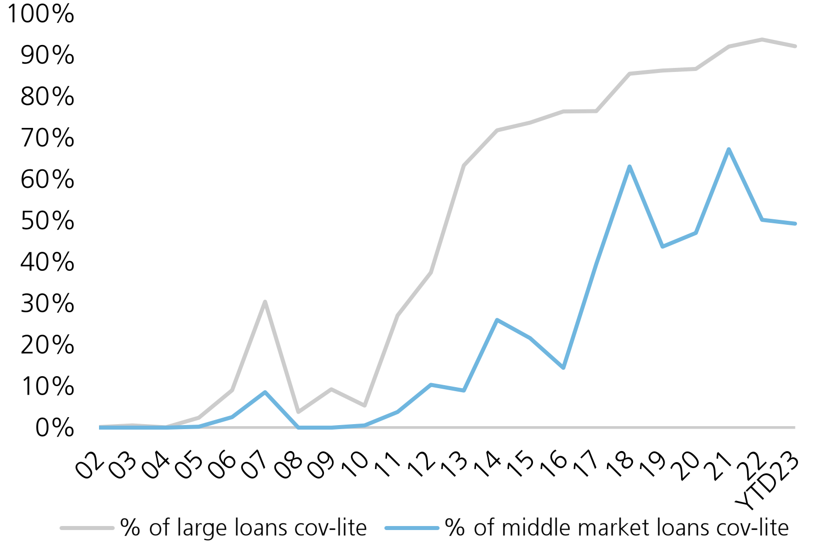
UBS

Private credit – growing protection for lenders

Current market dynamics are more lender-friendly

New loans are originated with stronger lender protection

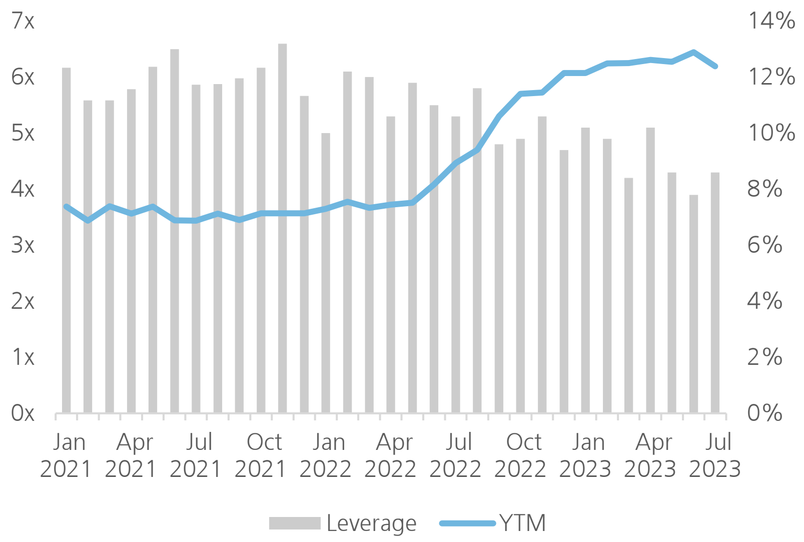
New issuances of cov-lite loans as % of total US syndicated loans



Source: Pitchbook LCD 2Q23, October 2023

Financial sponsors are applying less leverage

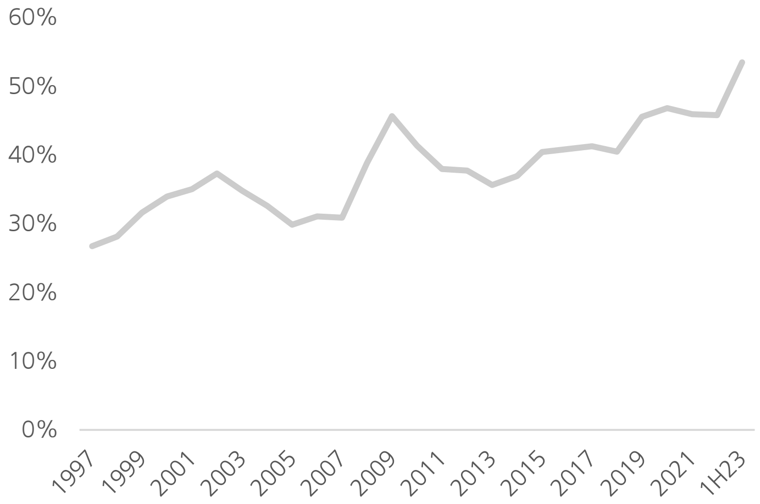
Newly originated private loans - leverage (lhs) and yield to maturity (rhs)



Source: JPM, dataset of 455 new deals and add-ons, UBS October 2023

Equity contributions are on the rise

LBO total equity contribution in %



Source: Pitchbook LCD, 2Q23 UBS October 2023

- Capital scarcity means more challenging conditions for borrowers. But it also means private lenders are in a better position to dictate terms and negotiate stronger lender protections.
- Leverage levels are also revised downward. According to JPM data, recent transactions show financial sponsors are using one to two turn less of leverage. Equity contributions have moved upward (currently standing at their highest point since 1997) and provide meaningful cushion in cases of defaults.
- For investors, newly originated private loans are yielding more and exhibit better downside protection and credit quality than a year ago.

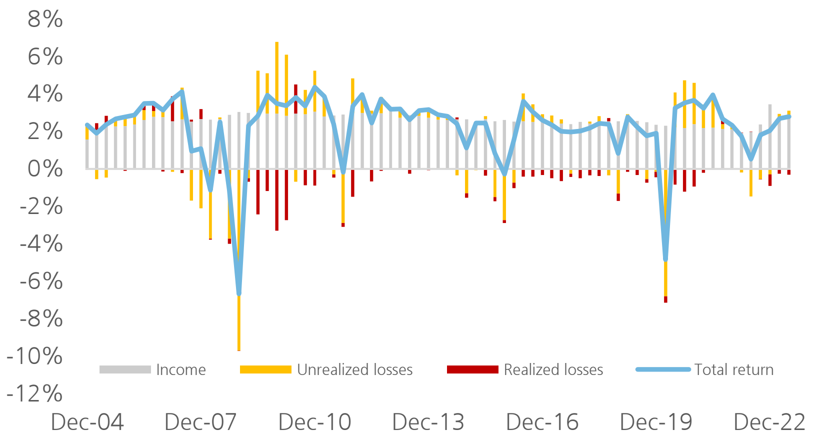
UBS

Private credit – performance in turbulent times

Direct lending strategies remains resilient, but losses can occur

Stable income partially offsetting realized and unrealized losses

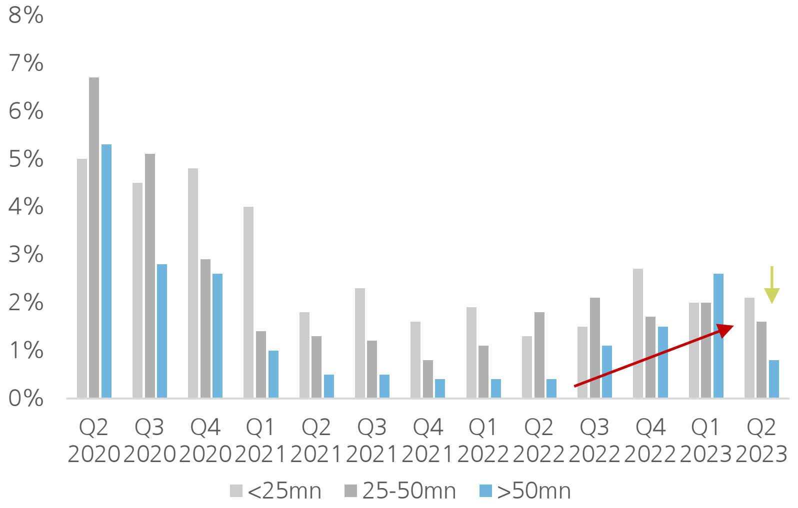
CDLI Index quarterly total return breakdown, in %



Source: Bloomberg, CDLI 3Q22, UBS October 2023. Returns for the CDLI are unlevered gross of fees

Default rates show signs of moderation, but lagged effects could still fuel borrower stress

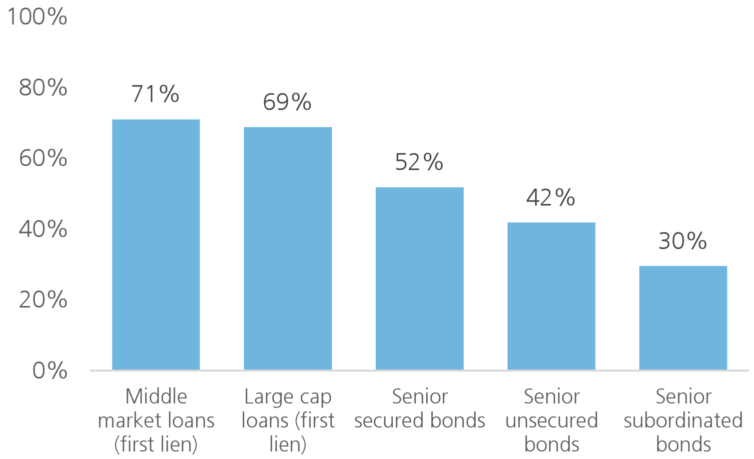
Private loan default rates by company size (EBITDA)



Source: Proskauer 2Q23, UBS October 2023

Historically, private loans have shown better recovery rates than subordinated debt

USD weighted discounted recoveries between 1980-2021, in %



Source: Bloomberg, S&P Credit LossStats, Pitchbook LCD, UBS October 2023

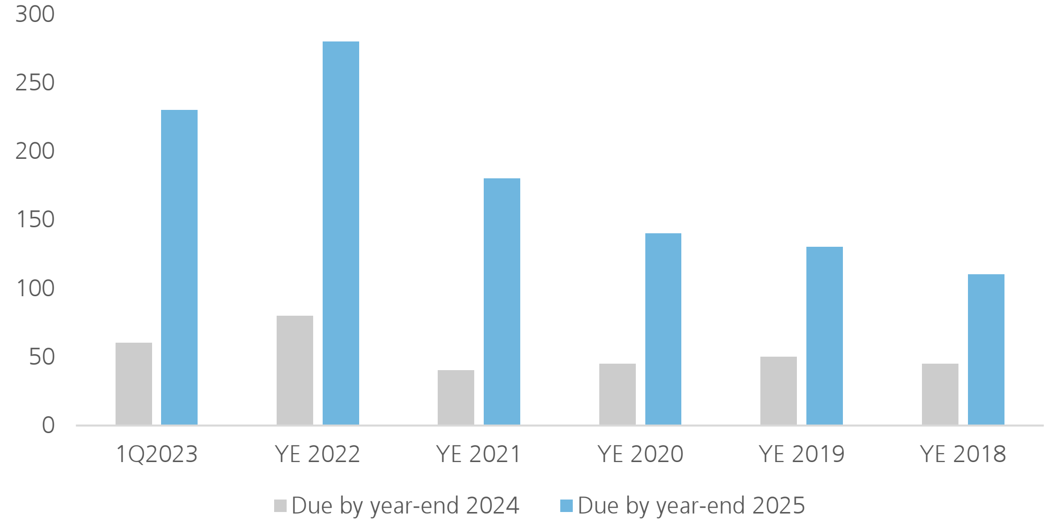
- Private loans typically exhibit better price stability than other non-investment grade credit instruments, but losses can occur. During the GFC and the COVID-19 pandemic, the CDLI index—a measure of private loan performance—lost 6.7% and 4.8%, respectively.
- Default rates for private loans are generally lower than those of subordinated debt. According to Proskauer, during COVID-19, defaults rates on private loans—depending on company size—peaked at 5% to 7%, compared to 10% for US high yield bonds. Private loans are also senior on the capital structure. This means that they are first in line for repayment in the case of a default. As a result, they exhibit better recovery rates than subordinated bonds.
- Since summer 2022, default rates have been on a moderate uptrend. Recent data shows encouraging signs of a peak suggesting managers are addressing stress actively (maturity extension in exchange of equity, PIKs,..). Our base case of a US economic soft landing is supportive of default rates stabilizing at around lower-to-mid-single digits. But higher rates could still have lagged effects in fueling over-levered borrower distress and defaults. Managers with turnaround capabilities and/or experience in taking equity ownership have an edge in this environment.

Private credit – distressed debt as a counter-cyclical strategy

Special situation/distressed debt strategies may still find opportunities in a soft-landing environment

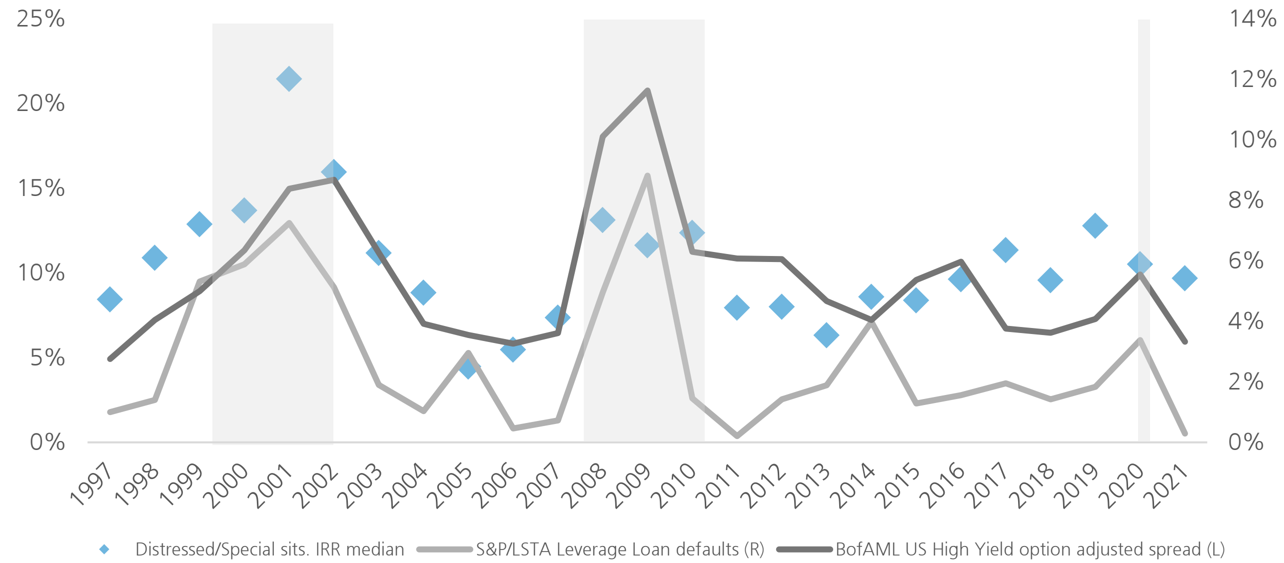
69% of leveraged loan debt due by end 2024 is rated B- or lower

US leveraged loan maturity wall in bn USD



Source: Pitchbook LCD 1Q2023, UBS, as of October 2023

Historically, distressed managers have been able to monetize on credit dislocations

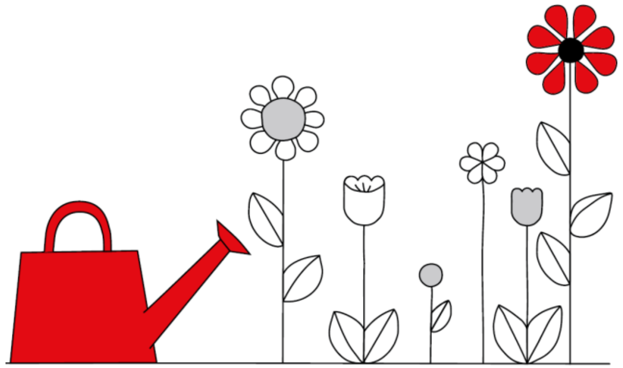


Source: Federal Reserve of St. Louis, Pitchbook, LCD, UBS estimates, October 2023. Note: Leverage loan defaults reflect (Last 12 month $ of defaults) / (total outstanding)

- Given our view that a soft landing is achievable in 2024, we no longer expect a broad-based default cycle. Instead, we think the distress opportunity is likely to be more focused in areas of the market where damage has already been done with commercial real estate a clear area of focus.
- In other sectors, we continue to see over-levered businesses struggling to grow earning fast enough to cover the current cost of debt as interesting opportunities to deploy capital.
- Lastly, the maturity wall of the leveraged loan market over the next 2-3 years should provide decent deal flow for distressed and special situation funds, especially in the lower rated segments.

Real assets

Key views



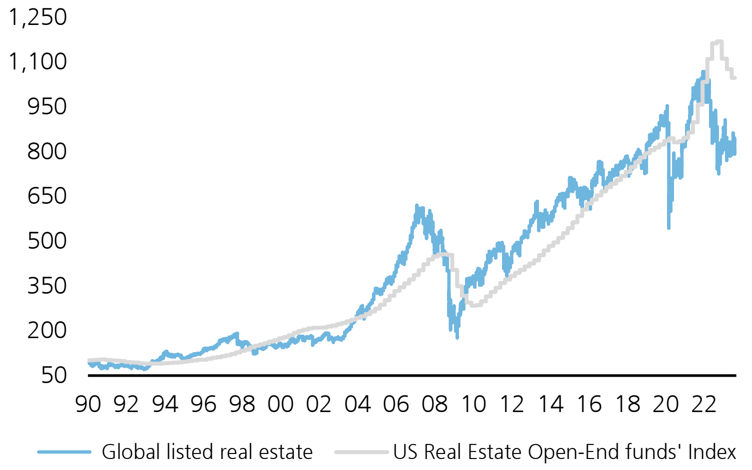
- **Commercial real estate** has become widely cited as one potential risk area as the sector adjusts to the post-pandemic increase in office vacancy rates, high refinancing costs, and default on office-backed loans.
- While the lower-quality segment of the bifurcated US office market faces challenges, commercial real estate is made up of more than offices, and its more defensive areas have stronger fundamentals.
- In logistics, for example, we continue to see healthy fundamental developments. We are selective on the residential market depending on the location and the specific demand/supply balance. Inflation-indexed rents where regulation is supportive from a landlord perspective should continue to drive rental income higher but likely at a slower pace than previous quarters.
- Importantly, well-capitalized assets for which interest rate risk has been hedged at lower-than-prevailing levels should remain somewhat insulated from current financing pressure. Finally, while still too early, we believe current real estate dislocations will provide interesting opportunities to invest. Should some office properties further correct in price, we see conversion and refitting a potential opportunity for a certain subset of office buildings.
- **Infrastructure-linked assets**, meanwhile, have shown resiliency to current macroeconomic pressures while benefiting from policy and structural tailwinds. According to Cambridge data, infrastructure gained on average 2.6% in 1Q23 while Burgiss preliminary numbers indicate 1.5% for 2Q23. High barriers to entry and the monopolistic positioning of many of these assets make them less sensitive to the business cycle. Higher inflation is increasing returns for those that have an explicit cashflow link to inflation. Valuations in some areas are not cheap but will likely continue to command a premium despite higher interest rates. The USD 369bn Inflation Reduction Act, together with other global infrastructure stimulus plans, will continue to provide incentives to invest in the space.
- Not all infrastructure assets are created equal, however. And we expect fundamentals to matter more moving forward. In the current environment, we recommend investing in core/core plus assets that benefit from robust, predictable and inflation-linked cash flows that are less exposed to cyclical pressures and that have adequate leverage levels.
- Investors looking to invest in private assets should consider the risks related to these strategies that are described on slide 3.

Real Estate – Valuations continue to adjust

Open-ended fund NAVs dropped 3% in 2Q23 and are down 10% since their peak in 3Q22

Valuations are adjusting lower

Non-listed global real estate funds vs. listed real estate total return



Source: FTSE EPRA NAREIT Developed Total Return Index for listed, NCREIF Fund Index for Open-end Diversified Core Equities provides quarterly and annual total returns for 28 institutional open-end commingled real estate funds. Bloomberg, UBS, October 2023

Transaction activity still subdued but showing signs of stabilization

Global direct real estate investment volumes, in USD bn

Source: JLL, *1H23, UBS, October 2023

Lower valuations should be partially offset by rental income growth

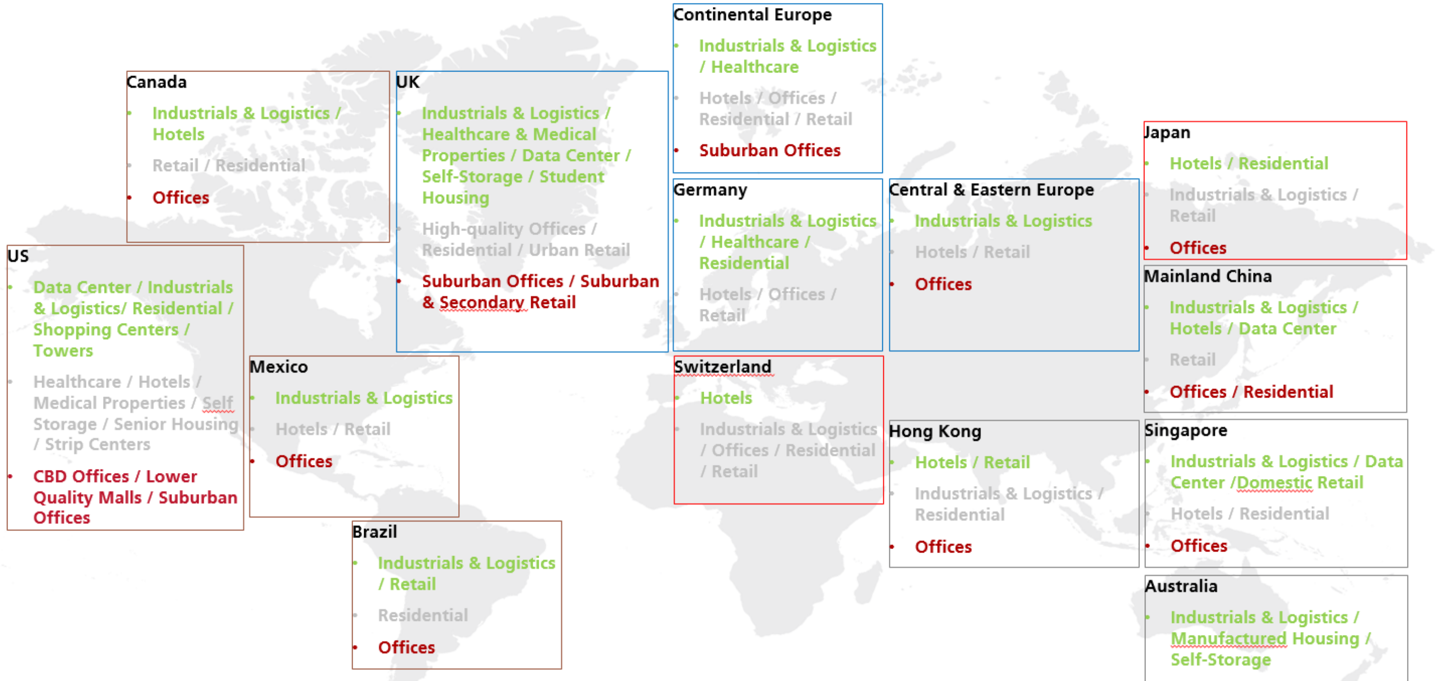
Total return for global direct real estate (in %)

Source: MSCI/IPD, UBS, October 2023

- After peaking in summer 2022, limited redemption real estate fund NAVs have been on a declining trend. THE NCREIF NDI-ODCE Index has dropped 10% from its peak in 3Q22 through 2Q23. The pace of declines however is decelerating, with 2Q23 (-2.7%) showing some moderation compared 1Q23 (-3.2%) and 4Q22 (-5%).
- For now, valuations should remain under pressure amid tight financing conditions but could improve as we move into 2024. Real estate transaction activity is subdued but bidding activity is showing early signs of stabilization, indicating that valuations may have already repriced enough to start attracting investors again.
- Capital growth's contribution to returns is likely to be negative in 2023 but partially offset by positive rental income growth depending on sector and asset quality. We anticipate 2024 to show both positive rental and capital growth.

Real estate – Focus on quality and resiliency

We hold a neutral view on real estate and recommend to stay invested in line with benchmark allocations, with a focus on the strongest subsectors



Source: UBS, as of October 2023

Note: This assessment considers the attractiveness of a market compared to its own historical data.

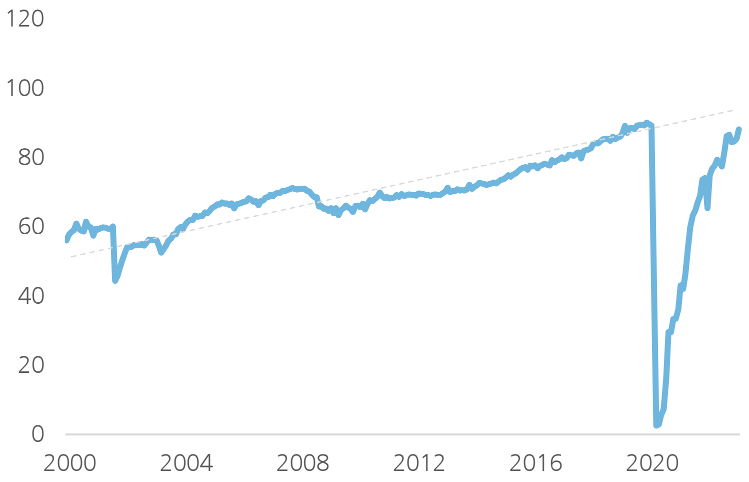
- In the current environment, we maintain a focus on quality and resilience and favor properties with strong market fundamentals. In logistics for instance, supply has been crimped by more conservative bank lending standards and higher construction costs since the pandemic. Meanwhile, demand has risen thanks to secular developments like rising e-commerce penetration. Expected rental income growth, whether indexed to inflation measures or not, should partly offset falling net asset values from interest rate normalization.
- We also think US and European multifamily assets should stay broadly supported by a structural lack of supply and occupancy rate stability. We also continue to recommend exposure to real estate assets in niches like data centers and towers.
- However, we continue to refrain from investing in suburban offices given near-term challenges.

Infrastructure – A structural opportunity

Infrastructure assets are key beneficiaries of demographics, digitalization, and decarbonization trends

Growing transportation needs amid rising global urban population

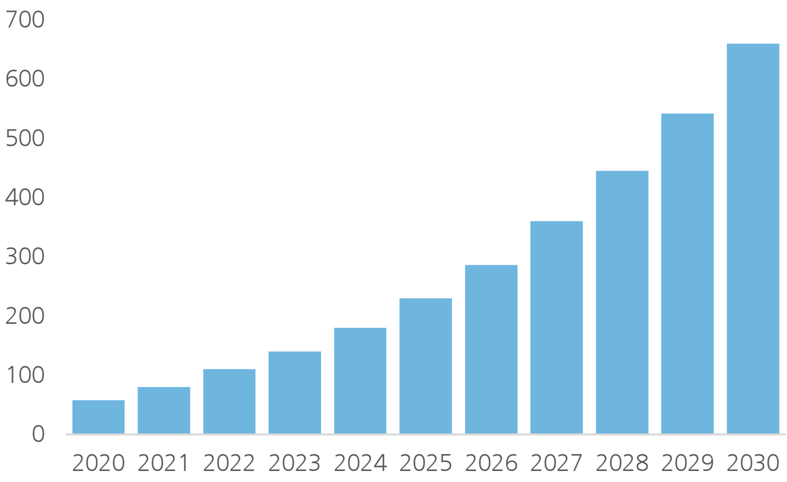
US air revenue passenger Miles, seasonally adjusted, in bn



Source: FRED, UBS October 2023

Digital data growth should accelerate from 2020 - 2030

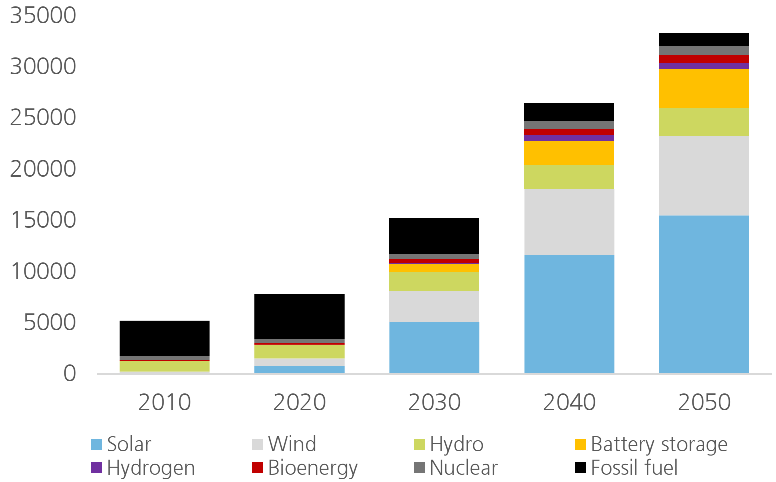
Annual size of the global datasphere, in zettabyte



Source: IDC, EMC, Bloomberg Intelligence, UBS, October 2023

Net Zero cannot be achieved without expanding renewables capacity

World electricity production - Net Zero Emissions by 2050 scenario (in Gigawatt)



Source: IEA, WEO 20222, UBS October 2023

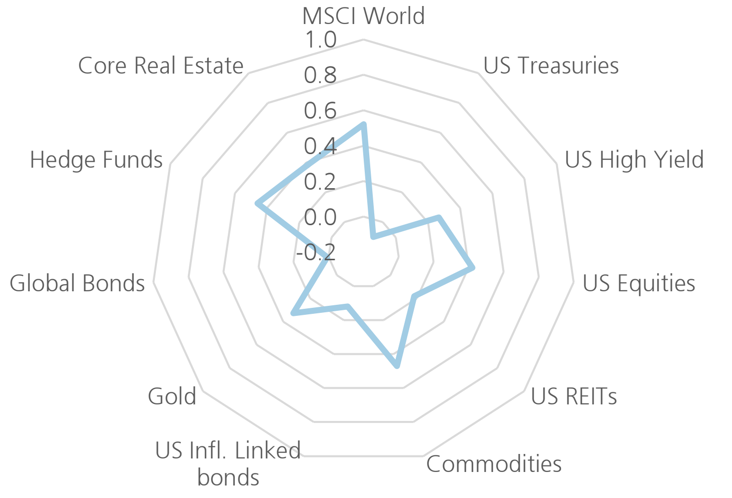
- Structural trends forcing the need to create new infrastructure assets while replacing/modernizing existing ones should provide attractive investment opportunities.
- The UN forecasts urban population to increase by over 2 billion by 2050 resulting in more demand for resilient transportation and mobility systems as well as uninterrupted access to electricity and water. Digital data usage meanwhile is also poised to accelerate this decade, with smart automation and artificial intelligence powering the fourth industrial revolution. This means more investments in communication assets from fiber to data centers and wireless antennas. Importantly, achieving the ambitious target of net zero emissions by 2050, requires ramping up the efforts on green energy and energy efficiency technologies particularly in areas such solar wind hydrogen and battery storage.
- Governments globally are creating a supportive environment for private infrastructure investments. From the Inflation Reduction Act in the US to the European Green deal, government support should spur capacity expansions (notably in renewables) while enhancing current and future project economics and competitiveness.

Infrastructure – A valuable tool in a portfolio

Stable and predictable returns with low correlation and inflation linked characteristics

Infrastructure exhibit low correlation to other asset classes

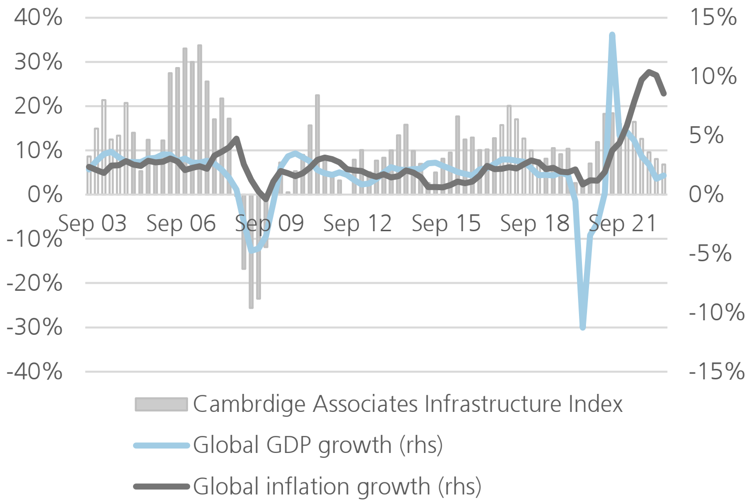
Correlation of the Cambridge Infrastructure index vs other asset classes (2005-2022)



Source: UBS, Bloomberg, Cambridge Associates, October 2023

Several assets offer stable predictable returns with less sensitivity to the global economy

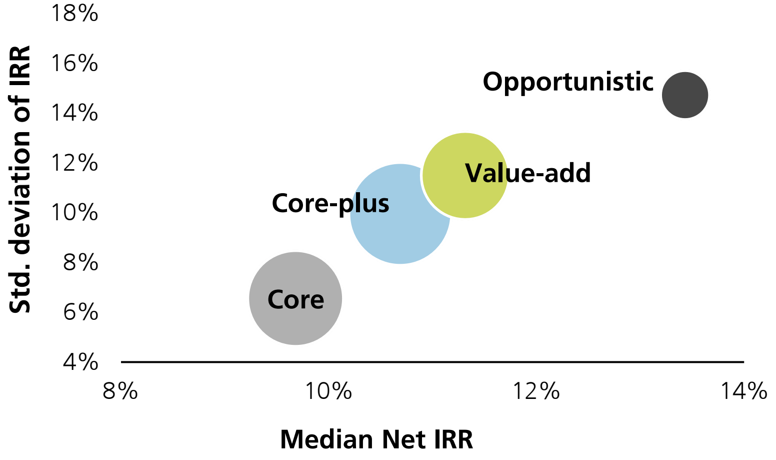
Infrastructure returns vs changes in GDP and inflation



Source: OECD, Cambridge Associates, UBS, October 2023

Infrastructure strategies offer good returns

Infrastructure risk and return by strategy (vintages 2007–18), size of each circle represents the % of AUM



Source: Preqin, UBS October 2023

- Infrastructure includes assets across various sectors of the economy from regulated utilities to power stations, transportation, telecom and social infrastructure. Often, these asset exhibit the following common characteristics- high barrier to entry, low price elasticity of demand, stable and inflation linked cash flows.
- In the context of a portfolio, infrastructure assets exhibit low correlation to other investments and can serve as a powerful diversifier. Many infrastructure assets (e.g. contracted/regulated) show limited correlation to the economic cycle and resilience to inflationary environments.
- The asset class is nonetheless vast and various strategies offer different risk/return profiles. Core/core-plus strategies are typically a good source of stable return/income targeting mature and yielding assets with no or limited operational risk. Value-add and opportunistic strategies meanwhile can offer higher returns but also come at a higher risk given that targeted assets may require enhancements or be constructed in their entirety.
- In the current environment, we recommend investing in core/core plus assets that benefit from robust, predictable, and inflation-linked cashflows; that are less exposed to cyclical pressures; and have adequate leverage levels.

Risk information

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In addition to the risks that apply to alternative investments generally, the following are additional risks related to an investment in these strategies:

- Hedge Fund Risk: There are risks specifically associated with investing in hedge funds, which may include risks associated with investing in short sales, options, small-cap stocks, "junk bonds," derivatives, distressed securities, non-U.S. securities and illiquid investments.
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- Foreign Exchange/Currency Risk: Investors in securities of issuers located outside of the United States should be aware that even for securities denominated in U.S. dollars, changes in the exchange rate between the U.S. dollar and the issuer's "home" currency can have unexpected effects on the market value and liquidity of those securities. Those securities may also be affected by other risks (such as political, economic or regulatory changes) that may not be readily known to a U.S. investor.

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