

Private Markets Extended

3Q24

Karim Cherif, CIO Head Alternative Investment
Antoinette Zuidweg, Alternative Investment Strategist
Laetitia Friedemann, CFA, Alternative Investment Strategist

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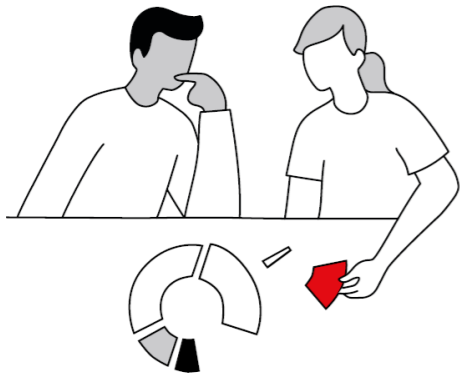


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Executive summary

Key views



- Private assets play a key role in long-term investment plans potentially offering 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 greater potential to capture a premium over public markets. Investors who can tolerate some illiquidity but focus solely on stocks and bonds may be giving up performance that can lead to sustained wealth creation over time.
- Capital allocation shifts across the economy and growing assets under management are making private assets harder to ignore today. Evidence of that is 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 compete against public capital as a source of funding. 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.
- 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 debt**, return prospects for direct lenders still look attractive amid higher yields. Risks remain manageable but selectivity, size, and seniority will matter more moving forward. Tactically, we still see good opportunities in distressed and special situation funds.
- In **real assets**, the case for private real estate as a diversifier remains intact. The sector is still in a bottoming process but could start reaccelerating in 2025. 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

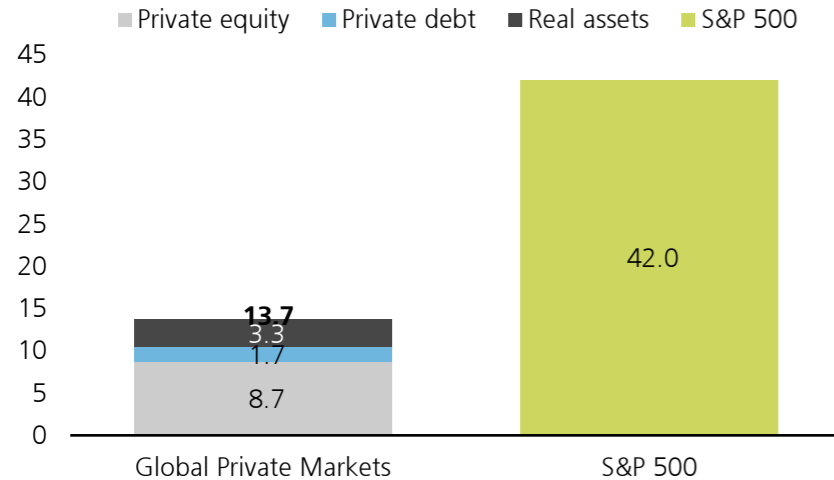
Investors in private market funds must consider the following risks:

- **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.
- **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.
- **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.
- **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.
- **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.
- **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.

Private markets are too big to ignore and growing

With USD 14 trillion in AuM in 2023, global private markets are hard to ignore

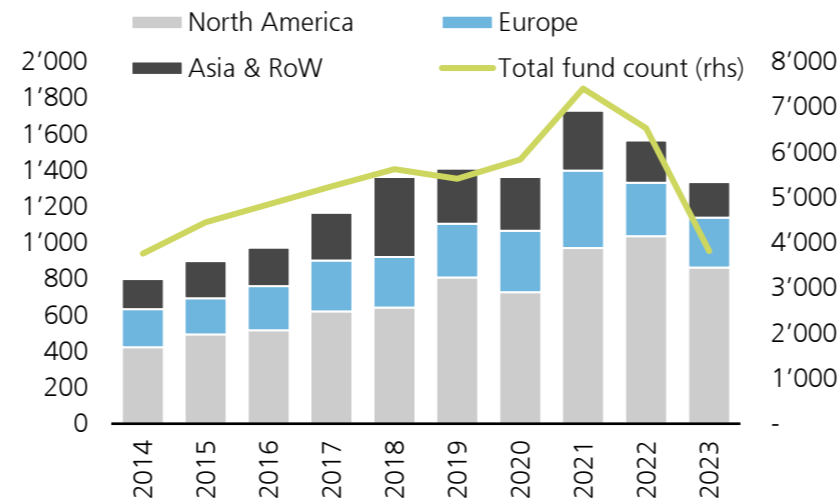
2023 global private markets assets under management by strategy and S&P 500 market capitalization, in USD trillion



Note: Assets under management defined as dry powder plus unrealized value. Includes closed-ended funds only. Source: Preqin, S&P 500, UBS September 2024.

Fundraising grew significantly in the past decade indicating growing investor appetite

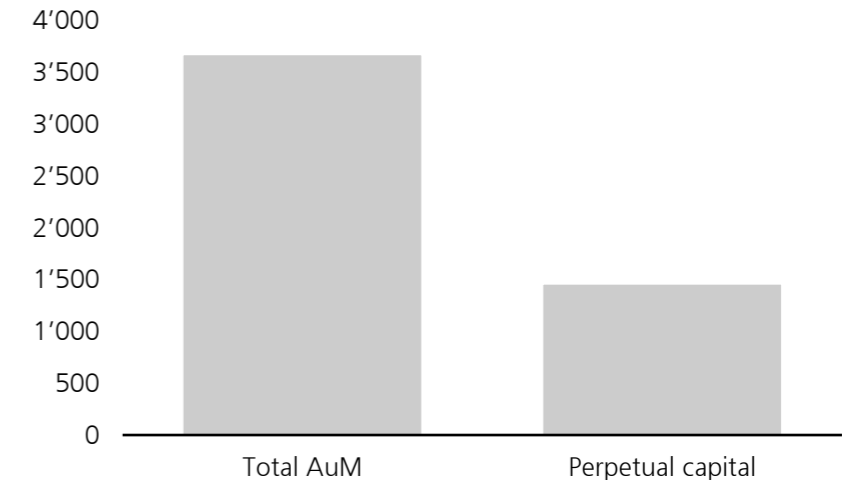
Private capital raised by region, in USD billion and total fund count



Note: As of 30 June 2024. Source: Pitchbook 2Q24, UBS September 2024.

More flexible investment solutions are facilitating access to the asset class

Total and perpetual assets under management of top-7 listed US private equity firms, in USD billion



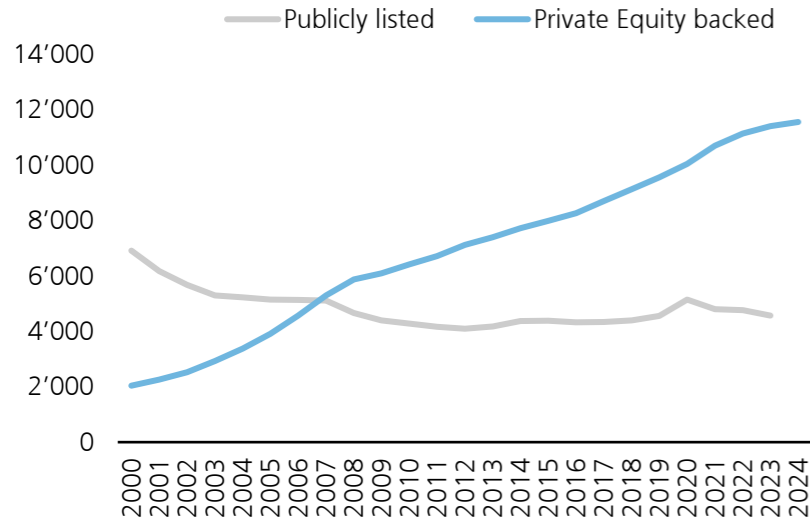
Note: As of 30 June 2024. Source: Pitchbook 2Q24, UBS September 2024.

- Private markets broadly consists of private equity, private debt, and real assets. With USD 8.7 trillion in assets under management (AuM)—defined as dry powder and the value of unrealized investments—private equity makes up 64% of the asset class, followed by real assets with USD 3.3 trillion (24%)—nearly equally split between real estate and infrastructure investments—and private debt with USD 1.7 trillion (13%). Yet private markets have the potential to grow further. The market capitalization of the S&P 500, for example, was USD 42.0 trillion at the end of 2023 or 3x more than the USD 13.7 trillion in total AuM of global private markets.
- According to Pitchbook, private market fundraising reached USD 1.3 trillion in 2023. This is on par with 2018 levels as allocators took a more cautious approach following COVID-19 and the ensuing rate hikes. Private equity’s historical share of fundraising is c.60%, real assets c.25%, and private debt c.15%. Geographically, North America represents c.55%, Europe c.25%, and Asia and rest of the world (RoW) c.20%.
- According to a study by Bain & Company, individual investors only represent 16% of private capital AuM. Alternative investment managers are increasingly facilitating access to the asset class by developing new structures such as perpetual fund structures, which typically offer lower minimum commitments and partial liquidity. This trend is further supported by regulation, with the US Investment Company Act of 1940, the European Long-Term Investment Fund (ELTIF) and the UK’s Long-Term Asset Fund (LTAF) regimes widening the access to private markets.

Private markets can fill potential gaps in asset allocations

Accessing fast-growing businesses through listed equities is becoming harder

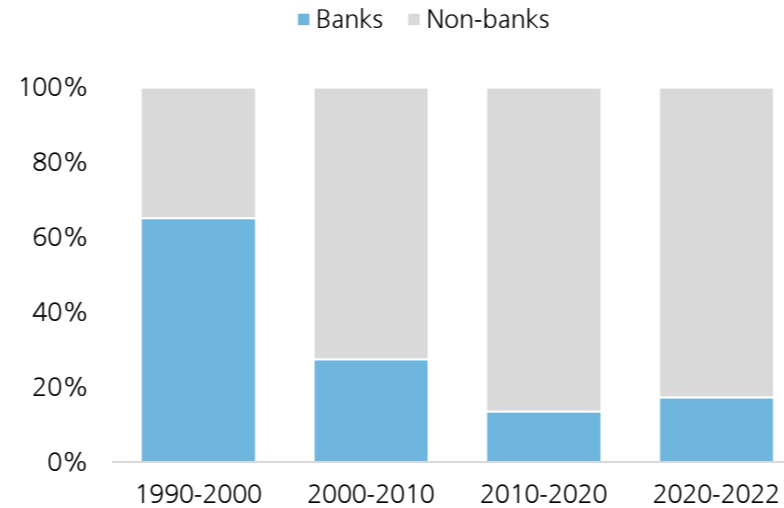
Number of US private equity-backed companies versus domestic listed firms on NYSE and Nasdaq



Source: Pitchbook, UBS September 2024.

Private debt is increasingly taking a broader role in funding the global economy

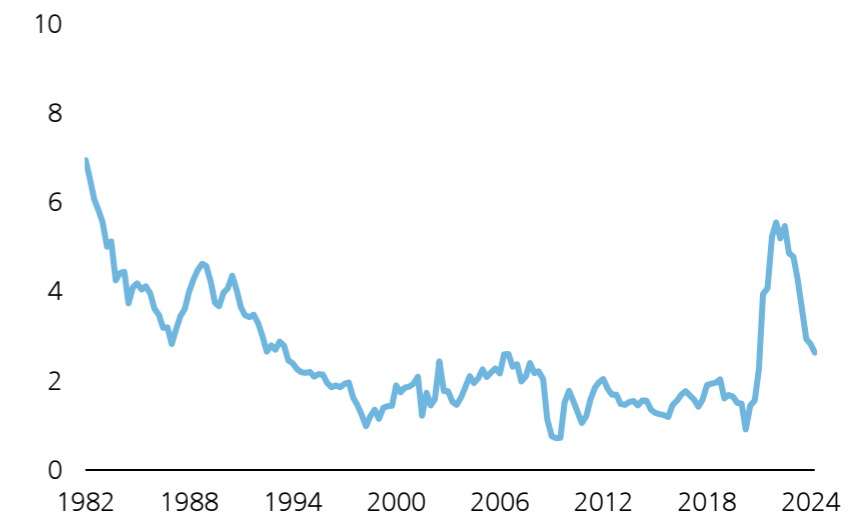
Banks share of participation in the U.S. syndicated leveraged loan market, in %



Source: Pitchbook, UBS September 2024.

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

US core PCE inflation rate, y/y %



Source: Bloomberg, UBS September 2024.

- Access to innovation, diversification and enhancing returns are key drivers of capital flows into private assets. Private 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 choose to stay private longer, 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, the disintermediation of the lending market amid tighter regulations on banks should continue. Around the globe, governments are also confronted with the challenging task of reducing debt ratios while supporting economic growth and spending. We see these as supportive of a wider role of non-traditional lenders in funding the broad economy.
- Finally, inflation is approaching central banks' targets. However, deglobalization, demographics and decarbonization trends maintain the risk of inflationary pressures long term. 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, for instance real assets.

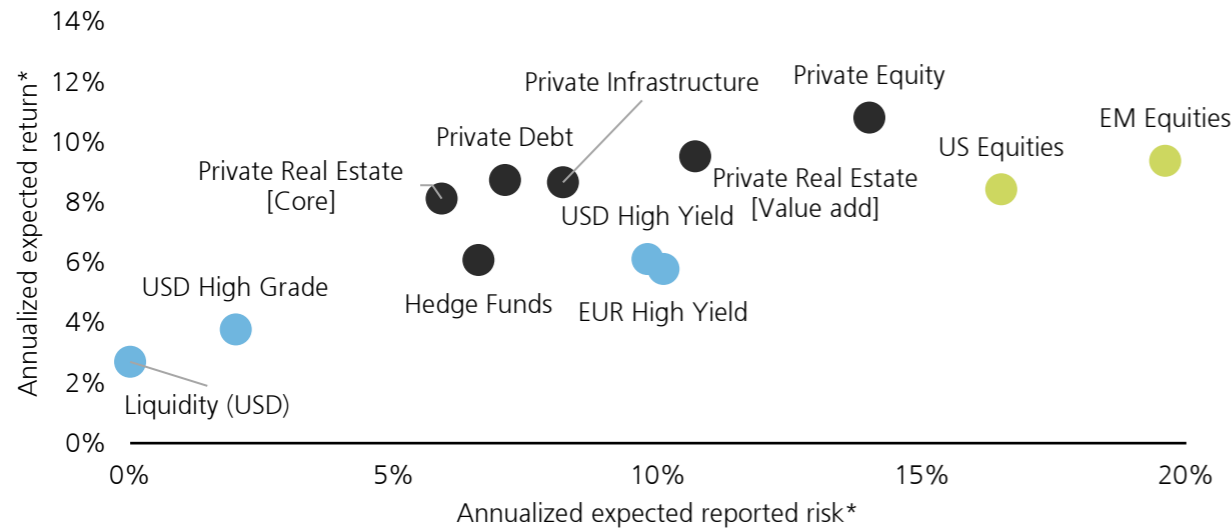
Private markets support wealth accumulation by taking advantage of less efficient markets and active ownership to generate higher returns

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

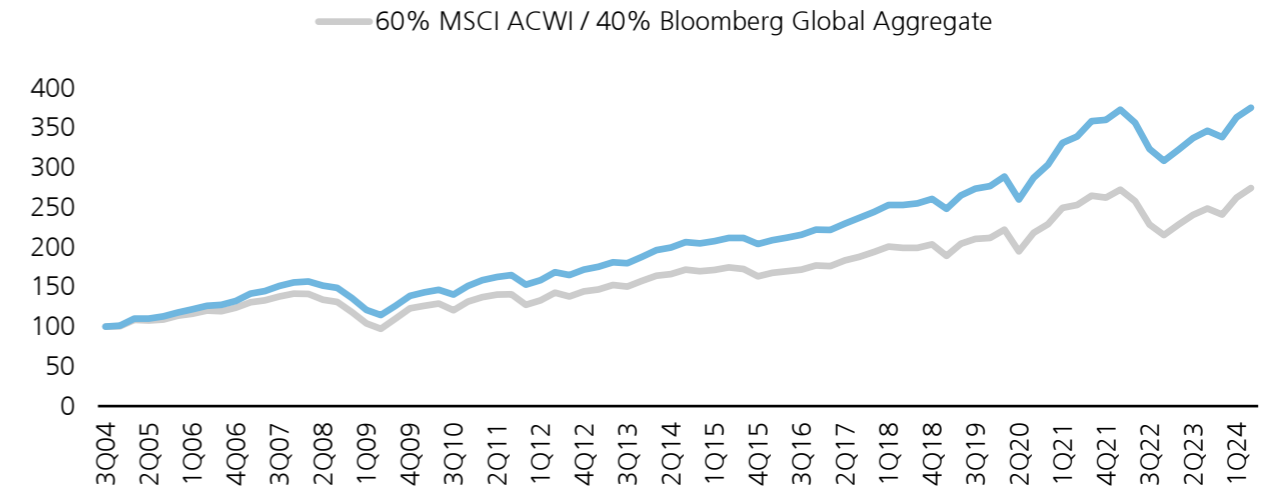
Expected annualized risk and return for traditional and private market investments

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

Historical analysis of adding private equity in a portfolio between 2004 and 1Q24



Source: UBS GWM Chief Investment Office (CIO). See note below



Note: For a portfolio starting in 3Q04. Source: Bloomberg, Cambridge Associates, UBS September 2024.

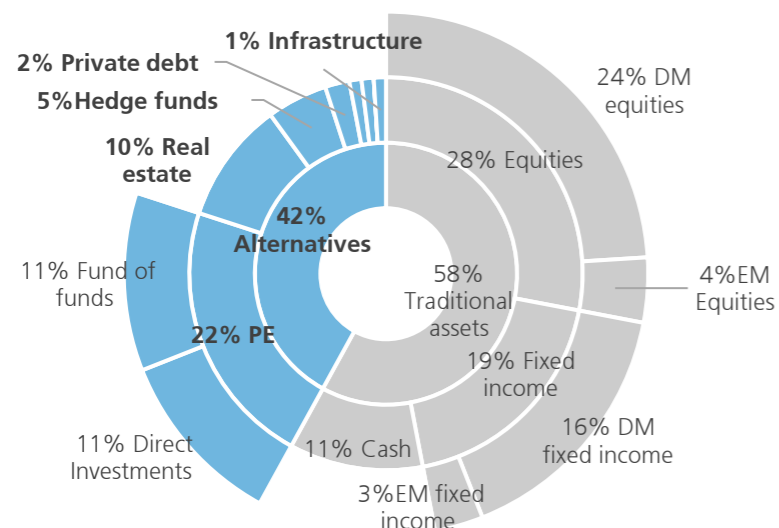
- Maintaining a long-term view, especially in times of uncertainty, can provide perspective. Historically, including private markets in a portfolio has led to better outcomes across a full economic cycle.
- We think investors should continuously review their liquidity and risk tolerance and adjust to 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.
- For more details on private market portfolio construction, please refer to slide 43 of this report.

*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.

UBS survey data indicate positive investor sentiment toward the asset class

Family offices allocate 42% to alternatives, including 22% to private equity

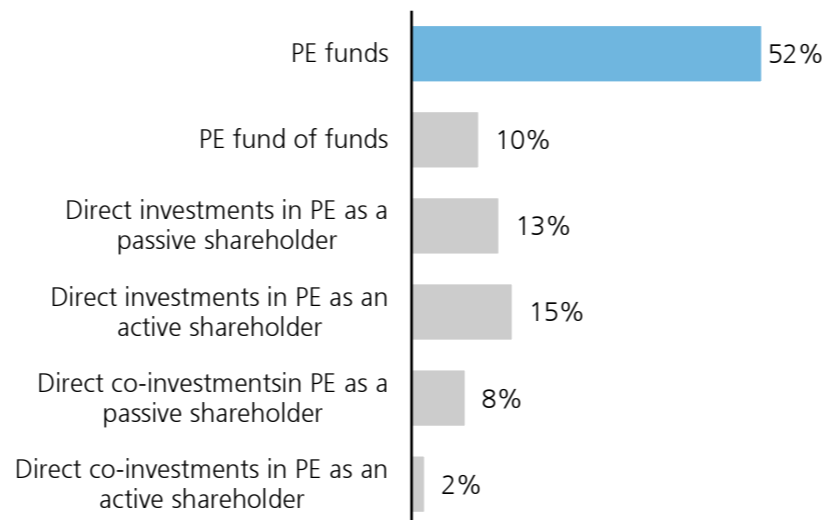
Strategic asset allocation 2023



Source: UBS Global Family Office Report 2024.

Funds are among the most favored instruments used to access private investments

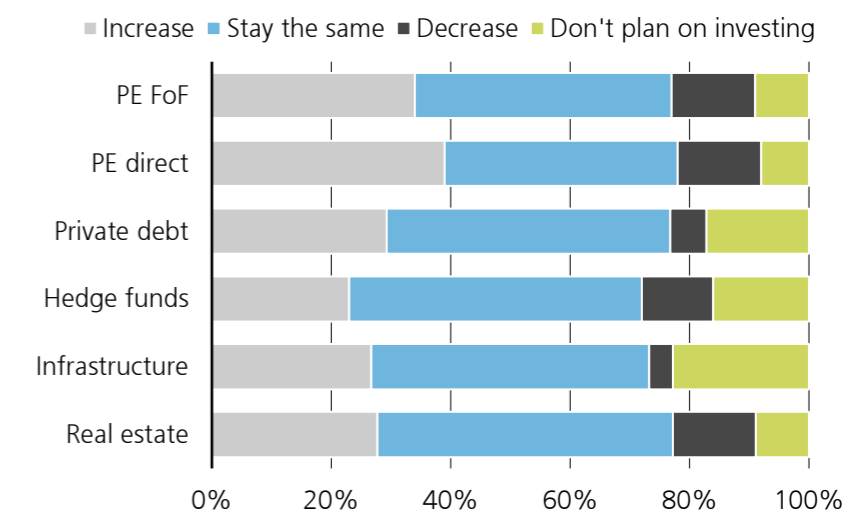
Manner of investing for global family offices with private equity investments in 2023



Source: UBS Global Family Office Report 2024.

The large majority of investors plan to maintain or increase allocation to alternatives

% of respondents planning to adjust their allocations to alternatives in 2024



Note: FoF = fund of funds. Source: UBS Global Family Office Report 2024.

- The UBS Global Family Office Report of 2024 surveyed 320 family offices from more than 30 countries on their investment behavior. Family offices traditionally have allocated a large portion of their portfolios to alternatives. In 2023, these made up 42% of their assets. Confidence in the asset class remains high, although investors have expressed concerns about the lack of realizations.
- Per strategy, the general sentiment on private equity remains positive. Allocations in 2023 increased to 22%, compared to 19% the previous year and family offices plan to maintain their allocations in 2024 with a tilt to fund of funds to increase diversification. Notably, family offices plan to increase their allocations to private debt to 4% in 2024 (compared to 2% in previous years), and have allocated 1% to infrastructure, an area that had little attention until 2023. Of family offices, 27% plan to increase their allocation to infrastructure in 2024. This can be explained by more funds broadening their infrastructure access beyond the traditional institutional investors.
- Larger family offices (with assets > USD 1bn) allocate almost 50% in direct investments or co-investments, either as active (17% of respondents) or as passive shareholders (21% of respondents).

Private equity

Key views

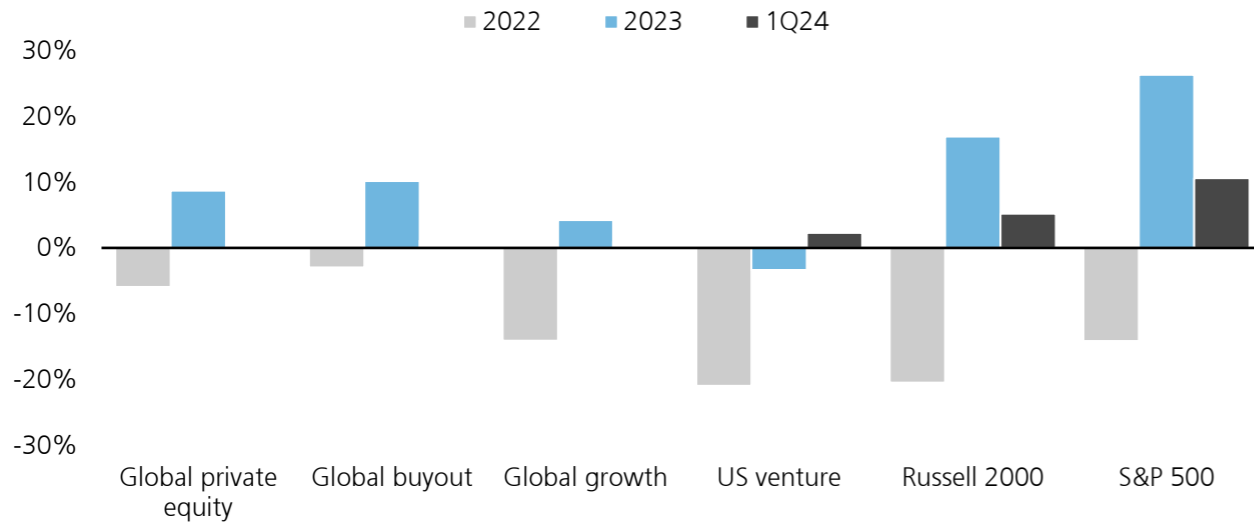


- First half 2024 data for private equity points to optimism, with deal activity picking up, exits stabilizing, and funding availability improving. Economic growth is consistent with a soft landing. The beginning of the Fed rate-cutting cycle should solidify the recovery trend that began two quarters ago.
- The current environment continues to offer appealing long-term investment opportunities across markets. Entry valuations for new portfolio companies remain attractive. Most private companies continue to show resilient EBITDA growth. Interest rates are elevated but will likely come down over the next quarters, providing some funding cost relief while helping to broaden the universe of potential targets for sponsors. However, investors should remain more selective with new allocations. While interest rates and funding costs should come down, they may stay restrictive for certain assets and strategies.
- We prefer GPs with a strong track record in value-creation tactics, a particular focus on growing margins and revenues, and an 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 are particularly attractive.
- Thematic investors may want to focus on quality growth in areas such as software, health, and climate-related solutions. Per geographies, we believe both the US and Europe offer attractive opportunities, while in Asia we remain selective, with a focus on countries such as Japan where corporate reforms, low interest rates, and the yen are supportive of private equity investing.
- We believe secondaries continue to present solid fundamentals, driven by LP and GP needs for liquidity. The quality and the assets currently marketed has improved. Net asset value discounts to investors are still offering attractive entry points.
- In venture capital, we expect the recovery to be the slowest yet also acknowledge that there are pockets of opportunities especially as investors are finding themselves in a more favorable position to negotiate terms.
- Investors looking to invest in private equity should, however, consider the risks related to these strategies that are described on slide 3 of this report.

Performance: positive, albeit trailing public markets over a 1-year time window

Private equity NAVs further gained amid higher public equity valuations and positive EBITDA growth

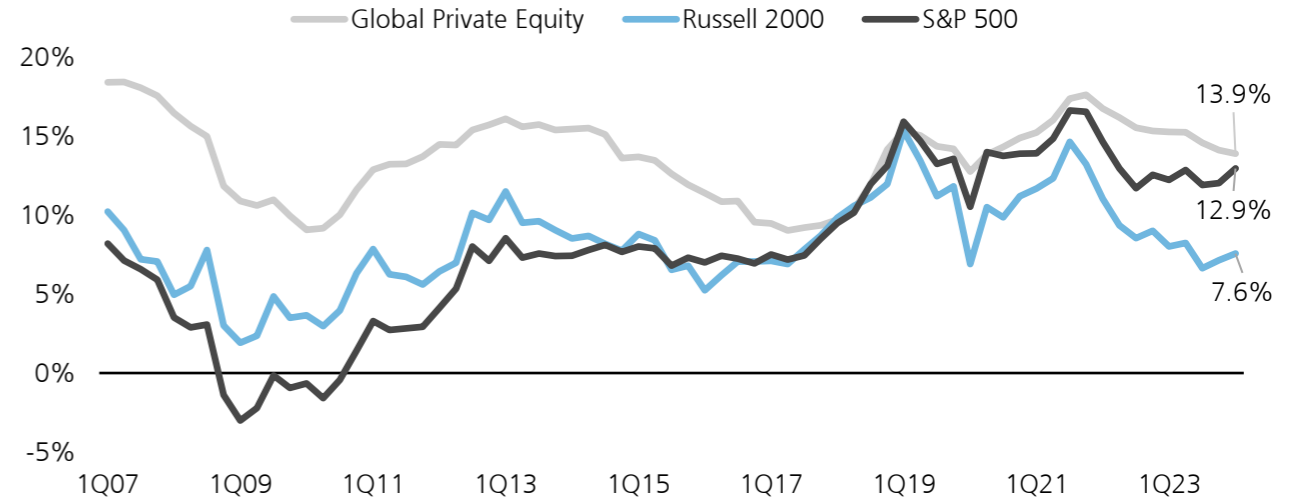
Private equity versus public equity time weighted returns



Note: As of 1Q24. Private equity includes global buyout and growth equity funds. Source: Bloomberg, Cambridge Associates, UBS September 2024.

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

10-year rolling private versus public equity time weighted returns



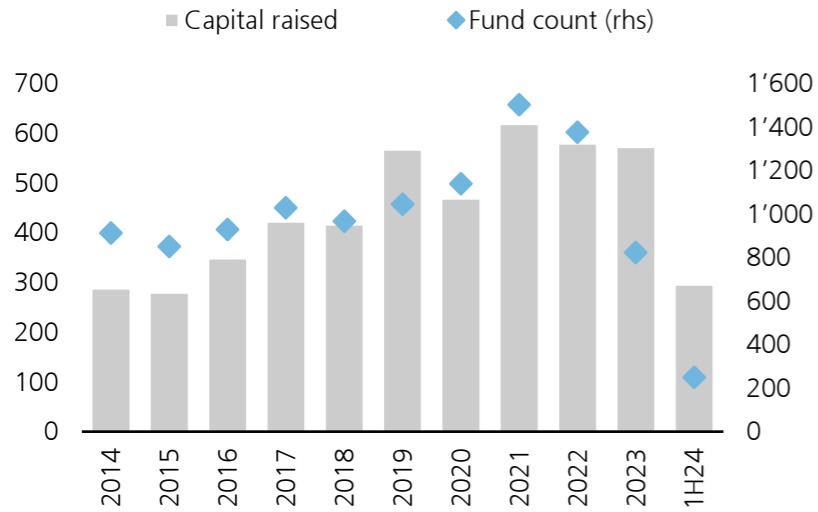
Note: As of 1Q24. Includes global buyout and growth equity funds. Source: Bloomberg, Cambridge Associates, UBS September 2024.

- Cambridge Associates pegs 1Q24 performance for the broad global private equity asset class at 1.06%, with venture strategies outperforming (+2.28% q/q) followed by buyout (+1.08% q/q) and growth equity (+0.97% q/q). We anticipate NAVs to extend further in 2024, with higher public market valuations, positive macroeconomic dynamics, and healthy revenue/EBITDA growth as key drivers.
- Private equity performance, however, continues to trail the 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. Public market performance has also been driven by the outsized outperformance of a select group of large cap tech stocks (e.g. Mag-7). We view this as a temporary phenomenon and expect private equity assets to retake leadership soon. We note that over a 10-year rolling period (a more adequate timeframe for comparing public and private investments), private equity benchmarks continue to outperform public proxies.
- Investors should nevertheless expect higher fund return dispersion (see slide 44 of this report), 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 that did not.

Fundraising activity: data continues to suggest some caution among investors

Fundraising activity is resilient, albeit a lower number of funds closed

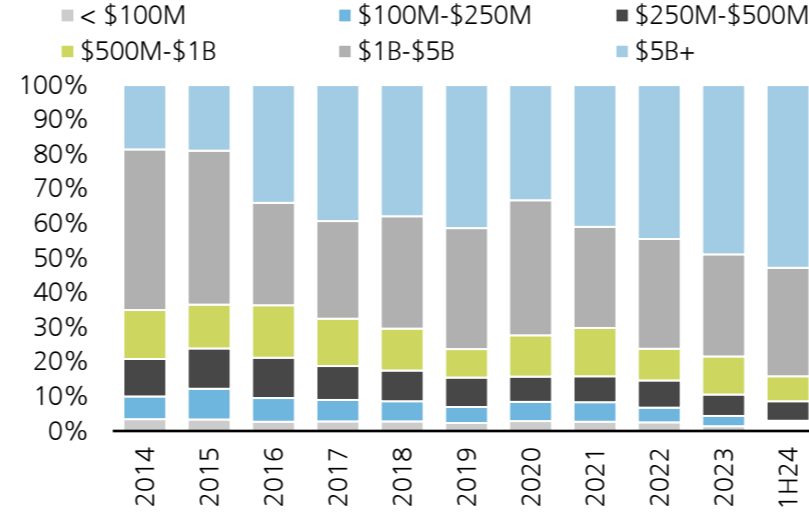
Global private equity fundraising, in USD billion



Note: As of 30 June 2024. Source: Pitchbook 2Q24, UBS September 2024.

Large funds of USD >5 billion gain share, representing >50% of fundraising in 1H24

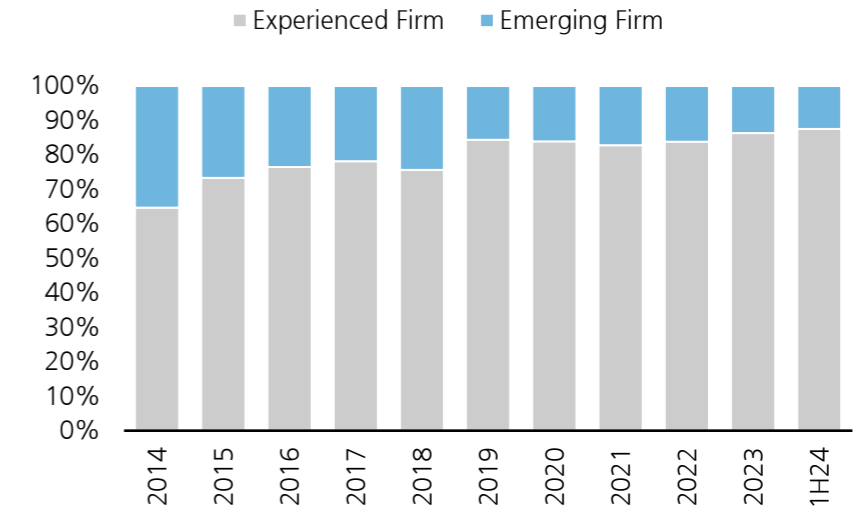
Global private equity fundraising by fund size, in % share



Note: As of 30 June 2024. Source: Pitchbook 2Q24, UBS September 2024.

Flight-to-quality continues

Global private equity raised by manager experience, in % share



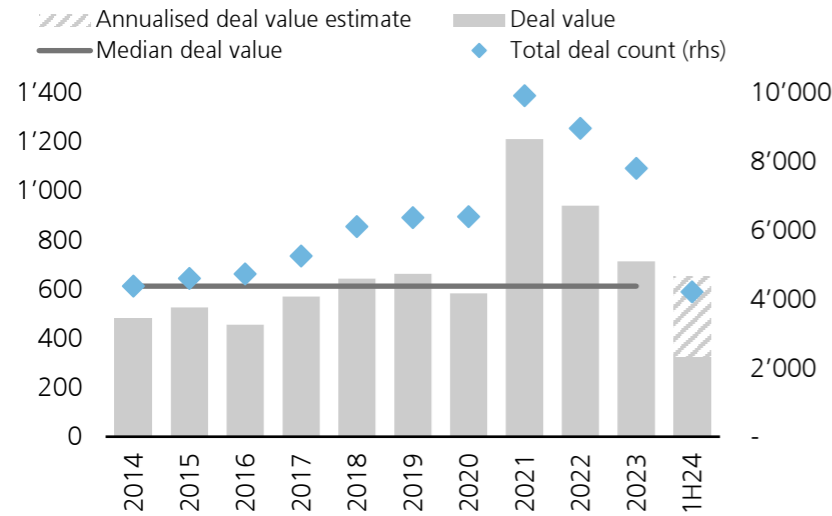
Note: As of 30 June 2024. Emerging firms are those managers who raised three or fewer funds firmwide. Source: Pitchbook 2Q24, UBS September 2024.

- Global private equity fundraising had a solid start to 2024, with USD 296 billion raised across 250 funds in 1H24 according to Pitchbook. The bulk of the capital was allocated to buyout funds as opposed to growth or turnaround strategies. Europe gained momentum, representing 34% of all capital raised globally in 1H24, compared to 23% in 2023.
- Twelve funds larger than USD 5 billion in size contributed to over 50% of the capital raised globally in 1H24. This underscores LPs' continuing preference to allocate to experienced managers with a proven track record. It also shows that funds that close are successful in securing larger commitment sizes.
- The lack of distributions remains the key factor driving LPs' resistance to broader new commitments, however. Capital scarcity is reflected in extended closing timelines. Stabilizing net asset values (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.

Transaction activity: US deal-making and exits gradually improving in 2024

Transactions may have troughed

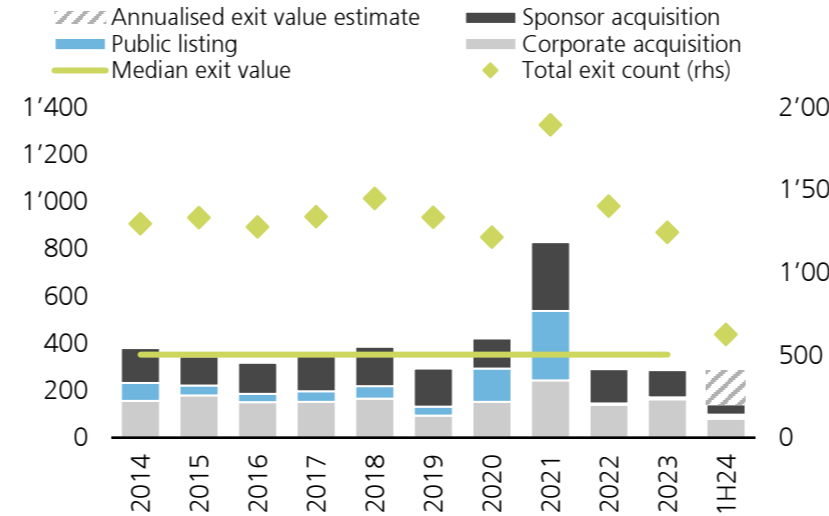
US private equity deal value, in USD billion, and deal count



Note: As of 30 June 2024. Source: Pitchbook 2Q24, UBS September 2024.

Exit activity still gives mixed signals although IPO activity has picked up

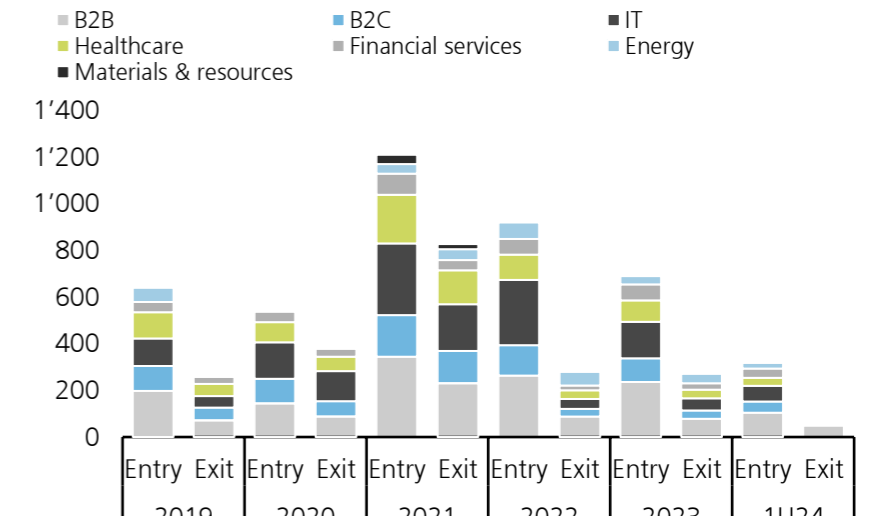
US private equity exit value, in USD billion, and exit count



Note: As of 30 June 2024. Source: Pitchbook 2Q24, UBS September 2024.

B2B and IT deals continue to dominate acquisition and exit volumes

US private equity deal and exit value by sector, in USD billion



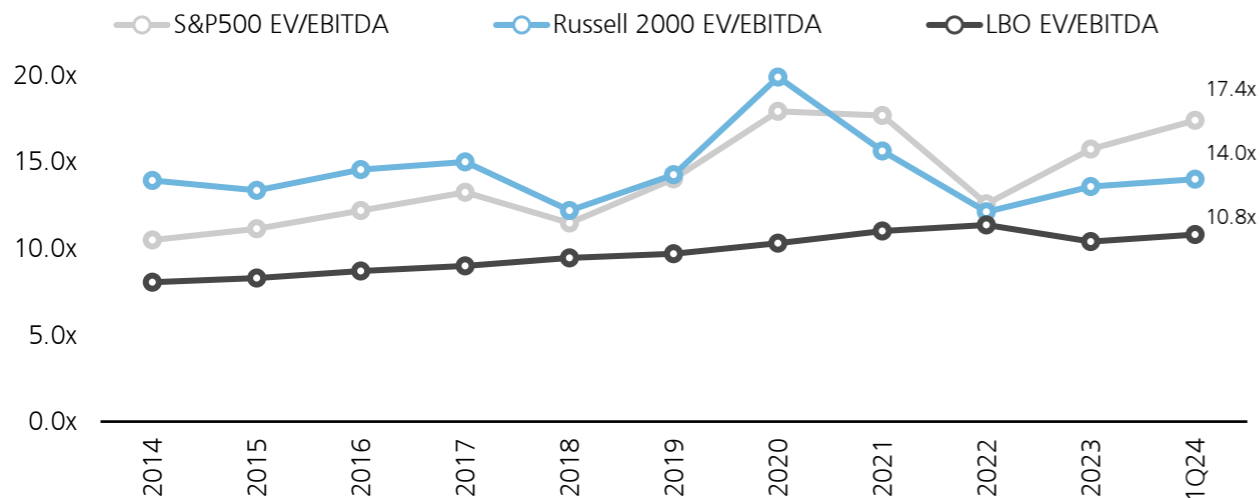
Note: As of 30 June 2024. Source: Pitchbook 2Q24, UBS September 2024.

- First half 2024 data indicate a pick-up in US transaction activity, as deal-making increased c. 12% y/y in terms of both deal value and count. Managers continue to focus on small-cap take-private deals (< USD 1 billion), add-ons, carve-outs, and growth equity deals given their smaller size, lower dependency on leverage, and better valuations or higher potential for operational enhancement. We anticipate transaction volumes to improve over 2H24 with the prospect of lower funding costs potentially helping broaden the universe of potential targets.
- Realizations are stabilizing. Exit value increased 15% y/y although the exit count remains flat. We see good indications of further traction in the coming quarters. GPs are increasingly compelled to sell maturing assets to return capital to liquidity-starved investors. Higher public versus private valuations are making IPOs attractive again. Strategic buyers have cash at hand and appetite for M&A. GP-led secondary transactions, such as continuation funds, are providing a new exit avenue with 45 such transactions announced in 1H24 vs. 80 for FY2023.
- The backlog of deals remains significant, however. The beginning of the Fed's rate-cutting cycle could help accelerate the realization process, but patience will be needed for a full recovery. The buyer-seller valuation gap is narrowing but will likely need to narrow even further.

Purchase price multiples: entry multiples appear to be stabilizing

LBO entry multiples are repricing higher, albeit slower than public markets

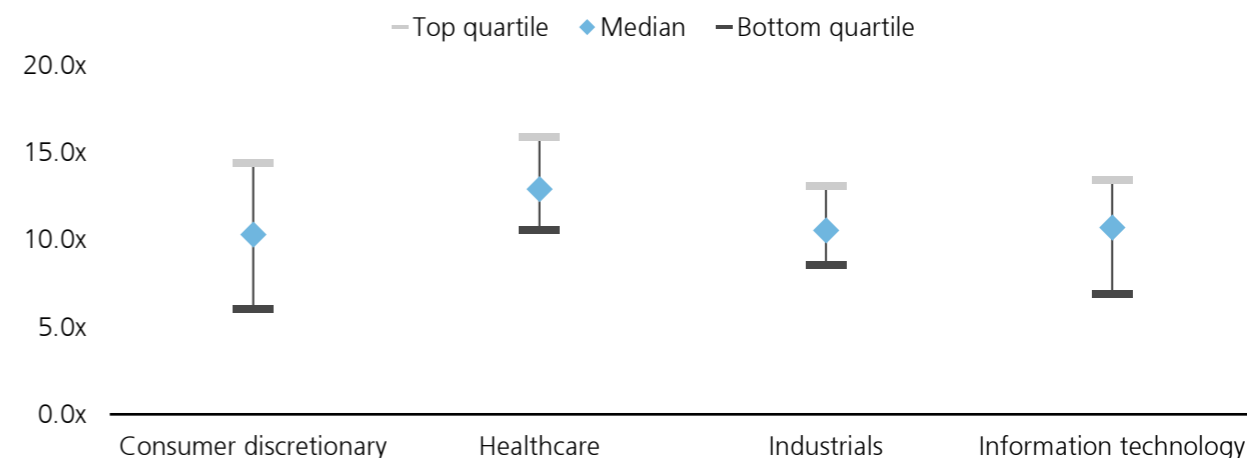
Public equity multiples versus global buyout purchase price multiples



Source: Burgiss, Factset 1Q24, UBS September 2024.

Across sectors, dispersion remains high

1Q24 global buyout entry multiples across sectors



Source: Burgiss 1Q24, UBS September 2024.

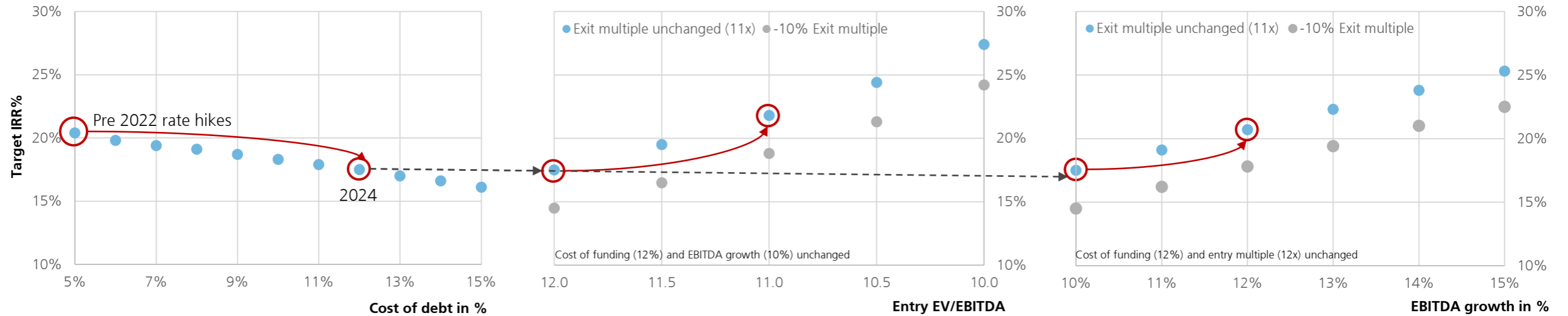
- Valuation dynamics are stabilizing. According to Burgiss data, the first quarter of the year saw a repricing higher, with global LBO multiples standing around 11x EV/EBITDA at the end of 1Q24. Average global LBO entry multiples remain below their 2022 peaks and lower than public markets, offering attractive entry points to deploy capital.
- Per sector, healthcare and technology still command higher multiples over more cyclical areas such as industrials and consumer discretionary. Per region, Asia is trailing developments in the US and Europe amid economic uncertainty notably in China.
- Preliminary second quarter data suggest a continuation of the trend seen in 1Q24. But as we explain on the next page, securing lower entry multiples to offset still elevated funding costs will remain a key focus until interest rates become more manageable.

Deal mathematics: leaning on different return levers in a high-rate environment

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



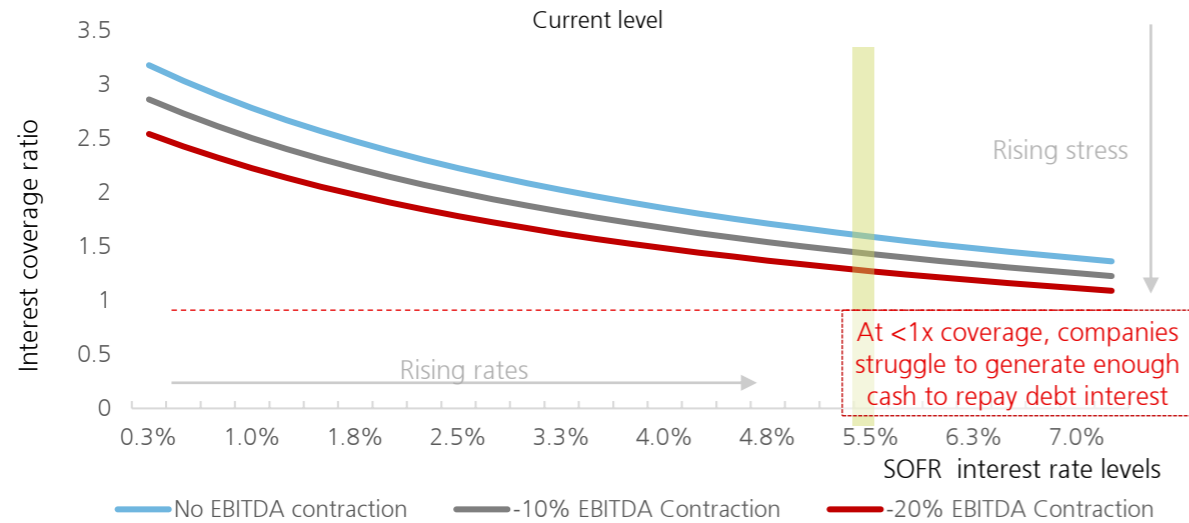
Source: UBS CIO, September 2024; Note: Simulated LBO deal IRR sensitivity to interest rates, entry EV/EBITDA multiples and EBITDA growth. Initial assumption: entry EV/EBITDA of 12x, EBITDA growth of 10%, 50%/50% Equity/Debt split, Exit multiple of 11x. Illustrative scenario only.

- A higher cost of debt has been a headwind for buyout strategies that make use of leverage to acquire target companies. The above hypothetical scenario shows that LBO deal mathematics at current cost of funding with similar assumptions in terms of entry/exit multiples and EBITDA growth to those prior the 2022 rate hikes would generate lower 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 can potentially offset the impact of higher interest rates even when assuming some multiple contraction at exit.
- With the Fed rate-cutting cycle beginning, we believe headwinds from financing costs will start to moderate while helping to broaden the universe of potential targets for sponsors. However, managers that can secure lower entry current valuations and deliver superior operational value will likely outperform.

Deal mathematics: a soft landing should prevent coverage ratios from declining

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

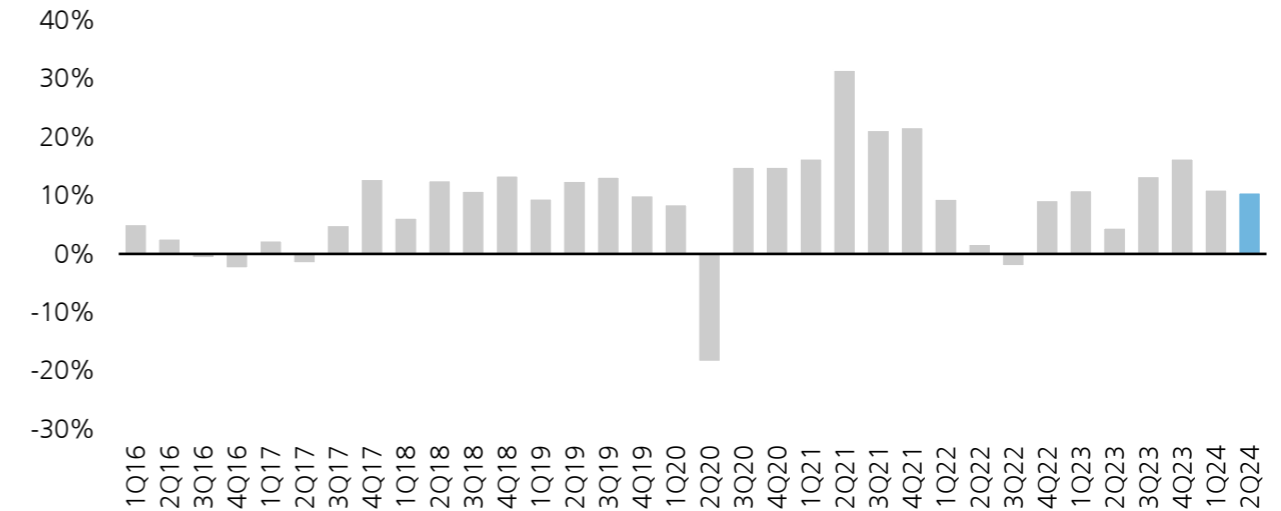
Impact of rising cost of debt and EBITDA changes on interest coverage ratios



Source: UBS September 2024. Assumes 50% LTV, average all-in spread of 5.5%, EV/EBITDA multiple of 12x.

EBITDA growth remains resilient

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



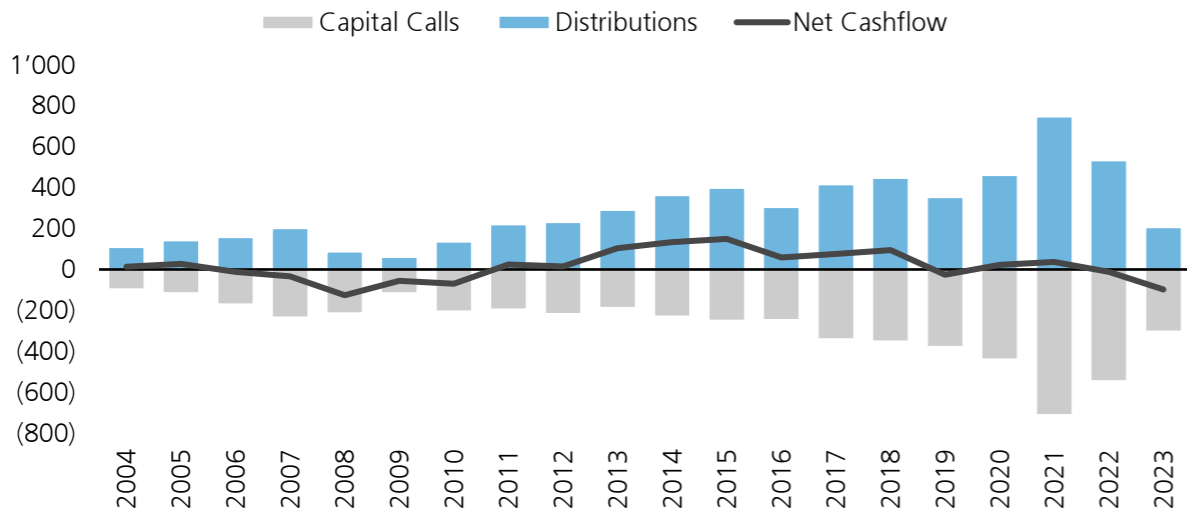
Source: Golub Capital 2Q24, UBS September 2024.

- 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 (particularly in the upper middle market) 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 most private companies to continue to generate healthy EBITDA growth. Interest rates are likely to move lower helping take out some of the sting. 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 slide 30 of this report).

Cash flow dynamics: cash flows may start to gradually improve in 2024/25

Net cash flows turned negative in 2022

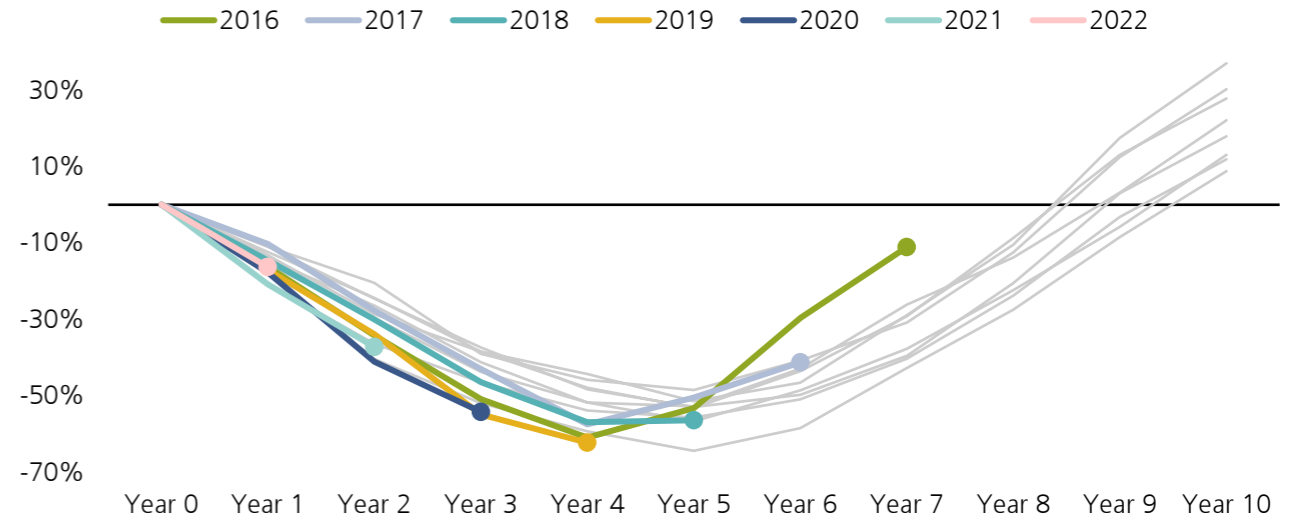
Private equity capital called and distributed, in USD billion



Note: As of 31 March 2024. Source: Pitchbook 2Q24, UBS September 2024.

Most recent buyout fund vintages are traveling within historical bounds except from 2019-21 as they deployed into higher valuations

Net cashflows of recent buyout funds vs. 2006 - 2013 vintage funds, as a % of commitment



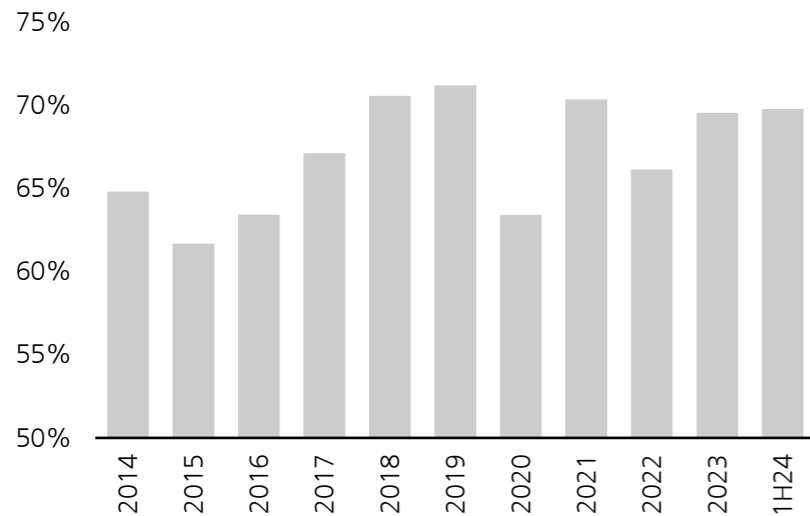
Note: As of 30 September 2023. Source: Pitchbook 2Q24, UBS September 2024.

- A stale exit environment since the rate hikes in 2022 has delayed distributions to LPs and forced net cash flows to dip into negative territory. This is not unusual. Distributions typically decline almost immediately after significant market events and a more challenging exit environment. Fund managers are not forced sellers and generally hold onto existing assets 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. According to Pitchbook, the distribution rate fell from c.30% of NAV during COVID-19 to c.15% since the Fed tightening, while capital calls remain at c.40% of dry powder. An estimated one-third of NAV was more than seven years old as of 2Q24.
- Looking at cash flow dynamics per vintage, 2016 funds have benefitted the most from the favorable market conditions of record deal/exit activity at premium valuations in 2021. These funds are tracking well ahead of the historical J-curve. The 2017-18 vintages are inline with historical averages. But 2019-21 funds have deployed capital fast over the COVID-19 pandemic and also faced soaring entry multiples in 2021 and rising interest-rate in 2022/23. These vintages in particular are starting to trail behind historical norms. The 2022 vintages, while still young, already show a return to more normal levels.
- Realizations are likely to pick up in the coming quarters, helping to absorb the liquidity gap faced by many LPs. Cash flow dynamics across vintages should start to improve. Distributions have typically taken about two years to go back to historical norms after reaching a bottom. New exit and liquidity avenues, such as GP-led secondary transactions and NAV loans, may, however, help accelerate the recovery compared to history.

CIO view: seek managers with a value bias that can execute on complex deals

Managers are turning to the middle market to seize value opportunities

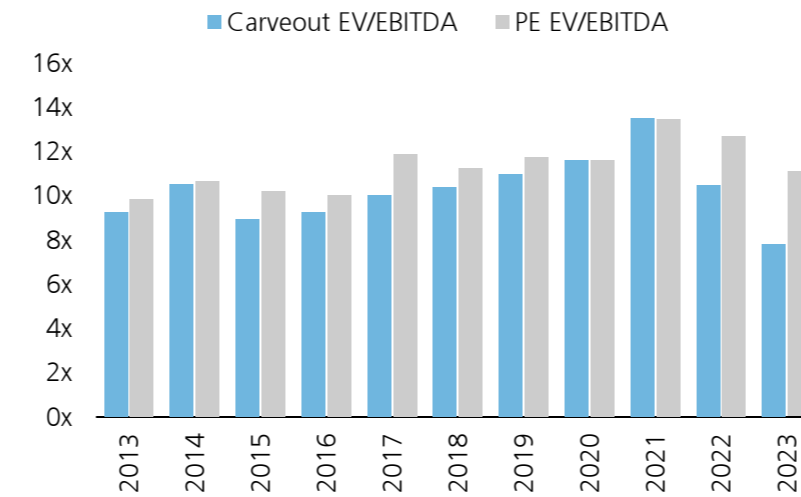
US private equity middle market buyout count as a share of all private equity buyouts



Source: Pitchbook 2Q24, UBS September 2024.

Acquiring new businesses through corporate restructuring / repositioning events

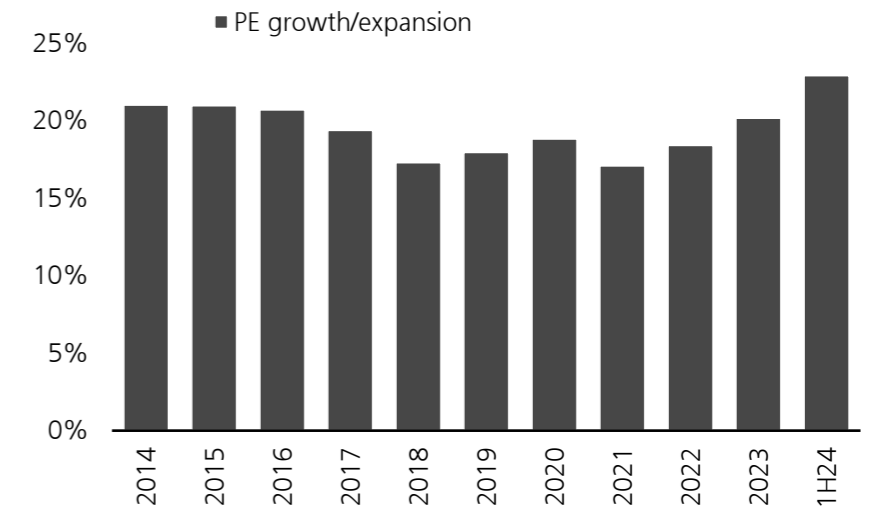
US & EU median EV/EBITDA multiples



Source: Pitchbook 1Q24, UBS September 2024.

Growth equity deals are regaining interest

Growth equity deals, as a % of all US private equity deal count



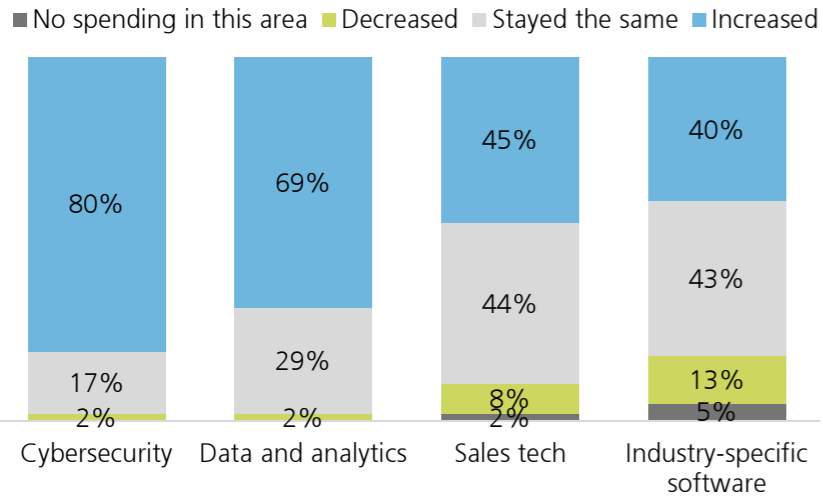
Source: Pitchbook 2Q24, UBS September 2024.

- We maintain our preference toward managers who focus more on operational skills and on securing attractive entry multiples as opposed to using financial leverage or multiple expansion to drive returns.
- The middle market, for instance, offers great value for those buyout managers who can seize these opportunities. Tighter credit spreads and the anticipated reduction in interest rates bode well for the segment, as it should encourage both platform and add-on acquisitions.
- Carve-outs, divestitures, and spin-offs in the US but also globally provide unique operational enhancement opportunities through synergies, economies of scale, and improved efficiency. These complex transactions offer sellers an opportunity to generate liquidity, reinvest capital into more promising areas while streamlining their operations.
- 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.

CIO view: capitalize on digitalization, healthcare & the energy transition trends

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

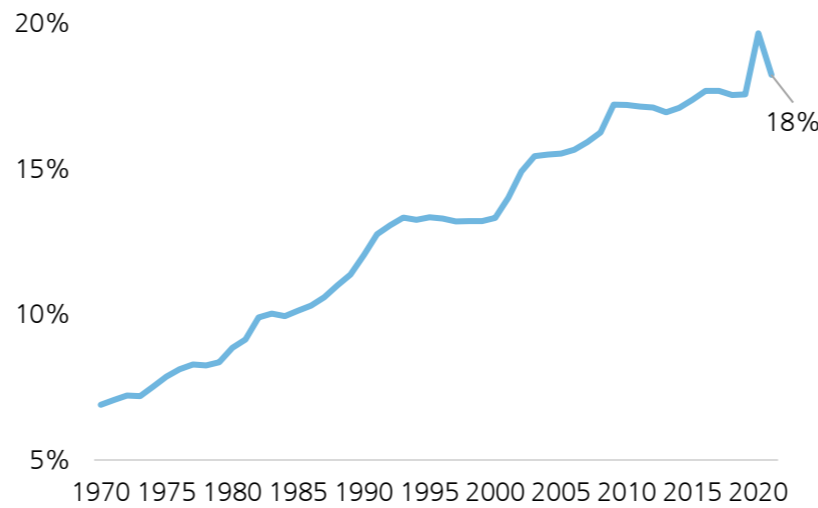
Expected change in software spending over the next 12 months, in % of responses



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

Rising healthcare costs require new solutions to improve efficiency

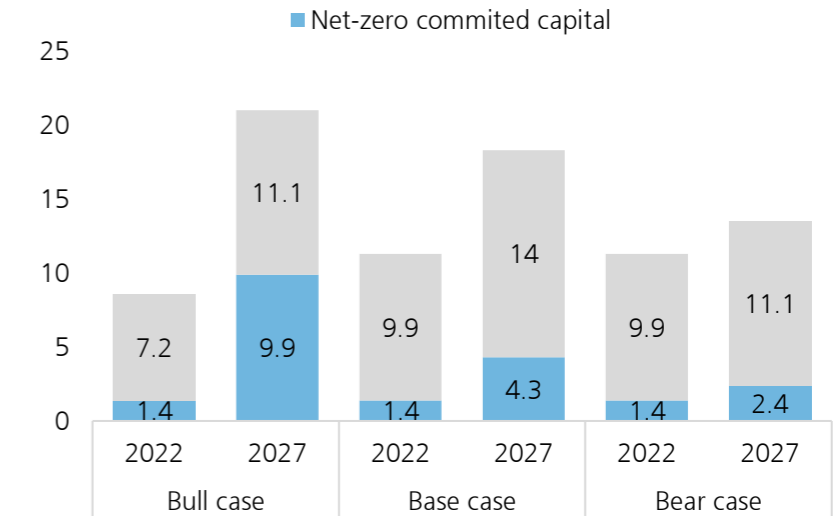
US healthcare spending, as % of GDP



Source: KFF, UBS, September 2024.

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

Net-zero assets, as a % of private market AuM, in USD trillion



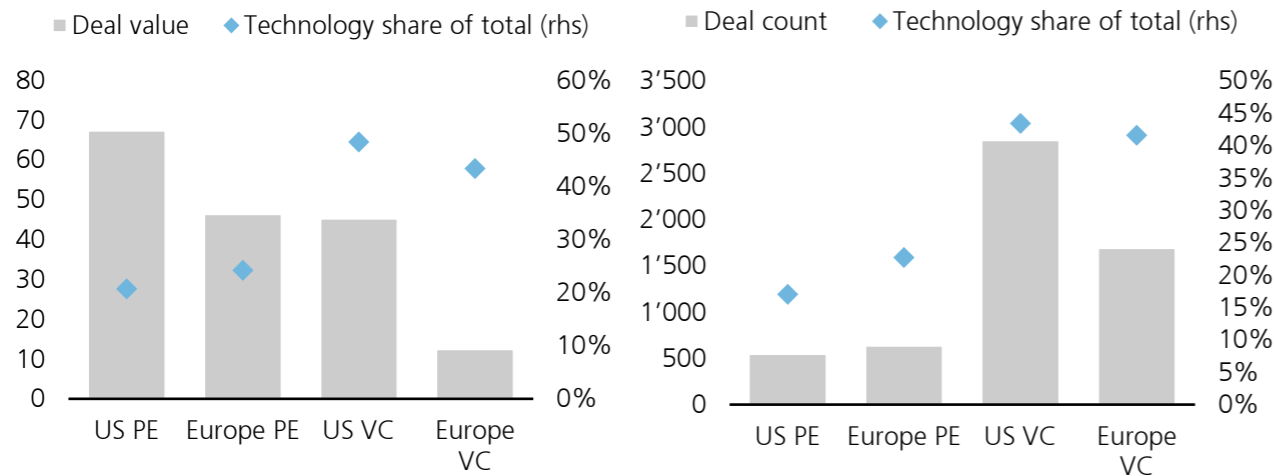
Source: Oliver Wyman December 2023, UBS September 2024.

- 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, health care 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: technology opportunities in software and take-private transactions

Technology represents c.20% of all private equity and c.45% of all venture capital deals

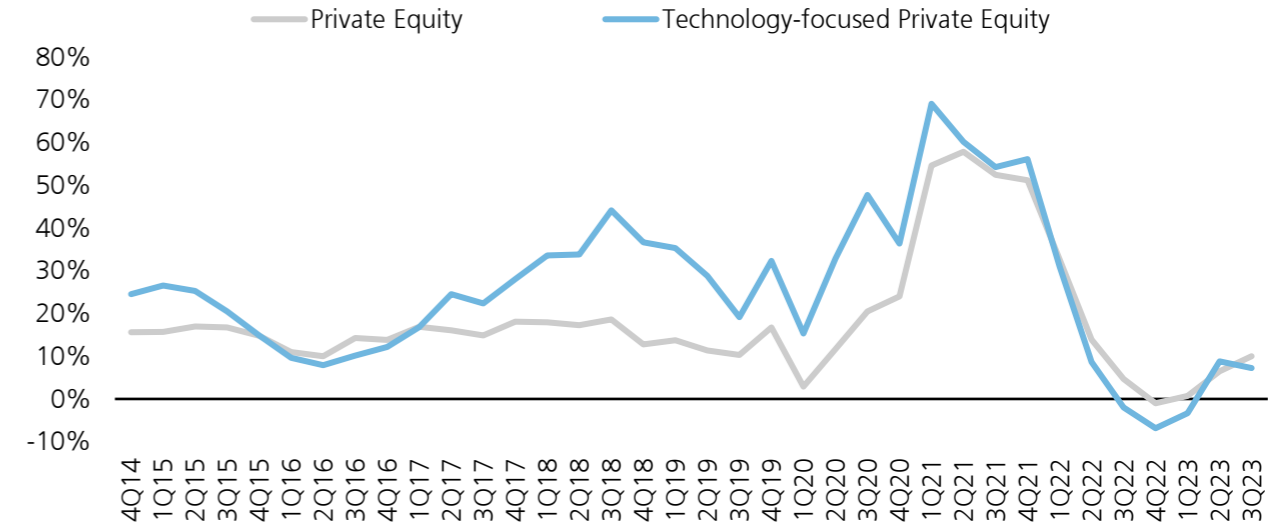
1H24 technology deal value, in USD and EUR billion, deal count and % of total



Note: As of 30 June 2024. Venture capital deals include software and IT hardware. Source: Pitchbook 2Q24, UBS September 2024.

Tech-focused private equity funds are catching up with diversified private equity funds

One-year rolling internal rate of return



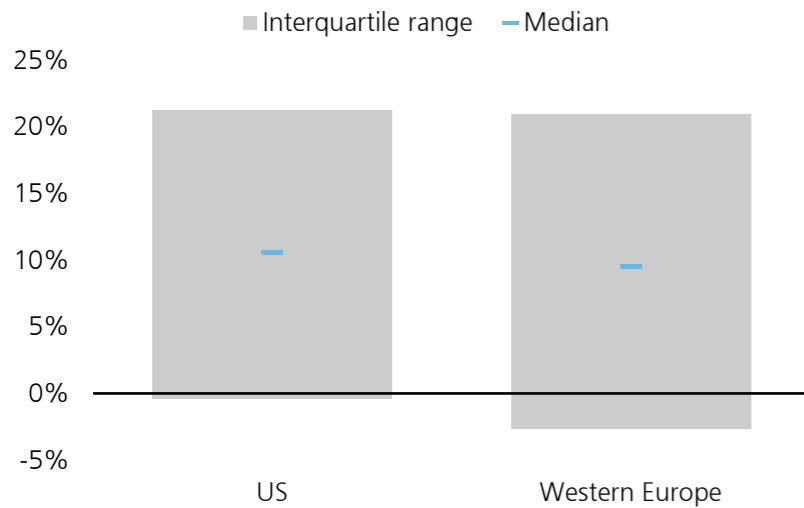
Note: As of 30 September 2023. Source: Pitchbook 2Q24, UBS September 2024.

- Technology as a sector is a key investment priority for sponsors. Across private equity and venture capital, technology represents a large share of overall deal volume and count.
- Technology-focused funds have historically outperformed more diversified private equity funds. Since 1Q22, however, they have underperformed owing to (1) a reset in valuations, (2) elevated interest rates, and (3) IT spending uncertainty amid recession risks. Looking ahead, technology assets should retake their performance leadership amid our expectation of a soft landing of the economy, improving valuations and lower interest rates.
- Within technology, we favor the software subsector. Software companies tend to have greater revenue visibility, are more capital efficient, and often less dependent on debt compared to hardware investments, which are more capital intensive. We continue to like take-private deals that can unlock value in undervalued public assets, as well as buy-and-build strategies, where smaller companies can be acquired at lower multiples and combined to reach rapid scale.

Europe: appears to bounce back faster than the US

In the long-term, European performance is on par with the US, but return dispersion is wider

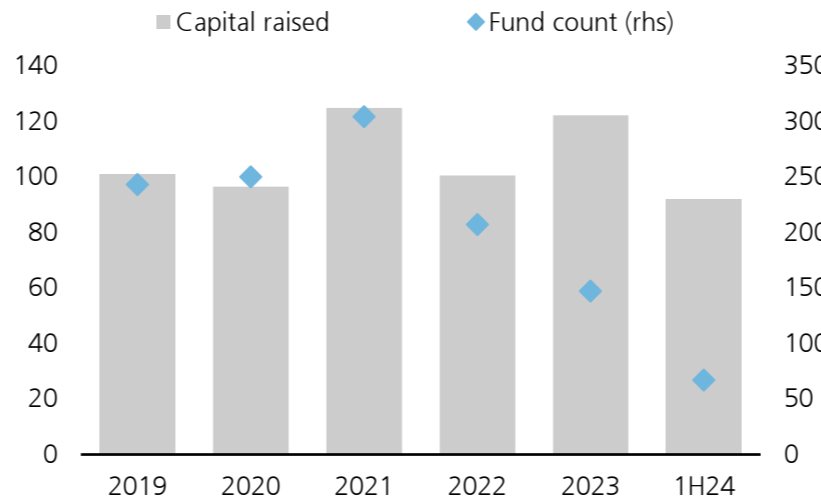
10-year internal rate of return, average over 20 years



Note: As of 31 March 2024. Source: Burgiss, UBS September 2024.

Europe is pacing for a record fundraising year in 2024 fueled by mega buyout funds

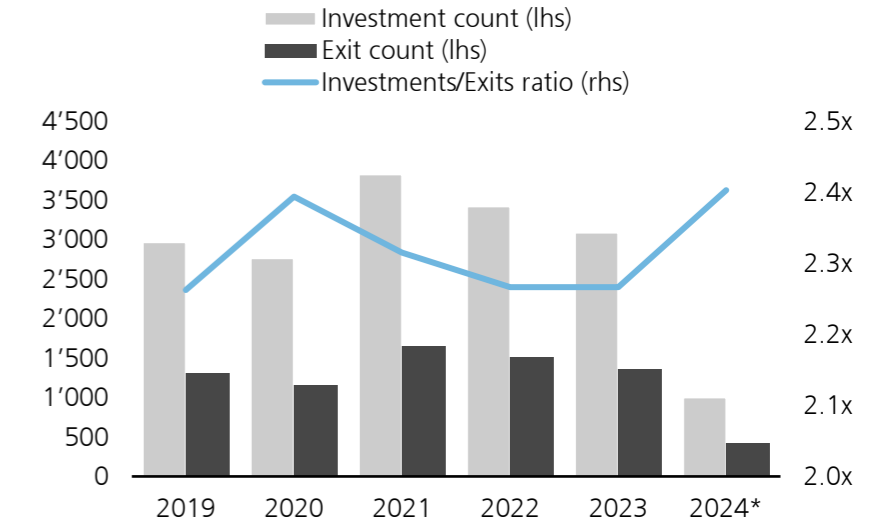
European private equity fundraising activity, in EUR billion



Note: As of 30 June 2024. Source: Pitchbook 2Q24, UBS September 2024.

Investment and exit activity are accelerating supported by ECB monetary easing

European private equity investments/exits ratio



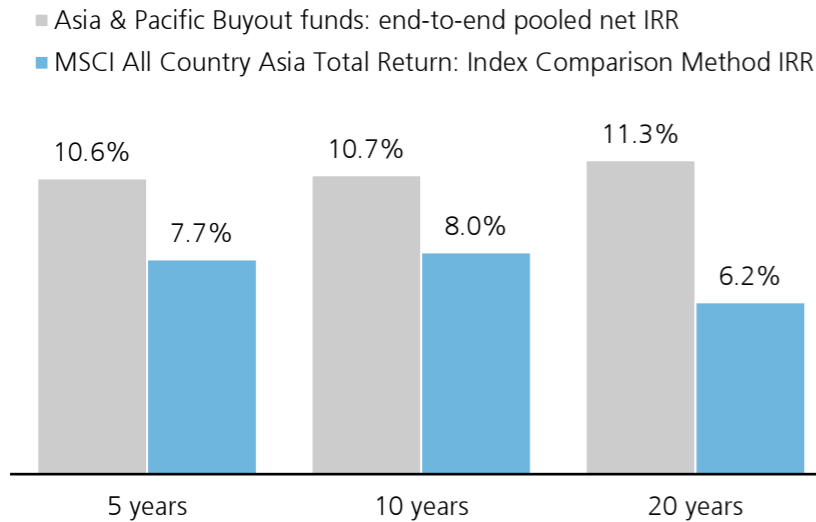
Note: *As of 31 May 2024. Source: Pitchbook 2Q24, UBS September 2024.

- Top quartile historical performance of Western European buyout funds is broadly comparable to US funds, although the performance dispersion tends to be wider on the lower end, emphasizing the importance of manager selection. In 2023, Europe delivered +9.6% returns according to the Cambridge Associates European Developed Private Equity index.
- With EUR 92 billion raised in 1H24, Europe is pacing for a record fundraising year, albeit across a lower number of funds and despite timelines expanding to a median of 18.4 months at the end of 1H24. Fundraising is fueled by several notable mega buyout funds closing in 1Q24, with the top three accounting for 50% of YTD capital. Further, both deal and exit value picked up in 2Q24, supported by inflation coming down and central banks announcing rate cuts. More than half of exit value was derived from 23 mega-exits, 10 of which were IPOs, thus laying the ground for a record year for PE-backed IPOs since 2021.
- The European private equity market is roughly one-third the size of that in the US and tends to be less competitive given the fewer number of funds. In our view, Europe represents an opportunity for LPs to diversify their private equity portfolios without compromising on risk-adjusted returns. Current valuations look attractive and funding costs pressure are already abating. Most sponsors are currently opting for buy-and-build strategies or focusing notably on cleantech and climate tech. The share of add-on deals reached a decade-high at 56% of deals in 1H24 while cleantech and climate tech deal value reached EUR 15.4 billion in 1H24, representing 8% of total value and making it the third best year for the vertical.

Asia: significant capital allocation shifts

Asia-Pacific buyout funds have outperformed public equity benchmarks over time horizons

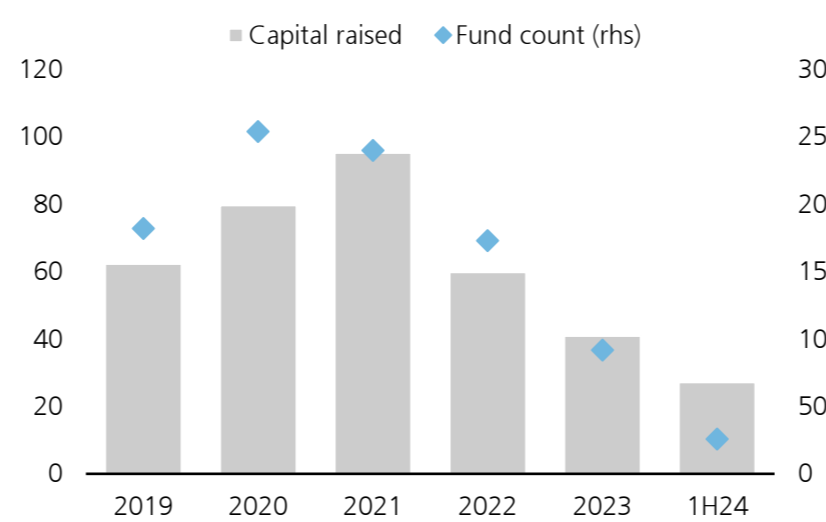
Internal rate of return



Note: As of 31 March 2024. Source: Burgiss, UBS September 2024.

Fundraising has plummeted as LPs rotate out of China

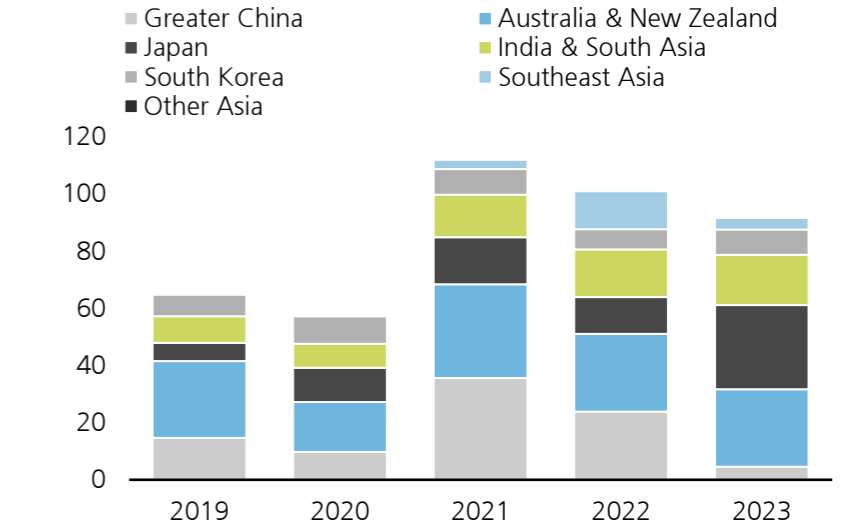
Asia-Pacific private equity fundraising activity, in USD billion



Note: As of 30 June 2024. Includes Asia and Oceania. Source: Pitchbook 2Q24, UBS September 2024.

India and Japan deal activity is on the rise

Deal activity, in USD billion



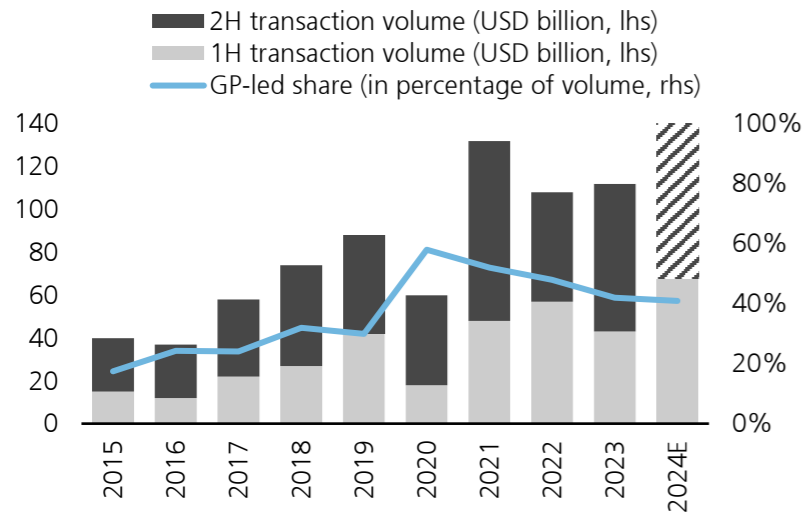
Note: Completed buyout transactions. Excludes REITs and Infrastructure deals. Source: Pitchbook September 2024, UBS September 2024.

- Asia-Pacific buyout funds have exhibited lower median performance relative to the US and Western Europe, as well as a wider dispersion of returns historically. Returns, however, tend to be achieved with lower levels of debt and a higher contribution from revenue growth. In addition, Asia-Pacific buyout funds have consistently outperformed public equity benchmarks over 5-year, 10-year, and 20-year periods by close to 300-500bps.
- Fundraising in Asia-Pacific has plunged since 2021 with USD 41 billion and USD 27 billion raised in 2023 and 1H24, respectively. Fewer LPs are allocating to the region disappointed by historically low DPI-levels. Investors have shifted their preference toward larger pan-Asian funds rather than single-country focused-funds, showcasing both a desire for greater diversification to limit risk and a flight to quality. At the country-level, investors continue to avoid China, due to heightened geopolitical and economic uncertainty, and have mostly shifted their capital allocation to Japan (which benefits from a weak yen, accommodative interest rates and therefore lower costs of financing, as well as supportive corporate governance reforms), Korea and Australia. In emerging markets, India stands out as the top destination.
- In our view, private equity is an effective way to access the region's growth prospects while adding diversification benefits to an equity portfolio. In a global private equity portfolio, investors need to be even more selective and ensure they are appropriately compensated for geopolitical, currency and liquidity risks.

Secondaries: buyers face lower discounts but higher quality deal flow

On track to reach record volumes as bid-ask spreads narrow and GP-led deals increase

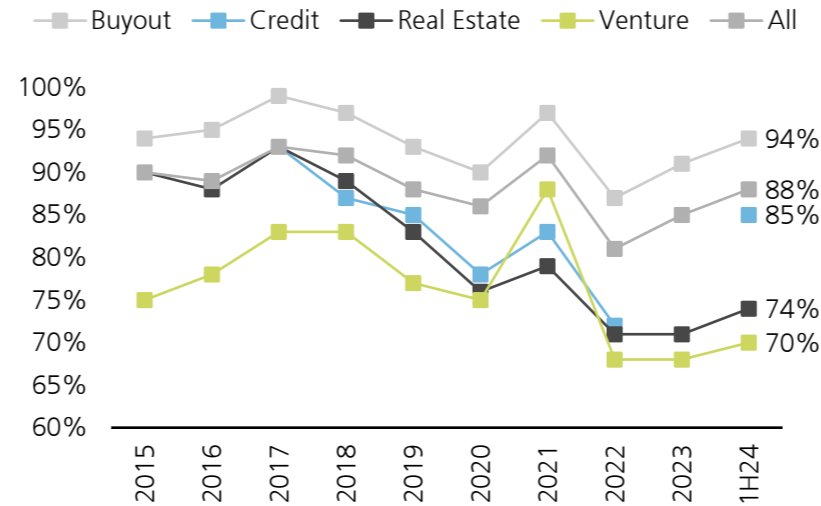
Global secondary transaction volumes, in USD billion



Source: Jefferies, H1 2024 Global Secondary Market Review, UBS September 2024.

Discounts narrow driven by record levels of available capital and strong public markets

LP portfolio pricing, as % of NAV



Source: Jefferies, H1 2024 Global Secondary Market Review, UBS September 2024.

Younger funds trade at a premium over older ones given the higher upside potential

Average buyout pricing by fund age, as % of NAV



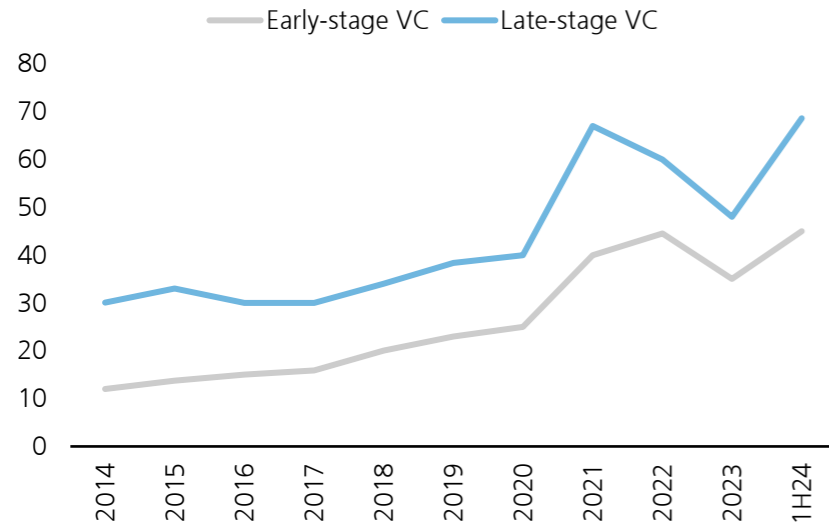
Source: Jefferies, 2024 Global Secondary Market Review, UBS September 2024.

- Secondary transactions are accelerating, with volumes worth USD 68 billion in 1H24 (+58% vs. 1H23), on track to reach a record high this year. Much of it can be attributed to lower discounts, which are motivating LPs to transact. In fact, 45% of sellers in 1H24 were first-time sellers as per a Jefferies estimate. GP-led volume reached USD 28 billion (+56% versus 1H23) as sponsors rely on continuation funds to generate liquidity while allowing them to hold quality assets for longer.
- Discounts to NAV continue to narrow — featuring 12% in 1H24 on average compared to 15% in 2023 and 19% in 2022 — driven by (1) record levels of available capital increasing competition for deals, (2) strong portfolio performance, (3) the inclusion of high-quality GPs in sale portfolios, and (4) the inclusion of younger funds with a 6.4 average (2018 vintage) versus 8.4 historically. There is meaningful dispersion across strategies, however, with buyouts (c.70% of secondary volumes), meaningfully repricing higher, while venture and real estate exhibiting steep discounts, reflecting buyer concerns on inflated valuations and muted outlook.
- LP and GP-led secondary volumes should gain further momentum in 2024, as (1) LPs remain unsatisfied with the current level of distributions, (2) a resurgence in M&A and IPO exits allows buyers to underwrite nearer-term exits, (3) the strategy continues to attract capital, and (4) GP-led secondaries become mainstream. Given the higher quality of underlying assets, current discounts to NAV still offer good entry points, in our view.

Venture capital: not out of the woods yet as dispersion is rising among start-ups

Valuation uptick across early and late stage in 1Q24

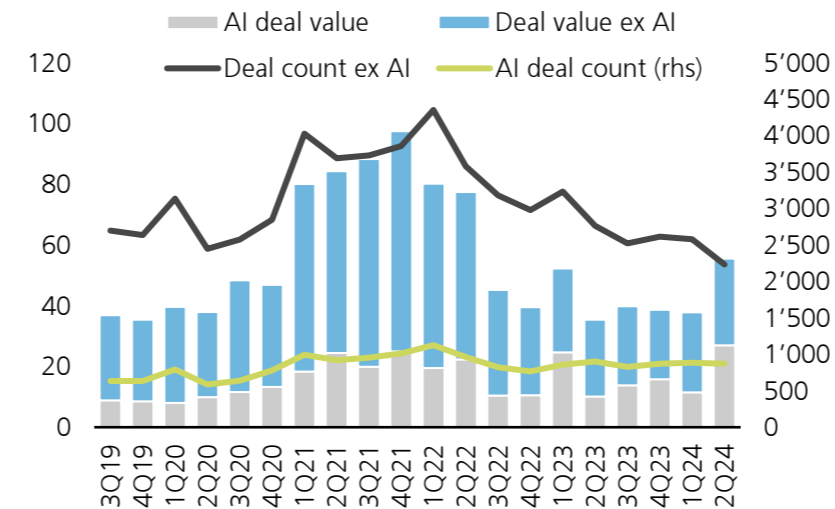
Median US VC pre-money valuations, in USD million



Source: Pitchbook 2Q24, UBS September 2024.

Deal activity shows signs of improvement but much of the volume in 2Q24 is driven by AI

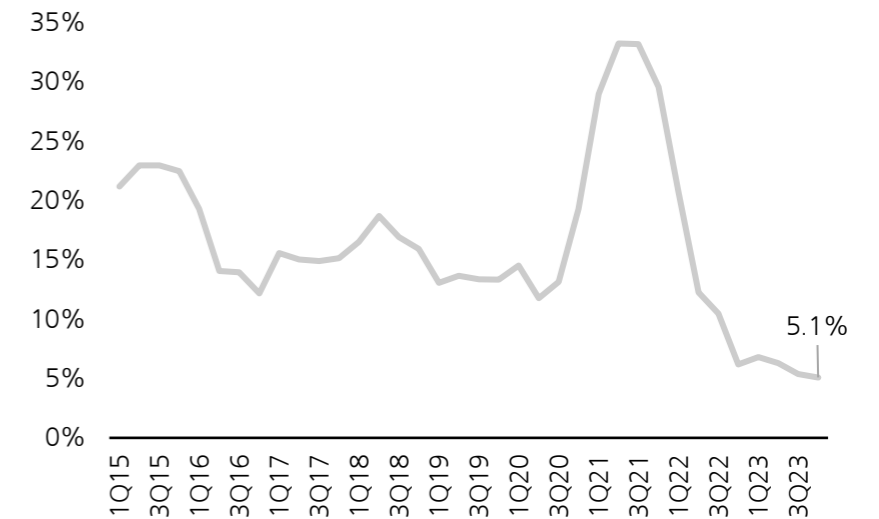
US VC deal activity, in USD billion



Source: Pitchbook 2Q24, UBS September 2024.

Secondaries offer some relief as distributions hit lows

US VC 12-month distribution yield, as a % of NAV



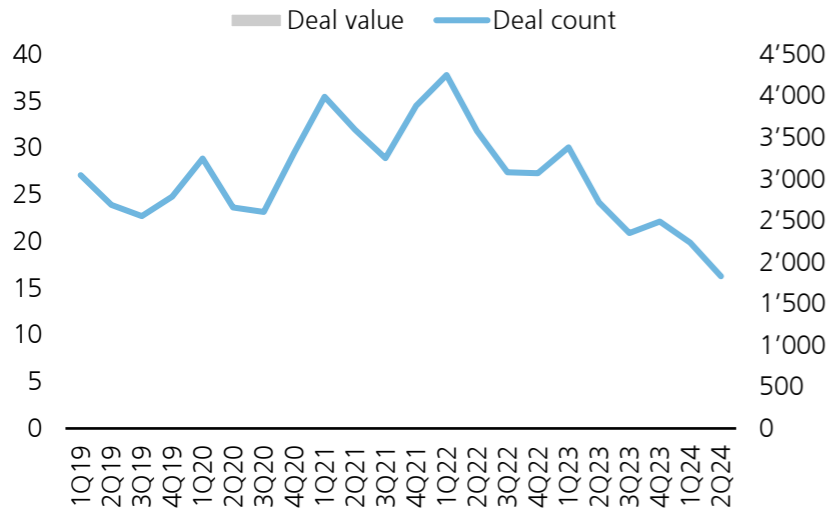
Source: Pitchbook 2Q24, UBS September 2024.

- VC valuations have begun to rise again across all stages. Under the surface, there is an increasing bifurcation between quality start-ups that can secure funding at higher valuations and the large portion of the market that has still not fully reset. Deal activity shows signs of improvement with larger deals overall compared to last year and activity increasing 47% q/q and 57% y/y. While other areas continue to experience difficulties, AI is the driving vertical in VC this year, making up 22% of deal count in the first quarter alone and driving half the deal value in 2Q. And while we've seen some important IPOs (Reddit, AsteraLabs) in the first half of this year, public performance after listing has been lackluster, showing companies need to compromise further on price to start generating value for successful exits.
- As distributions hit lows, the secondary market is offering some liquidity relief as investors prefer cash and companies intend to stay private. However, this does come at a cost, and the current discount to NAV stands at 30% (Jefferies). Startups that can support their valuations are likely to see most investor demand, while companies with lower conviction will continue to see steep discounts.
- While signs of improvement are encouraging, VC has not fully recovered yet. Investors do find themselves in a more favorable position to negotiate terms like larger equity stakes, anti-dilutive provisions and higher dividends. A supportive macro backdrop and the expected Fed rate cuts in the remainder of the year should help a further normalization.

Venture capital: opportunities in Europe

European deal activity is recovering as valuations improve

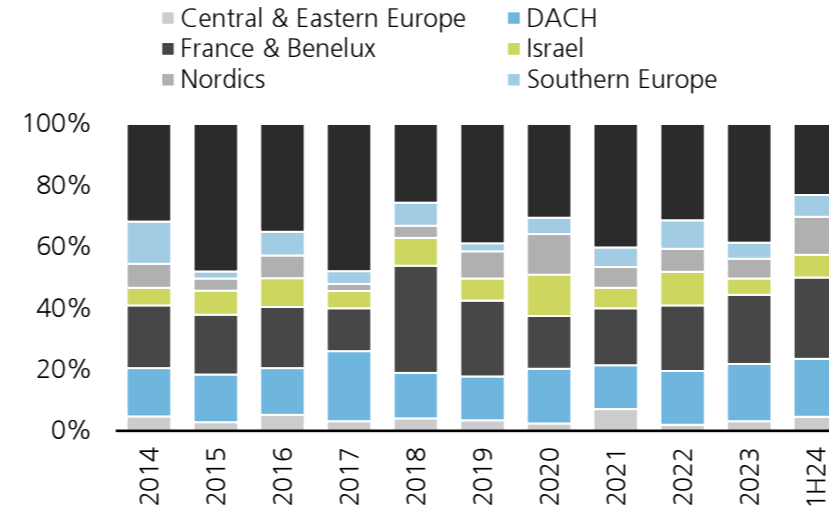
European VC quarterly deal activity, in EUR billion



Source: Pitchbook 2Q24, UBS September 2024.

The UK, France and Benelux are the regions raising most funds

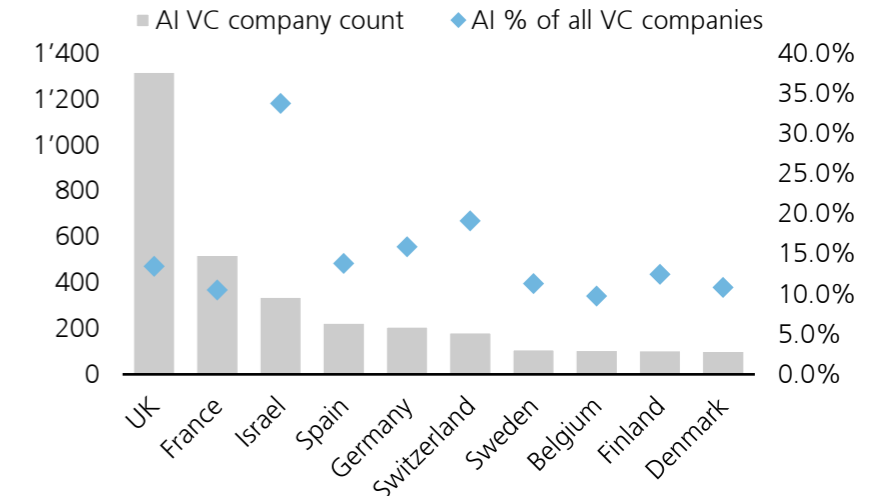
Europe VC funds raised by region, in EUR billion



Source: Pitchbook 2Q24, UBS September 2024.

AI is driving deal activity across the region

VC-backed AI companies by country

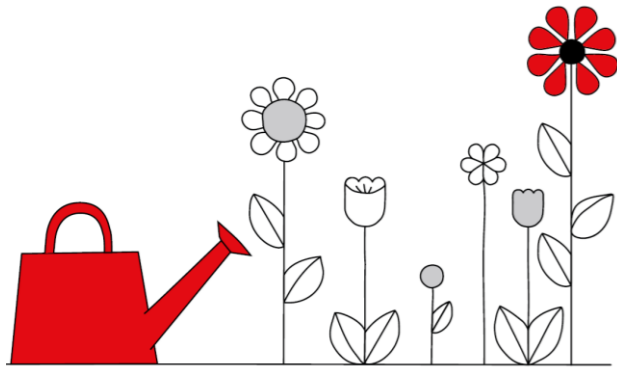


Source: Pitchbook 2Q24, UBS September 2024.

- European VC deal activity is showing signs of recovery, driven by improving valuations. The number of deals has declined, but transactions closed at higher valuations with value up 24% q/q and 9% y/y. The exit environment on the other hand has not yet recovered much even with the IPO market warming up and exits that are taking place are seeing lower valuations. The ECB cuts that started in June combined with the improving macroenvironment is creating the listing count, but volatility has also led to delays and withdrawals (Golden Goose, Tendam). European start ups also increasingly prefer US listings over Europe when seeking IPOs. In terms of fundraising, the first half saw USD 9.4bn raised so far with France and the Benelux gaining share compared to the UK.
- European deal making is driven by AI, which has become the second most active vertical this year after SaaS and followed by Cleantech. The French AI startup Mistral raised EUR 600mn in June, bringing the pre-money valuation to EUR 5.2bn. The region, however, is affected by geographic differences and the new EU AI Act, which focuses on regulating the technology and could pose risks to innovation.
- In our view, the European VC environment is set to recover further with the ECB set to cut two more times in 2024. However, much like in the US, many of the companies carrying higher valuations raised in 2021 and 2022 and likely still require resets and a full normalization will likely still take time.

Private debt

Key views

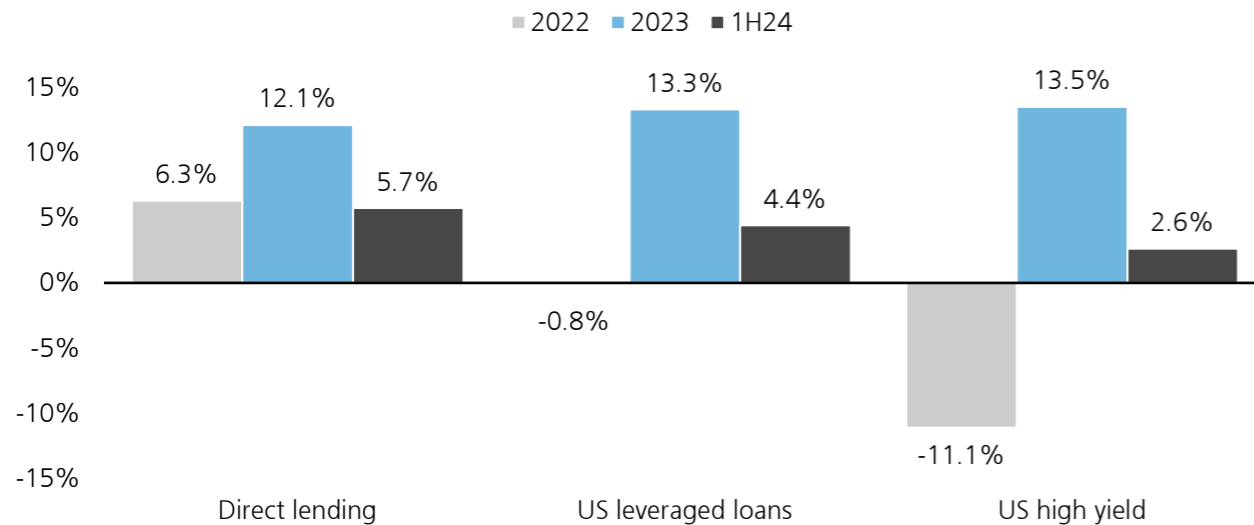


- A key change in the loan market in 1H24 relative to last year has been the return of banks to originating loans to private equity (PE) borrowers. The increased competition has pressured private credit spreads while encouraging some flexibility in loan documents, for instance in the form of incremental debt allowances.
- Current yields and lender protections still offer an attractive risk/reward relative to high yield bonds and publicly traded loans. The Fed's rate-cutting cycle will partly erode into returns yet also help provide funding cost relief and thus moderate credit losses. We still expect high-single-digit to low-double-digit returns in 2024 and 2025.
- Borrowers' stress, however, is a risk that investors need to pay attention to. Industry level statistics on financial stress suggest that risks are contained and manageable. But we increasingly see a differentiated market subject to increased dispersion across loan size, sector, and seniority as lagged effects of higher interest rates are exerting a heavier toll in certain segments of the market.
- 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 slide 3 of this report.

Performance: direct lending strategies gained 5.7% so far in 2024

Direct lending strategies are posting solid gains ...

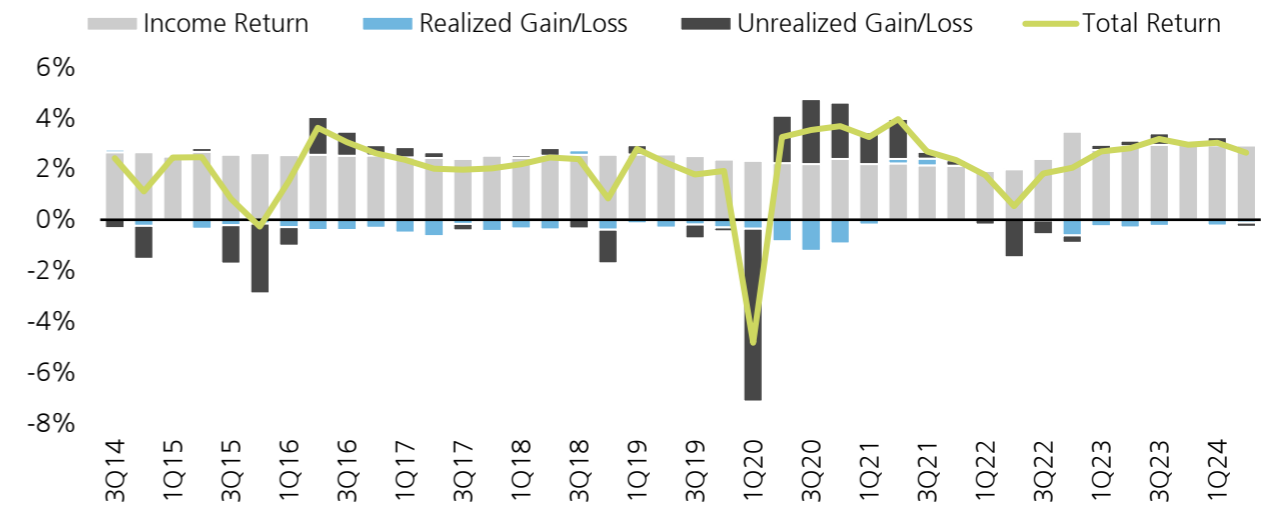
Performance across credit segments year-to-date through 1H24



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

...driven by high income and only moderate realized losses

2Q24 CDLI returns decomposition, quarterly returns, in%



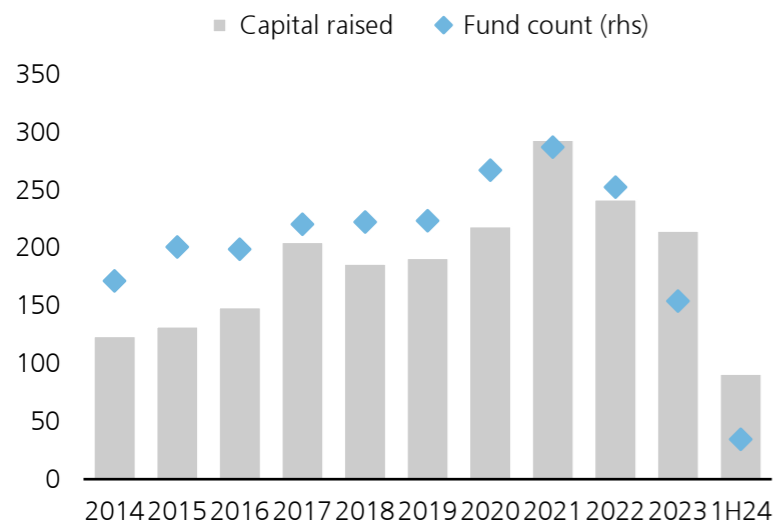
Note: returns for the CDLI are unlevered gross of fees. Source: Cliffwater Direct Lending Index, Bloomberg, UBS September 2024.

- Benchmark figures from the Cliffwater Direct Lending Index show direct loans returned 5.7% year to date through 2Q24 compared to 4.4% for leveraged loans and 2.6% for US high yield, respectively.
- The asset class continued to benefit from the elevated interest rate environment owing to its short duration and floating rate structure. Credit impairments on average have been minimal while the non-listed nature of the asset class made it less prone to fund flows and changes in risk sentiment and volatility.
- With the Fed embarking on a rate-cutting cycle, we anticipate returns to moderate from current levels. Lower interest rates will reduce the floating return component in private loans but also mitigate credit losses as financing costs cheapen and help stabilize credit spreads as market breath improves. Lower interest rates may also provide some room for funds to marginally re-lever. All in all, we anticipate high single digit to low double digit returns for 2024 and 2025 with the asset class retaining its positive relative yield advantage over public fixed income. Borrowers stress however is a risk that investors should continue to pay attention particularly in weaker segments of the market.

Fundraising activity: demand for private credit strategies remains resilient

Fundraising activity on track amid continued investor interest

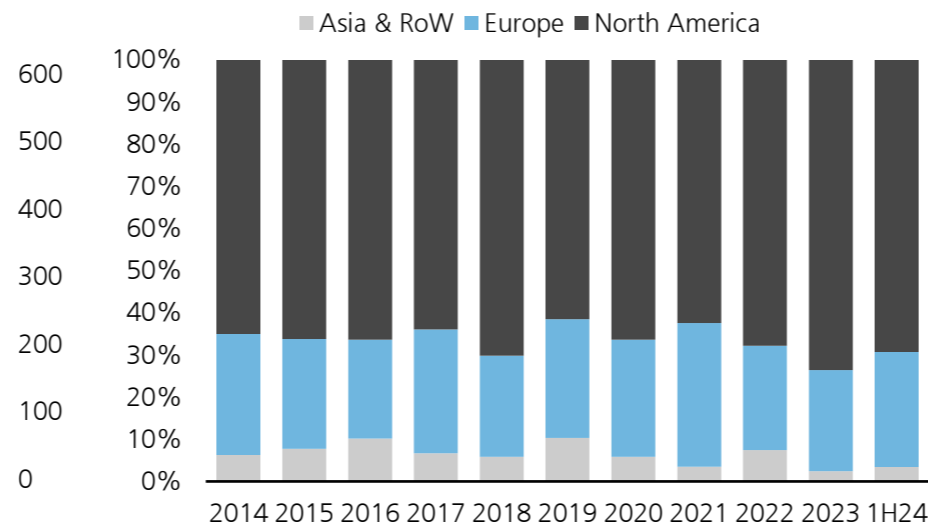
Global private debt fundraising, in USD billion



Note: As of 30 June 2024. Source: Pitchbook 2Q24, UBS September 2024.

North America continues to dominate the market, followed by Europe

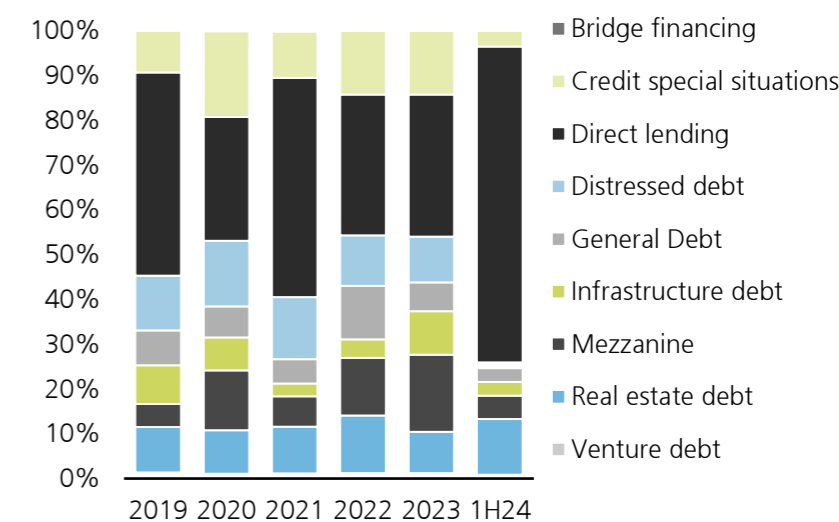
Global private debt fundraising by region, in % of capital raised



Note: As of 30 June 2024. Source: Pitchbook 2Q24, UBS September 2024.

Investors added to real estate debt funds to complement direct lending exposures

Global private debt fundraising by strategy, in % of capital raised



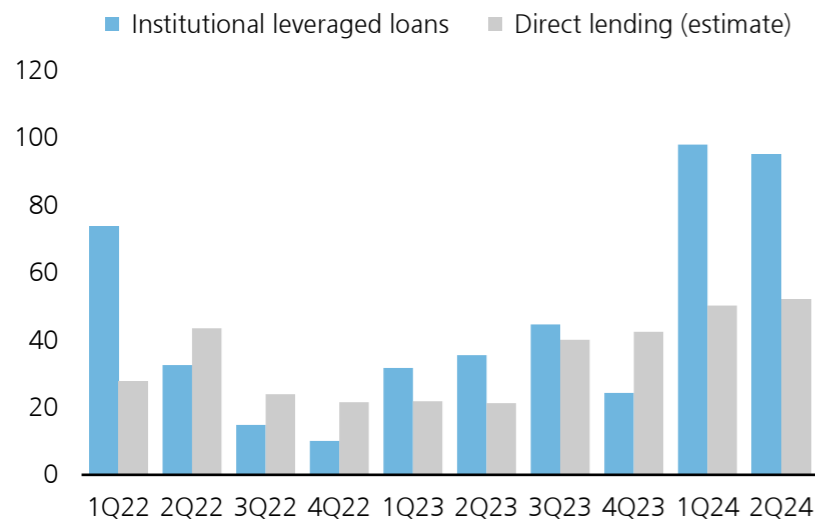
Note: As of 30 June 2024. Source: Pitchbook 2Q24, UBS September 2024.

- Investor demand for private debt funds has proven resilient in 2024 despite a rebound in more liquid fixed income and other yielding instruments and the expectation of central bank rate cuts. According to Pitchbook, 59 funds closed on USD 91 billion in 1H24, compared to USD 215 billion raised in FY2023 across 264 funds. Selectivity and consolidation continues to crowd out less experienced managers. Four funds larger than USD 5 billion in size contributed to 50% of the capital raised in 1H24.
- Per geography, North America continues to represent the bulk of the market with 70% share in 1H24, followed by Europe with 27%. Strategy-wise, new commitments into direct lending represented more than 70% of total capital raised in 1H24. Some investors also sought diversification into real estate debt funds.
- We think fundraising volumes will continue to find support in 2H24, 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.

Transaction activity: higher volumes despite bank competition

New loan volumes to sponsor-backed borrowers have already surpassed 2023 levels

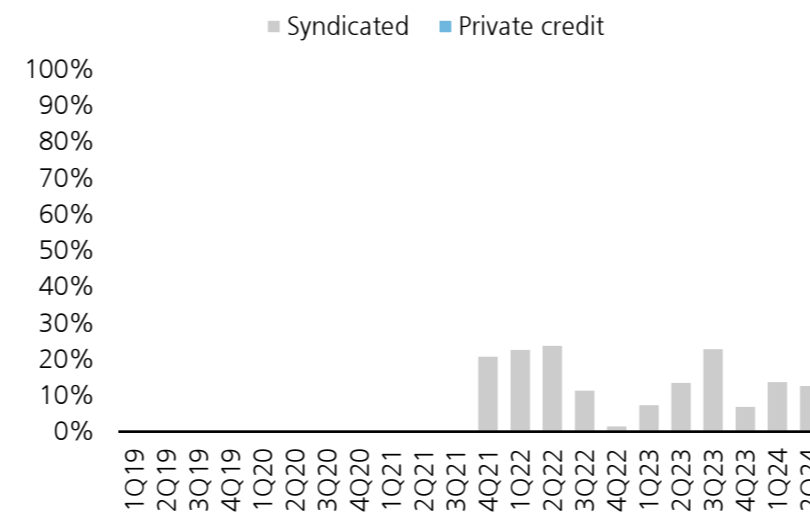
New issuance loan volume for sponsor-backed borrowers



Source: Pitchbook LCD 2Q24, UBS September 2024.

Private lenders remain the key source of LBO financing

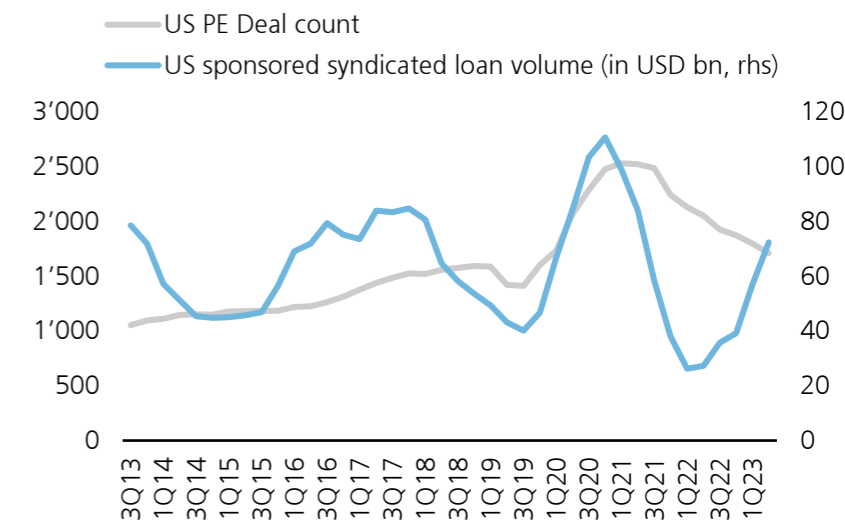
% of LBO deals funded by leveraged loans vs direct lenders



Source: Pitchbook LCD 2Q24, Bloomberg, UBS September 2024.

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

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



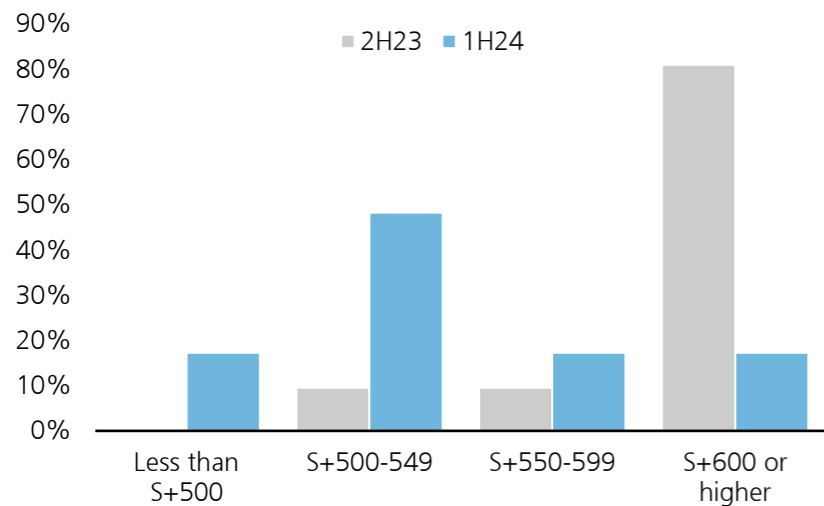
Source: Pitchbook LCD, 2Q24, UBS September 2024

- Banks' willingness to lend to sponsor-backed borrowers continued in 2Q24, with US broadly syndicated loan (BSL) origination sharply up compared to last year and advancing at a similar speed from in the first quarter of 2024. Direct lending origination matched that pace and recorded one of its strongest quarter since 2022. The BSL volume surge remains largely driven by refinancing activity as borrower seek to optimize funding costs and extend maturities. Alternative lenders meanwhile continued to dominate LBO financing activity, add-ons and dividend recapitalizations.
- We expect banks and direct lenders (DL) to further compete for deal flow in the coming quarters. We view this as a sign of improving lending standards and a necessary ingredient to a meaningful pick-up in M&A activity. This should ultimately broaden market depth and benefit both incumbents and alternative lenders.
- A corollary to this, however, is more flexibility around documentation and pressure on spreads. Pockets of risks remain given lagged effect of interest rates on company fundamentals. Successfully navigating this environment thus requires extra vigilance, discipline and strict risk underwriting.

Loan pricing: attractive yield amid tightening spreads and high benchmark rates

Private loan spreads are tightening

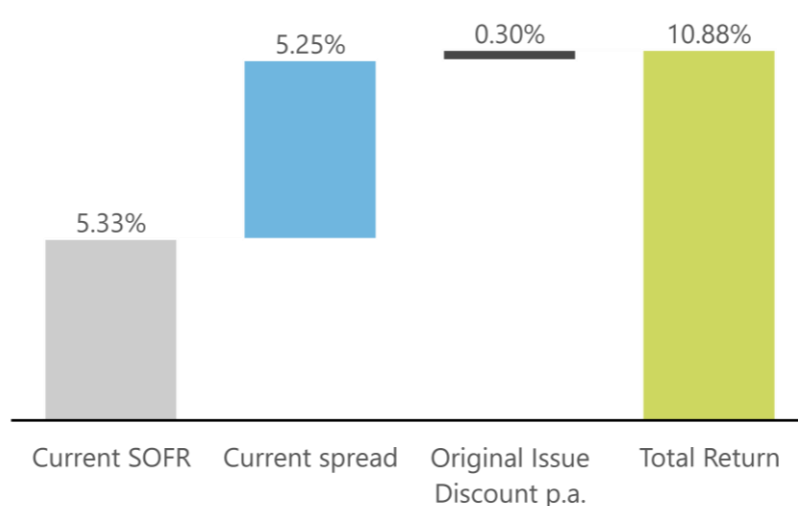
Distribution of new-issue sponsored direct loan spreads



Note: Based on LCD News reporting; reflects spreads on senior secured loans and unitranches. Source: Pitchbook LCD 2Q24, UBS September 2024.

Double-digit yields should moderate over the course of 2024/25 ...

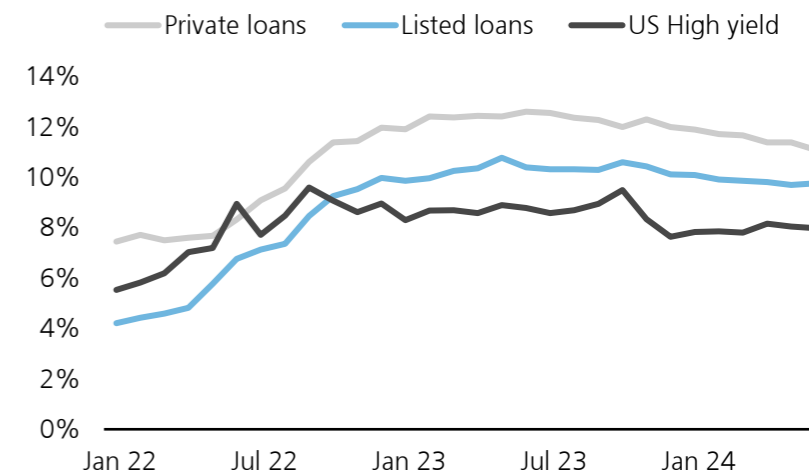
Estimated total return for newly issued private loans



Source: JPM as of June 30 2024, UBS September 2024.

... yet still remain comparably attractive to high yield & leveraged loans yields

Yield-to-maturity across fixed income instruments (monthly)



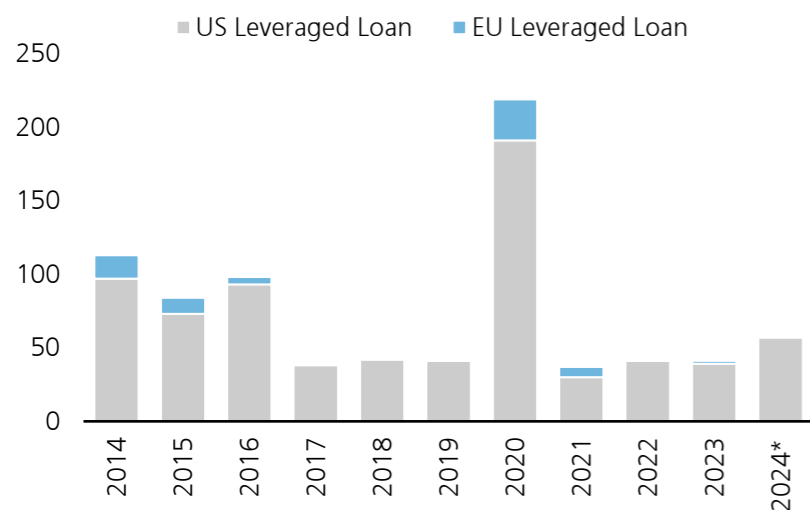
Source: JPM as of June 30 2024, Pitchbook LCD, Bloomberg, UBS, September 2024.

- Banks loosening lending standards to PE-backed borrowers combined with a technical imbalance between loan supply and demand in the BSL market, led to a meaningful repricing of private loan spreads. Using JPM data, the median private credit transaction in 1H24 originated at an average spread of 560bps over the reference rate. Compared to 2023 levels, this represents a 150-200 bps spread compression with some deals pricing even in the 500–525bps range. Average all-in yields stood slightly below 11% at the end of 2Q24.
- We anticipate private loan yields to moderate moving forward. CIO expects 75-100bps cuts in benchmark rates by the Fed this year and additional cuts in 2025 should reduce the contribution from SOFR. Meanwhile, spreads could tighten further but are unlikely to meaningfully cross the 500bps mark supported by a broadening market and a larger supply of deals. For instance, we expect current technical supply/demand imbalance in the BSL market to improve as M&A activity picks up.
- Yields should gradually move lower toward 9-10% in 2024-25. The advantageous yield pickup of private loans over leveraged loans and high yield should persist, however. For instance, over the past 10 years, average private loans delivered 340-370bps more yield than US high yield.

Lender protection: high but challenged as borrowers' negotiating power rises

Companies are seeking **covenant relief** in 2024, but levels **do not indicate acute stress**

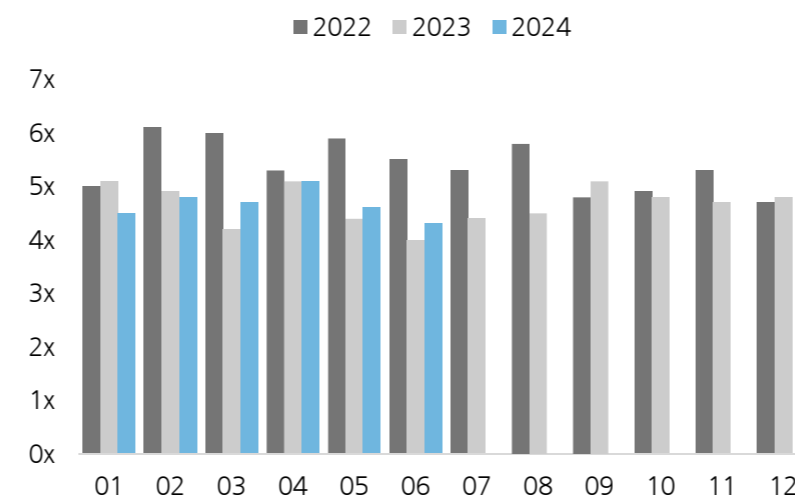
Number of borrowers seeking covenant relief



Note: *As of May 2024. Source: Pitchbook LCD, Morningstar DBRS estimates, UBS September 2024.

Leverage levels remain **conservative**

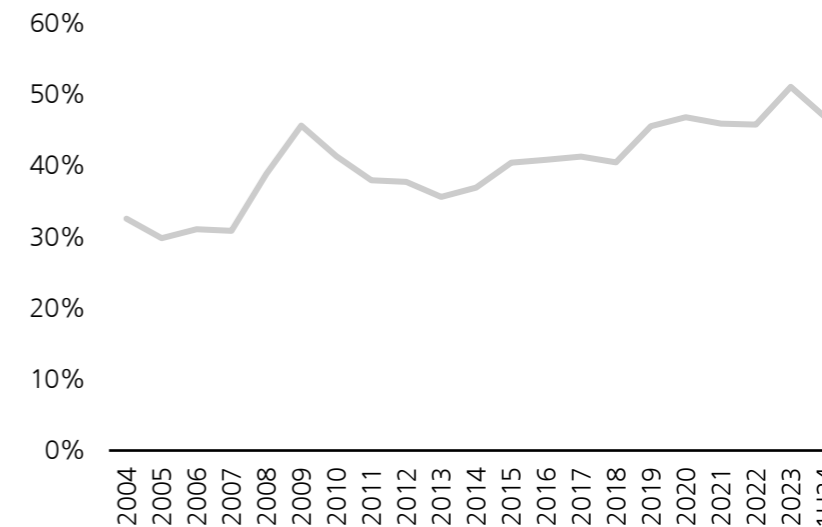
Newly originated private loans leverage



Source: JPM as of June 30 2024, UBS September 2024.

Equity contributions are **elevated**

LBO total equity contribution, in %



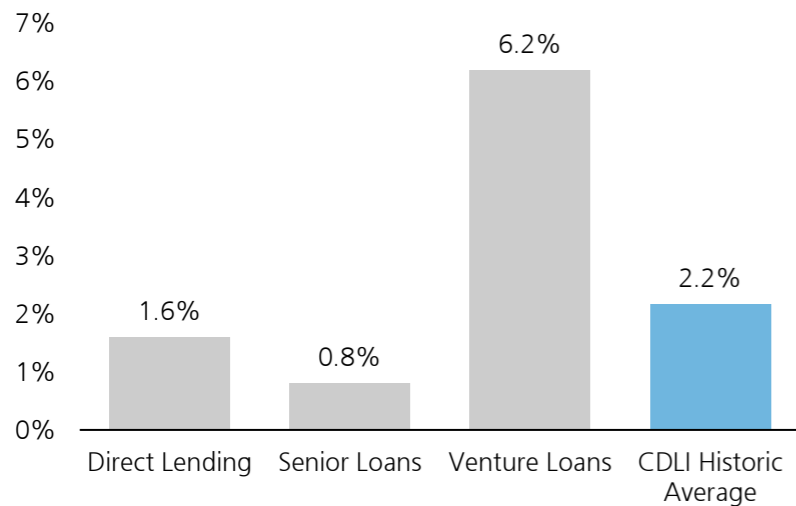
Source: Pitchbook LCD 1H24, UBS September 2024.

- Lender protection is experiencing some pressure in certain areas of the market. Morningstar reported that an increasing number of borrowers across the private credit and leveraged loan market are seeking covenant reliefs, but levels remain well below peaks seen during the height of COVID-19.
- Meanwhile, leverage levels are still low by historical standards, with the median net leverage for transactions closing in the first half of 2024 at 4.7x compared to a median leverage of 4.9x for 2023. Equity contributions are elevated at 47% and continue to offer a good buffer against defaults.
- Borrowers' negotiating power, however, is increasing amid heightened bank competition. This may force some direct lenders to loosen credit terms or agree on taking more risk. We believe lagged effects of elevated 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.

Defaults: increasing bifurcation

Non-accruals remain below historic norms

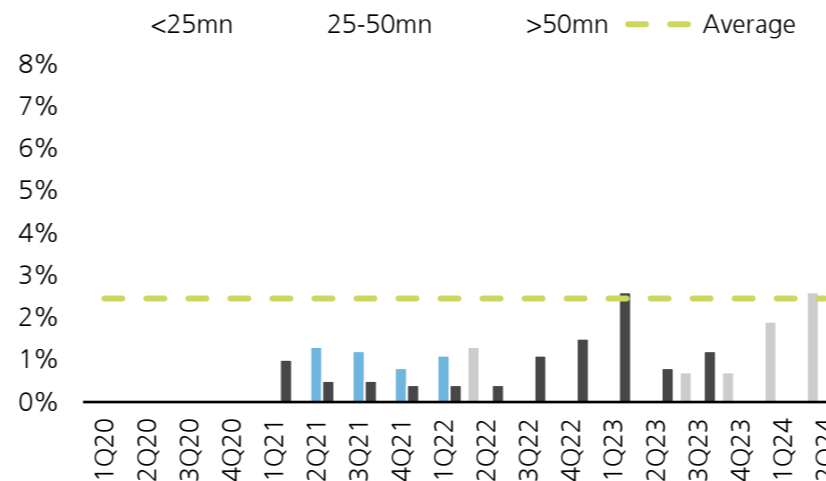
Non-accruals across loans in 2Q24



Source: Cliffwater Direct Lending Index 2Q24, UBS, September 2024.

Default rates show uptick caused by lagged effects of higher rates

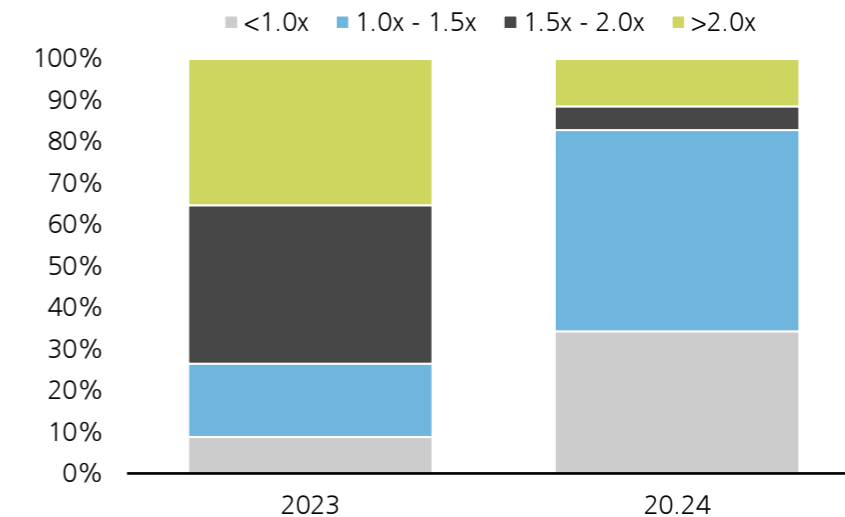
Private loan default rates by company size (EBITDA in USD)



Source: Proskauer 2Q24, UBS September 2024.

Some private credit borrowers are experiencing deterioration in credit metrics

Distribution of interest coverage ratio for rated private credit companies that requested covenant relief



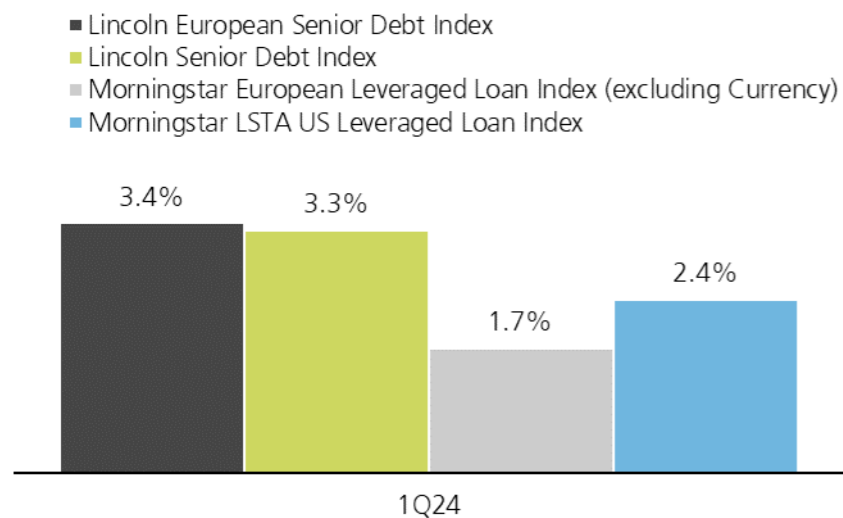
Note: Peer group of 10% of rated issuers that requested covenant relief. Source: Pitchbook LCD 2Q24, Morningstar DBRS estimates, UBS, September 2024.

- Overall statistics on financial stress within the private credit market suggest that risks are contained. Broad market default rates show an uptick toward historical norms but no significant jump. At industry levels, non-accruals remain below average.
- But under the surface, there are pockets of vulnerability, particularly in the lower middle market segment, which exhibit weaker ICR, higher defaults, and higher non-accruals rates than upper middle market companies. We also note that borrowers seeking covenant relief in 2024 are in a weaker shape than a year ago. Companies struggling with weak balance sheet or challenged business models are increasingly feeling the pain of funding costs. The FED beginning its cutting cycle may provide a relief on debt servicing. But for some it may be too little too late, and a restructuring will be needed.
- We expect this bifurcation between the upper middle market and lower middle market 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 the 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.

Europe: offers attractive risk-adjusted opportunities

European loans have performed well so far in 2024

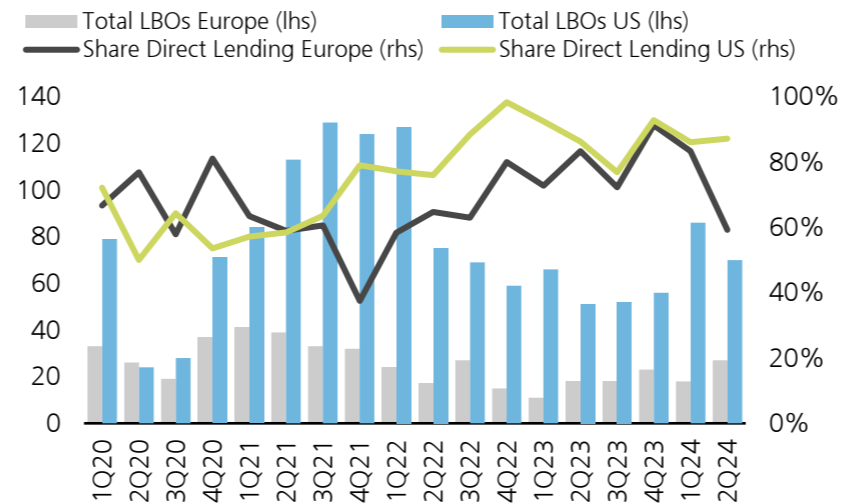
Quarterly index returns



Source: Lincoln International, Pitchbook LCD, UBS September 2024.

Competition between direct lenders and the broadly syndicated loan market intensifies

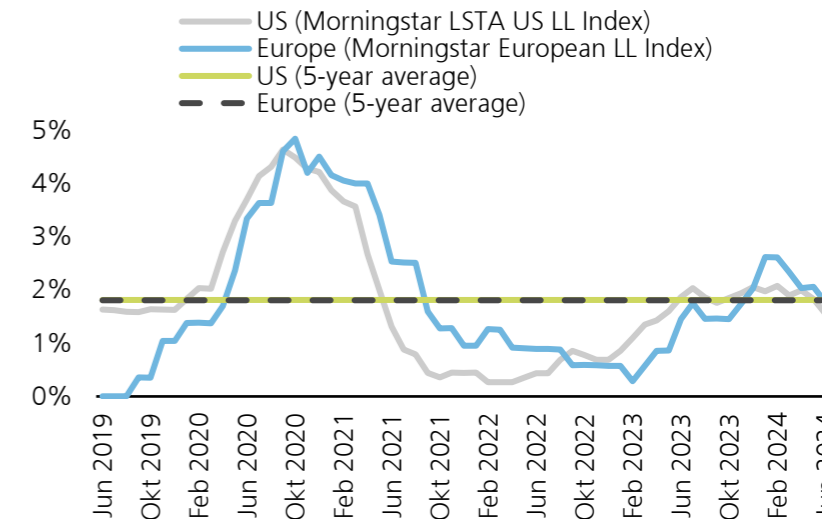
LBO count and share financed by direct lending vs. broadly syndicated loans



Note: As of 30 June 2024. Source: Pitchbook LCD, UBS September 2024.

Default rates are close to historical averages

Lagging 12-month loan default rate based on issuer count



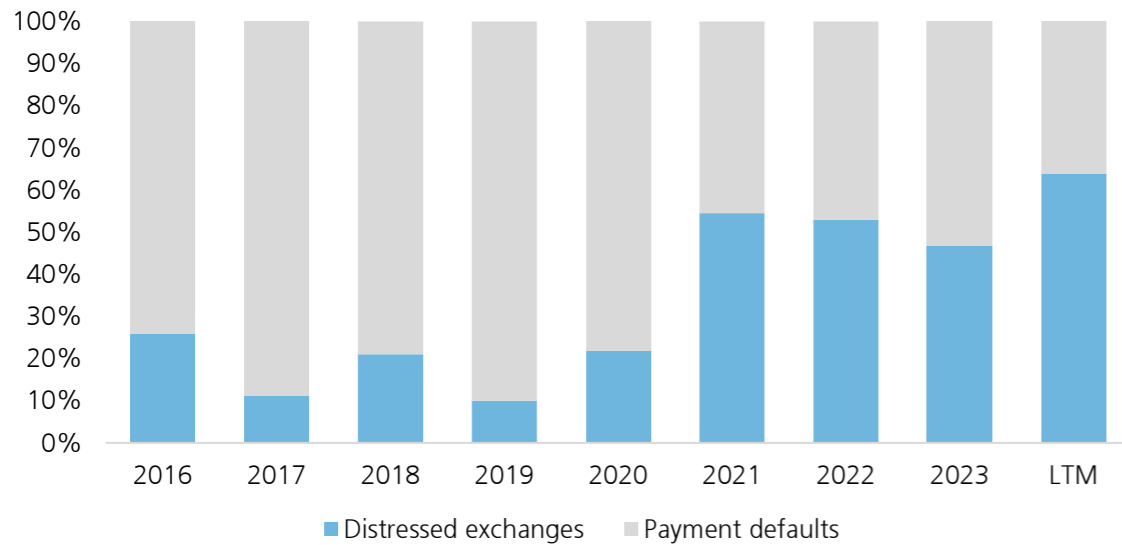
Note: As of 30 June 2024. Source: Pitchbook LCD, UBS September 2024.

- The Lincoln European Senior Debt Index delivered +3.4% in 1Q24, slightly beating the US index and outperforming the European leveraged loan market.
- In 2Q24, 60% of LBOs were financed by direct lenders, down from 83% in 1Q24. Similar to the US market, the competition against the BSL market intensified, especially in the upper middle market. There are reasons to be optimistic, however, as the number of LBOs picked up to 27 deals following several quarters of an M&A slump. The European direct lending market should accelerate amid prospects of further rate cuts, record private equity dry powder, and an uptick in M&A.
- European direct lending tends to display more conservative underwriting standards than the US, with higher interest coverage ratios (3.6x vs. 2.9x for the US), comparable equity contributions (c.46% on average between 2019-23) and the same average default rate of 1.8% over 2019-23 (taking the leveraged loan market as a proxy).
- Similar to the US market, however, we monitor stress in the market and recommend senior secured sponsored backed exposure in the upper mid market segment with a key focus on less cyclical sectors and newer loan vintages. In our view.

Special situations/distressed debt: may still find opportunities in a soft landing

Companies try to avoid defaults through liability management exercise

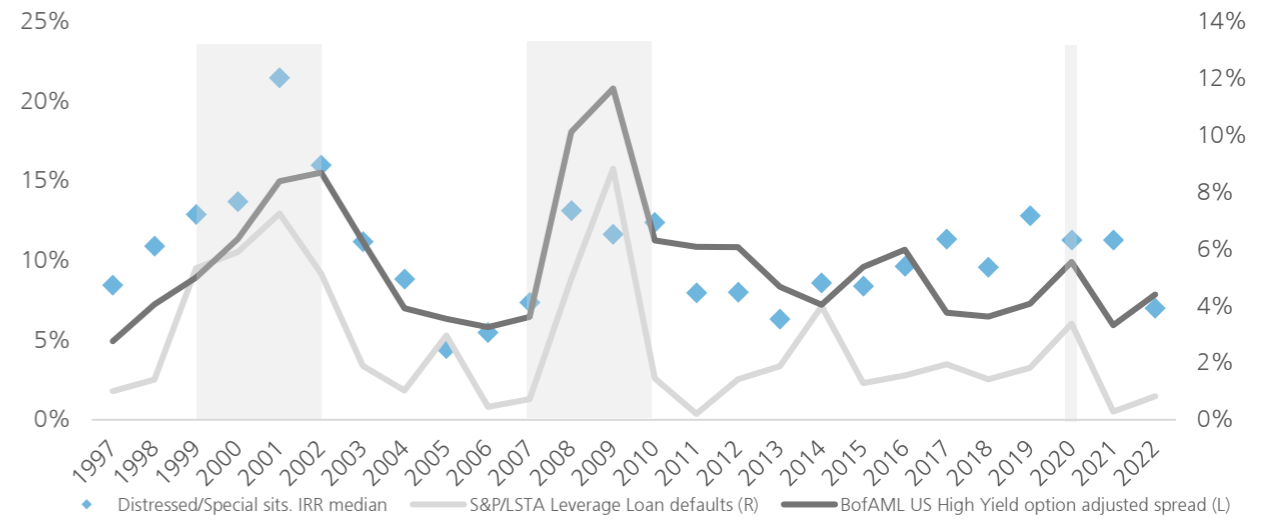
Share of distressed exchange and payment default in the broadly syndicated loan market



Source: Pitchbook LCD, LTSA US Leveraged loan index UBS, as of September 2024.

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

Distressed debt IRR median IRR returns vs Leverage loan defaults and HY spreads

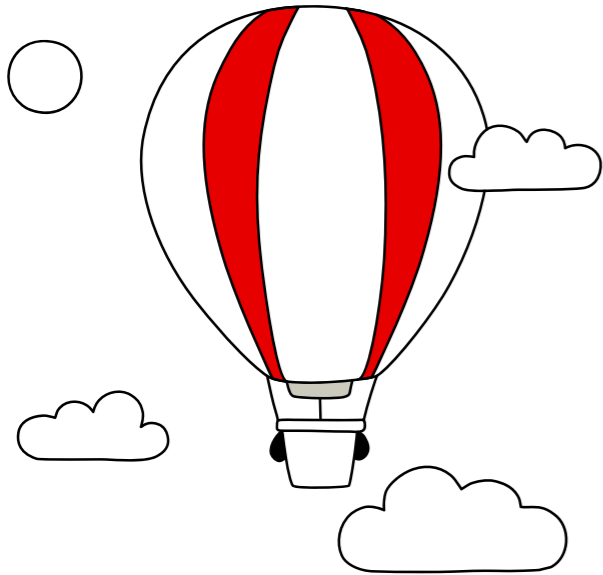


Source: Federal Reserve of St. Louis, Pitchbook, LCD, UBS estimates, May 2024. Note: Leverage loan defaults reflect (Last 12 month \$ of defaults) / (total outstanding).

- We anticipate a steady flow of distressed and special situation opportunities in certain parts of the economy for instance in the lower middle market, in parts of the commercial real estate sector where some banks may be forced to shed assets, or for companies facing liquidity issues and which have lost access to capital markets.
- 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.
- Distressed exchanges have become a consistent theme in the past 3 years, as many companies are struggling and need some form of debt restructuring and equity exchange. 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

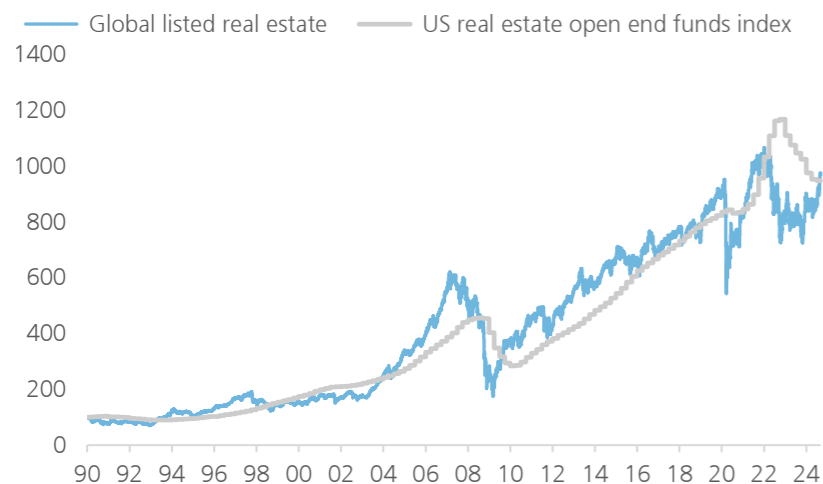


- **Real estate assets** are approaching an inflection point in the downcycle that started in 2022. Valuations have undergone significant adjustments, and much is already reflected in the price. Investors remain cautious despite a large amount of dry powder. But prospects of declining interest rates in the US and Europe should ease funding costs and support a recovery in investment volumes. Although it remains below long-term levels, leasing activity is showing signs of revival. We expect momentum to build in the coming months and foresee a potential acceleration in 2025, albeit conditional, on the path of interest rates and the health of the global economy. Divergence between sectors and segments of the property market will nevertheless persist. In logistics, we see healthy rental growth, pent-up demand, and a shrinking pipeline of new surfaces, as new developments took a hit amid increased financing and construction costs. We are selective on the residential market depending on geographies and the specific demand/supply balance. Datacenters meanwhile show attractive return prospects amid the AI boom. And we stay broadly cautious on the office market, where although signs of increased demand are emerging, supply and vacancies could remain a drag for a little while.
- **Infrastructure**-linked assets, on the other hand, have shown resiliency over the past two years and have benefited from policy and structural tailwinds. According to preliminary Cambridge data, infrastructure gained on average 9.13% in 2023 and 2.1% in the first quarter of 2024. 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, should 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 next decade. Not all infrastructure assets are created equal, however. And we expect fundamentals to still matter. 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. Our current focus is on energy transition assets and digital infrastructure.
- Investors looking to invest in real assets should, however, consider the risks related to these strategies that are described on slide 3 of this report.

Valuations: open-ended fund NAVs dropped 18% compared to 2022 peaks

Public real estate valuations are trending upward while private ones are bottoming out

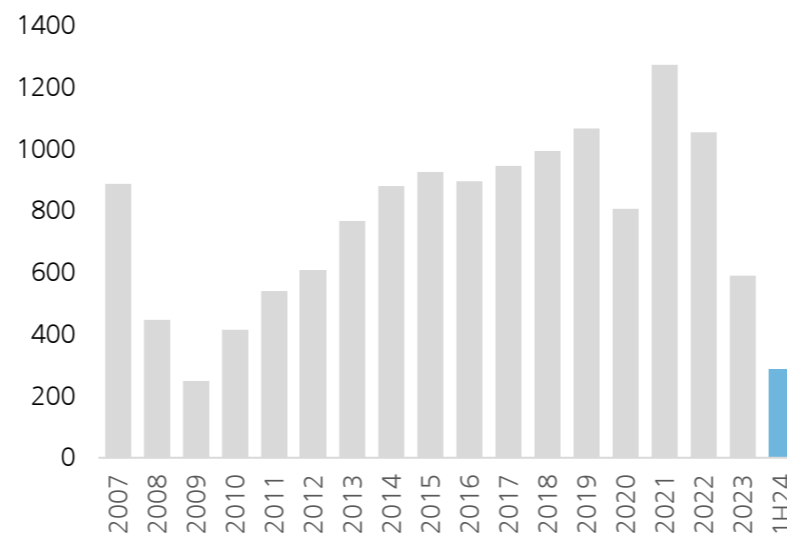
Non-listed global real estate funds vs. listed real estate total return



Source: FTSE EPRA NAREIT Developed Total Return Index for listed, NCREIF Fund Index for Open-end Diversified Core Equities (reflects 28 institutional open-end commingled real estate funds). Bloomberg, UBS, September 2024

Transaction activity shows early signs of stabilization

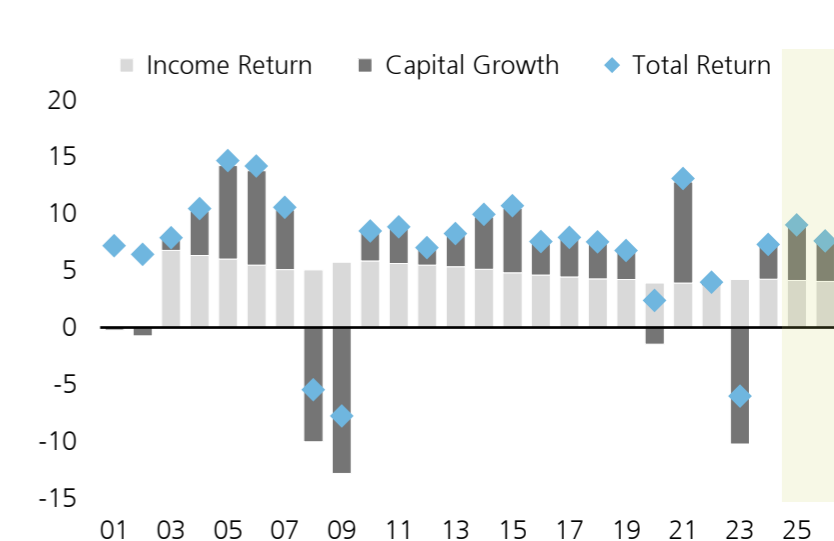
Global real estate investment volumes, in USD billion



Source: JLL, UBS September 2024

CIO anticipates positive rental and capital value growth in 2024 and an acceleration in 2025

Total return for global direct real estate, in %



Source: MSCI/IPD, UBS, September 2024

- Limited redemption real estate fund NAVs have been declining since end 2022. 2Q24 data shows a further contraction of -0.5% QoQ (but it is the smallest decline it has been since the beginning of the downtrend). Meanwhile, public REIT valuations have already troughed and have started to move higher. With public real estate valuations typically leading private ones, there is scope for pressures to ease. Real estate investment activity data for 1H24 remains lackluster indicating that buyers' and sellers' expectations have not fully reset but here too early signs of stabilization are emerging.
- Declining interest rates in the US and Europe should ease funding costs and support a recovery in investment volumes. We expect momentum to gradually build up in the coming months and foresee a potential acceleration in 2025 albeit conditional on the path of interest rates and the health of the global economy. We note that real estate assets are increasingly offering yield relative to bonds. According to CBRE, average US capitalization rates held steady at 7% in 1H24.
- 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.

CIO view: neutral and recommend to stay invested in line with benchmark allocations, with a focus on the highest quality and most resilient subsectors

Market	Favorable	Balanced	Unfavorable
Brazil	Industrial & Logistics /Retail	Residential	Offices
Canada	Hotels /Industrial & Logistics /Residential	Retail	Offices
Mexico	Industrials & Logistics	Hotels /Retail	Offices
US	Data Centers /Industrial & logistics /Residential /Shopping centers (grocery anchored) /Towers	Healthcare /Hotels /Medical Properties /Self Storage / Senior Housing	CBD Offices /Lower Quality Malls /Suburban Offices
Australia	Industrial & Logistics /Manufactured Housing /Self-storage	Hotels /Residential /Retail	Offices
Hong Kong (China)	-	Hotels /Industrial & Logistics	Offices /Residential /Retail
Japan	Hotels /Residential	Industrial & Logistics /Retail	Offices
Mainland China	Data centers /Hotels	Retail	Offices /Residential
Singapore	Data Centers /Domestic Retail	Industrial /Logistics /Hotels /Residential	Offices
Central and Eastern Europe	Industrial & Logistics	Hotels /Retail	Offices
Continental Europe	Data Centers /Industrial & Logistics /Residential /Student Housing	Hotels /Offices /Retail /Self Storage	Suburban Offices
Germany	Industrial & Logistics /Healthcare /Residential	Hotels /Offices /Retail	-
Switzerland	Hotels /Residential	Industrial & Logistics /Offices /Retail	-
UK	Data Centers /Industrial & logistics /Healthcare & Medical Properties /Self-Storage /Student Housing	High-quality Offices /Residential /Urban Retail	Suburban Offices /Suburban & Secondary Retail

Source: UBS, views as of July 2024, UBS September 2024
 Note: This assessment considers the attractiveness of a market compared to its own historical data.

- The current environment continues to commend selectivity and a focus on quality and resilience. In logistics for instance, we expect superior rental growth to support income and earnings. Meanwhile, demand has risen thanks to secular developments like changing consumer behavior and rising e-commerce penetration. Recent volatility provides an opportunity to deploy capital at higher yields.
- US multifamily assets should stay broadly supported by a structural lack of supply and occupancy rate stability. Meanwhile the rapid evolution of artificial intelligence technologies (AI) should create structural demand for data centers, particularly in the hyperscale segment. According to McKinsey, global spending on datacenters could reach USD 50 billion by 2030 from about USD 30 billion currently.
- We remain cautious on investing in suburban offices given ongoing near-term challenges.

Opportunity: key structural trends (5Ds) will shape the next decade of investing

Deglobalization



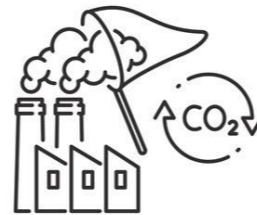
New restrictions up **6x**
from 2013

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

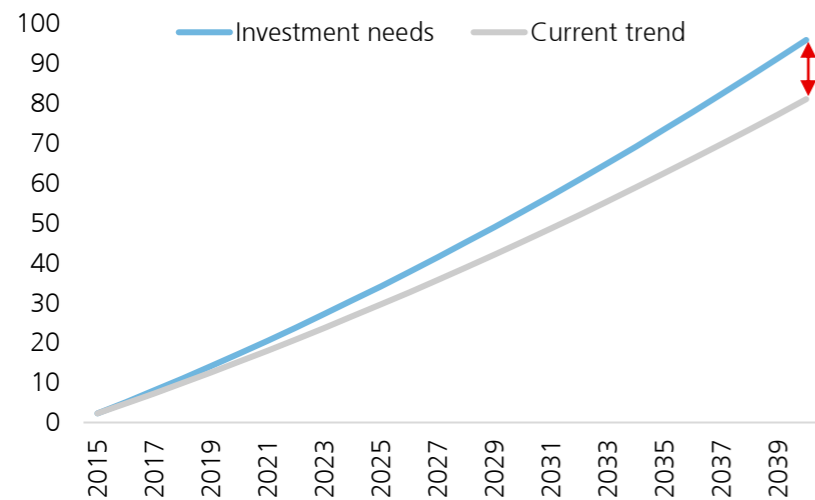


Global debt-to-GDP
ratio at **335%** vs.
310% in 2014

Opportunity: key beneficiary of demographics, digitalization & decarbonization

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

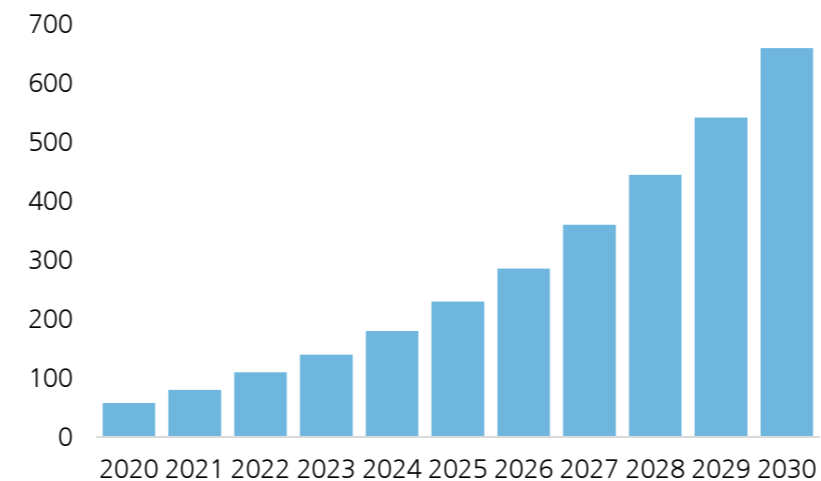
Infrastructure needs vs. trends (in USD tr)



Source: Global Infrastructure Hub as of 2017, UBS September 2024.

Digital data growth should accelerate from 2020–30

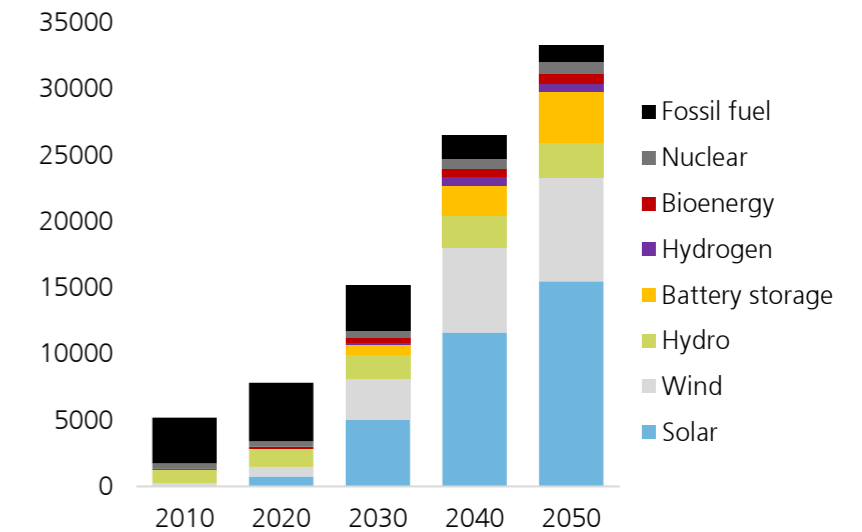
Annual size of the global datasphere, in zettabyte



Source: IDC, EMC, Bloomberg Intelligence, UBS September 2024.

Net Zero cannot be achieved without expanding renewables capacity

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



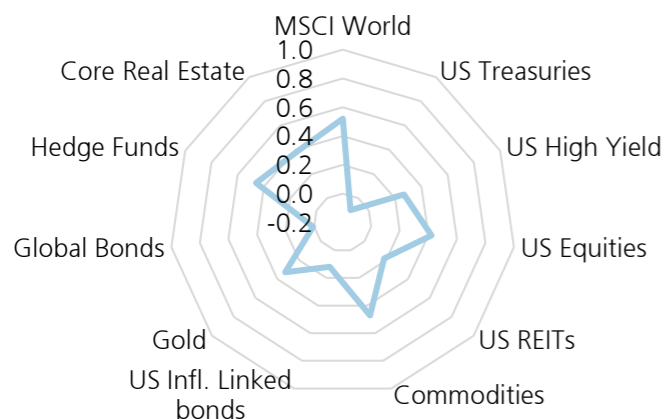
Source: IEA, WEO 2022, UBS September 2024.

- Infrastructure is sitting at the heart of the 5Ds. 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 more than 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. 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.

Portfolio value: stable, predictable, inflation-linked returns with low correlation

Infrastructure exhibit low correlation to other asset classes

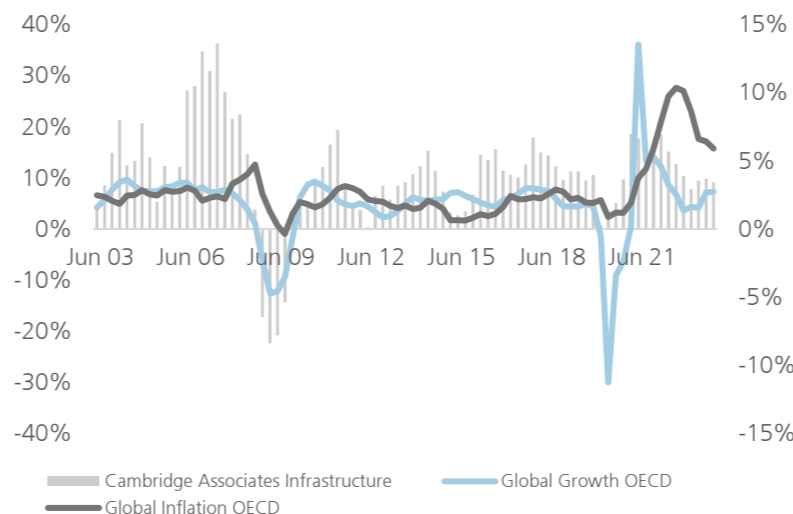
Correlation of the Cambridge Infrastructure index vs other asset classes (2005-2022)



Source: Bloomberg, Cambridge Associates, UBS September 2024.

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

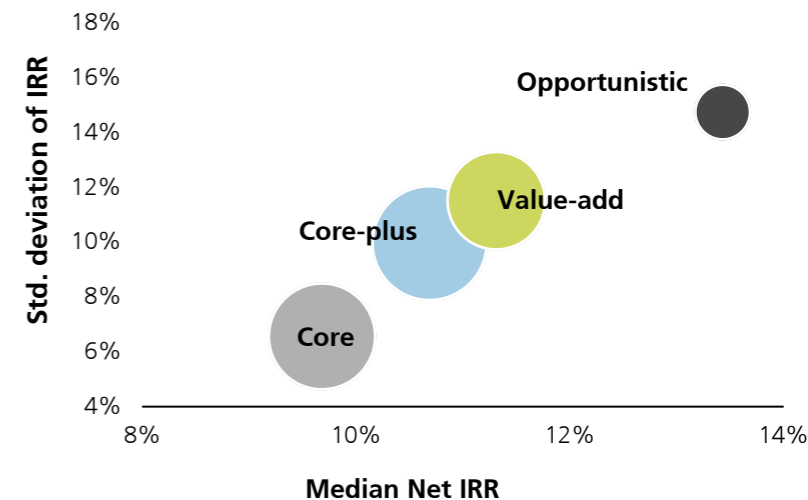
Infrastructure returns vs changes in GDP and inflation



Source: OECD, Cambridge Associates, UBS September 2024.

Infrastructure strategies offer good returns

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



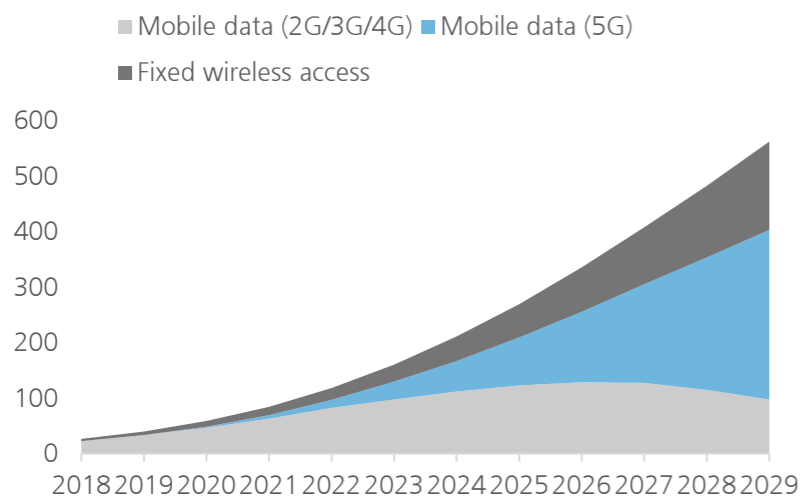
Source: Preqin, UBS September 2024.

- 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.

Digital infra: data centers & towers to facilitate connectivity and data generation

Increased connectivity requires investments in towers

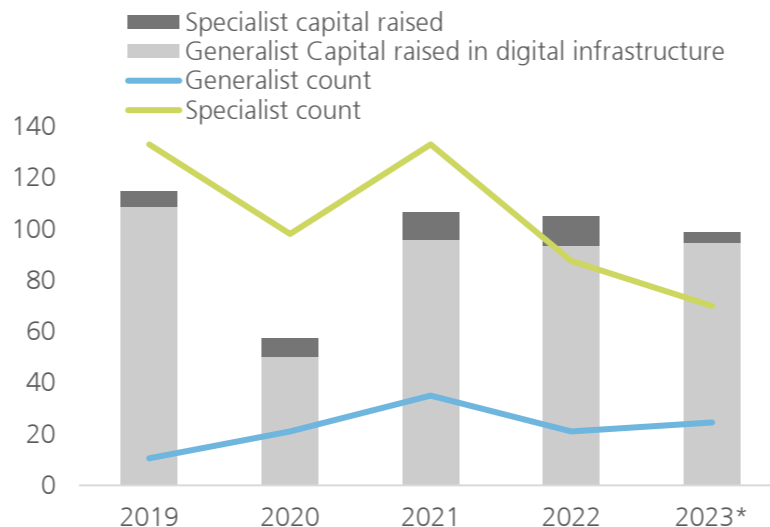
Global expected mobile data usage



Source: Ericsson mobile data traffic outlook 2024, UBS September 2024.

Nearly 100bn of commitments in funds with exposure to digital infrastructure in 2023

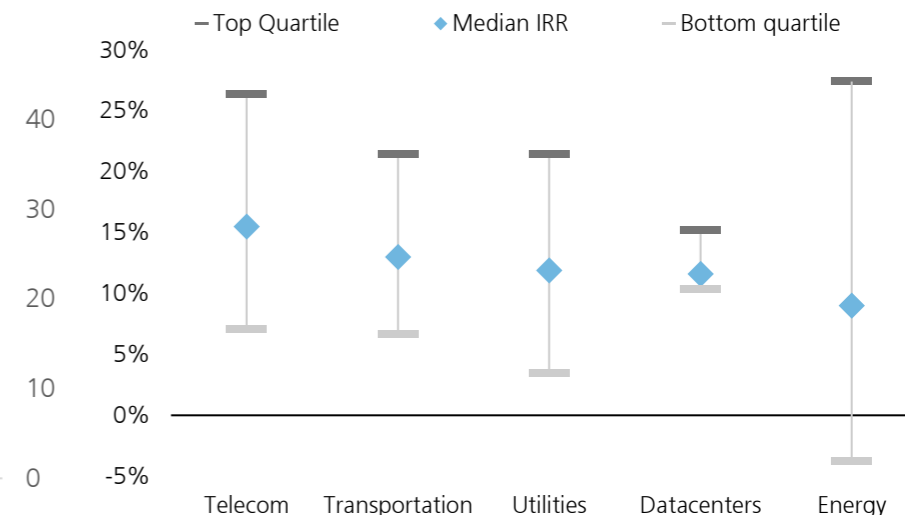
Number of companies with decarbonization commitments



Source: Science Based Targets Initiative, UBS September 2024.

Datacenters see stable deal level IRRs

Deal level sector IRRs between 2010 and 2023



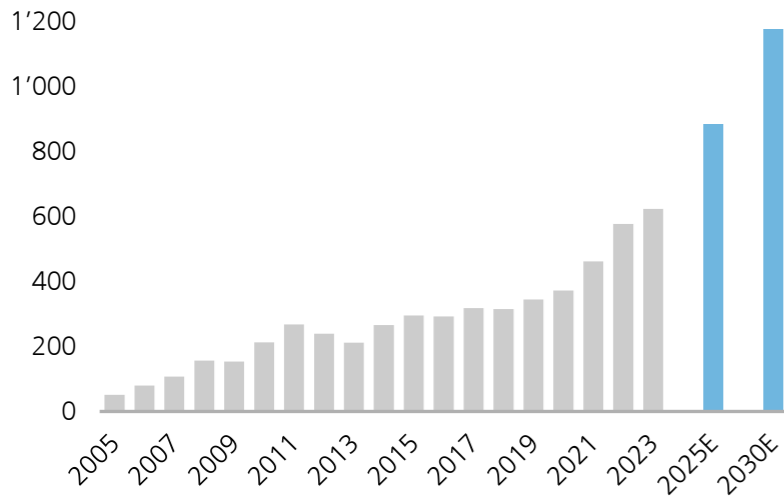
Source: Pitchbook, DealEdge, UBS, September 2024.

- The International Data Corporation estimates digital data generation to be 1.5x higher this year compared to in 2022. The rise of AI is set to spur the digitalization trend, and technological advancements are required to support these developments. Much of the digital value chain is housed in data centers to support data generation, analyzing and refining and sending data across networks. Investor interest in the area is steady, and in 2023 alone funds with a focus on digital infrastructure recorded nearly USD 100bn in commitments.
- To support the growing mobile network traffic, which is set to triple by the end of the decade, more investments are required in infrastructure assets like towers and wireless infrastructure to support the continued rollout for 5G connectivity and upgrades for fixed networks and further fiber rollout.
- In our view, digital infrastructure offers a valuable opportunity for investors. Connectivity has become part of critical infrastructure in recent decades, and it continues to exhibit strong growth fundamentals. The digitalization megatrend and the boom in AI are creating tailwinds for the broader technology sector. Looking at data centers, deal level IRRs ranged between 10.4% and 15.2% for deals between 2010 and 2023, offering investors core+ like returns. Managers focusing on developing assets could see returns ranging higher.

Renewable energy: taking advantage of the decarbonization trend

Spending on renewables is expected to double by 2030

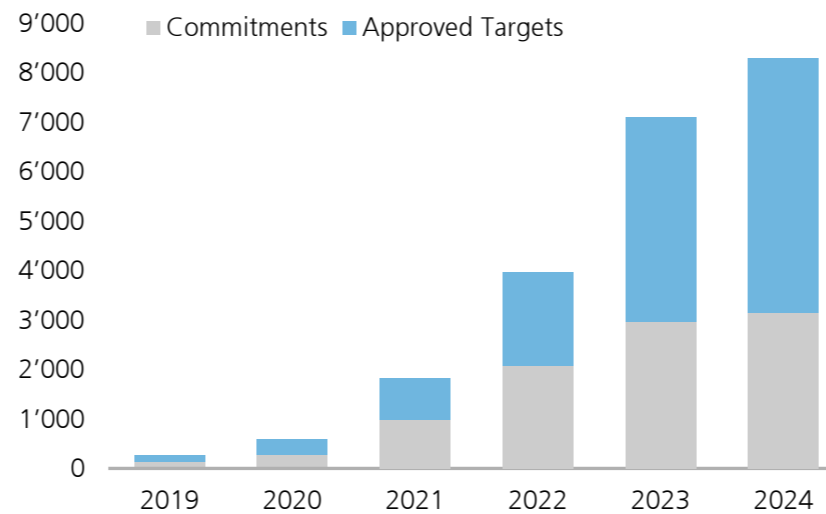
Global spending on renewable energy infrastructure in USD bn



Source: BloombergNEF, UBS September 2024.

Companies increasingly make commitments to decarbonization targets

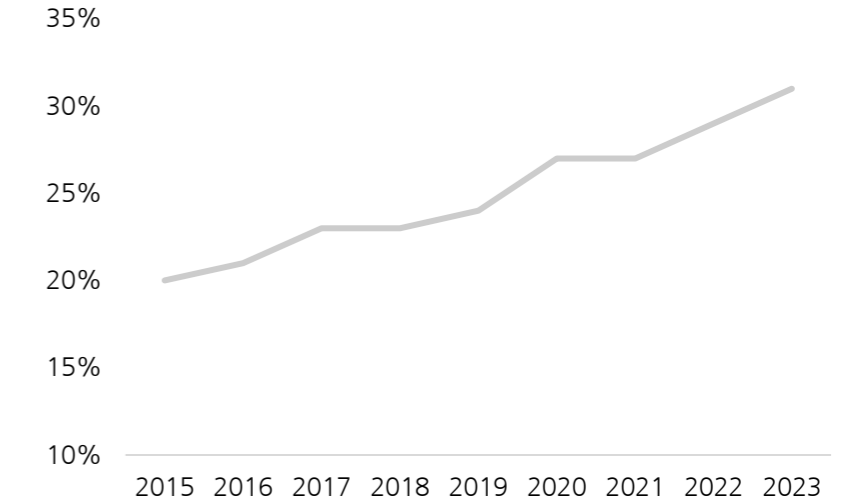
Number of companies with decarbonization commitments



Source: Science Based Targets Initiative, UBS September 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 September 2024.

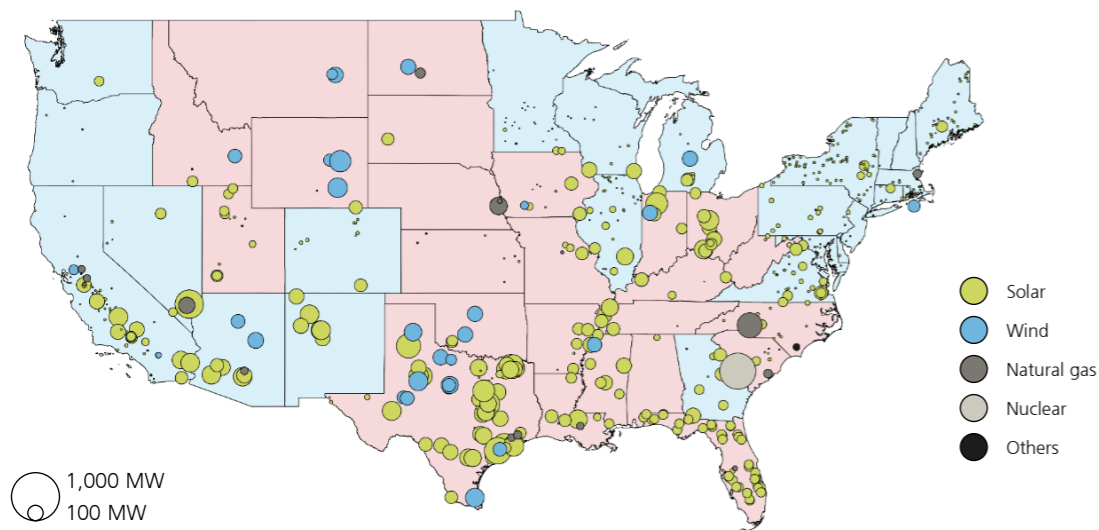
- Spending on renewable infrastructure has picked up and is expected to double by 2030, driven by increased cost efficiency and decarbonization objective endorsements. Increasingly, companies are committing to science-based decarbonization targets. Regulatory pressures, reputational risks, and additional 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 more affordable than fossil energy in many markets. 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 most new capacity additions globally, while oil & gas have added little to none.
- We believe investors searching for growth and stable, uncorrelated returns while contributing to a number of the UN SDGs should consider exposure to energy transition assets and renewable infrastructure.

Renewable energy: impact of the US election on renewable infrastructure

Two-thirds of all new renewable capacity is being installed in red states

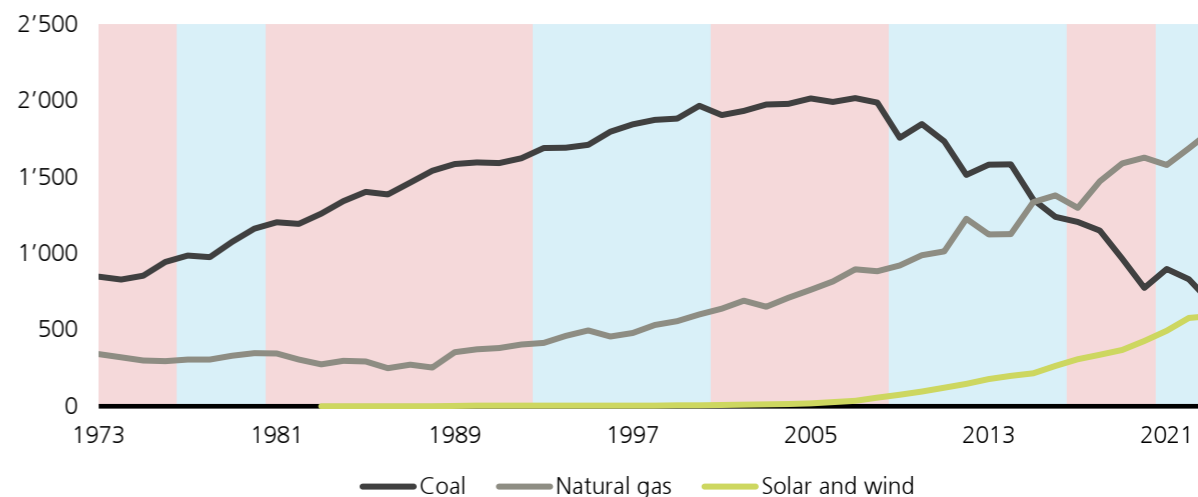
Secular trends are likely independent of election outcomes

New electricity projects in 2024 by electricity source and generation capacity (MW)



Note: State color denotes the winning party in the 2020 presidential elections.
 Source: US Energy Information Agency, UBS Chief Investment Office (installed and planned generators as of July 2024).
 UBS September 2024

Annual electricity generation by source in TWh



Note: Red and blue colors denote the party of the President in power at the time (Republican and Democrat, respectively).
 Source: Energy Information Agency, UBS Chief Investment Office (as of year-end 2023). UBS September 2024.

- A fundamental trend that has an economic and geopolitical foundation is likely to be independent of election outcomes, as long as investors continue to see the potential for long-term financial returns and opportunities. This is exemplified by the growth of renewables and a fall of coal in the power generation market. Growth of renewables continued under former President Trump’s administration, as it had in previous administrations.
- We analyze two risk scenarios for renewable infrastructure and the upcoming US election. In a Red Sweep scenario, full reversal of the IRA is unlikely due to committed funding and significant solar and wind capacity in Republican-majority districts. Specific IRA tax credits, such as EV credits, are more at risk, while solar investment and production credits have been extended multiple times. Rolling back of EPA rules, similar to the first Trump presidency, is likely and causes regulatory uncertainty. Particularly at risk are tailpipe and power plant emission rules. The US is likely to withdraw from the Paris Agreement again, ending commitments to carbon emission reduction targets and climate finance. We do not expect the US to withdraw from the UNFCCC or World Bank, as a two-thirds Senate majority is required to terminate international treaties.
- In a Harris with split congress, additional climate spending is unlikely to materialize given budgetary constraints. We expect continued links between deployment of already committed/appropriated clean energy funding, as established by the Biden administration. Following the Supreme Court’s decision to overturn the Chevron doctrine, any additional EPA rulemaking on stricter emission standards across industries is unlikely. No meaningful changes to US commitment to the Paris Agreement, and climate finance is likely to remain at current levels. Status quo expected for the UNFCCC and World Bank.

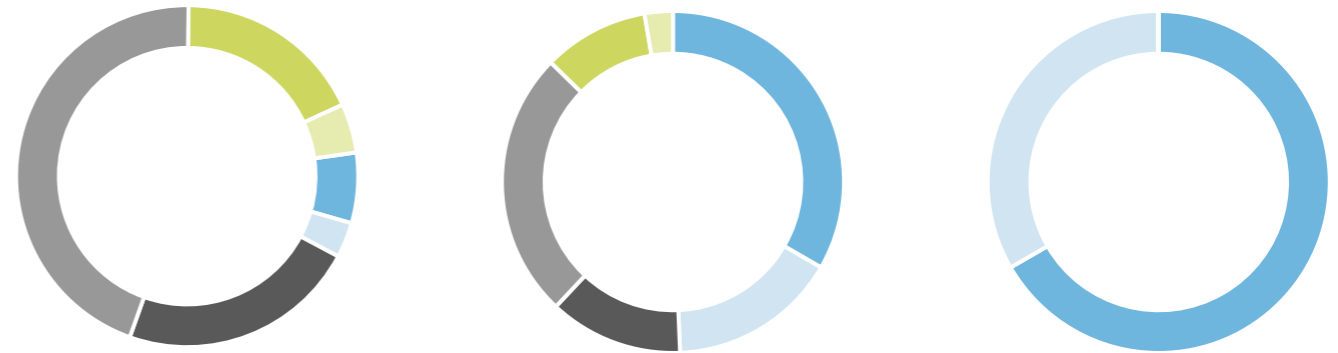
Appendix

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.
- As a general rule, up to 20% of a liquid portfolio should enable investors who are eligible to allocate to illiquid assets to avoid severe issues during downturns (up to 40% if cash flow needs are moderate and/or mitigated by sources of external liquidity; for more details, refer to our report "Allocating to private equity in a multi-asset class portfolio" published 20 July 2020).
- 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.

Asset class



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%

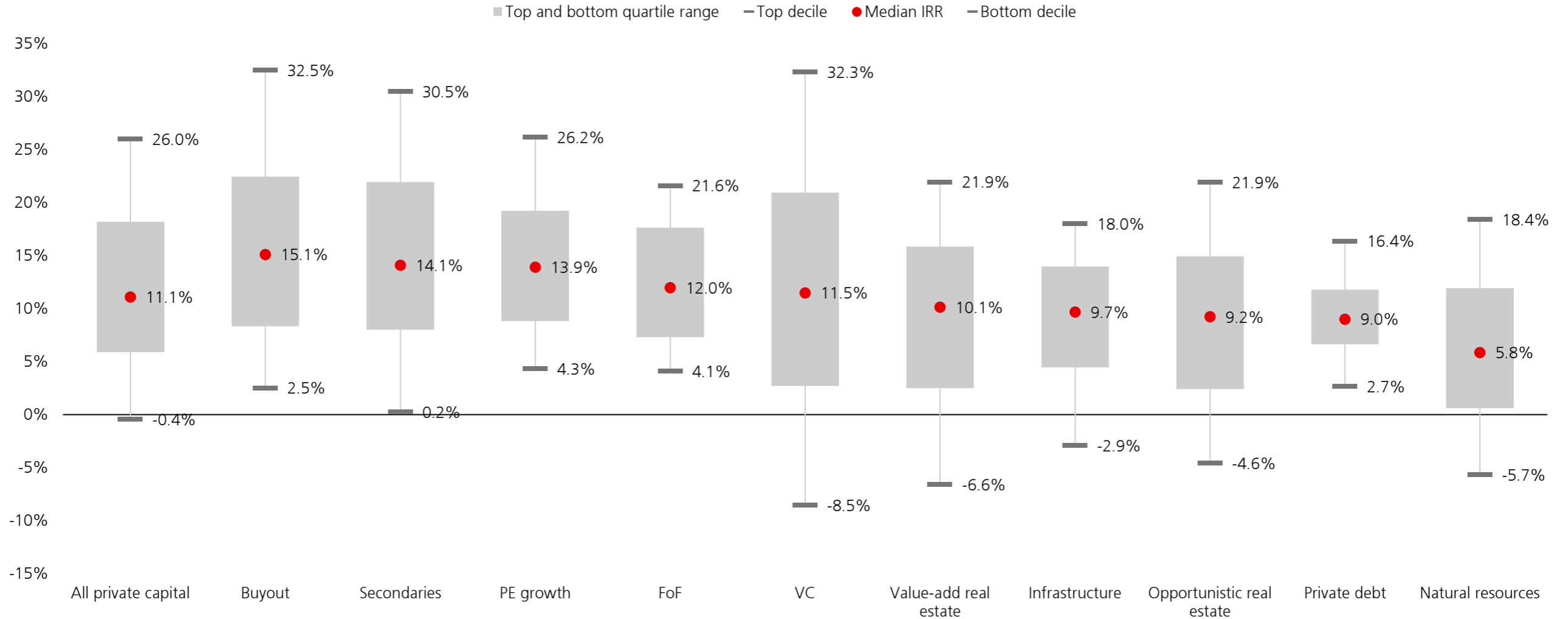
Source: UBS GWM Chief Investment Office (CIO)

**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)



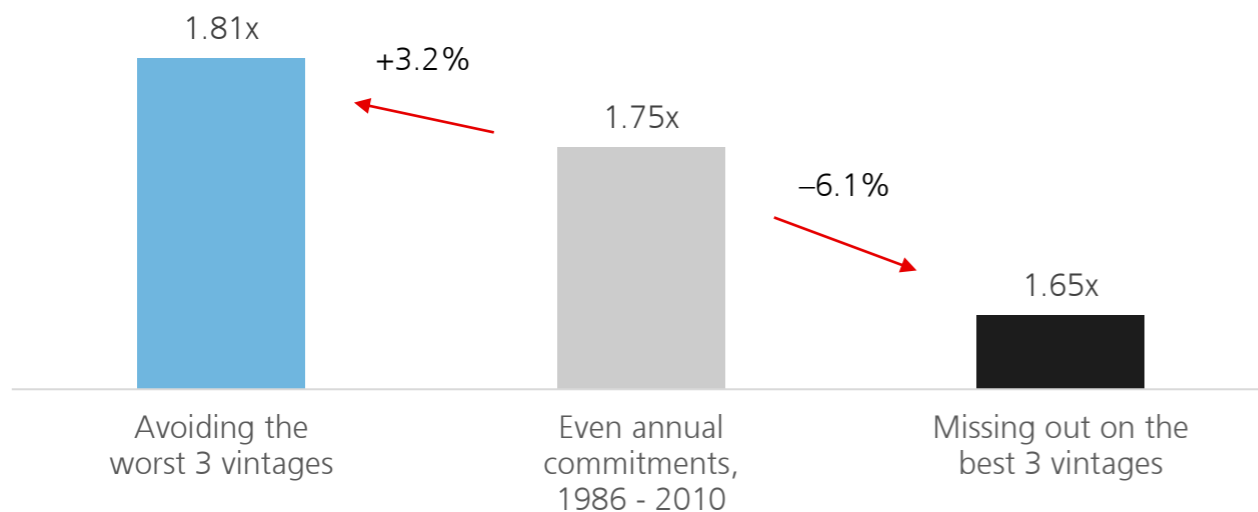
Source: Pitchbook LCD, UBS September 2024

The importance of vintage diversification

Annual commitments can ensure an investor captures outperformance, while mitigating the impact from lower-performing years

Missing out on the best vintages hurts performance twice as much as avoiding the worst vintages

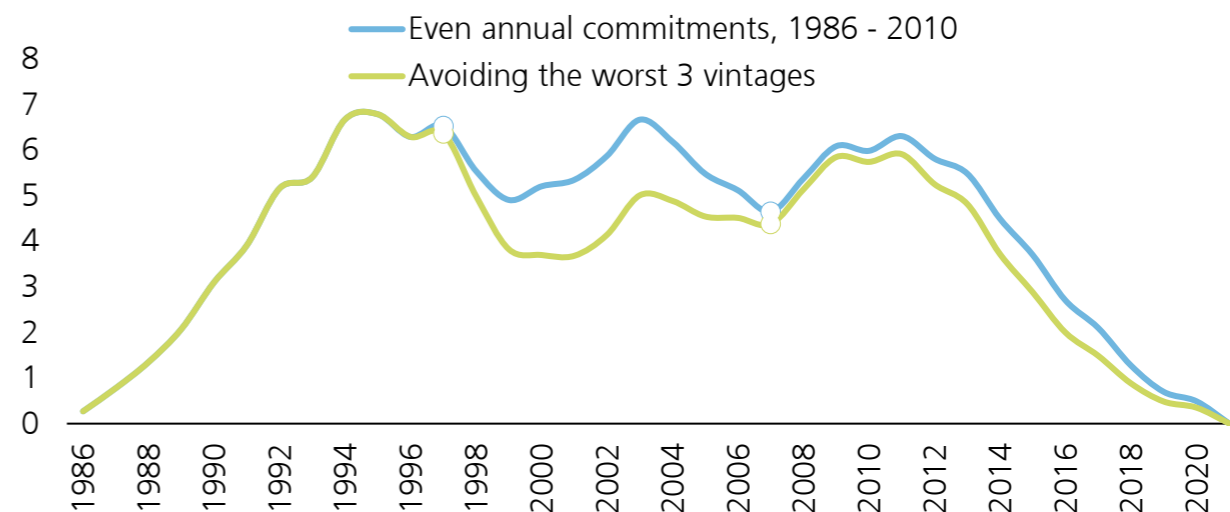
Portfolio multiple of invested capital (MOIC)



Note: Historical buyout cashflows. Data as of September 30, 2023. Source: Burgiss, UBS September 2024.

Uneven allocations per year make it more difficult to maintain a steady-state exposure, which is already sensitive to the economic cycle

Net asset value, in USD million



Note: NAV inferred from the historical cash flows and IRR. Data as of September 30, 2023. Source: Burgiss, UBS September 2024.

- A vintage is the year in which a private market closed-ended fund makes its first investment. As funds typically span over ten years or more, they are influenced by varying macro-economic conditions and their vintage year is an important driver of performance. But predicting which vintage will perform best and avoiding those that won't is no easy task.
- Market timing is difficult and in fact has a high opportunity cost. Missing out on the best vintages hurt performance twice as much as successfully avoiding the worst one. Since it is difficult to predict how each vintage will fare, we think annual commitments can ensure an investor captures outperformance from the certain vintages, while mitigating the impact from lower-performing years and smoothing exposure across economic cycles.
- Importantly, we think investors who allocate annually to each vintage will naturally achieve a self-funding portfolio over time when capital calls from younger funds are financed by recycling distributions from older funds. Skipping vintages may create a gap in distributions, increase capital requirements or delay the point when a portfolio becomes self-funding. Uneven allocations per year also make it more difficult to maintain a steady-state exposure, as measured by the net asset value (NAV), which is already sensitive to the economic cycle.

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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