UBS

Chief Investment Office GWM
Investment Research

Private Markets Extended

2Q24

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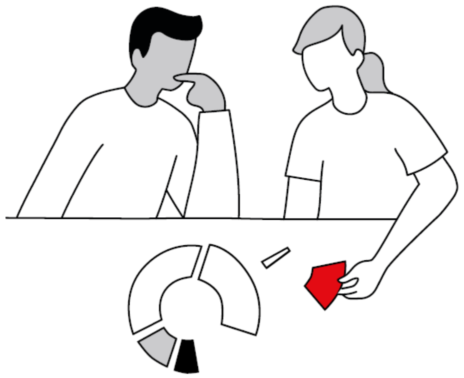
Executive summary

Key views



- Private assets play a key role in long-term investment plans with benefits both in terms of potentially better risk-adjusted performance and enhanced diversification.
- Over the long run, we expect portfolios that include private assets to outperform those that do not. Less efficient markets and active ownership offer a greater potential to capture a premium over public markets. Investors who can tolerate some illiquidity but are focusing solely on stocks and bonds may be giving up performance that over time can lead to sustained long term wealth creation.
- Capital allocation shifts across the economy are also making these assets harder to ignore today. Evidence of that is visible in the structural decline of the number of listed companies in developed markets as companies stay private for longer. Bank disintermediation has also led the private credit market to grow and to become a competing source of funding compared to public capital. With secular forces such as digitalization, decarbonization, and deglobalization likely to have a profound impact on the economy and financial markets over the coming decade, we think private assets can help fill the gap in companies, sectors, and areas that may be underrepresented in public exchanges.
- Tactically, the most attractive opportunities we see include:
- **In private equity**, we currently seek exposure to value-oriented buyout and continue to recommend allocations to secondaries. Thematic private equity also represents an opportunity for investors who seek to capture long-term growth in areas such as software, health, and climate-related solutions.
- **In private credit**, return prospects for direct lenders look attractive amid higher yields. Risks remain contained but selectivity, size, and seniority will matter more moving forward, in our view. Tactically, we see good opportunities in distressed and special situation funds given stress in the commercial real estate market or the upcoming maturity wall in the leverage loan market.
- 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 which 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. Limited partners (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.

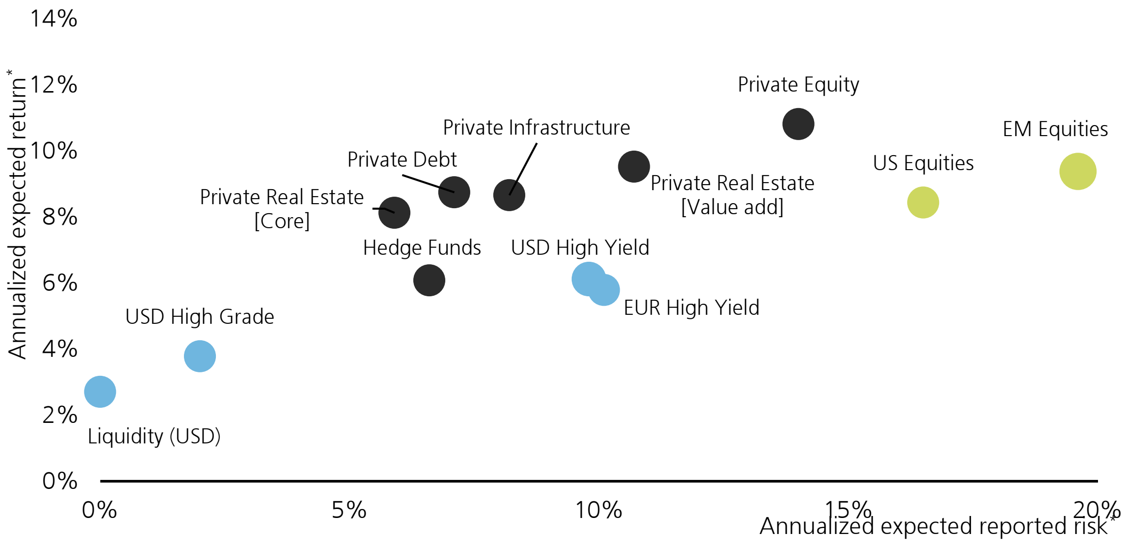
Use of leverage. This is not a blanket risk. Certain private markets strategies such as buyout use significant leverage which poses potential default risk if the company encounters stress, but many PM strategies do not involve any leverage. Prudent leverage in the right situation has historically shown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

Maintaining a long-term view to support wealth accumulation

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

We expect private assets to outperform most traditional assets over the course of a full economic cycle

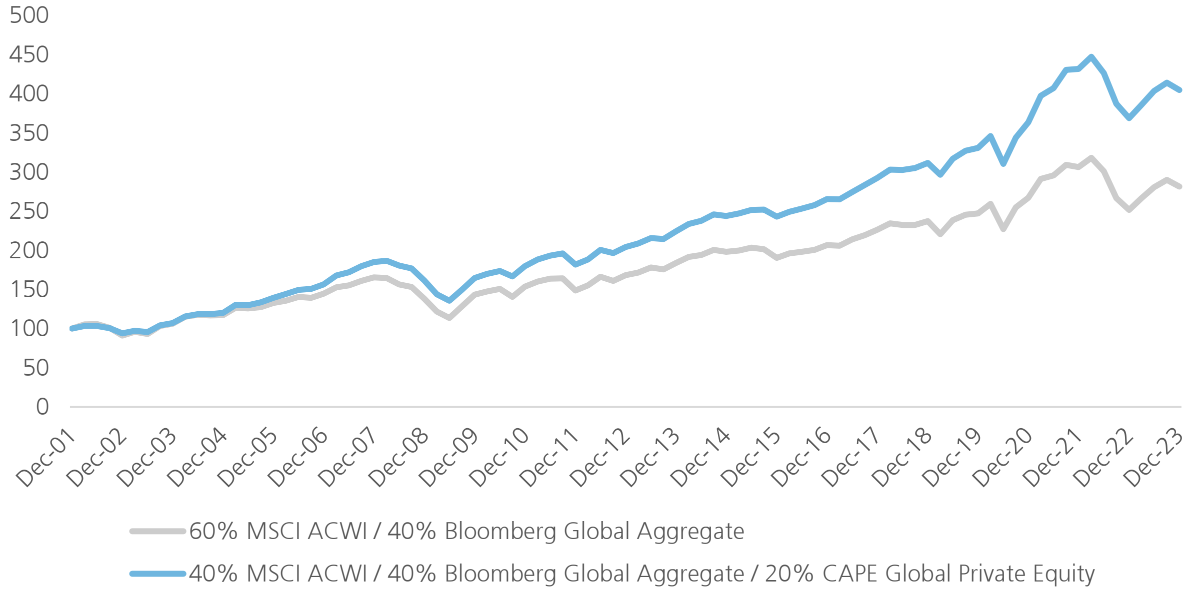
Expected annualized risk and return for traditional and private market investments



Source: Source: UBS GWM Chief Investment Office (CIO) *Note: Annualized expected risks / return figures are based on the CIO Capital Market Assumptions (CMA) 2024. 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. (geometric 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- 4Q2023



Source: Bloomberg, Cambridge Associates, UBS May 2024

- Maintaining a long-term view, especially in times of 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 continuously review their liquidity and risk tolerance and adjust to macro economic conditions when 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.

The decade ahead will be a decade of change marked by the 5Ds

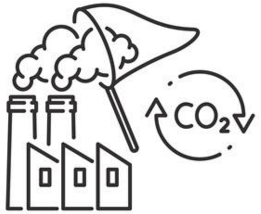
Deglobalization

New restrictions up 6x from 2013

Demographics

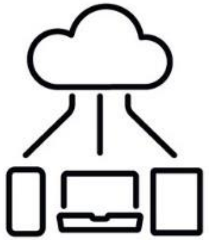
1 in 8 people to age over 65 years by 2034

Decarbonization



Global renewable power generation up 12x during 2000-20

Digitalization



Global PCs and tablet shipments +270% during 2000-21

Debt

Global debt-to-GDP ratio at 335% vs. 310% in 2014

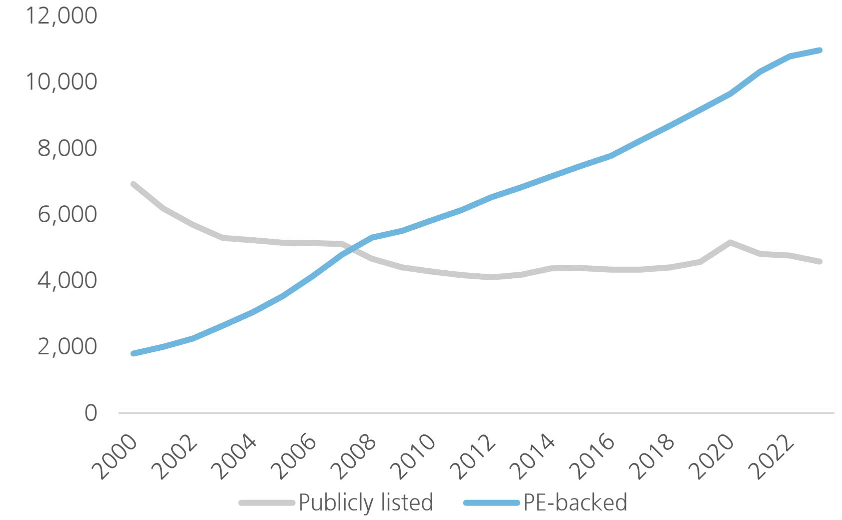
Source: IDC, World Bank, OECD, Bloomberg, Energy Institute Statistical Review of World Energy 2023, UBS, as of January 2024
Charts and scenarios are for illustrative purposes only. Historical performance and forecasts are no guarantee for future performance.
Please see important disclaimer at the end of the document.

Filling potential gaps in asset allocations

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

Accessing fast-growing businesses through listed equities is becoming harder

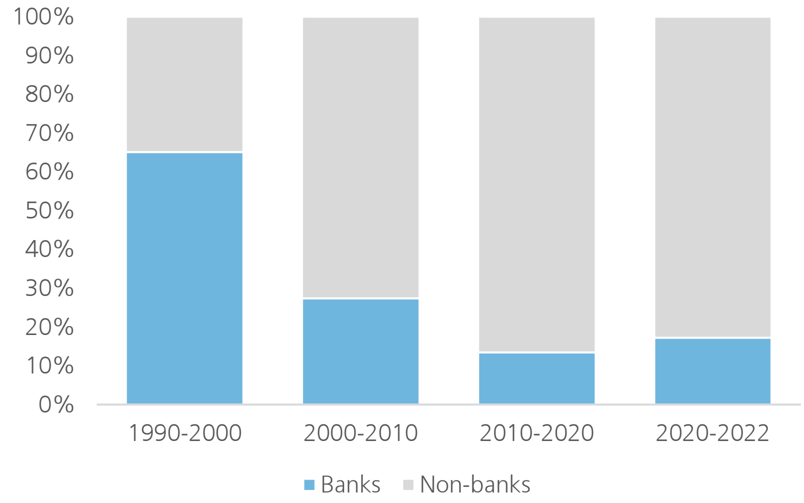
Number of PE-backed vs domestic listed firms on NYSE and Nasdaq



Source: Pitchbook, UBS May 2024

Private debt is an important source of funding for the economy

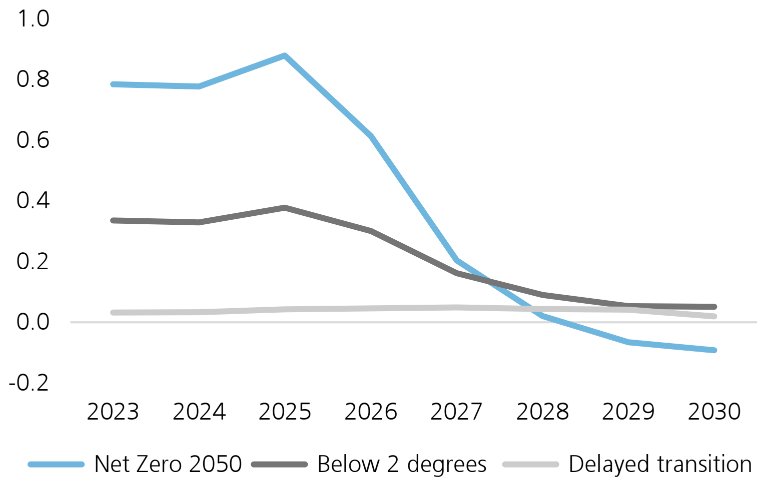
Banks share of participation in the U.S. syndicated leveraged loan market in %



Source: Source: Pitchbook, LCD, UBS May 2024

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

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



Source: NGFS, UBS, May 2024

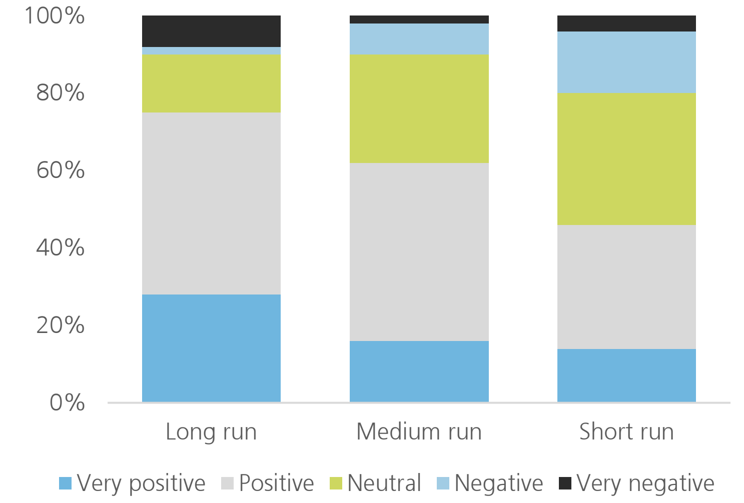
- Innovation requires significant amount of capital. Private market managers, with their ability to provide funding through equity or debt investment to companies at different stages of their lifecycle, have a key role to play in building tomorrow's economy. Meanwhile, gaining exposure to fast-growing and innovative businesses through listed equities 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 is unlikely 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 otherwise risking underexposure to attractive sectors of the economy.
- Similarly, traditional lenders' ability to provide credit is likely to remain constrained, especially following stress in the US banking sector in 2023. 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 broad economy.
- Finally, we expect inflation to fall back toward central banks' targets. However, navigating this path while attempting to preserve growth will be difficult. This is made even more complicated by de-globalization and de-carbonization trends, which could 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.

Survey data indicate positive investor sentiment toward the asset class

Entering 2024, limited partners (LPs) seek to allocate more towards buyout and GP-led secondaries

75% of LPs are positive about private markets vs. public markets in the long run

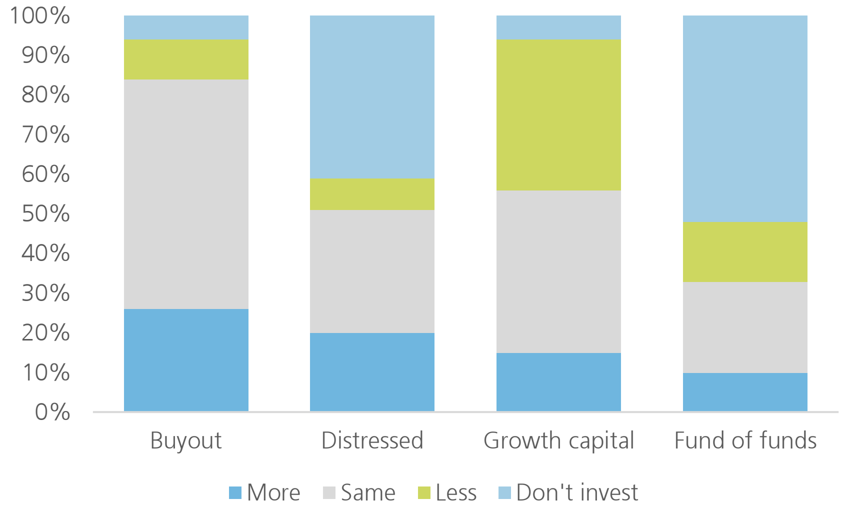
Survey of LP expectations on future private market returns given the current macro backdrop



Source: PEI LP perspectives 2024, UBS May 2024

Most LPs plan to increase allocations to buyout funds

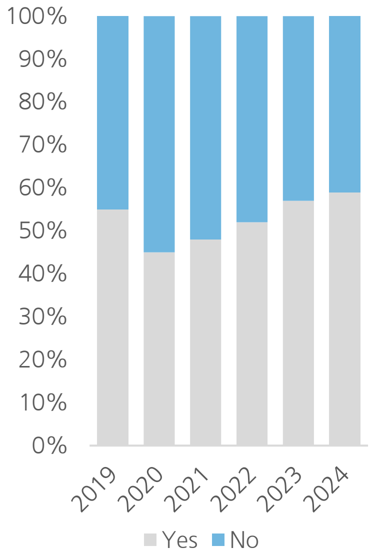
% of surveyed LPs looking to increase decrease allocations over the next 12 months



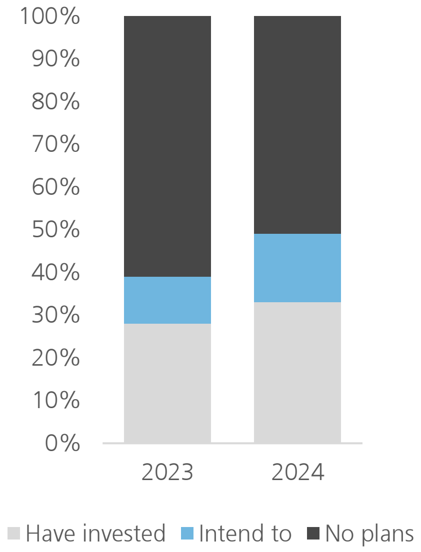
Source: PEI LP perspectives 2024, UBS May 2024

LPs also plan to invest more into secondaries

% plan to commit to broad secondaries



% plan to commit GP-led secondaries



Source: PEI LP perspectives 2024, UBS May 2024

- According to a PEI investor survey of 117 LPs conducted in December 2023, sentiment towards private markets entering 2024 remains overwhelmingly positive in the medium to long term, albeit with some caution in the short run. 46% of investors are positive or very positive about private market investing in the short term compared to 75% over the long term. The slow pace of distributions, inflation, high interest rates and recession risks are some of the key concerns among surveyed investors.
- LPs however reported they will continue to invest in 2024. 45% of LPs are planning to increase their private market commitments over the next 12 months, while only 16% report plans to reduce allocations. 39% plan to maintain their commitment pace.
- Per strategies, buyout strategies are a key area of focus with circa 80% of LPs planning to maintain or invest more capital. 59% also indicated commitments to secondaries with a special focus on GP-led secondaries.

Private equity

Key views

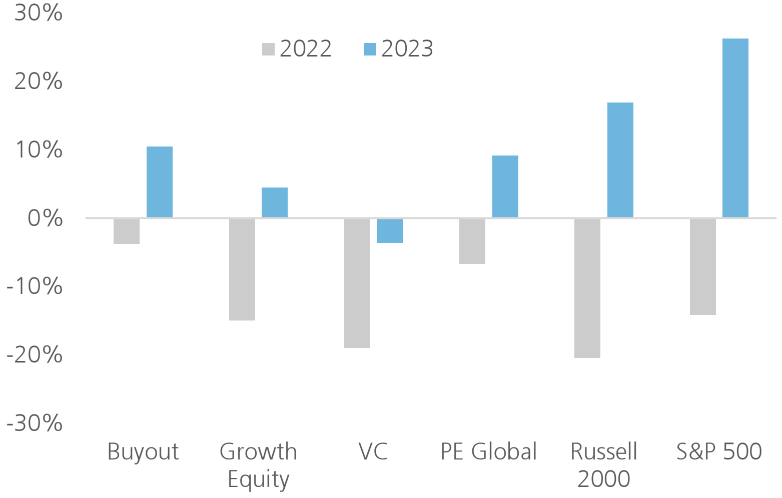
- The private equity industry continues to adjust to the macro-economic environment of elevated interest rates, sticky inflation, but resilient growth. 1Q24 data, however, indicate a turning point is nearing. PE valuations seem to have found a bottom. Transaction activity, while down in dollar value, is picking up in deal count. Realizations have yet to build more momentum, but we think conditions are there for an acceleration in the coming quarters.
- A return to normality in the PE space will likely take a few more quarters, but we think this is a great time to allocate to the asset class. Entry valuations for new portfolio companies are back to pre-COVID averages (unlike public equities), offering an opportunity to acquire good assets at a great price. Our constructive view on the economy coupled with private companies' resilient growth so far also support investments. Funding costs remain elevated. We do anticipate some rate cuts in the second half of the year, but less than our earlier expectations. To us, this means investors should stay invested but be pickier with new allocations.
- We prefer GPs with a strong track record in value creation tactics, a particular focus on growing margins and revenues, and ability to secure lower entry multiples. We see opportunities in those buyout strategies with a value bias that can seize opportunities in the middle market, as well as in more complex situations such as carveouts, spinoffs, and divestitures where valuations and the potential for value creation is particularly attractive.
- We think secondaries continue to present solid fundamentals, driven by LP and GP needs for liquidity, while also still offering attractive net asset value discounts to investors.
- For investors with a thematic lens, we continue to seek exposure to quality growth in areas such as software, health, and climate-related solutions.

Private equity – performance

Positive performance albeit trailing public markets over a 1-year time window

PE NAVs further gained amid higher public equity valuations & positive EBITDA growth

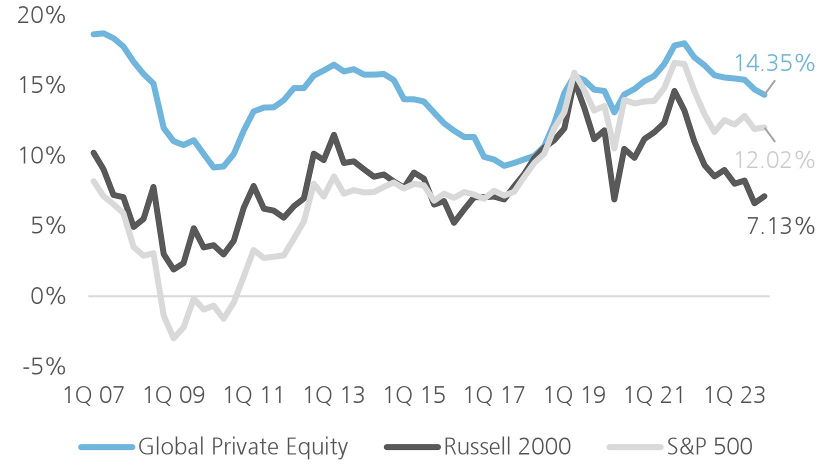
Private equity vs. public equity time weighted returns (as of 4Q23)



Source: Bloomberg, Cambridge Associates, UBS May 2024. Note: includes global buyout and growth equity funds

Over a ten-year rolling period, PE investments still outperformed public equities

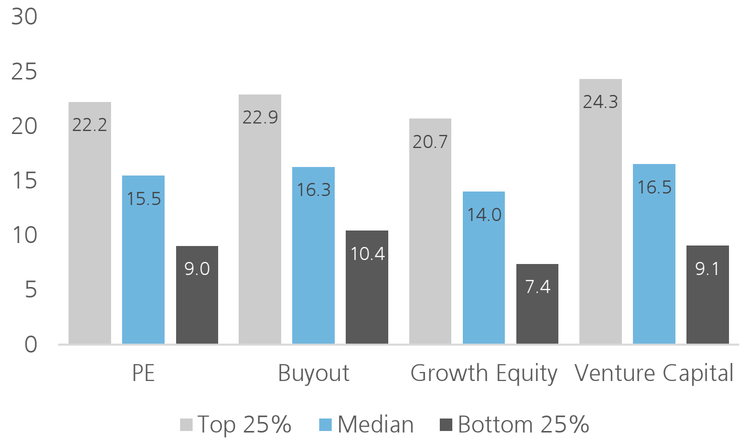
10-year rolling private vs. public equity time weighted returns (as of 4Q2023)



Source: Bloomberg, Cambridge Associates, UBS May 2024. Note: includes global buyout and growth equity funds

However, with noticeable performance dispersion among strategies and funds

Performance by private equity strategy, median IRR and quartile spreads for 2011-2019 funds, in %



Source: Cambridge Associates private equity benchmarks as of 4Q23, UBS, May 2024

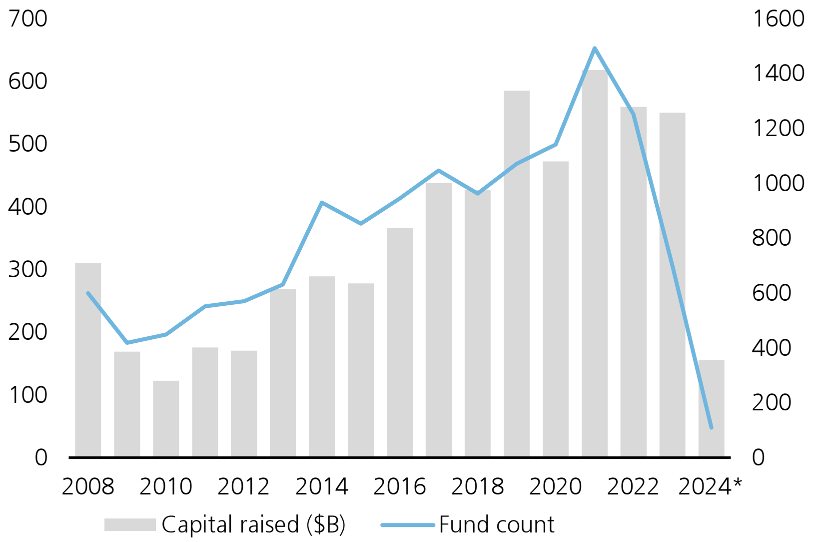
- Preliminary data from Cambridge Associates pegs full-year performance for the broad global PE asset class at 9.12% (+3.75% q/q in 4Q23) with buyout strategies outperforming (+10.5% y/y, +4.1% q/q) followed by growth equity (+4.5% y/y; +2.5% q/q) and venture capital (-3.6%YoY; +0.32% q/q). We anticipate the positive momentum in NAVs in 4Q23 to extend in 1Q24, with higher public market valuations, positive macroeconomic dynamics, and healthy revenue/EBITDA growth as key drivers.
- PE performance over recent quarters has failed to keep up with the sharp rally in public equities. Much of it can be attributed to private valuations not correcting as much as public ones in 2022 and the longer timeframe needed to reflect new information on quarterly NAVs . We view this as a temporary phenomenon and expect private equity assets to retake leadership soon. Over a10-year rolling period, private equity benchmarks outperform public proxies.
- Investors may nevertheless expect higher fund return dispersion, especially between managers who **1)** followed a prudent underwriting/capital deployment plan in the recent years, and **2)** actively engaged with underlying companies to alleviate funding stress versus those who did not.

Private equity – fundraising activity

Fundraising data continue to suggest some level of caution among investors

Fundraising activity has yet to accelerate

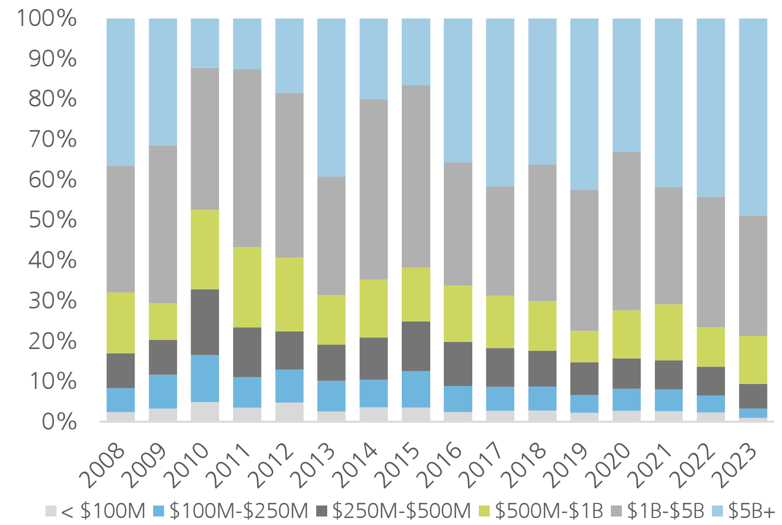
Global private equity fundraising, in USD bn



Source: Pitchbook, UBS May 2024

Mega-caps represent 50% of fundraising

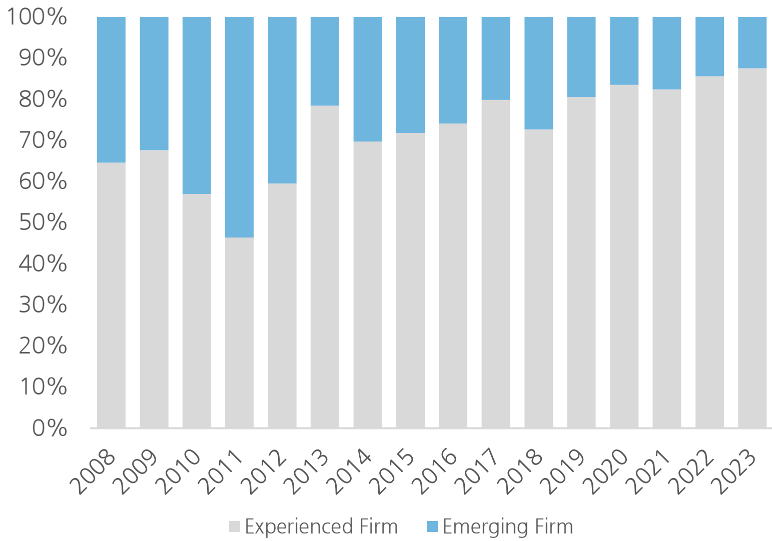
Global private equity fundraising by fund size, in %



Source: Pitchbook, UBS May 2024

Flight-to-quality continues

Global private equity capital raised by manager experience, in %



Source: Pitchbook, UBS May 2024. Emerging managers are those who raised three or fewer funds firmwide

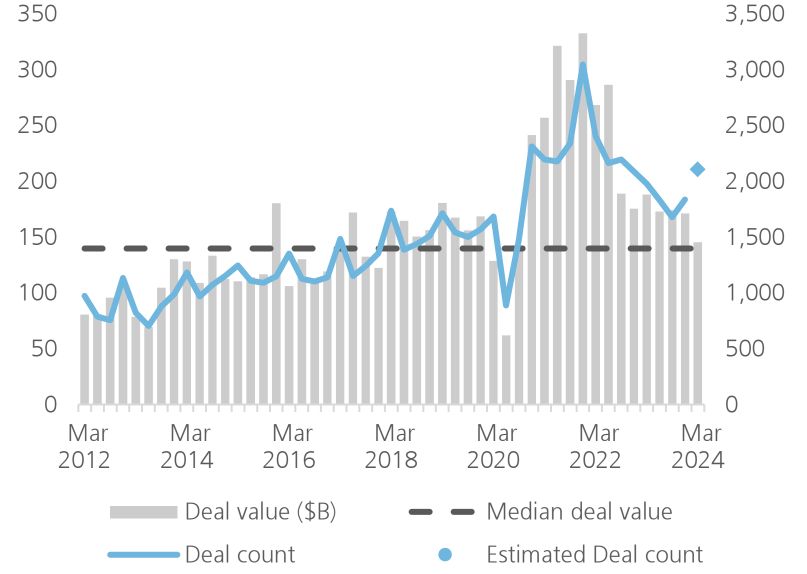
- Global private equity fundraising activity in 1Q24 continued to show signs of caution. According to Pitchbook, about USD 155bn was raised in 1Q24 across 109 private equity funds, a 13% y/y increase in dollar terms, and a 37% y/y decrease in fund count. Most was allocated to buyout strategies. US VC data over the same period were more muted, with USD 9.3bn raised across 100 funds in 1Q, compared to USD 82bn over 597 funds across all of 2023.
- The lack of distributions remains the key factor driving LPs' resistance to broader new commitments. LPs also maintain a preference for experienced managers with a proven track record, a trend that was already in place in 2023. Last year, mega funds (USD 5bn+) captured ~50% of overall funding volume, the most in a single year. But here, too, capital scarcity was reflected in extended closing timelines. Funds that closed, however, were successful in securing larger commitment sizes.
- Stabilizing NAVs, positive public market performance and macroeconomic resilience are positive factors for fundraising activity in 2024. But the pace of distributions will need to accelerate materially before a return to more normal activity levels.

Private equity – transactional activity

Dealmaking and exits should gradually improve in 2024

Transactions may have troughed

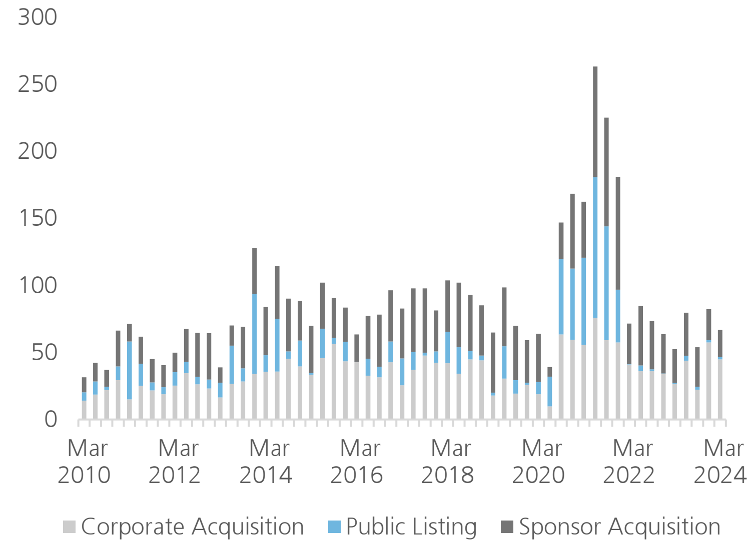
US private equity quarterly deal value and deal count, in USD bn



Source: Pitchbook 1Q24, UBS May 2024

Exit activity still gives mixed signals

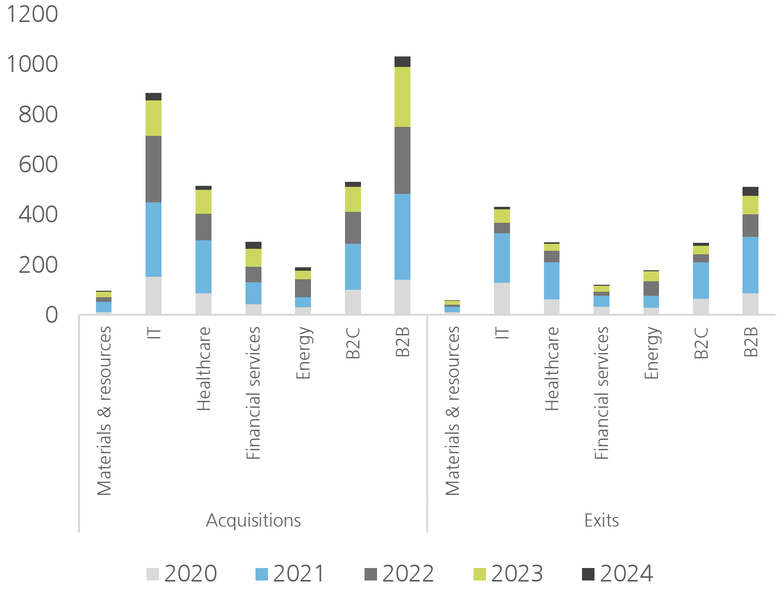
in USD bn



Source: Pitchbook 1Q24, UBS May 2024

B2B and IT sectors are in focus

Acquisition vs. exit volumes (in USD bn)



Source: Pitchbook 1Q24, UBS May 2024

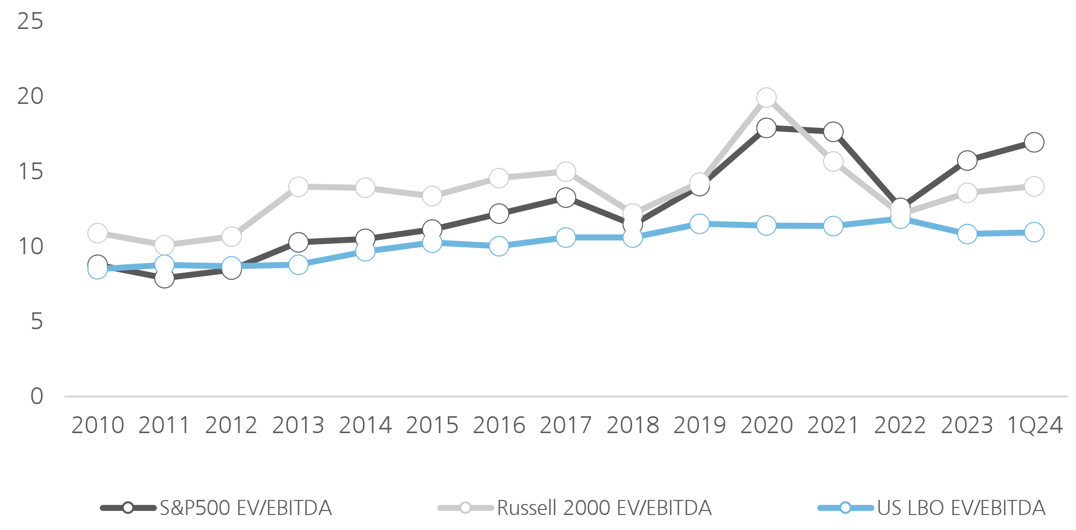
- PE transaction volumes show early signs of stabilization. Per Pitchbook estimates, US deal value contracted 15% in 1Q24, but deal count estimates accelerated from recent quarters. This can be explained by managers shifting away from large platform and take-privates deals, given still high financing costs and high public market valuations. Instead, add-ons, carveouts, and growth equity deals were the main areas of focus given their smaller size, lower dependency on leverage, and better valuations or higher potential for operational enhancement. We anticipate transaction volumes to gradually improve in 2024 and accelerate once financing costs start to move lower. But the preference for smaller, cheaper deals will likely continue.
- Exits, meanwhile, had a slow start to the new year failing to build on 4Q23 momentum and down 19% q/q. We still see good indications for regaining traction in the coming quarters. GPs are increasingly compelled to sell maturing assets and to return capital to liquidity-starved investors. Higher public vs private valuations are making IPO listings attractive. Strategic buyers have cash at hand and have appetite for M&A. Importantly, GP-led secondaries/continuation funds are providing a new exit avenue with 27 such transactions announced in 1Q24 vs 73 for the full-year 2023. The significant backlog of deals and the still-elevated cost of funding, however, suggest patience will be needed for a full recovery.
- In terms of sectors, B2B, technology, and financial services saw the highest levels of transaction and exit activity.

Private equity – purchase price multiples

Entry multiples appear to be stabilizing

LBO entry multiples are stabilizing about 7–8% below peak

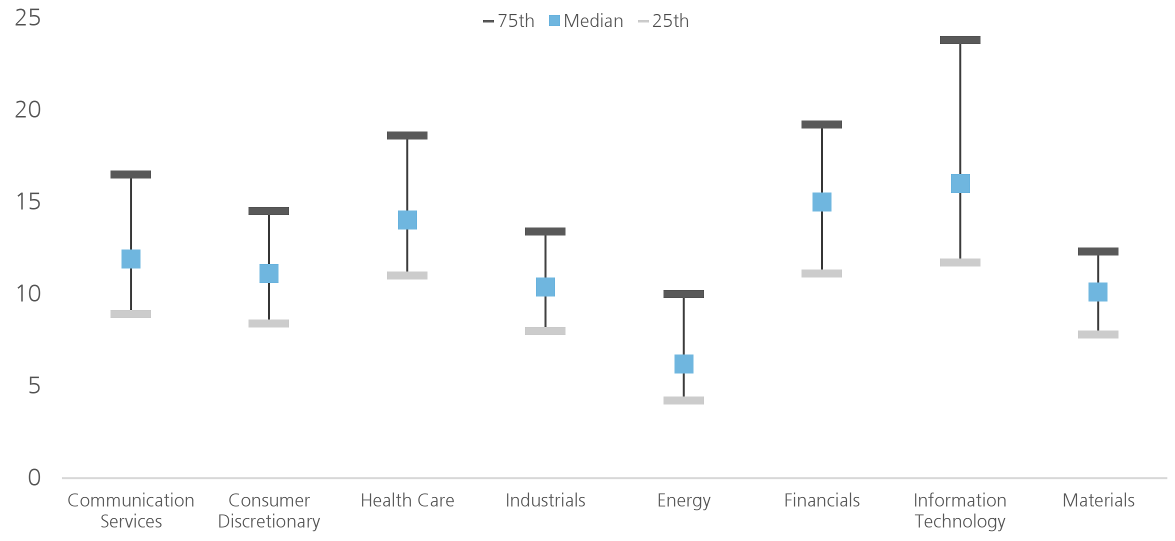
Public equity multiples versus US buyout purchase price multiples



Source: Pitchbook LCD 1Q24, FactSet, UBS May 2024

Beneath the surface, sector and deal dispersion is high

2023 Q4 buyout multiples across sectors



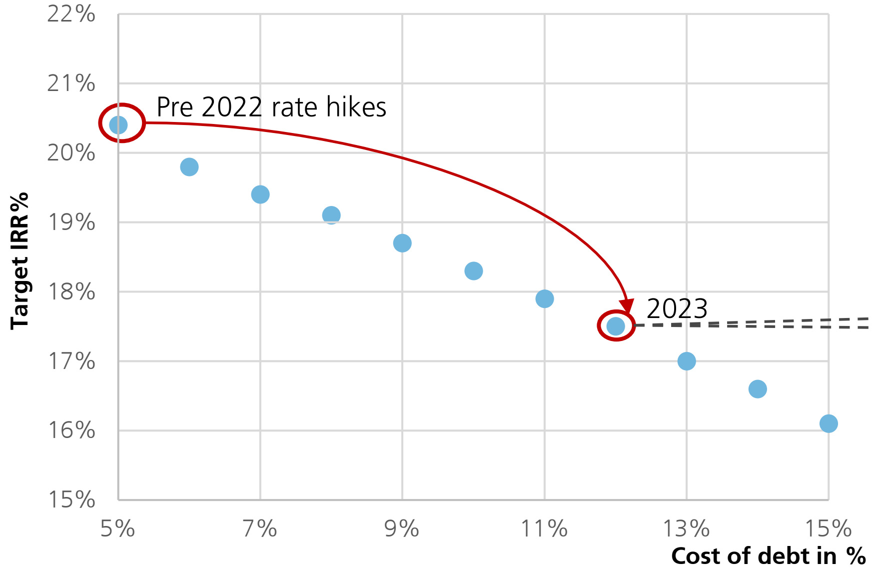
Source: Burgiss 4Q23, UBS May 2024

- Pricing dynamics are stabilizing and currently stand at around 11x EV/EBITDA. Average US LBO entry multiples contracted 7% to 9% compared to their 2022 peaks, and currently offer better value in absolute as well as relative terms to public equities.
- Favoring smaller deals or more complex situations in market segments that offer attractively priced deals remains the best way to maximize value, in our view.
- While still early, the first quarter shows encouraging signs of a bottom in private equity valuations. However, as we explain on the next slide, securing lower entry multiples to offset high interest rates will continue to be a key focus until financing costs become more manageable.

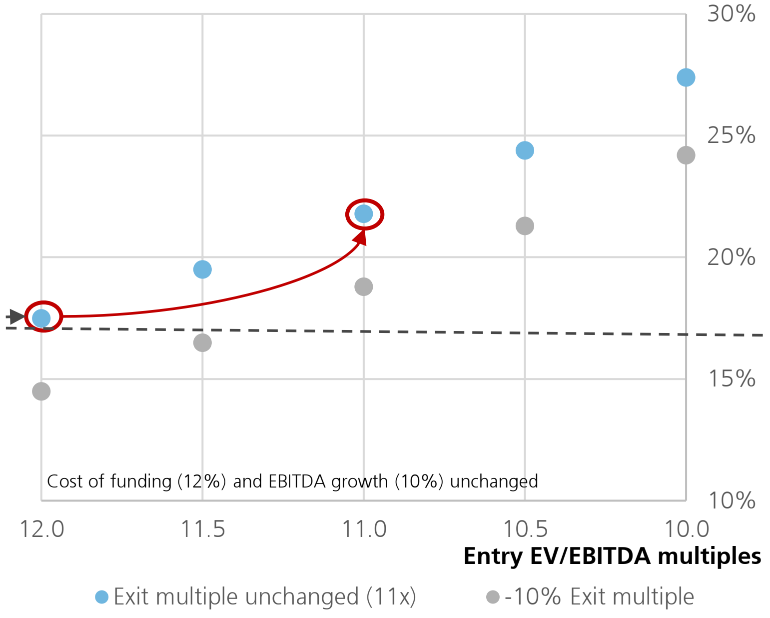
Private equity – deal mathematics in a higher interest rate environment

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

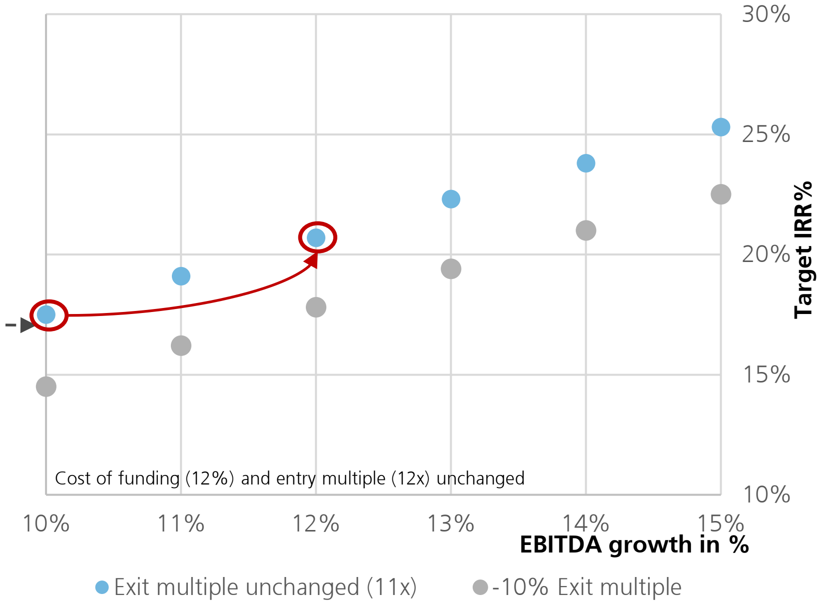
Higher cost of debt and reduced leverage capacities imply lower returns, all else equal



Yet, lower entry multiples and…



… operational value enhancement, can mitigate higher costs of debt and ensure hitting return targets



Source: UBS CIO, May 2024; 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.

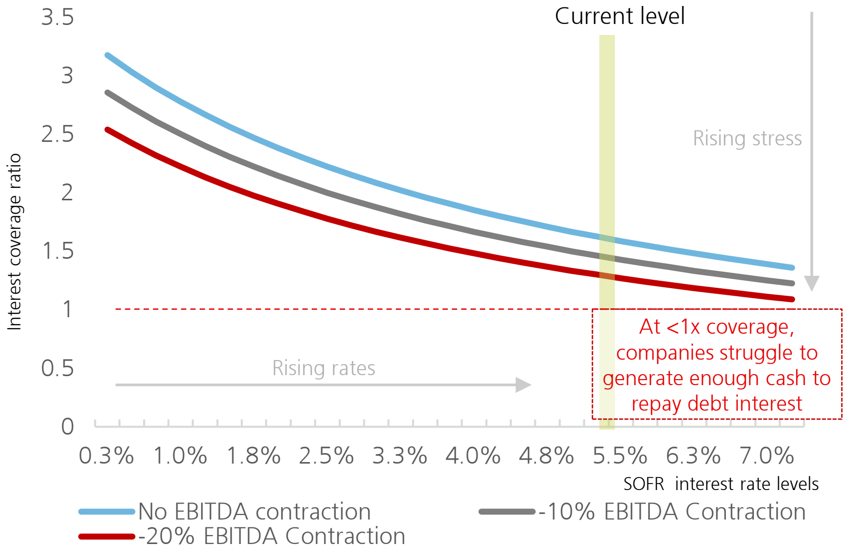
- A higher cost of debt creates headwinds for buyout strategies that make use of leverage to acquire target companies. The above hypothetical scenario shows that underwriting deals at current cost of funding with similar assumptions in terms of entry/exit multiples and EBITDA growth to those prior the 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 priced market segments) and/or driving more operational value creation (i.e., expanding EBITDA growth, streamlining costs, improving productivity, etc.) managers could potentially achieve high-teen returns even when assuming some multiple contraction at exit and higher for longer interest rates.
- Economic strength doesn't justify immediate rate cuts, but slower wage growth and moderate rental growth drive our confidence of lower interest rates by the end of 2024, partially (but not fully) alleviating financing costs. Still, the current environment suggests managers that can secure lower entry valuations today and deliver superior operational value will likely outperform.

Private equity – interest rate impact on coverage ratios

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

Rising rates and recessionary dynamics impact on the ability to repay debt

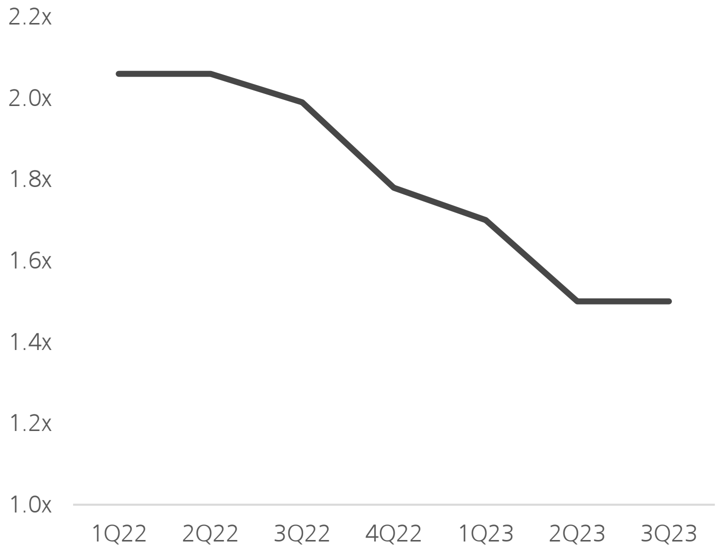
Impact of rising cost of debt and EBITDA changes on interest coverage ratios



Source: UBS May 2024. 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

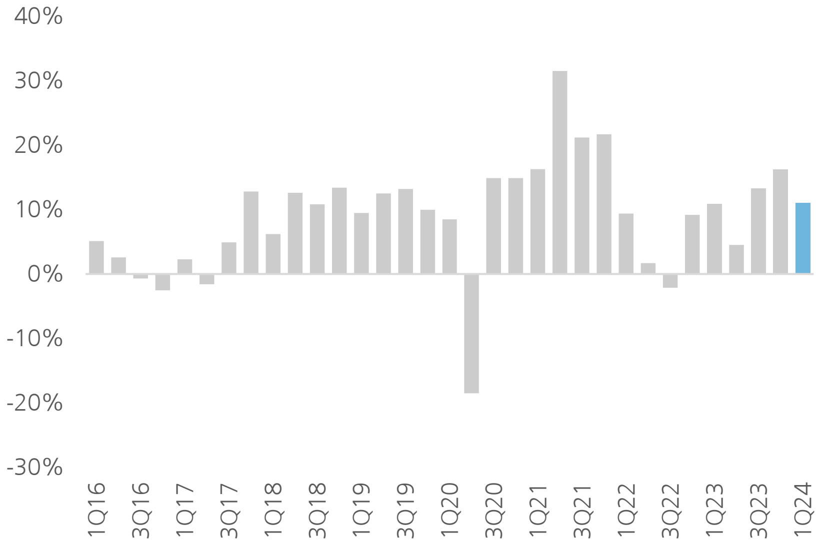
Actual average interest coverage ratios



Source: Source: Blackstone, Lincoln 3Q23, UBS May 2024

EBITDA growth remains resilient

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



Source: Golub Capital 1Q24, UBS May 2024

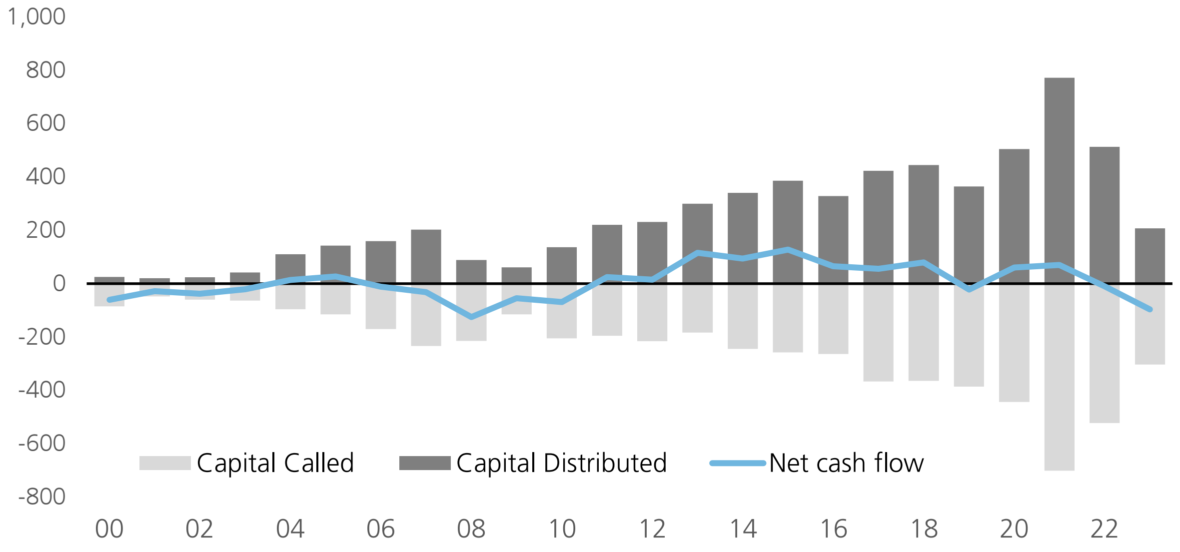
- High interest rates have impacted the cost and availability of debt financing of PE-backed firms. Interest rate coverage ratios, a measure of debt serviceability, have deteriorated but they still hover above dangerous levels as most companies continue to generate good profits, largely offsetting rising input, labor, and debt costs.
- Sponsors also worked on alleviating financial stress on underlying portfolio companies through hedging interest rates, refinancing debt, reducing leverage, or injecting new equity. All are focused on EBITDA growth preservation. That said, there are pockets of stress, notably in the lower middle market, and among companies with structurally challenged business models or with over-levered balance sheets.
- On aggregate, risks are contained. Economic growth is solid, and we anticipate private companies to continue to generate healthy EBITDA growth. Interest rates should eventually move lower, partially alleviating financing costs. But investors should prepare for more dispersion between those companies with strong fundamentals and long-term viability versus those that may lose sponsor support. (More on page 26)

Private equity – cash flow dynamics

Cash flows may start to gradually improve in 2024

Net cash flows turned negative in 2023

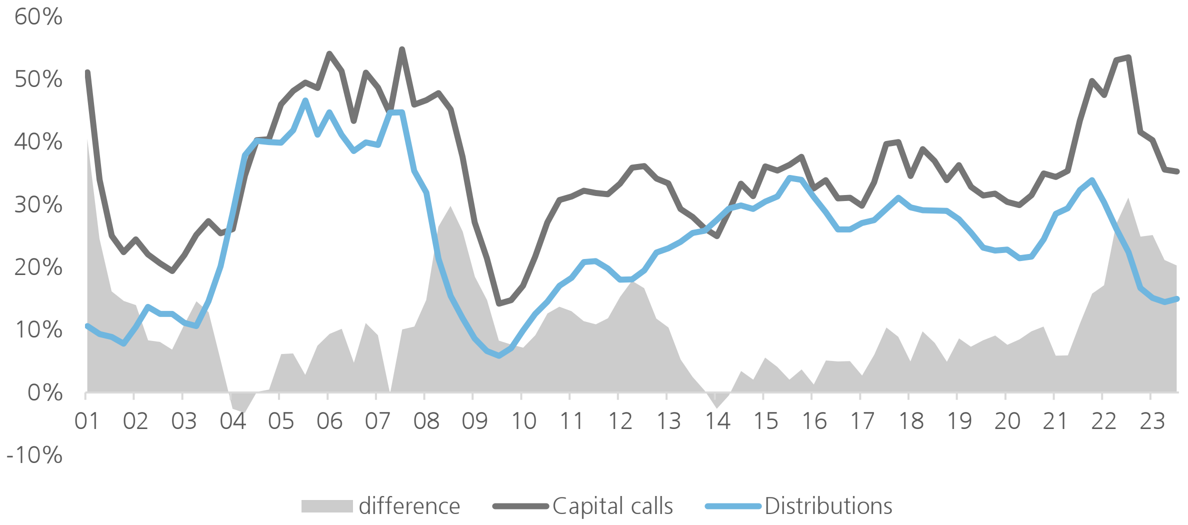
Global private equity capital called, distributed, net cash flow, in USD bn



Source: Pitchbook 1Q24, UBS May 2024

Investment holding periods have extended, but cash flow dynamics look to be bottoming

PE capital call rate (as % of dry powder) vs. distribution rate (as % of NAV)



Source: Pitchbook 1Q24, UBS May 2024

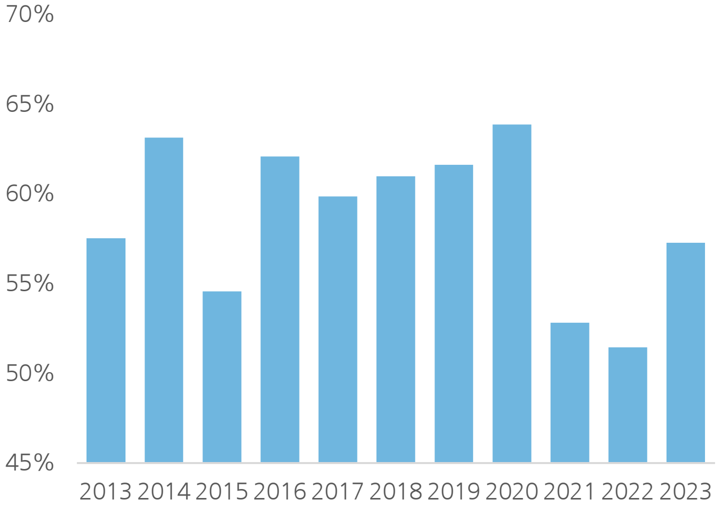
- Slower asset sale realizations from March 2022 onward has created distribution delays and forced net cash flows to dip into negative territory. This is not unusual. Distributions typically decline almost immediately after significant market events as the industry encounters a more challenging exit environment. Fund managers are not forced sellers and generally hold onto existing portfolios until the exit environment improves. Meanwhile, capital calls fall at a slower pace than distributions as sponsors pay down credit lines, support existing investments, and potentially engage in selective opportunistic acquisitions in growth areas.
- Yet, the gap between capital calls and distributions is as wide as during the GFC, with distribution rates falling significantly more than capital calls, and below their historical norm of about 20–25% of NAV per year.
- More realizations are likely in the coming quarters (see page 11), helping reabsorb the liquidity gap many LPs are currently facing. A full recovery may require patience. Looking at past experiences, after reaching a bottom, distributions took about two years to go back to historical norms. New exit avenues such as GP-led secondary transactions may help accelerate the recovery compared to history.

Private equity – focus on spotting value

We recommend seeking managers with a value bias that can seize opportunities through add-ons, carveouts, and divestitures

Managers are turning to the middle market to seize value opportunities

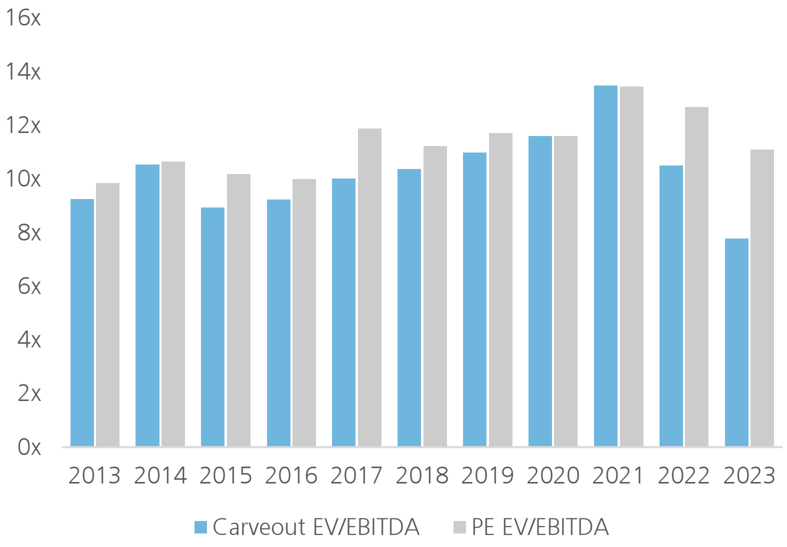
US PE middle market buyout value as a share of all PE buyout deal value



Source: Pitchbook 4Q23, UBS May 2024

Acquiring new businesses through corporate restructuring/ repositioning events

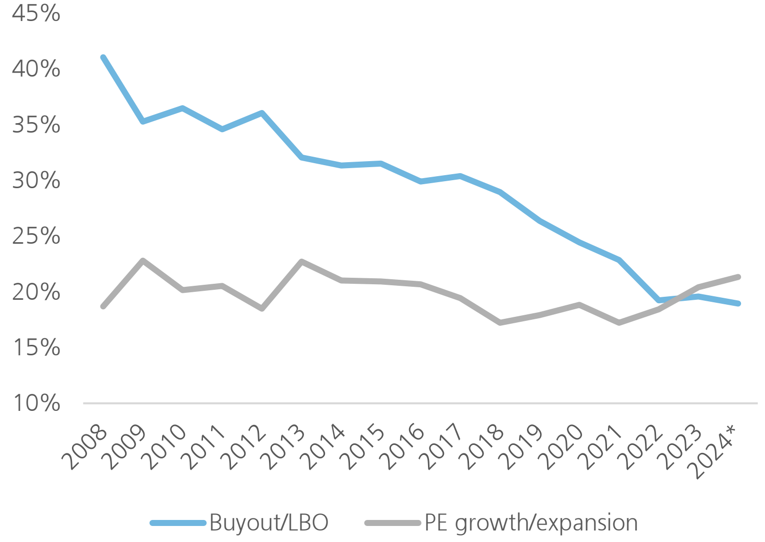
US & EU median EV/EBITDA multiples



Source: Pitchbook 2Q24, UBS May 2024

Growth equity deals are starting to regain interest

Growth equity and LBO as a share of US PE deals



Source: Pitchbook, UBS May 2024

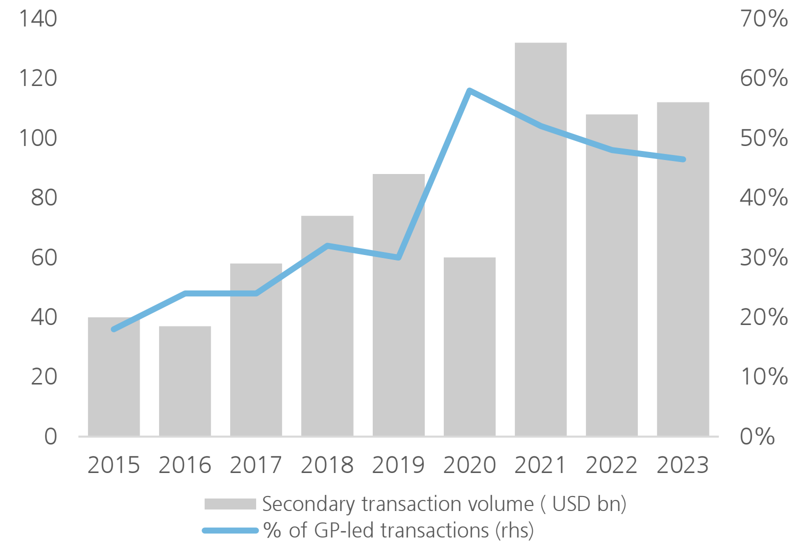
- With interest rates unlikely to revert back to their historical lows, we think investors should continue to seek exposure to managers that focus more on operational skills and securing attractive entry multiples as opposed to financial leverage or multiple expansion.
- The middle market, for instance, offers increasingly better value for those buyout managers who can seize the opportunities. Carveouts, divestitures, and spinoffs in the US but also globally provide unique operational enhancement opportunities through synergies, economies of scale, and improved efficiency
- Growth equity deals are also starting to look appealing given their lower dependency on leverage, the valuation reset that has occurred over the past two years, and the imbalance of supply and demand for growth capital.

Private equity – seek seasoned and quality assets at a discount

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

Transaction volumes increased y/y driven by improved pricing and market sentiment

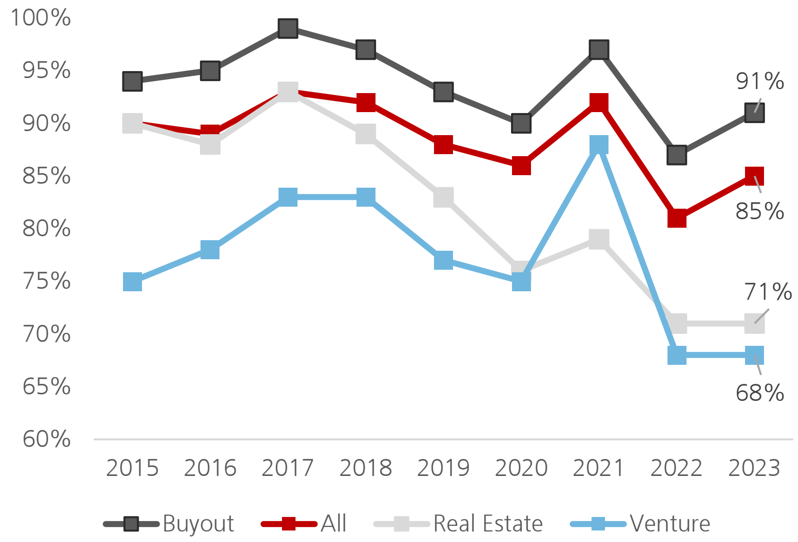
Global secondary volumes in USD bn



Source: Jefferies Global Secondary Market Review 2024

Pricing has narrowed with noticeable dispersion across strategies

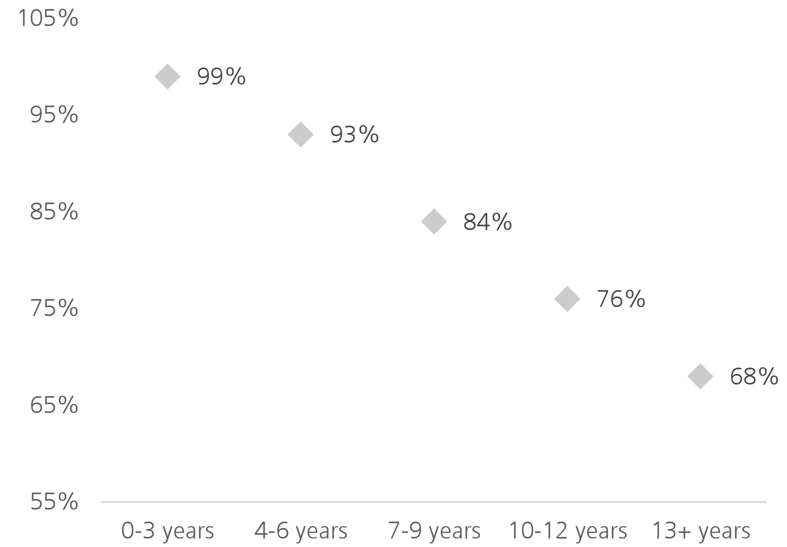
Pricing as % of NAV



Source: Jefferies Global Secondary Market Review 2024

Younger funds are trading at a premium compared to older ones

Average buyout pricing by fund age (% NAV)



Source: Jefferies Global Secondary Market Review 2024

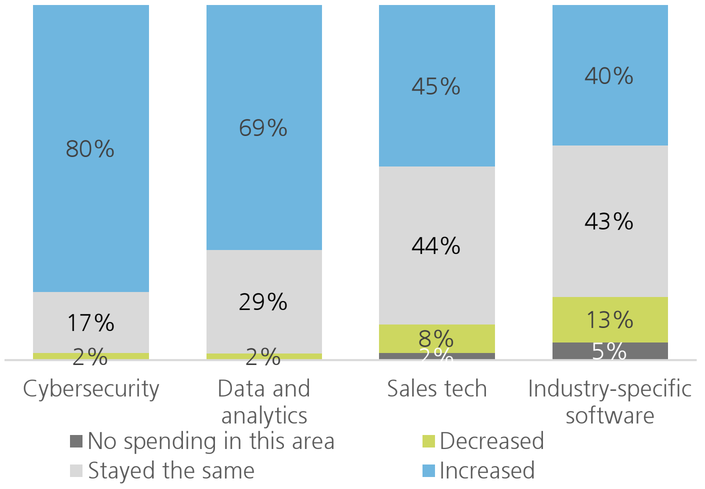
- Secondaries transactions showed a meaningful acceleration in the second half of 2023, resulting in volumes increasing y/y to USD 112bn. Much of it can be attributed to improving pricing conditions, narrower bid-ask spreads, and motivated buyers and sellers. According to Jefferies data, discounts to NAV narrowed to 15% on average at the end of 2023 compared to 20% at the end of 2022.
- There is visible dispersion across strategies. Buyout secondaries, which represent the lion's share of secondary volumes (~70%) meaningfully repriced higher. Meanwhile, venture and real estate secondaries continued to exhibit steep discounts, reflecting buyer concerns on the outlook of both sectors in 2024. Per vintage, younger funds sold at a premium given perceived higher upside potential while older vintages showed more meaningful discounts amid likely distribution delays.
- 2024 should be a busy year for secondaries overall. Both LP and GP-led secondary volumes should gain further momentum driven by **1)** an expanding investor base poised to grow further, **2)** several LPs that remain motivated sellers as long as the pace of distributions continues to lag long-term averages, and **3)** GP-led secondaries that are likely to be a welcome avenue to realize investments, helping reduce the backlog of deals ready to exit and allowing capital to return to LPs. At current levels, we think discounts to NAV offer good entry points.

Private equity – position for secular growth

Digitalization, healthcare, sustainability, and the energy transition

Software expenditure is expected to rise in cybersecurity, data, and sales tech

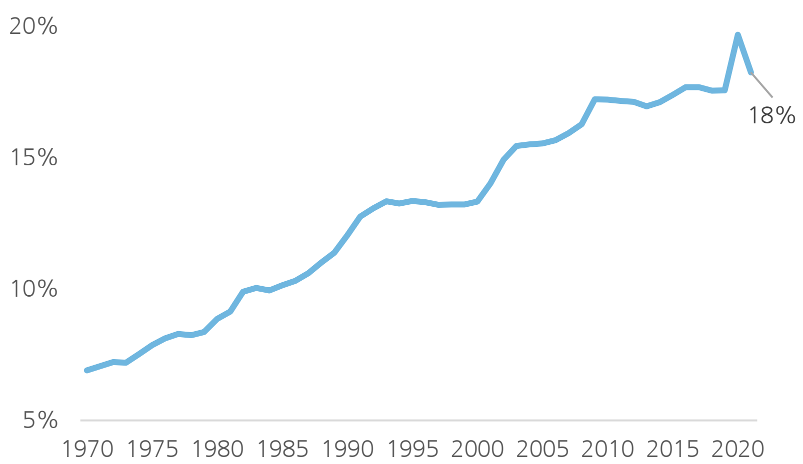
Expected change in software spending over the next 12 months, in % of responses



Source: McKinsey 2023 CIO survey: 86 Chief Information Officers, UBS May 2024

Rising healthcare costs require new solutions to improve efficiency

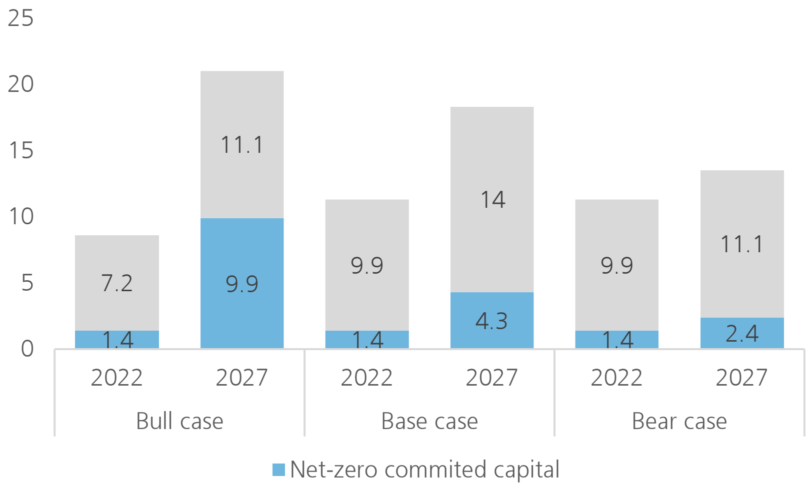
Healthcare spending as % of GDP in the US



Source: KFF, UBS, May 2024

Investors are expected to commit USD 2.5–10tr to net-zero assets until 2027

Net-zero assets as a portion of private market AuM (in USD tr)



Source: Oliver Wyman December 2023, UBS May 2024

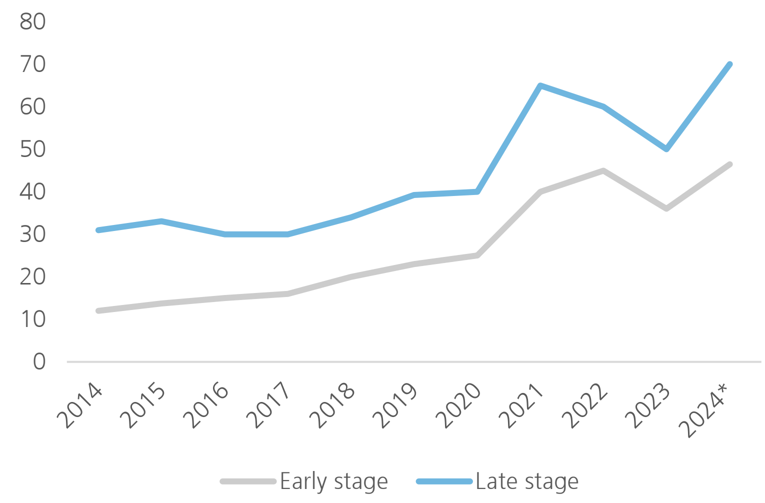
- Technology is a driver of economic growth and productivity. Companies remain committed to managing costs, outsource and improve profitability, and are set to increase spending on data, analytics, and security. We continue to see opportunities to invest in tech, with a focus on software, automation, and cybersecurity. Data centers and digital infrastructure are also areas of focus, as rapid digitalization drives demand for data storage, processing, and increased connectivity.
- While the healthcare sector has experienced hurdles like increased cost of labor, cost of debt, and labor shortages in recent years, an aging global population and rising healthcare costs remain powerful drivers for investments. The health sector offers attractive opportunities, for instance in new solutions optimizing care delivery, enhancing efficiency, healthcare IT, and pharmatech.
- 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 – not out of the woods just yet

Dispersion is rising among start-ups

Valuation uptick across early & late stage in 1Q

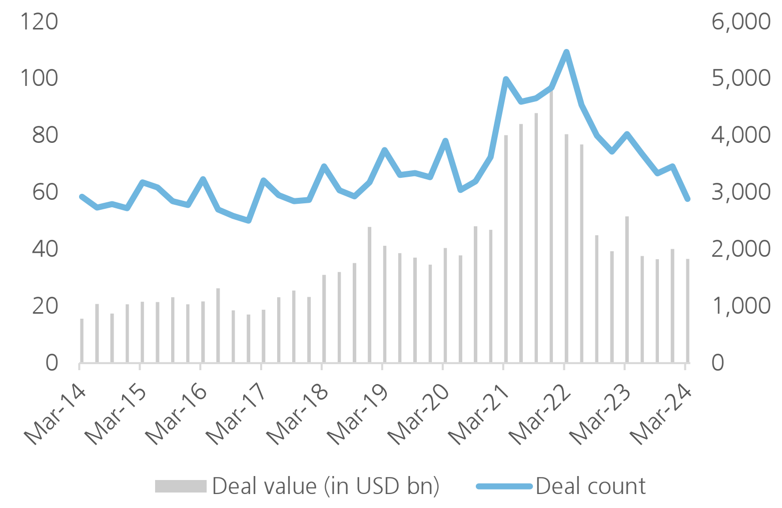
Median pre-money valuations, in USD mn



Source: Pitchbook 1Q24, UBS May 2024

Deal activity remains in a downtrend

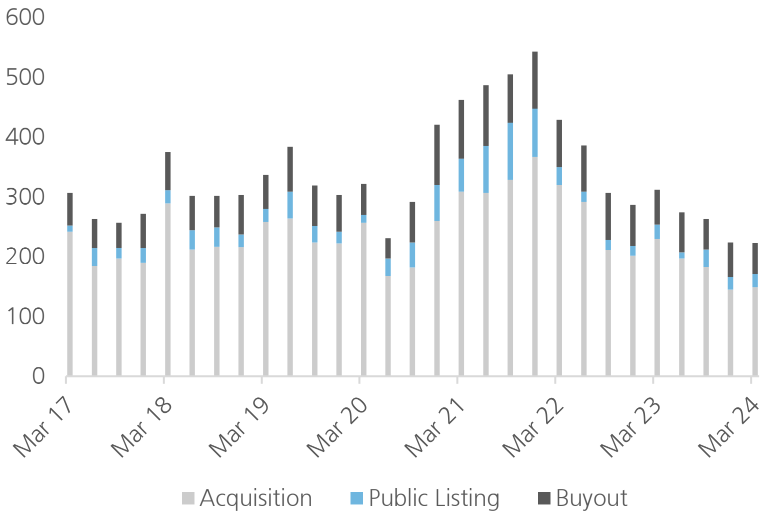
US VC deal activity in USD bn



Source: Pitchbook 1Q24, UBS May 2024

Limited exits despite some IPO successes

US VC exits per quarter

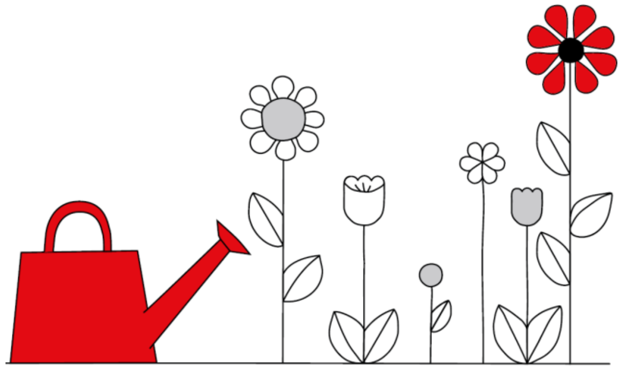


Source: Pitchbook 1Q24, UBS May 2024

- Venture capital valuation data show an increase across both early and late-stage compared to late 2023. While encouraging, the data reflect a growing market bifurcation between high-quality firms, demonstrating strong leadership, cost discipline, and growing cash flows, meaning securing funding at higher valuations is achievable, versus a large portion of the VC market still under funding pressure and struggling in a subdued dealmaking environment. VC deal activity continued to move lower in 1Q24 both in deal count and in dollar terms. Meanwhile, 1Q was marked by some important IPOs (e.g., Reddit and Astera Labs), but the overall exit environment remains mostly anemic like in 2023.
- There is scope for improvement. Dry powder is elevated (USD 311bn) and may spur new investments. A stabilizing macro environment and solid public equities could incentivize more exits in the coming quarters. Market conditions are also friendlier to investors. Competition in the VC market has decreased and investors are able to negotiate more favorable terms, such as larger equity stakes, anti-dilutive provisions, veto rights, higher dividends, and liquidation preferences.
- Many assets, however, will likely continue to see further valuation cuts especially those unable to scale up or achieve break-even points soon. The gap between buyer and seller expectations is still elevated which also means the road to more normal dealmaking velocity will take time. And a large number of unicorn investments (USD 2.4tr of market cap representing two-thirds of the US VC market value) have yet to be realized. Investors will likely continue to adopt a wait-and-see approach before meaningfully coming back to the market.

Private credit

Key views



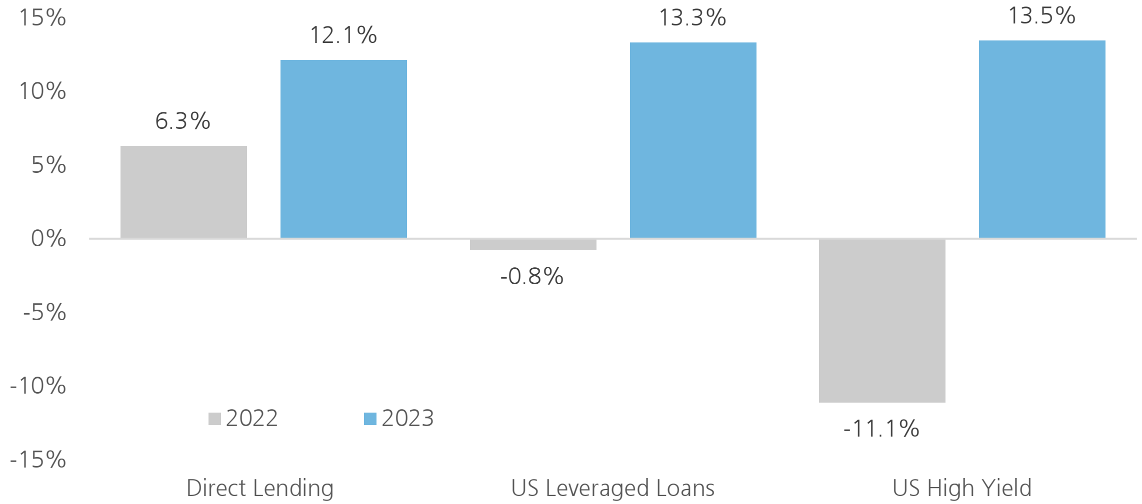
- Direct lending delivered positive returns in 2023, driven by high current income and only moderate realized losses. Anecdotal evidence suggests a continuation of this trend in 1Q24 with around 2-3% returns for the quarter.
- A key change in the loan market, however, entering 2024 has been the return of banks to originating loans to PE borrowers. Increased competition could put pressure on spreads and loan documents in the coming quarters. Lagged effects of higher interest rates may also start to exert a heavier toll in certain segments of the market. Industry level statistics on financial stress suggest that risks are contained and manageable. But increasingly, we see a differentiated market and subject to increased dispersion across loan size, sector, and seniority.
- We believe return prospects for the asset class remain attractive and anticipate high-single to low-double-digit returns for 2024. But some of the trends described above underscore the importance of selectivity when investing in the private credit market today.
- We recommend focusing on areas benefiting from strong fundamentals. Our preference goes to senior, upper middle market, and sponsor-backed loans. This approach, coupled with a focus on newer loan vintages and sectors less susceptible to cyclical downturns, should mitigate risks and take advantage of appealing prospective returns.
- In distressed and special situations, opportunities are likely to arise in certain parts of the economy, for instance in the commercial real estate sector. The significant amount of corporate debt likely to mature in the coming years should also provide a steady source of deal flow.
- Investors looking to invest in private debt should however consider the risks related to these strategies that are described on page 3.

Private credit – performance overview

Direct lending strategies gained 12% in 2023

Direct lending strategies extended gains in 2023…

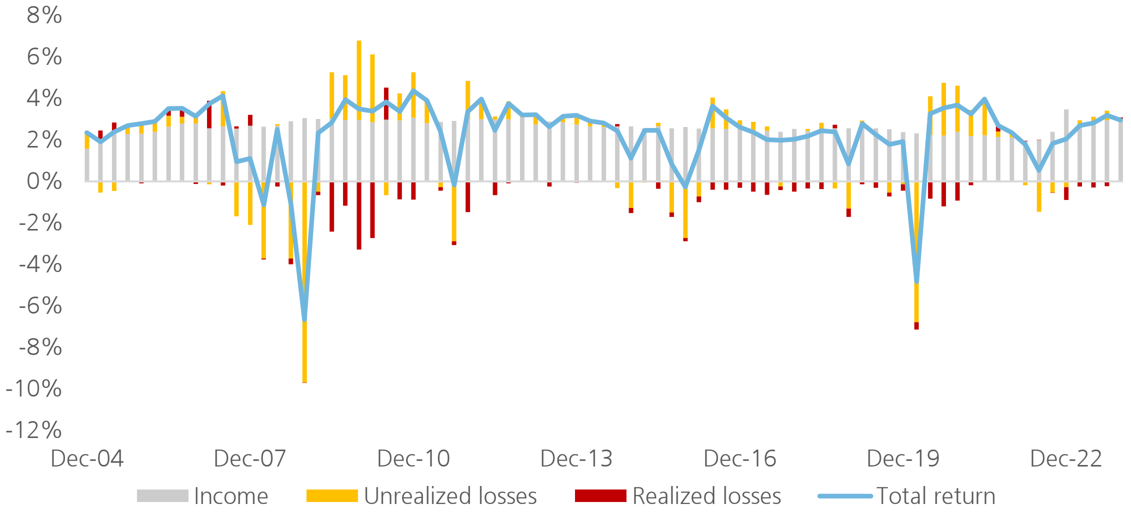
Performance across credit segments year-to-date through 4Q23



Source: Cliffwater Direct Lending Index, BofA US High Yield, LSTA Leveraged Loan Index, Bloomberg, UBS May 2024. Returns for the CDLI are unlevered gross of fees

…driven by high income and only moderate realized losses

4Q23 CDLI returns decomposition, quarterly returns, in%



Source: Cliffwater Direct Lending Index, Bloomberg, UBS, May 2024. Returns for the CDLI are unlevered gross of fees

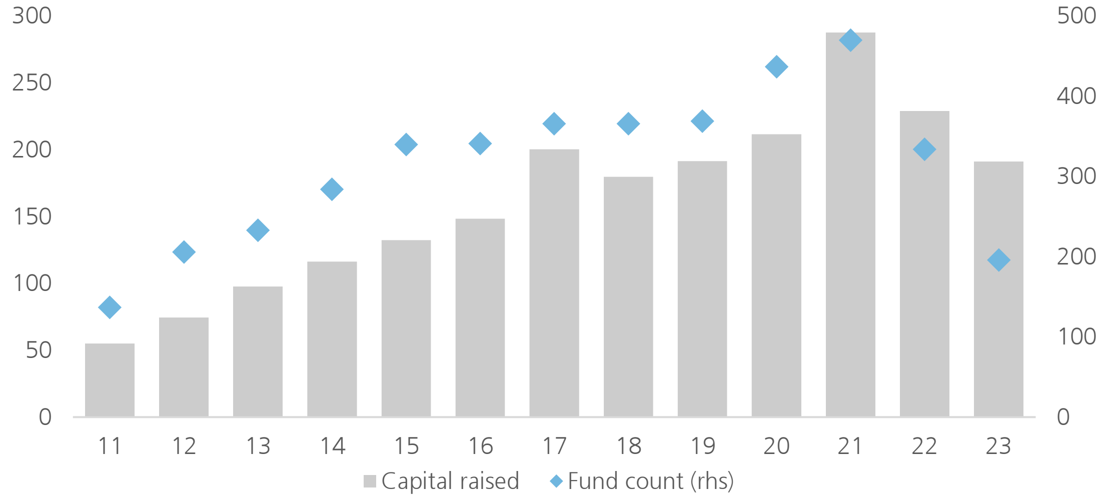
- Direct lending strategies had a positive start into 2024. While benchmark figures from the Cliffwater Direct Lending Index are not available yet, anecdotal evidence suggest positive returns for 1Q24 of around 2-3%. This follows a good performance in 2023, in which private loans delivered 12.1% total returns, compared to 13.3% and 13.5% for listed loans and high yield, respectively.
- The asset class continues to offer interesting characteristics in the current environment: **1)** Private loans are short duration and benefit from a floating rate structure, they 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; and **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.
- Higher interest rates, however, are starting to exert a heavier toll in certain segments of the private credit markets notably in the lower middle market. Moving forward, we underscore the importance of selectivity in investment decisions and the need to focus on areas with strong fundamentals.

Private credit – fundraising activity

Resilient demand for private credit strategies

Fundraising activity holding up amid continued investor interest

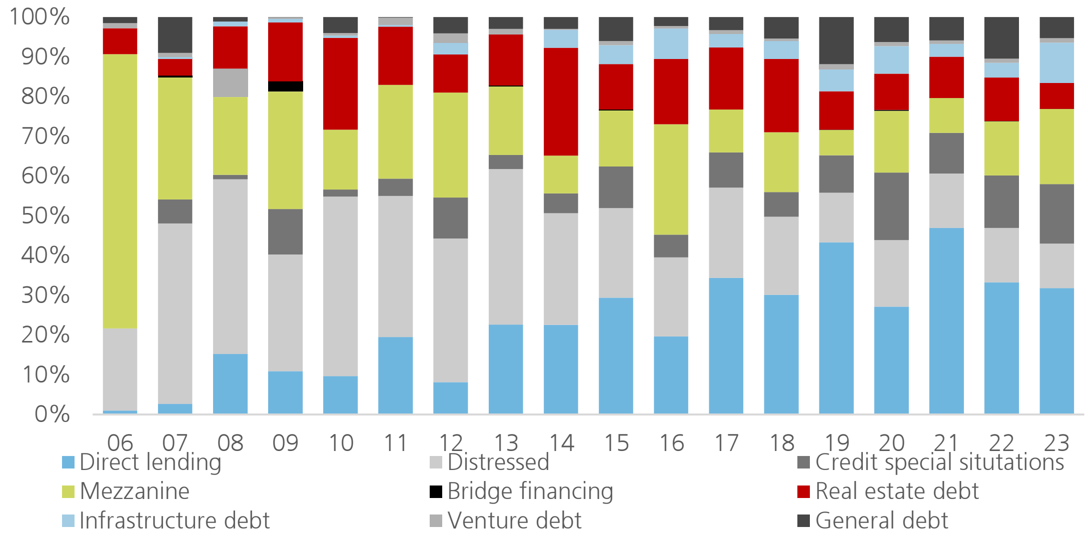
Global private debt fundraising, in USD bn



Source: Pitchbook, Bloomberg, UBS May 2024

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

% of global fundraising



Source: Pitchbook, Bloomberg, UBS May 2024

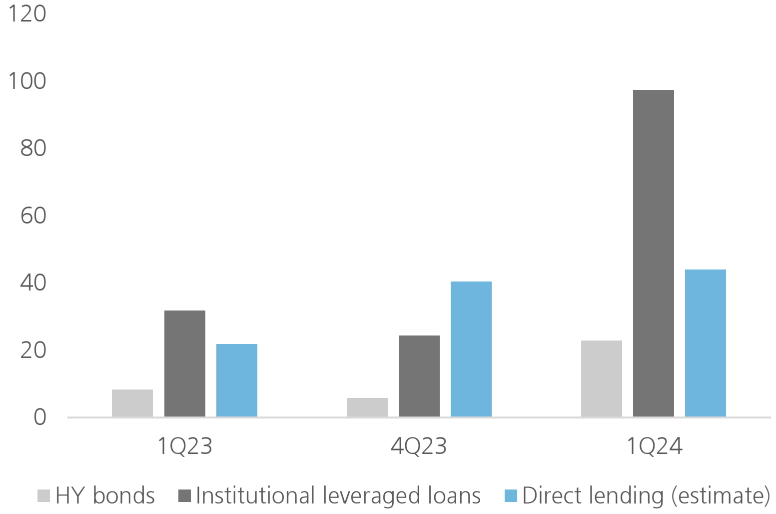
- Investors demand for private debt funds has proven resilient In 2023 despite a rebound in more liquid fixed income and other yielding instruments. Throughout the year, USD 191bn (Pitchbook) of fresh capital was committed. The fund count has significantly decreased however, to 196 funds in 2023 vs 334 in 2022, as selectivity and consolidation is crowding out less experienced managers.
- Per strategy, new commitments into direct lending represented more than 30% of total capital raised. Some investors also sought diversification into mezzanine and special situation funds.
- We think fundraising volumes should find support in 2024 driven by: 1) a growing use of private debt funding by private equity sponsors, 2) investor demand for attractive carry with lower sensitivity to broad public market price movements, and 3) a fruitful opportunity set as M&A and refinancing activity pickup.

Private credit – transaction activity

Private lending volumes had promising start despite the return of banks to the market

Competition between banks and direct lenders has increased

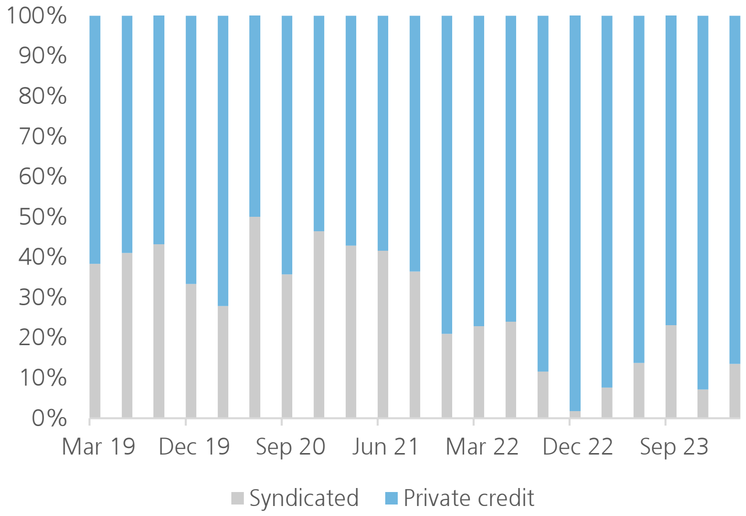
New-issue volume to PE-backed borrowers by funding source, in USD bn



Source: Pitchbook LCD 1Q24, UBS May 2024

Private lenders remain the key source of LBO financing

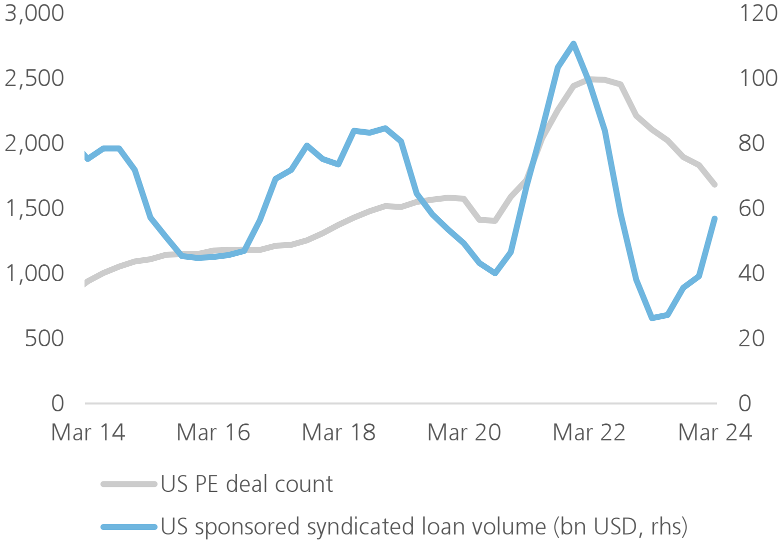
% of LBO deals funded by leveraged loans vs direct lenders



Source: Pitchbook LCD 1Q24, Bloomberg, UBS May 2024

Improving banking lending standards are supportive of M&A activity and velocity

US private equity deal count vs BSL volume, 4Q-rolling average



Source: Pitchbook LCD, 1Q24, UBS May 2024

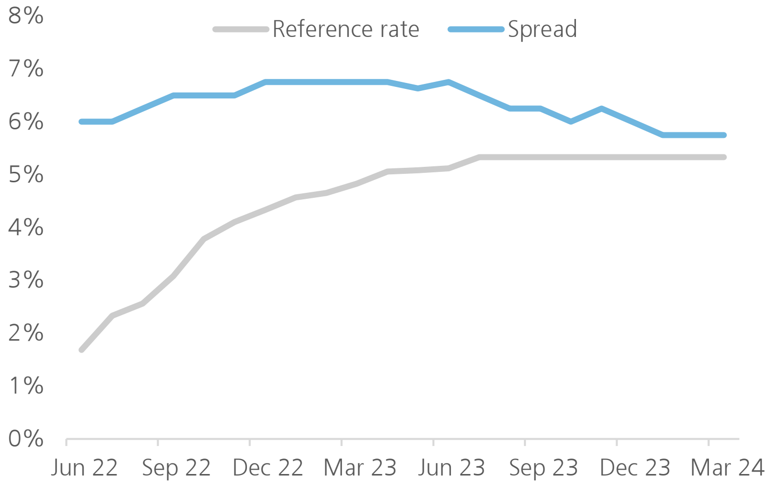
- A key change in the loan market in 1Q24 has been the return of banks to originating loans to PE borrowers. Not only did 1Q24 see more new issuance volume transit through the broadly syndicating loans (BSL) and the high yield (HY) market, but also USD 12bn of senior debt originally held in the hands of direct lenders moved into BSL. PE borrowers took advantage of banks' increased appetite to lend and sought to refinance at cheaper costs with several transactions closing below 400bps spread over SOFR. Direct lenders, however, continued to dominate LBO financing based on deal count (and dollar volume), and remain a primary source of M&A funding as banks mainly focus on refinancing activity.
- While this means direct lenders (DL) will have to compete more to secure deal flow, the return of bank funding, tighter BSL spreads and improving lending standards are a necessary ingredient to a meaningful pick up in M&A activity. Ultimately, this should result in more deal volumes for both incumbents and alternative lenders.
- But selectivity is essential. Elevated borrowing costs means pockets of risks exist. Successfully navigating this environment will require extra vigilance and strict risk underwriting.

Private credit – loan pricing trends

Newly issued loans continue to offer yield amid attractive spreads and benchmark rates

Private loan **spreads** are **tightening**

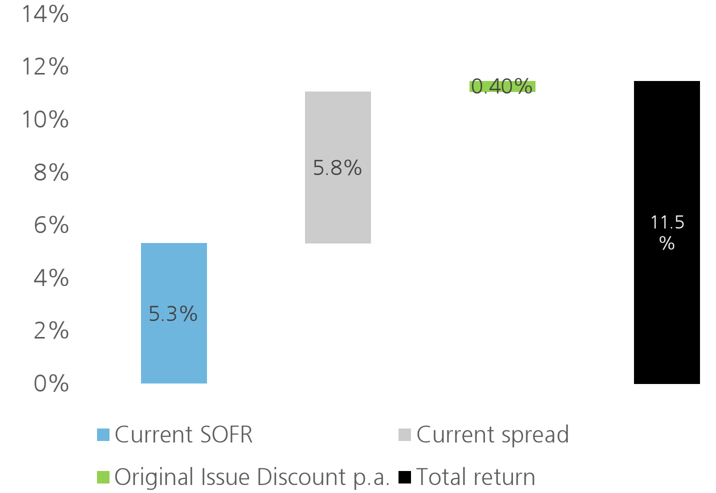
Newly issued private loan spreads vs. SOFR



Source: JPM 1Q24, UBS May 2024

At current levels, new loans still yield **double-digit income returns**

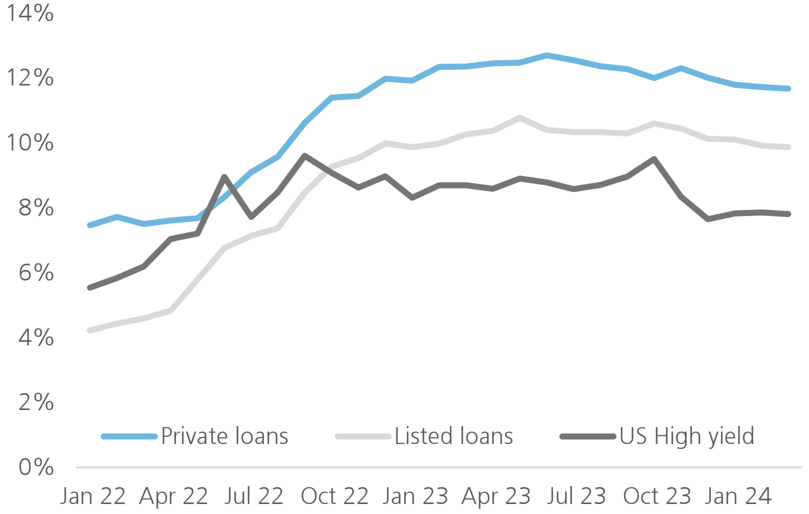
Estimated total return for newly issued private loans



Source: JPM 1Q24, UBS May 2024

Private loans still **offer better return prospects** than high yield & leveraged loans

Yield-to-maturity across fixed income instruments



Source: JPM 1Q24, Pitchbook LCD, Bloomberg, UBS, May 2024.

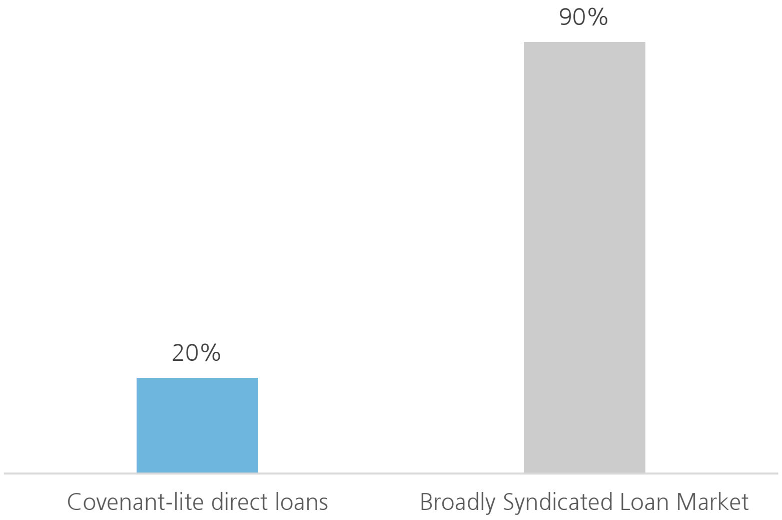
- A consequence of banks loosening lending standards, private lending spreads are compressing. Using JPM data, the median private credit transaction in 1Q24 originated at spread of 575bps over the reference rate. Several deals, however, priced lower in the 500–550bps range. Compared to 2023 levels, this represents about a 100bps spread compression.
- As the year advances, we anticipate private loan yields to remain in the high-single to low-double-digit range. We anticipate only 50bps of cuts in benchmark rates by the Fed in 2024. Meanwhile, spreads could tighten further but are unlikely to meaningfully cross the 500bps mark.
- For investors, this means private loans should continue to offer an advantageous yield pickup of 180bps to 390bps relative to leveraged loans and high yield (as of April 2024).

Private credit –lender protection is high but at risk

Market dynamics are still lender-friendly but borrower's negotiating power is increasing

Private loans exhibit stricter covenants

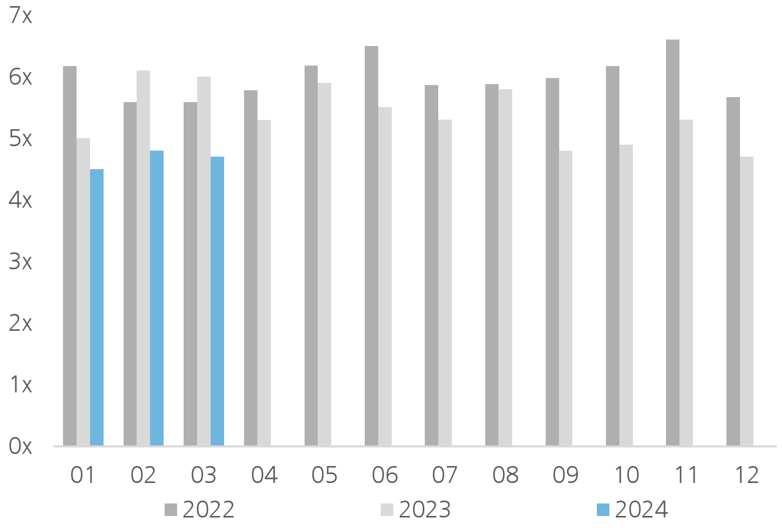
New issuances of cov-lite loans as % of total US syndicated loans in the past 12 months



Source: JPM 1Q24, UBS May 2024

Leverage levels are conservative

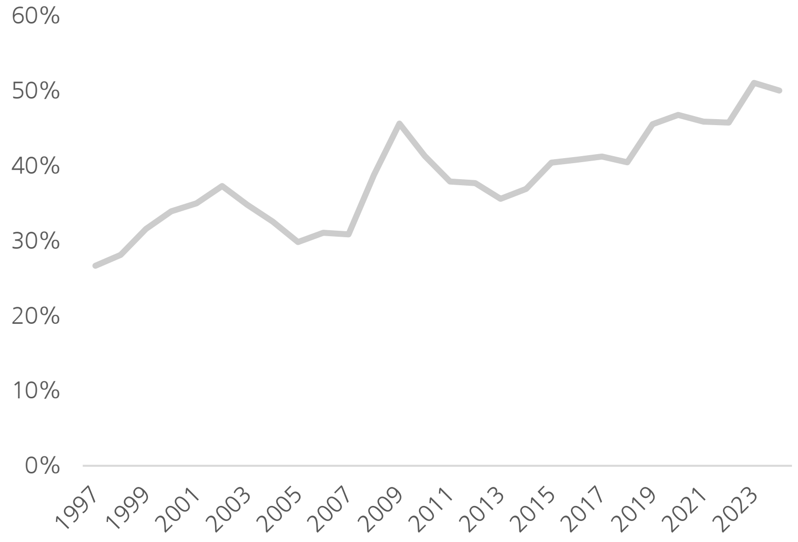
Newly originated private loans - leverage (lhs) and yield to maturity (rhs)



Source: JPM 1Q24, UBS May 2024

Equity contributions are high

LBO total equity contribution in %



Source: Pitchbook LCD 1Q24, UBS May 2024

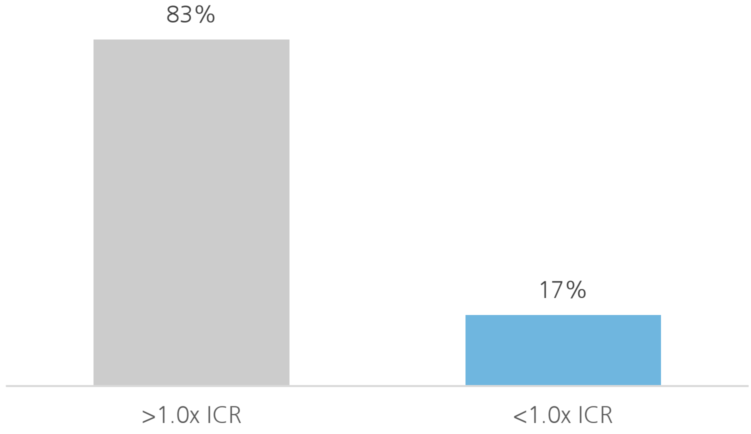
- Lender protection remains strong. According to JPM data, over the past 12 months, 20% of completed direct lending deals had fewer restrictions on borrowers compared to 90% in the broadly syndicated loan market.
- Meanwhile, leverage levels are still low by historical standards, with the median net leverage for transactions closed in the first quarter of 2024 at 4.7x compared to a median leverage of 4.9x for 2023. Equity contributions are above 50% and provide a meaningful cushion in case of defaults.
- But borrowers' negotiating power is increasing amid heightened bank competition. This may force some direct lenders to loosen credit terms or agree on taking more risk. We think high interest rates still warrant disciplined risk underwriting. And we continue to seek allocations to managers with a conservative approach and that prioritize senior positions in fundamentally backed, less cyclical borrowers.

Private credit – Focusing on downside risks

Direct lending strategies offer good downside protection, but losses can occur

Stress among weaker borrowers with over-levered balance sheet is likely to persist

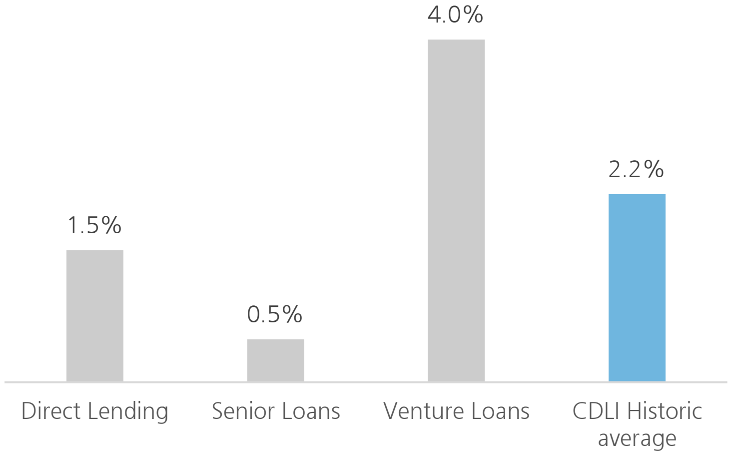
% of loans in the Lincoln Senior Debt Index with interest coverage ratio (ICR) above or below 1.x



Source: Blackstone, Lincoln 3Q23, UBS May 2024

Non-accruals remain below historic norms

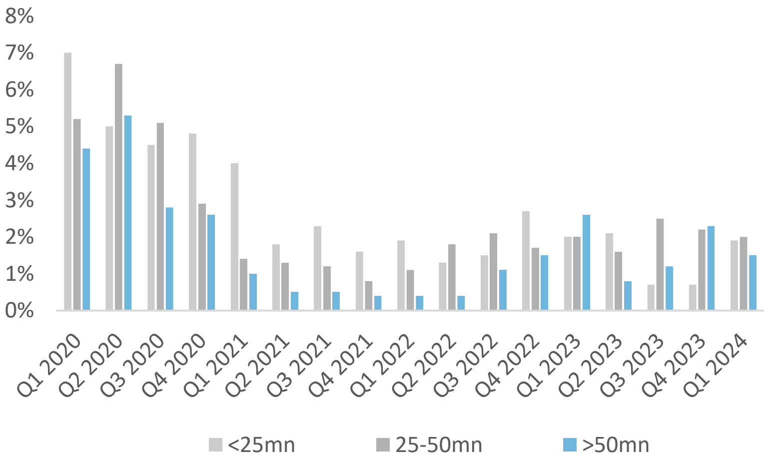
Non-accruals across loans



Source: Cliffwater Direct Lending Index 4Q23, UBS, May 2024

Default rates show signs of moderation, but interest rate lagged effects are still a risk

Private loan default rates by company size (EBITDA)



Source: Proskauer 1Q24, UBS May 2024

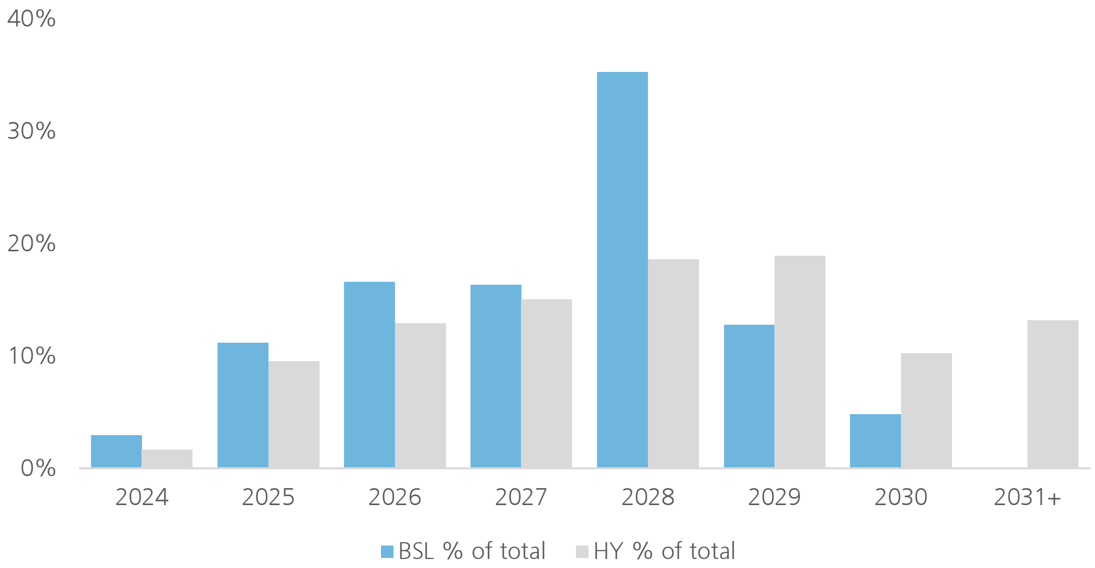
- Overall statistics on financial stress within the private credit market suggest that risks are contained. Broad market default rates peaked in the first quarter of 2023 and have since declined. Interest coverage ratios remain above dangerous levels and non-accruals while on a rising path have stabilized below historical norms.
- But financial stress is not universal and there are pockets of vulnerability, particularly in the lower middle market segment. Lower middle market companies exhibit lower ICR, higher defaults, and higher non-accruals.
- We expect this bifurcation between the large-cap and small-cap segments, and those businesses with strong versus weak balance sheets to persist and potentially widen in the coming quarters underscoring the need for selectivity. We favor the more resilient segments of the market, such as senior upper-middle-cap market sponsor-backed loans. This approach, coupled with a focus on newer loan vintages and sectors less susceptible to cyclical downturns, should mitigate risks and take advantage of appealing prospective returns.

Private credit – distressed debt as a counter-cyclical strategy

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

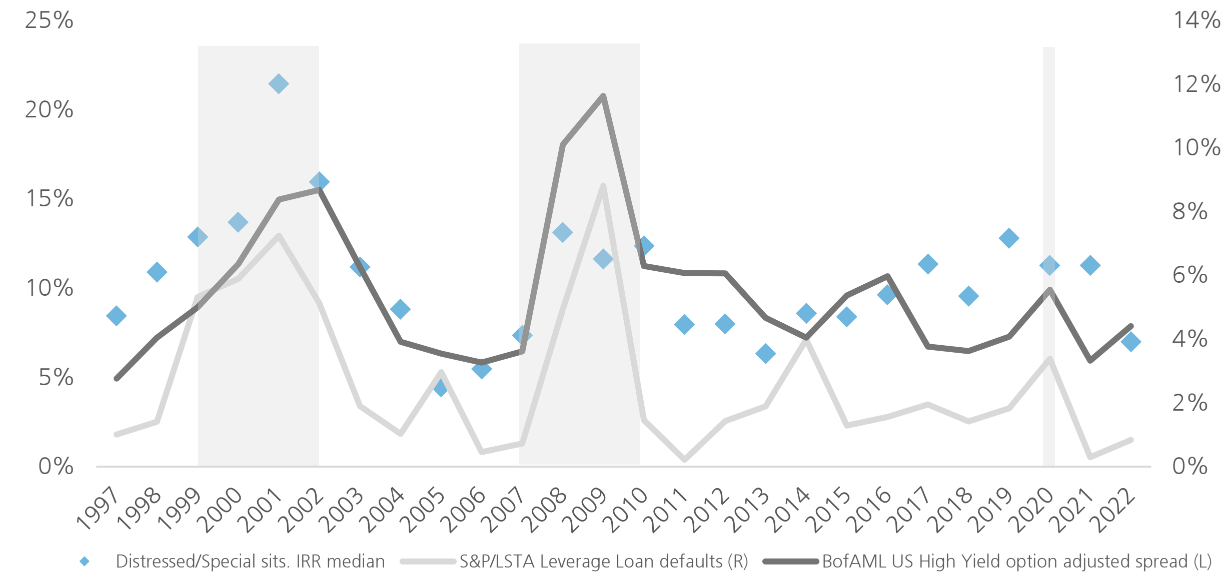
Upcoming maturity wall may provide steady flow

US High yield and leverage loan maturity wall



Source: BofA, Pitchbook LCD, UBS, as of May 2024

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

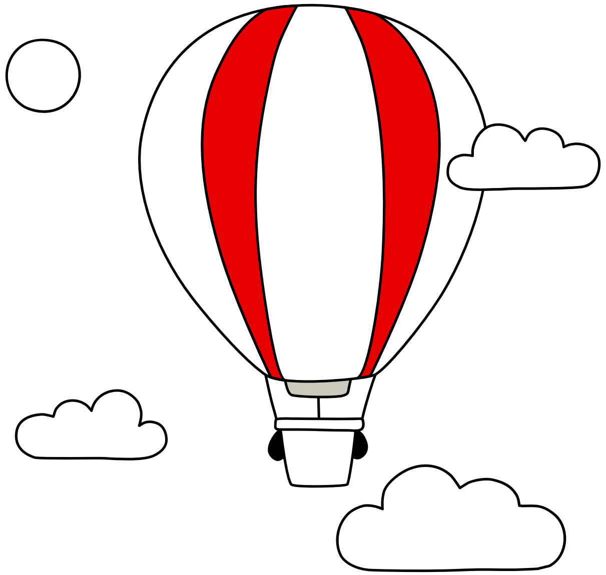


Source: Federal Reserve of St. Louis, Pitchbook, LCD, UBS estimates, May 2024. Note: Leverage loan defaults reflect (Last 12 month $ of defaults) / (total outstanding)

- Distressed and special situation opportunities are likely to arise in certain parts of the economy, for instance in the lower middle market or in the commercial real estate sector where some banks may be forced to shed assets given pending regulatory reviews of capital ratios.
- The significant amount of corporate debt likely to mature in the coming years should also provide a steady source of deal flow. Not all borrowers will refinance as easily as in the past.
- Managers who understand bankruptcy law and the reorganization/restructuring process, and especially those who can underwrite a wide range of assets both public and private are best equipped to capitalize on the opportunity set.

Real assets

Key views



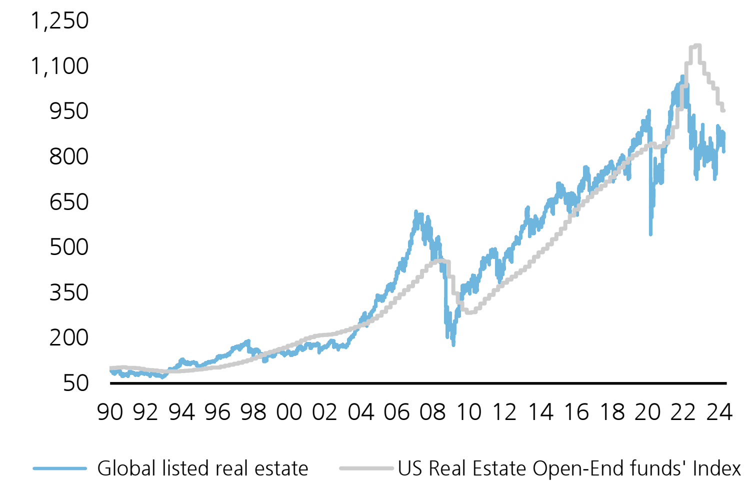
- **Real estate** suffered from the rapid rise in interest rates with a lag resulting in lower investment activity and meaningful capital value contractions in 2023. 2024 could be the year when the sector bottoms out. A gradual decline in interest rates should help revive capital markets. Valuation have undergone significant adjustment, and much is already in the price. Private funds are sitting on large amount of dry powder ready to invest. But the road to recovery is still long and will hinge on the path of interest rates.
- Divergence between sectors and segments of the property market will likely persist and we continue to recommend selectivity and a focus on assets benefitting from strong fundamentals.
- In logistics, for example, we continue to see healthy fundamental developments. We are selective on the residential market depending on location and the specific demand/supply balance. We think demand for data centers will surge amid the AI boom.
- While still too early, we also believe current real estate dislocations will provide interesting opportunities to invest. Should some office properties further correct in price, we see conversion and refitting as a potential opportunity for a certain subset of office buildings.
- **Infrastructure-linked assets**, meanwhile, have shown resiliency to macroeconomic and interest rates pressures while benefiting from policy and structural tailwinds. According to preliminary Cambridge data, infrastructure gained on average 9.13% in 2023.
- High barriers to entry, monopolistic positioning and the strong cost passthrough of many of these assets make them less sensitive to the business cycle. We maintain a positive view on the asset class. The US Inflation Reduction Act, together with other global infrastructure stimulus plans, will continue to provide incentives to invest in the space. Infrastructure also sits at the heart of powerful structural trends: Deglobalization, Demographics, Digitalization and Decarbonization making them relevant for the decade ahead.
- 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 real assets should consider the risks related to these strategies which are described on page 3.

Real Estate – Valuations continue to adjust

Open-ended fund NAVs dropped 18% compared to their peaks in 2022

Valuations are adjusting lower

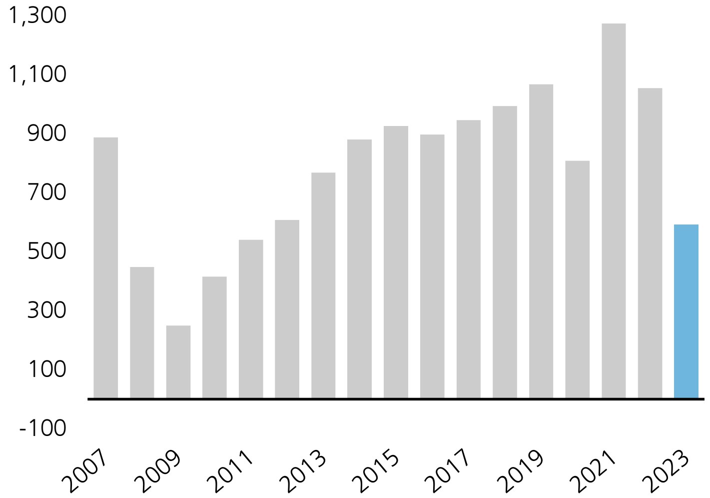
Non-listed global real estate funds vs. listed real estate



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, May 2024

Transaction activity near decade lows yet set to trough and recover in 2024

Global real estate investment volumes, in USD bn



Source: JLL, UBS May 2024

CIO anticipates positive rental and capital value growth in 2024

Total return for global direct real estate (in %)

Source: MSCI/IPD, UBS, May 2024

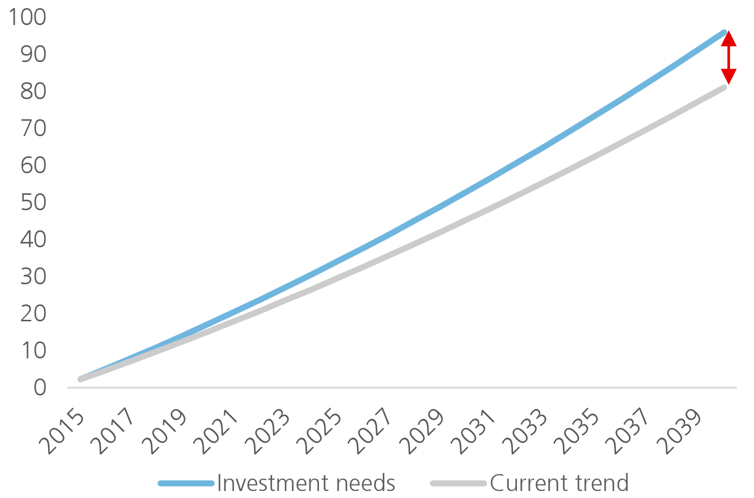
- Limited redemption real estate fund NAVs have been declining since end 2022. 1Q24 data indicate a continuation of this downward trend with preliminary data for the NCREIF NFI-ODCE Index indicating a sixth consecutive quarter of declines (–2.4% q/q and –18.4% since 2022 peak). Real estate investment activity data for 1Q24 have yet to be released, but anecdotal evidence suggests delayed investor appetite for new acquisitions amid still elevated financing costs.
- Price discovery is well under way, however. We think 2024 should provide some relief as we think interest rates have peaked and should move lower although much will hinge on the timing and magnitude of the first rate cuts. Meanwhile, real estate assets are increasingly offering yield relative to bonds, which should incentivize investments. According to CBRE, average US capitalization rates have increased to 7% at the end of 2023.
- CIO expects 2024 to show both positive rental and capital growth. But the recovery is likely to prove uneven with sectors benefiting from tight supply, high rental growth, and low capex (for instance residential and logistics) likely to rebound quicker than structurally challenged sectors such as the office market.

Infrastructure – A structural opportunity

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

By 2040, the infrastructure investment gap is expected to widen to USD 15tr

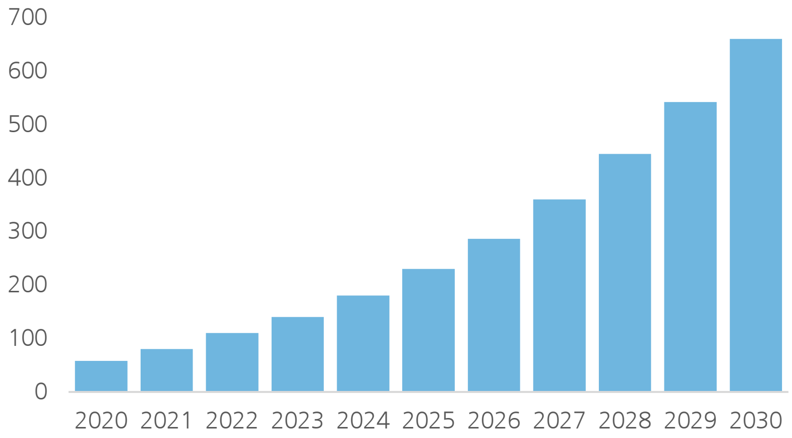
Infrastructure needs vs. trends (in USD tr)



Source: Global Infrastructure Hub as of 2017

Digital data growth should accelerate from 2020–30

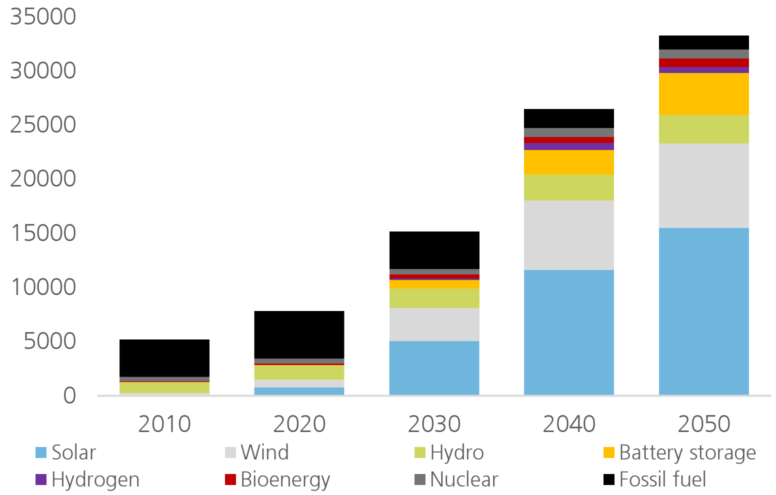
Annual size of the global datasphere, in zettabyte



Source: IDC, EMC, Bloomberg Intelligence, UBS, May 2024

Net Zero cannot be achieved without expanding renewables capacity

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



Source: IEA, WEO 2022, UBS May 2024

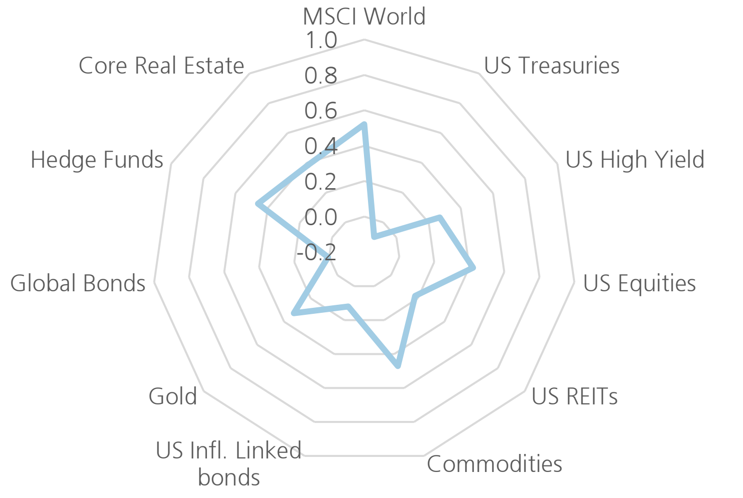
- Infrastructure is sitting at the heart of the 5Ds (see page 5). Structural trends forcing the need to create new infrastructure assets while replacing/modernizing existing ones should provide attractive investment opportunities over the decade ahead.
- The UN forecasts the urban population to increase 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 or 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 as renewables, 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 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

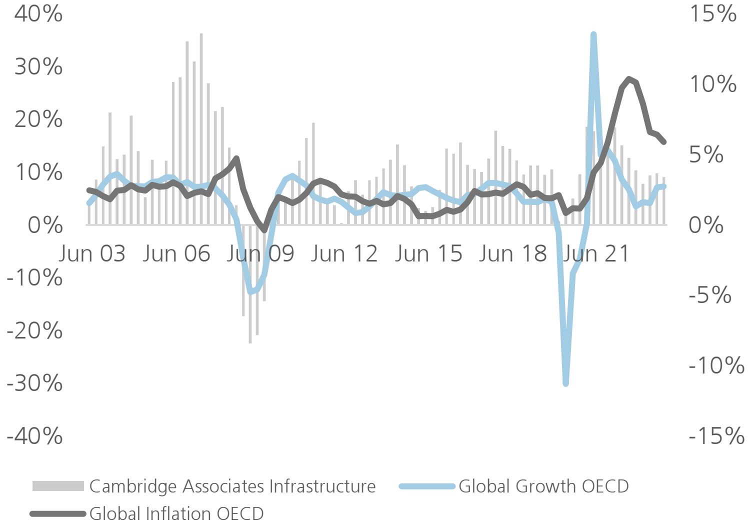
Correlation of the Cambridge Infrastructure index vs other asset classes (2005-2022)



Source: UBS, Bloomberg, Cambridge Associates, May 2024

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

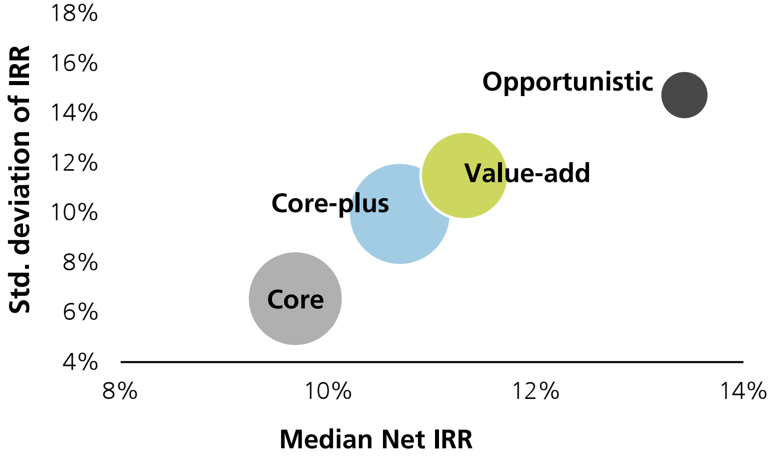
Infrastructure returns vs changes in GDP and inflation



Source: OECD, Cambridge Associates, UBS, May 2024

Infrastructure strategies offer good returns

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



Source: Preqin, UBS May 2024

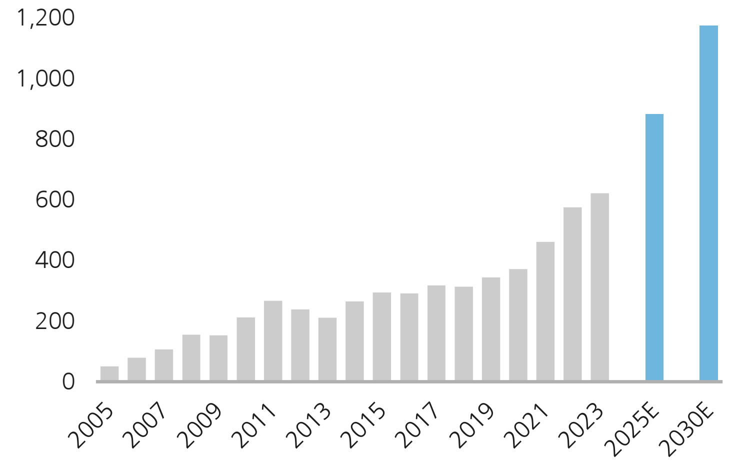
- Infrastructure includes assets across various sectors of the economy from regulated utilities to power stations, transportation, telecom, and social infrastructure. Often, these assets exhibit the following common characteristics—high barriers to entry, low price elasticity of demand, and stable and 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 cash flows; that are less exposed to cyclical pressures; and have adequate leverage levels.

Spotlight on renewables – Investing with impact

Taking advantage of the decarbonization trend

Spending on renewables is expected to double by 2030

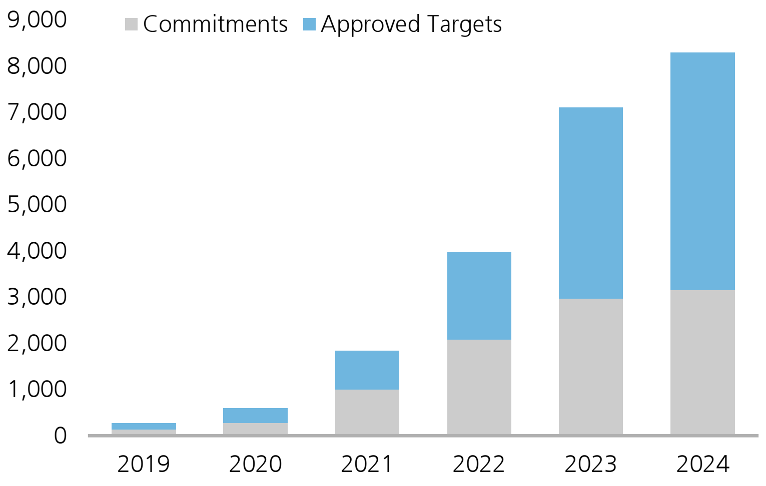
Global spending on renewable energy infrastructure in USD bn



Source: BloombergNEF, UBS, May 2024

Companies increasingly make commitments to decarbonization targets

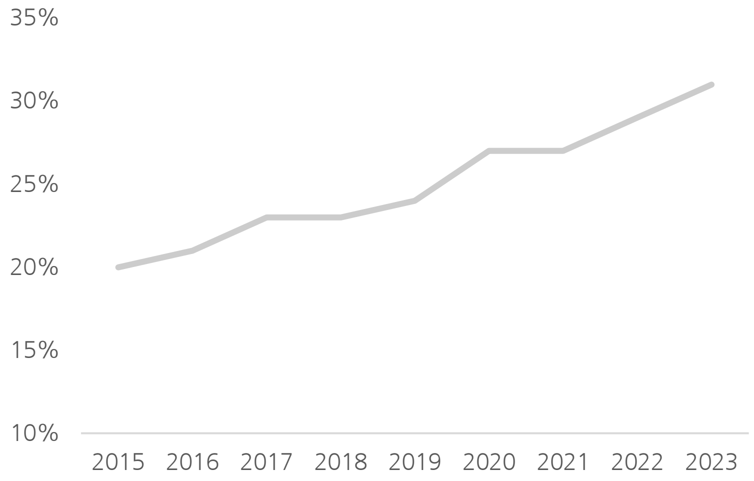
Number of companies with decarbonization commitments



Source: Science Based Targets Initiative, UBS May 2024

The share of renewables in the electricity mix now makes up 35% in the US and EU

US & EU share of renewables in the energy mix (in %)



Source: IEA, Ember, UBS May 2024

- Structural tailwinds and government support across the globe support the trend of decarbonization through incentives and policies as discussed on page 32. Investors looking to generate stable, uncorrelated returns while making impact could gain exposure to one of the key trends shaping the next decades via renewable infrastructure.
- Strong demand and supply are driving the renewables opportunity as we see an increased push for the industrial transition. Spending on renewable infrastructure has picked up, driven by lower risks and decarbonization objectives and is expected to double by 2030. This is largely driven by corporate strategies as companies are increasingly committing to science-based decarbonization targets. Regulatory pressures, reputational risks, and additional costs related to non-compliance in the form of carbon taxes or expensive carbon credits are driving this push..
- Renewable technologies have become more cost-efficient and affordable than fossil energy in many markets over recent years. This has shifted the energy mix, where in the US and Europe the share of renewables has reached over 35% on average. Renewables also make up the majority of new capacity additions globally, while Oil & Gas have added little to none.

Appendix

Illustrative private market allocations (USD)

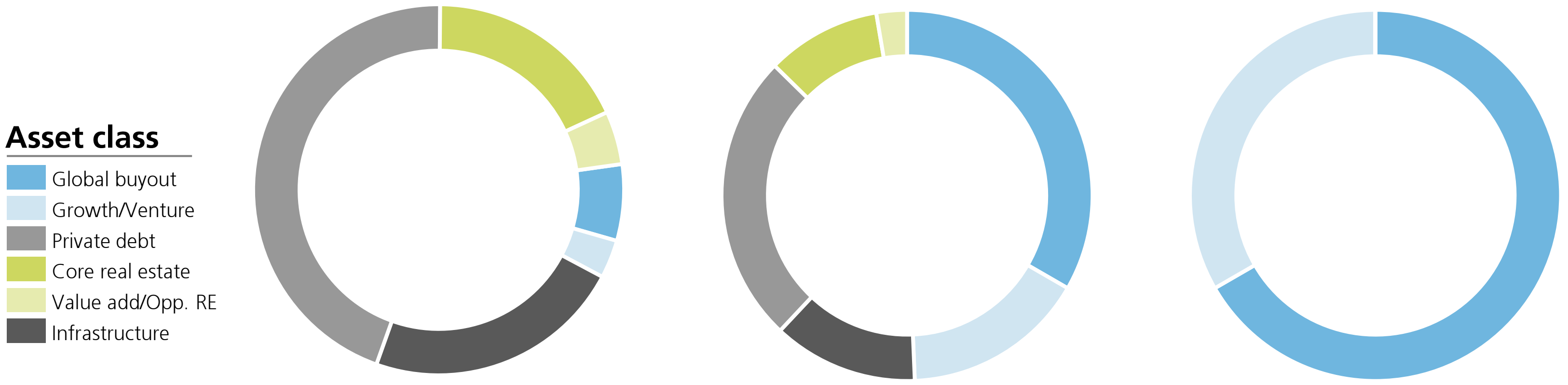
Personalizing a private market allocation based on an investor’s objectives and risk/return profile

- Asset allocation decisions need to take into consideration an investor’s objective, risk profile, individual preferences and liquidity constraints.
- Sizing allocations to private assets should be inline with an investor’s time horizon and liquidity needs.
- Strategy decisions should be customized to an investor’s preferences and preserve overall risk profile of their existing portfolio.

assets to avoid severe issues during downturns (up to 40% if cash flow needs are moderate and/or mitigated by sources of external liquidity)*

- Income orientated investors should seek portfolios that generate stable returns through strategies with steady operational or senior secured cashflows. Meanwhile, capital appreciation-oriented investors may aim to derive returns from a portfolio with a longer time horizon and focused on private equity strategies.

*for more details, refer to our report “Allocating to private equity in a multi-asset class portfolio” published 20 July 2020).



Objective	Generate income with lower risk of capital loss	Diversified allocation across private income and equity strategies	Maximizing long term capital creation
Characteristics**			
Target return p.a.	7 - 9%	9 - 11%	11 - 13%
Target vol. (reported)	~ 6%	~ 9%	~ 14%
Target Max DD	Less than 15%	Less than 25%	Less than 30%
Sample Portfolio			
Global Buyout	6.7%	33.3%	66.7%
Growth/Venture	3.3%	16%	33.3%
Private Debt	45%	25.3%	0%
Infrastructure	22.5%	12.7%	0%
Real Estate	22.5%	12.7%	0%

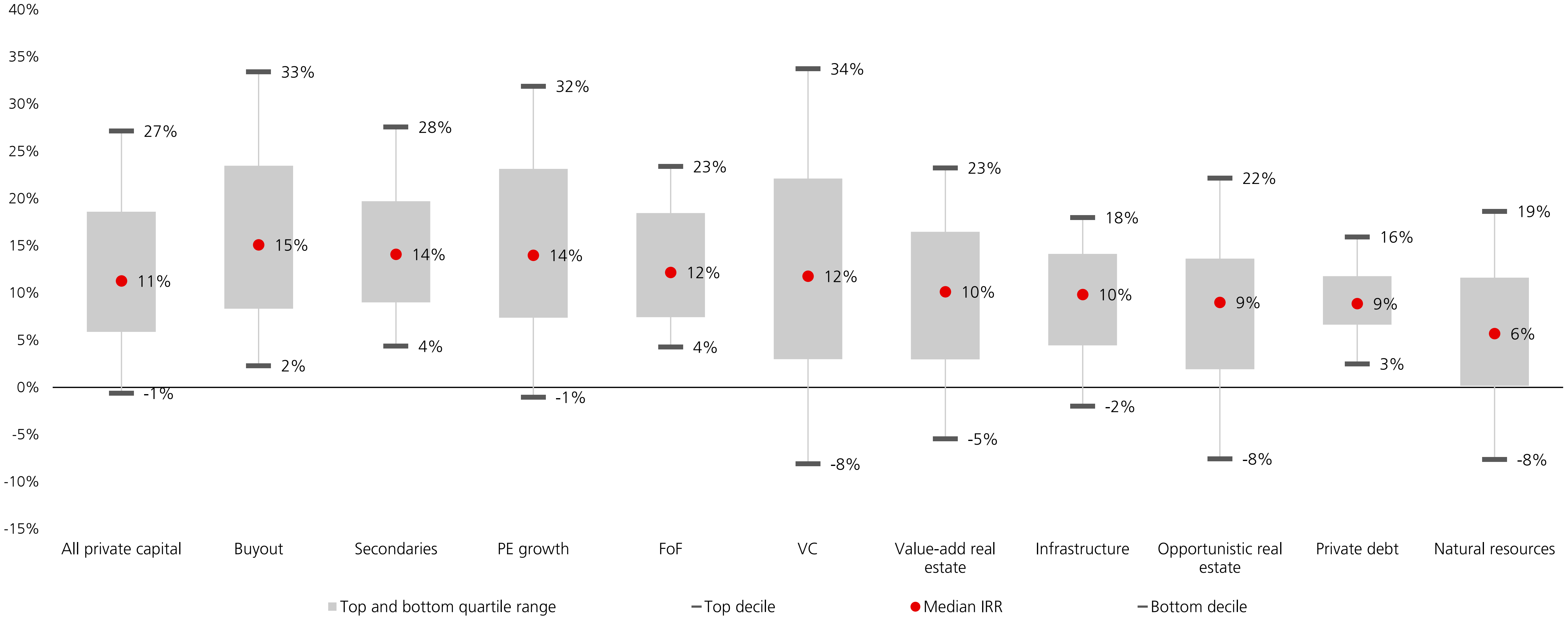
Source: UBS GWM Chief Investment Office (CIO)

**Note: Annualized expected risks / return figures are based on the CIO Capital Market Assumptions (CMA) 2024. 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 are not reflected. Historical data considered 1997-2023

The importance of manager selection

Fund return dispersion can be high making manager selection a critical component in building private market allocations

Private, closed-end fund net IRR dispersion by strategy (vintages 2002 to 2018)



Source: Pitchbook LCD, UBS May 2024

Risk information

Non-Traditional Assets

Non-traditional asset classes are alternative investments that include hedge funds, private equity, real estate, and managed futures (collectively, alternative investments). Interests of alternative investment funds are sold only to qualified investors, and only by means of offering documents that include information about the risks, performance and expenses of alternative investment funds, and which clients are urged to read carefully before subscribing and retain. An investment in an alternative investment fund is speculative and involves significant risks. Specifically, these investments (1) are not mutual funds and are not subject to the same regulatory requirements as mutual funds; (2) may have performance that is volatile, and investors may lose all or a substantial amount of their investment; (3) may engage in leverage and other speculative investment practices that may increase the risk of investment loss; (4) are long-term, illiquid investments, there is generally no secondary market for the interests of a fund, and none is expected to develop; (5) interests of alternative investment funds typically will be illiquid and subject to restrictions on transfer; (6) may not be required to provide periodic pricing or valuation information to investors; (7) generally involve complex tax strategies and there may be delays in distributing tax information to investors; (8) are subject to high fees, including management fees and other fees and expenses, all of which will reduce profits.

Interests in alternative investment funds are not deposits or obligations of, or guaranteed or endorsed by, any bank or other insured depository institution, and are not federally insured by the Federal Deposit Insurance Corporation, the Federal Reserve Board, or any other governmental agency. Prospective investors should understand these risks and have the financial ability and willingness to accept them for an extended period of time before making an investment in an alternative investment fund and should consider an alternative investment fund as a supplement to an overall investment program.

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.
- Managed Futures: There are risks specifically associated with investing in managed futures programs. For example, not all managers focus on all strategies at all times, and managed futures strategies may have material directional elements.
- Real Estate: There are risks specifically associated with investing in real estate products and real estate investment trusts. They involve risks associated with debt, adverse changes in general economic or local market conditions, changes in governmental, tax, real estate and zoning laws or regulations, risks associated with capital calls and, for some real estate products, the risks associated with the ability to qualify for favorable treatment under the federal tax laws.
- Private Equity: There are risks specifically associated with investing in private equity. Capital calls can be made on short notice, and the failure to meet capital calls can result in significant adverse consequences including, but not limited to, a total loss of investment.
- 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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