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Wealth

2025

WEALTH OUTLOOK
Alternatives Edition

Alternatives investing: the next stage of expansion

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where wealth happens

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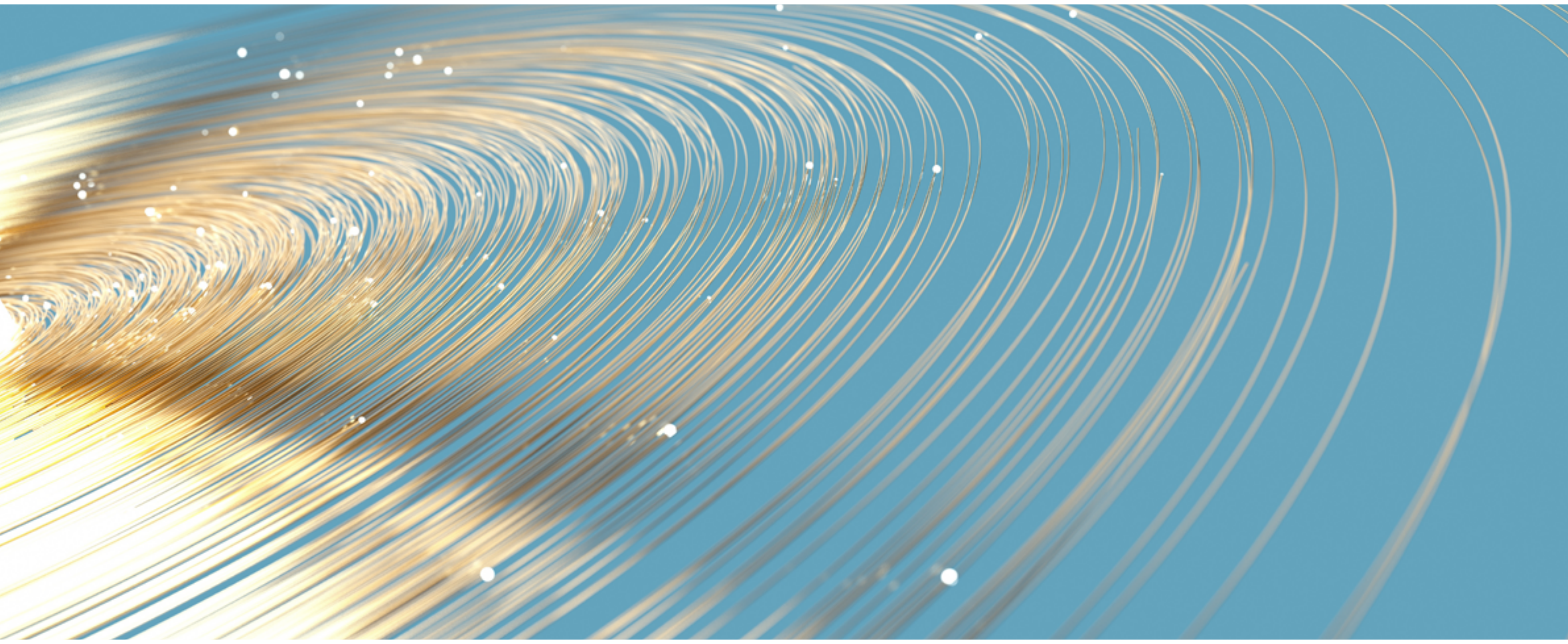
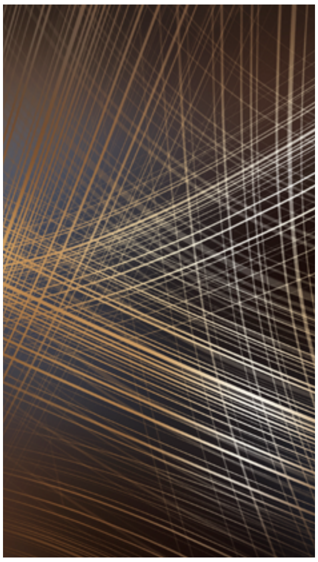


alternatives investing: the next stage of expansion

Alternative asset classes have expanded considerably in recent years and we believe this will continue in the period ahead. Our long-term return forecasts[1] for private assets and hedge funds continue to exceed those for public equities and fixed income



key takeaways

- → We believe these asset classes not only offer increased return potential but also portfolio diversification benefits for suitable investors, with evergreen funds potentially simplifying the process of allocating to illiquid alternatives
- → Hedge funds also have the potential to provide uncorrelated returns to traditional markets, within certain equity and credit strategies
- → Private equity and real estate dealmaking are expected to recover toward their long-term average activity levels

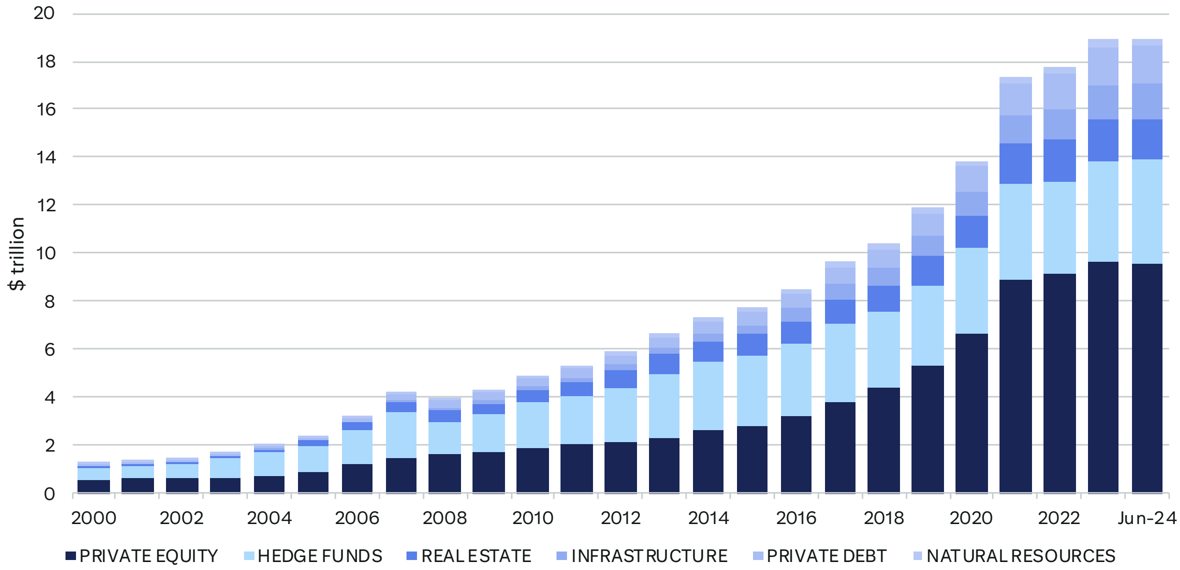
[1] All forecasts are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance. Past performance is no guarantee of future results. Real results may vary.

The alternative investing sector has expanded rapidly in recent years. Alternatives assets under management (AUM) rose at a compound annual rate of 12.4% to $19 trillion between 2000 and June 2024 – **figure 1**. We see various factors driving this growth. Low interest rates for much of the period spurred investors to seek returns and diversification beyond traditional asset classes such as equities, fixed income and cash. Greater investor sophistication – with the rise of sovereign investment funds, family offices and others – have also played a part. And an increasing share of potential investment opportunities are only accessible via alternative providers of capital, such as private capital funds and hedge funds, as companies have sought financing away from public markets and banks.

We believe that many of these positive factors for alternatives remain in force and will be sustainable for the foreseeable future. For example, institutional investors and family offices continue to seek potential opportunities beyond traditional asset classes, as alternatives – private equity, private credit, real estate and hedge funds – have the potential to produce higher returns over the coming decade. Companies, too, are still keen to raise capital privately, continuing the big shift away from public markets and bank lending over many years. Banks have been steadily driven away from many potentially attractive lending markets by the increasing weight of regulatory burdens imposed by central bankers. Against this backdrop, alternatives AUM could reach over $29 trillion by 2029.[2]

FIGURE 1

the growth of alternatives AUM across cycles



Source: Preqin (for private capital) and HFRI (hedge funds), as of June 30, 2024. Chart illustrates the growth from 2000 through June 2024 of assets under management (AUM) for alternative investments by strategy. AUM is defined as the cumulative net asset value of managed alternatives funds plus any remaining unfunded commitments for those funds.

[2] Preqin: "Future of Alternatives 2029," published Sep 17, 2024.

WHAT'S NEXT FOR ALTERNATIVES?

Amid the inevitable positive and negative swings in sentiment resulting from the market and geopolitical news of the day, we remain focused on the drivers of global growth, both shorter and longer term, while also positioning for the evolving risks of a discordant world. **Figure 2** shows our Strategic Return Estimates (SREs) for ten major asset classes. SREs are annualized forecasts over a decade that may not be achieved. Based on these SREs, the long-term outlook for alternative asset classes seems positive and among the highest potential returning asset classes over the coming decade. Of course, the flipside of higher potential returns is greater risk. Alternatives have higher downside risk – likelihood of deeper losses in a crisis – than other asset classes; although, this can be mitigated through diversification by fund, strategy, geography and vintage year. Regardless, keeping core portfolios fully invested and exposed to all asset classes envisaged in each investor's long-term investment plan is a key component of long-term investment success.

FIGURE 2

our strategic return estimates and downside risk estimates over the next decade

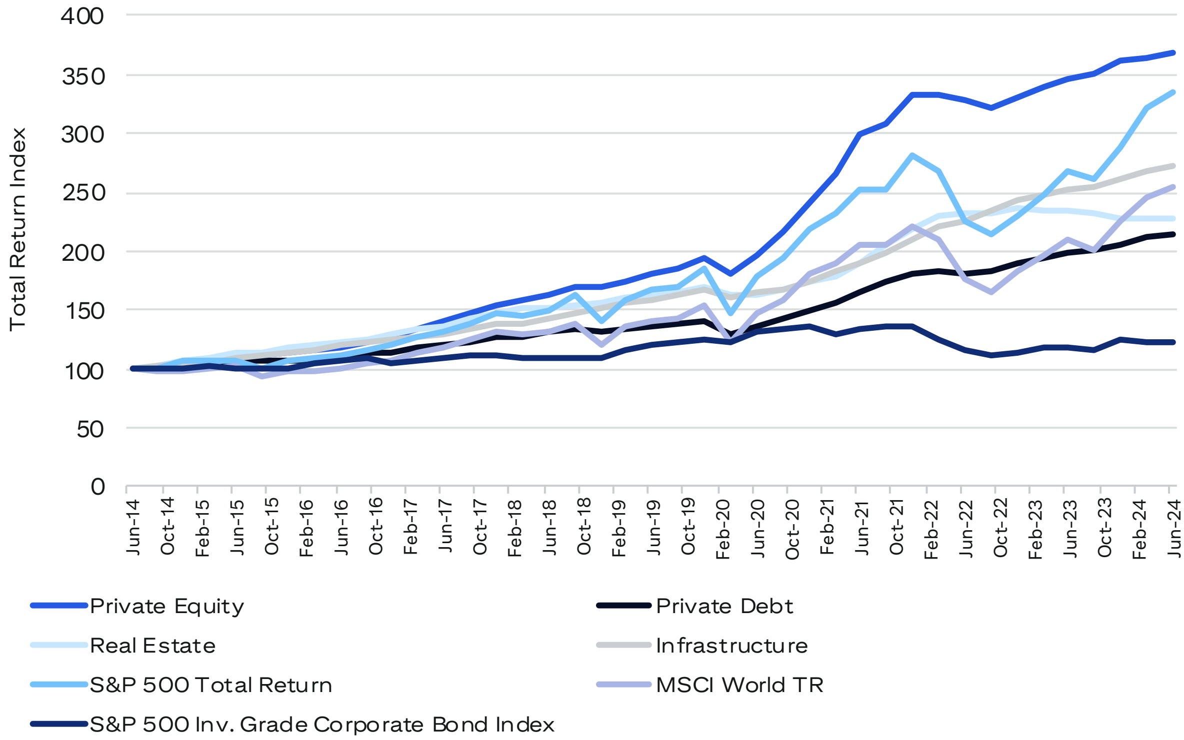
	SRE from 2025 to 2035	SRE from mid-year 2024 to mid-2034	EDR from 2025 to 2035
EQUITIES	5.6%	6.4%	
Developed Markets	5.2%	6.0%	-55.8%
Emerging Markets	9.2%	10.4%	-63.8%
FIXED INCOME	4.8%	5.3%	
Investment Grade	4.6%	5.1%	-11.9%
High Yield	5.6%	6.3%	-49.8%
Emerging Markets	6.1%	7.1%	-45.5%
CASH	3.2%	3.2%	0.0%
HEDGE FUNDS	8.1%	8.5%	-36.9%
PRIVATE ASSETS	12.6%	14.6%*	-71.6%
Private Equity	13.5%	14.6%	-78.7%
Private Credit	7.6%	n/a*	-25.1%
REAL ESTATE	11.0%	10.8%	-78.9%
COMMODITIES	2.5%	2.6%	-50.5%

Source: Citi Wealth Strategic Asset Allocation and Quantitative Research Team. Strategic Return Estimates (SREs) 2025 (based on data as of Oct 2024), prior Strategic Return Estimates for mid-year 2024 (based on data as of Apr 2024). The Strategic Return Estimates are calculated annually and can be reassessed periodically. Returns estimated in U.S. Dollars. All estimates are expressions of opinion and are subject to change without notice and are not intended to be a guarantee of future events. Strategic Return Estimates are no guarantee of future performance. Extreme Downside Risk (EDR) calculates the worst potential loss that a particular allocation may suffer within a rolling twelve-month period over ten years. Past performance is no guarantee of future returns. Strategic Return Estimates based on indices are Citi Wealth's forecast of returns for specific asset classes (to which the index belongs) over a 10-year time horizon. Indices are used to proxy for each asset class. The forecast for each specific asset class is made using a proprietary methodology that is appropriate for that asset class. Equity asset classes utilize a proprietary forecasting methodology based on the assumption that equity valuations revert to their long-term trend over time. The methodology is built around specific valuation measures that require several stages of calculation. Assumptions on the projected growth of earnings and dividends are additionally applied to calculate the SRE of the equity asset class. Fixed Income asset class forecasts use a proprietary forecasting methodology that is based on current yield levels. Other asset classes utilize other specific forecasting methodologies. *Private Assets at the mid-year stage consisted only of Private Equity; an SRE for Private Credit was not calculated. SREs do not reflect the deduction of client fees and expenses. Past performance is not indicative of future results. Future rates of return cannot be predicted with certainty. Investments that pay higher rates of return are often subject to higher risk and greater potential loss in an extreme scenario. The actual rate of return on investments can vary widely. This includes the potential loss of principal on your investment. It is not possible to invest directly in an index. All SRE information shown above is hypothetical, not the actual performance of any client account. Hypothetical information reflects the application of a model methodology and selection of securities in hindsight. Future projections are good faith estimates based on proprietary models and actual performance of the asset class may differ substantially (positively or negatively) from our estimate. See Glossary for definition of asset classes and terms.

These forward-looking estimates are consistent with long-term historical trends. **Figure 3** shows alternatives' performance over the last decade, compared to that of U.S. and rest-of-world equities and U.S. investment grade bonds. Private equity outperformed all other markets displayed, while private credit outstripped investment grade bonds. Importantly, these calculations assume full reinvestment of all returns received and consistent exposure to the asset classes involved. While this is fairly simple to achieve with public equities and fixed income, it can be more challenging in private assets. Evergreen funds may help address this challenge.

FIGURE 3

private assets' returns compounded over time

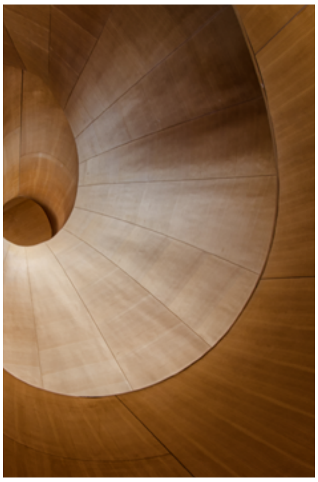


Source: Preqin and S&P Global, as of Jun 30, 2024. Private Equity represented by Preqin Global Private Equity Index (USD); Real Estate: Preqin Global Real Estate Index (USD); Private Debt: Preqin Private Debt Index (USD); Infrastructure: Preqin Infrastructure (USD). Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Private index returns are net of manager-level fees and expenses but the index returns shown do not include any additional expenses, fees or sales charges that may apply, which would lower performance. For illustrative purposes only. **Past performance is no guarantee of future results. Real results may vary.**

THE FUTURE IS EVERGREEN: THE NEXT GENERATION OF ILLIQUID ALTERNATIVES

We believe that alternatives' next phase of growth will be partly fueled by new investors entering the market. Private asset managers are seeking to reach beyond the institutions and ultra-high-net-worth investors that have historically dominated their investor base via more semi-liquid structures. The development of evergreen funds is helping with this, enabling more investors access to private credit, private equity, real estate and infrastructure than before – see **The case for combining evergreen and drawdown funds**.

The term "evergreen fund" is broadly applied to funds investing in private strategies via open-ended funds that do not have a predetermined end date and are perpetually offered to new investors. These structures seek to bridge the gap between liquid and illiquid investments but should not be treated as traditional open-ended mutual funds for portfolio management purposes. We are in the early stages of the next generation for alternatives, where more investors will have access to these asset classes. Despite this widening of client eligibility, new suitable and qualified investors should approach alternatives with care. Working with a financial professional to assess the potential risks and rewards of incorporating these asset classes into a portfolio is essential.



YIELD, DISPERSION AND PREPARING FOR DISCORD WITH HEDGE FUNDS

At the asset class level, hedge funds have an SRE of 8.1%. Of course, this figure aggregates potential performance from many different varieties of hedge fund. In today's environment, we are attracted to strategies that seek differentiated yield within credit, target less efficient markets within equities, and those that may help diversify portfolios amid market volatility.

With a U.S. and European interest rate cutting cycle underway, seeking yield may become somewhat more challenging. In Wealth Outlook 2025, we explored possibilities for diversifying fixed income holdings via the likes of corporate high yield, structured credit and bank loans – see fixed income: credit at the core in **Wealth Outlook 2025**. Investors might consider a multi-sector alternative credit portfolio that seeks more complex investments within corporate high yield, bank loans, and structured credit, rather than bank deposits and Treasury bills. Also, regulatory capital relief transactions are a growing tool for banks and provide a yield opportunity for investors. These strategies can carry additional risks, complexity and difficulty accessing; accordingly, implementation via hedge funds offers a managed approach.

We are in the early stages of the next generation for alternatives

Within equities, the high degree of dispersion and volatility in the biotechnology industry amid rapid innovation may provide ample opportunities for specialist stock pickers to generate returns from both long and short investments.

In addition, geopolitical tensions and flashpoints look set to persist in the years ahead, stoking market volatility along the way. Rather than sitting on excess cash, global multi-asset class diversification may help investors endure such turbulence. Specifically, diversifying hedge fund strategies could be of assistance here. With many such strategies available, we explore how to gain exposure to a variety of them via a single multi-strategy hedge fund that seeks consistent returns across market cycles. Given the large variety of diversifying strategies available, in **broadening portfolios with hedge funds** we dig into the benefits and risks of multi-strategy hedge funds to build portfolios that seek to be less impacted by market swings.

SEEKING YIELD – PRIVATE CREDIT

Private credit has experienced substantial growth in popularity in recent years. As a result, we have now started publishing a Strategic Return Estimate for this sub-asset class. At 7.6%, our SRE for private credit is higher than for the SREs for the three fixed income asset classes in our asset allocation framework – **figure 2**. So, a qualified investor seeking yield enhancement might consider private credit. This might be accomplished via a drawdown structure or an evergreen fund, where many private credit options exist. Of course, higher return potential comes with greater risks than the fixed income asset classes, including less liquidity and longer investment periods. We consider both the potential opportunities and risks in **Momentum and normality return to private markets**.

THE ROAD TO RECOVERY IN PRIVATE EQUITY AND REAL ESTATE

Our Strategic Return Estimates for private equity and real estate are the highest for the asset classes covered by our methodology at 13.5% and 10.8%, respectively.

In 2025, new deal and exit activity in private equity and real estate seem poised to normalize further. Buyers and sellers are beginning to find common ground on pricing with credit markets normalizing and M&A and IPO markets starting to recover in the U.S. and Europe. In 2024, there were 205 IPOs in the Americas totaling $33.1 billion in proceeds, with 446 IPOs in Europe totaling $32.5 billion. These were significant increases over the same period in 2023.[3] There are also indications that the real estate investment cycle began the road to recovery in late 2024, though still in early stages. Steadier interest rates and a positive outlook for economic growth are helpful for these asset classes.

Nevertheless, pitfalls may await investors in 2025. Economic, regulatory and trade uncertainties may slow or pause the overall downward momentum of interest rates. There are also many idiosyncratic risks to consider with each strategy within these asset classes.

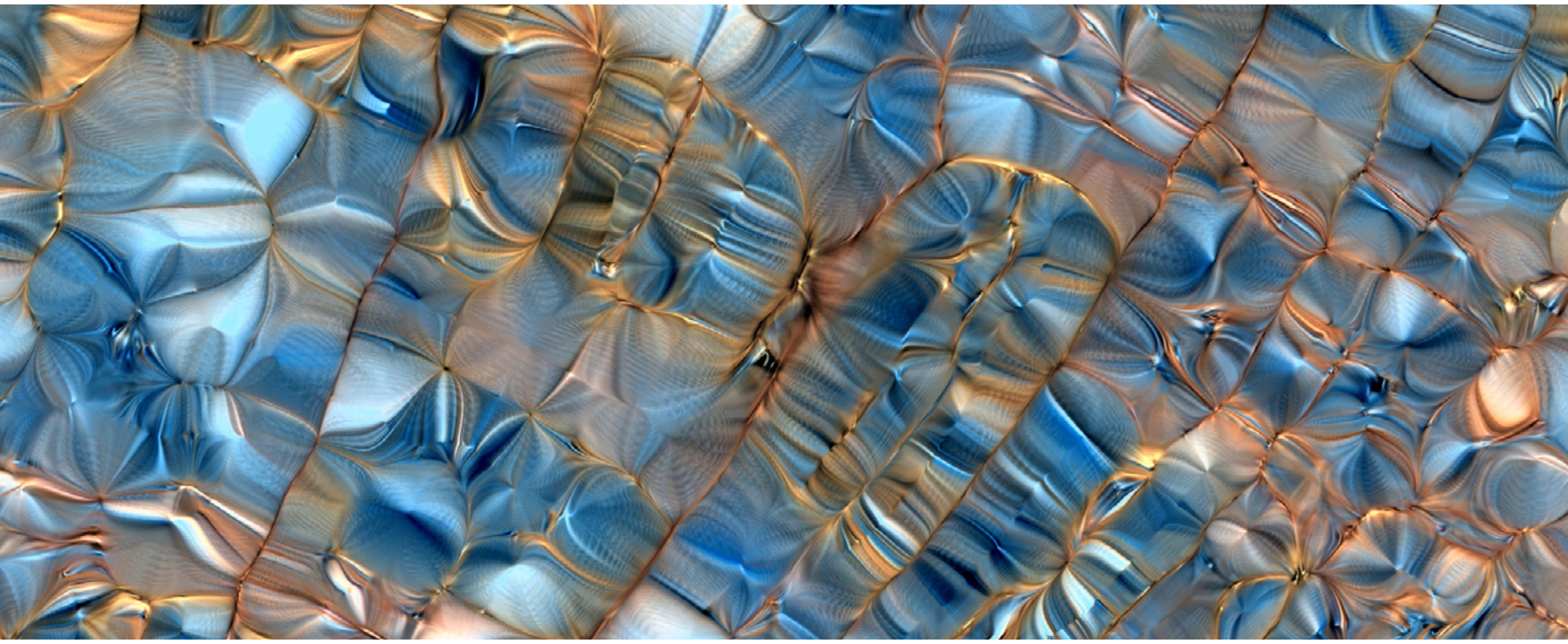
BROADENING PORTFOLIO HORIZONS

Citi Wealth's Office of the Chief Investment Strategist expects 2025 to not only be characterized by ongoing economic growth but also by geopolitical discord. With valuations high in U.S. large-cap equities, we make the case for broadening portfolio horizons, i.e., allocating to all the asset classes envisaged in each investor's long-term plan – see **staying the course: broadening portfolio horizons** in **Wealth Outlook 2025**. For those who are suitable and qualified, this may include private equity, private credit, real estate and hedge funds.

Historically, illiquid alternative asset classes have been challenging for investors to enter and stay invested within. However, evergreen funds are seeking to change this and may aid investors seeking to be fully invested over time.

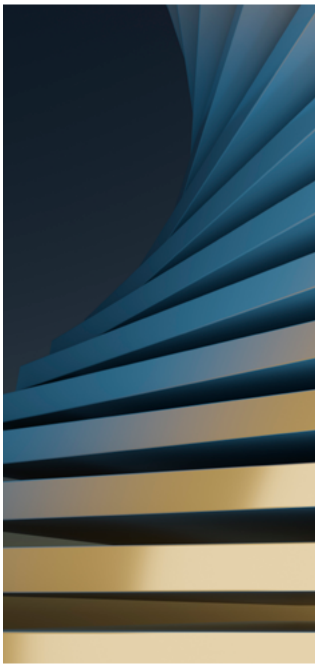
New deal and exit activity seem poised to normalize further

[3] EY Global IPO Trends Q4 2024.



the case for combining evergreen and drawdown funds

Evergreen funds can be integrated with drawdown funds for suitable qualified investors seeking to build and maintain private market allocations



key takeaways

- → Evergreen funds can broaden access to private assets, provide instant exposure, simplify compounding and potentially enhance liquidity
- → However, access via drawdown funds[4] offers more targeted manager selection, higher return targets and wider diversification potential
- → We believe a fully invested allocation to private markets is critical to seeking long-term compound returns
- → An appropriate portfolio mix of evergreen and drawdown funds will vary from investor to investor
- → The inherent illiquidity and risks of the underlying assets keeps the overall risk profile similar to drawdown funds

[4] Drawdown funds are the traditional and still predominant way of accessing private assets via funds.

For all its potential advantages, investing in private markets has traditionally proved challenging. Those wishing to allocate to private equity, private credit, real estate and infrastructure have had to pass stringent suitability tests, commit large minimum amounts during a narrow window, and tie up their capital for many years. And having made an investment in a strategy, they have had to wait some years for the manager to invest it fully in potential opportunities. Now, though, a new variety of investment vehicle is helping to address these and other issues.

WHAT ARE EVERGREEN FUNDS?

"Evergreen funds" are funds created by private asset managers, which are also known as "perpetual" or "open-ended" funds, and among other things – do not have a predetermined end date where capital and any profits are returned to shareholders. Instead, they continually raise and invest new capital, with investors able to enter and exit more often than with the drawdown funds that have dominated private investing over time. The introduction of evergreen funds as an access vehicle for private investments has the potential to transform how illiquid alternatives are integrated into portfolios and enable access for more investors into the private markets.

Evergreen funds are a vehicle for investing in existing private asset classes, rather than being a new private asset class. Despite structural differences with drawdown funds, they do not fundamentally alter the risk and return characteristics of the underlying private equity, private credit, real estate and infrastructure strategies. Each investor should work with their financial advisor to evaluate whether an allocation to these asset classes might be suitable for them.

The evergreen structure means that these funds can keep accepting new investors, stay invested for longer and reinvest the returns they make, facilitating increased potential for attractive compound returns. They also typically offer a periodic – albeit limited – liquidity mechanism to allow investors to add to or reduce their holdings and are often registered with the SEC and have lower investment minimums, thus enabling greater investor access compared to traditional private funds.

FIGURE 1

evergreen funds seek to bridge the gap between private capital and liquid mutual funds

	Liquid funds (mutual funds, etc)	Evergreen funds	Traditional private capital (drawdown funds)
AVAILABLE PRIVATE STRATEGIES	Limited	All	All
STRUCTURE/ TERM	Open-ended/Perpetual	Open-ended/Perpetual	Closed-ended/Fixed life
PRICING	Market pricing	At the underlying net asset value, as reported by the fund	N/A – investors commit to blind pool funds prior to investing
INVESTMENT PERIOD	Fully invested upon purchase at market price	Fully invested on closing date at NAV	Investor commitments drawn and invested over 3–5 years
LIQUIDITY	Daily at a market price	Periodic (monthly or quarterly) via redemptions or tender offers	Illiquid for investors
PERFORMANCE REPORTING	Daily	Monthly	Quarterly

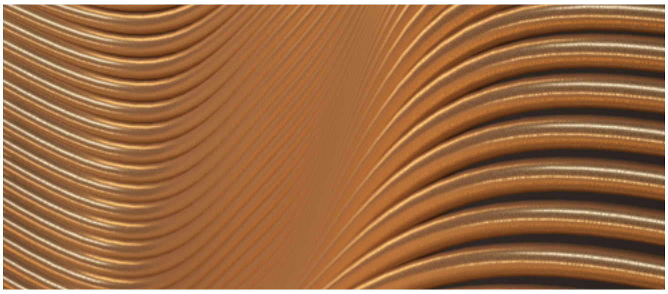
Source: Citi Wealth Alternatives and Investment Manager Solutions, as of Jan 2025. For illustrative purposes only.

WHAT TYPES OF EVERGREEN FUNDS ARE THERE?

Evergreen funds have already proliferated within private credit and real estate. However, managers have also expanded evergreen offerings to private equity, infrastructure, secondaries, fund of funds and co-investments. That said, the widest selection of focused strategies in these areas is still via traditional drawdown funds.

BROADENING ACCESS: LOWER MINIMUM INVESTMENTS AND REGISTERED FUNDS

One of the main ways that evergreen funds are “democratizing” the alternatives landscape is via lower investment minimums. Some will accept investments from $10,000 to $25,000, compared to the $5m to $10m often demanded by drawdown funds or $250,000 for feeder funds and fund of funds.



Historically, most private assets firms did not register their funds with the U.S. Securities and Exchange Commission (SEC). Consequently, drawdown funds were only available to institutions and individuals with an investable net worth above $5 million. Today, managers wishing to broaden their reach to more potential investors are choosing to register their evergreen funds with the SEC.

Registration creates additional regulatory burdens as to how the fund is managed. However, it can also relax some of the investor qualifications requirements, such as minimum net worth. Importantly, not all evergreen funds are registered funds, and some continue to be limited to higher net worth investors. Also, being legally qualified to invest in a strategy is not the same as being suitable. And there are many other considerations before investing in an evergreen fund.

LIQUIDITY MECHANISMS: TENDER OFFER FUNDS AND INTERVAL FUNDS

With drawdown funds, one of the challenges for private assets investors is illiquidity. For investors needing to exit a strategy before the end of its life, it may be necessary to accept a much lower price than they paid. In many cases, there is no secondary market. And where there is one, it can be difficult to navigate.

By contrast, evergreen funds typically offer some form of periodic liquidity/redemption mechanism. This means existing investors can potentially resell their interest to the fund at net asset value (NAV), subject to legal limitations. This liquidity mechanism can enable investors to rebalance their private markets portfolios dynamically over time. It is important to note that if a fund receives redemption requests that exceed the capacity available for a given period, an investor may not be able to liquidate 100% of their desired redemption amount on that date.

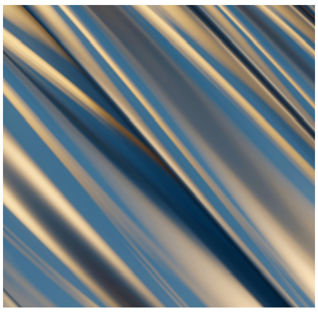
Evergreen funds are usually classified as either tender offer funds or interval funds, based upon the terms of their liquidity mechanism. For interval funds, repurchases are set at a predetermined amount and frequency – quarterly, half-yearly or yearly. The fund is required to meet the redemption terms of the fund with very few safe harbor provisions. Tender offer funds similarly set a target frequency and amount of redemptions, but the actual repurchases are at the discretion of the fund’s board of directors. This means that the board can consider the liquidity position of the fund to determine if a redemption is in the best long-term interests of the fund. This helps mitigate the risk that a fund must engage in forced asset sales of illiquid holdings and protects the remaining investors of the fund.

SIMPLER PORTFOLIO MANAGEMENT AND MORE POTENTIAL COMPOUNDING

With drawdown funds, managers deploy investors' capital over time as they search for potential opportunities. So, investors seeking private equity exposure via such a fund may take up to five years before 90–100% of their capital is at work. With evergreen funds, however, investors' capital is put to work from day one, as they are buying into an already largely invested portfolio. Nevertheless, such funds typically maintain 8–12% of their total assets in cash and other highly liquid securities to manage the ongoing cash obligations of the fund.

For investors, the evergreen setup makes a difference. Rather than having to allocate their capital over time to reach and maintain their desired level of exposure to private assets, this responsibility is effectively "outsourced" to the fund's managers. As a result, their private capital exposure is more stable over time.

Institutions and high-net-worth individual investors build and maintain alternatives portfolios via systematic commitment and actively manage capital calls and reinvestment of distributions. This structured approach aims to enable highly customized selection of potential opportunities every year across target themes and sectors. However, it demands time and resources that not every investor is willing or able to undertake. So, having a mix of evergreen and drawdown funds may provide a way to build and maintain a fully invested allocation.



For investors, the evergreen setup makes a difference

MIXING EVERGREEN AND DRAWDOWN FUNDS FOR STRATEGIC ASSET ALLOCATION

Combining evergreen and drawdown funds can help investors build and adjust their portfolio's long-term or strategic weightings to private assets.

For a suitable and qualified investor looking to build their private assets allocation from zero, they might focus 100% on evergreen funds initially. However, an existing investor in these asset classes may wish to continue to focus on drawdown funds, while using evergreen funds to tactically adjust their portfolio. Examples of balancing evergreen and drawdown funds strategically:

- **Evergreen focused** – The whole private capital allocation might be invested in evergreen funds with the option of adding drawdown funds over time. This can help accelerate implementation and potentially simplify portfolio management. Investors might still pursue some customization by building most of their private assets exposure with evergreen funds while making a few annual commitments to individual drawdown fund offerings with the rest.

- **Drawdown focused** – In this case, most of a private asset allocation is invested in a diversified portfolio of drawdown funds with the balance in evergreen funds. This approach may suit those who already have been invested in private markets for some time and wish to maintain a high degree of portfolio customization. Evergreen funds can be used for tactically rebalancing the size of their alternatives allocation within their overall portfolios by periodically buying or redeeming evergreen funds. This helps in remaining fully invested with the ability to sell down evergreen funds as capital calls occur in a drawdown portfolio.

Further portfolio customization can also be sought via mixing evergreen and drawdown funds.

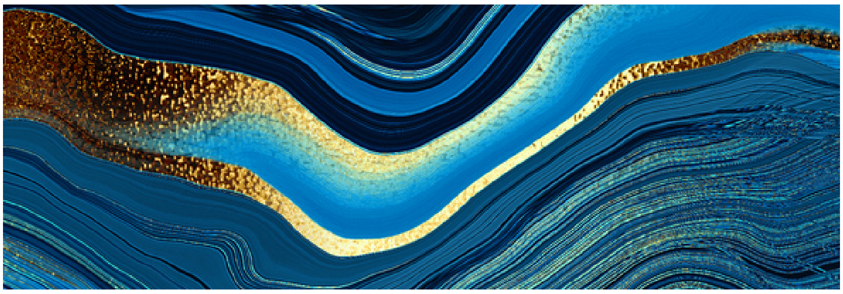
- **Strategy/diversification enhancement** – Investors who may already be focused on certain private asset classes may wish to add diversification across others. For example, an investor may have an existing allocation to private equity but wishes to add private credit and/or infrastructure. They might do this via evergreen funds while focusing most of their individual time on individual private equity drawdown funds.

- **Cash management** – A major challenge for investors when building or maintaining a portfolio of drawdown funds is cash management. In preparation for meeting drawdown funds' capital calls over several years, investors often keep their unfunded commitments in low-yielding cash accounts. Instead, though, they might invest some of this capital in evergreen funds and then use periodic redemptions to meet capital calls from their drawdown funds. Of course, it must be recalled that evergreen funds' fees are higher than most cash management accounts and that redemptions may be subject to significant restrictions.

Further portfolio customization can also be sought via mixing evergreen and drawdown funds

Distributions from funds could also potentially be redeployed into evergreen funds awaiting a subsequent drawdown fund deployment. However, this can be risky, as it requires active engagement and monitoring by an investor since drawdown fund cash flows are often unpredictable.

A suitable mix of evergreen and traditional private capital funds in a portfolio ultimately depends on an investor's individual risk and liquidity profile. However, the differences in structure between evergreen funds and traditional drawdown funds may increase their portfolio management flexibility.



THE POWER OF BEING FULLY INVESTED

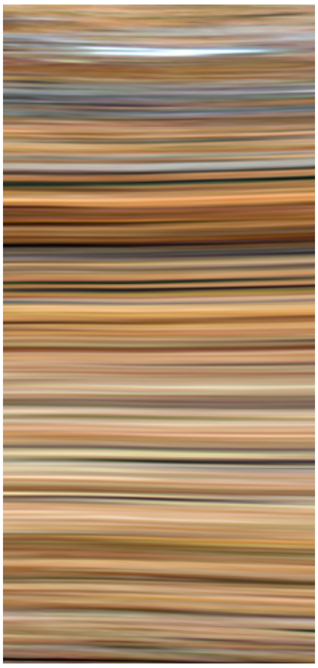
Over time, we observe that investors who have stayed the course with a core portfolio – a globally diversified mix of assets that is fully invested throughout market cycles – have been more likely to reach their wealth goals than those who have not. With private asset classes, this can be somewhat easier said than done, of course, owing to the inherent profile of drawdown funds. Staying fully invested requires a disciplined commitment program involving many funds over many vintage years.

Since evergreen funds seek to stay nearly fully invested over time, they can help in pursuing compound returns across private equity, real estate, infrastructure and private credit. For investors who wish to save the time and complexity required to manage a commitment program, evergreen funds may prove a useful tool.

Given the flexibility that evergreen funds offer to investors, the outlook for the growth of this structure in private assets is good in 2025 and beyond. While drawdown funds will continue to be the dominant vehicle for private managers and investors, evergreen funds have the potential to broaden access and fill funding gaps that are just not possible with drawdown funds.

broadening portfolios with hedge funds

Allocating to hedge funds can often enable suitable and qualified investors diversification beyond equities and fixed income



key takeaways

- → Fixed income allocations can be complemented via credit hedge fund strategies
- → Multi-strategy hedge funds seek consistent returns across cycles by pursuing low correlations with public equity and bond markets
- → Specialist hedge fund managers may be more equipped to address biotechnology's complexity and dispersion
- → The potential returns from hedge funds entail taking on additional risks, which may be unfamiliar

In **Wealth Outlook 2025**, the case was not only made for broadening portfolios in preparation for potential growth but also for the risks of a discordant world. Hedge funds can help on both fronts, as recent capital flows have indicated investors' beliefs on risk and reward. Hedge fund assets under management rose for the fourth consecutive quarter to a new record high of $4.46 trillion in Q3 2024.

We focus here on three categories of hedge funds that may help navigate this environment. Credit-focused hedge funds seek higher yields than may be available in liquid bond markets. Multi-strategy hedge funds are an effective tool used to diversify portfolios and potentially generate consistent returns across cycles. And, we also believe that specialist biotechnology strategies can provide access to potential opportunities within equities that seek to profit from being both long and short.

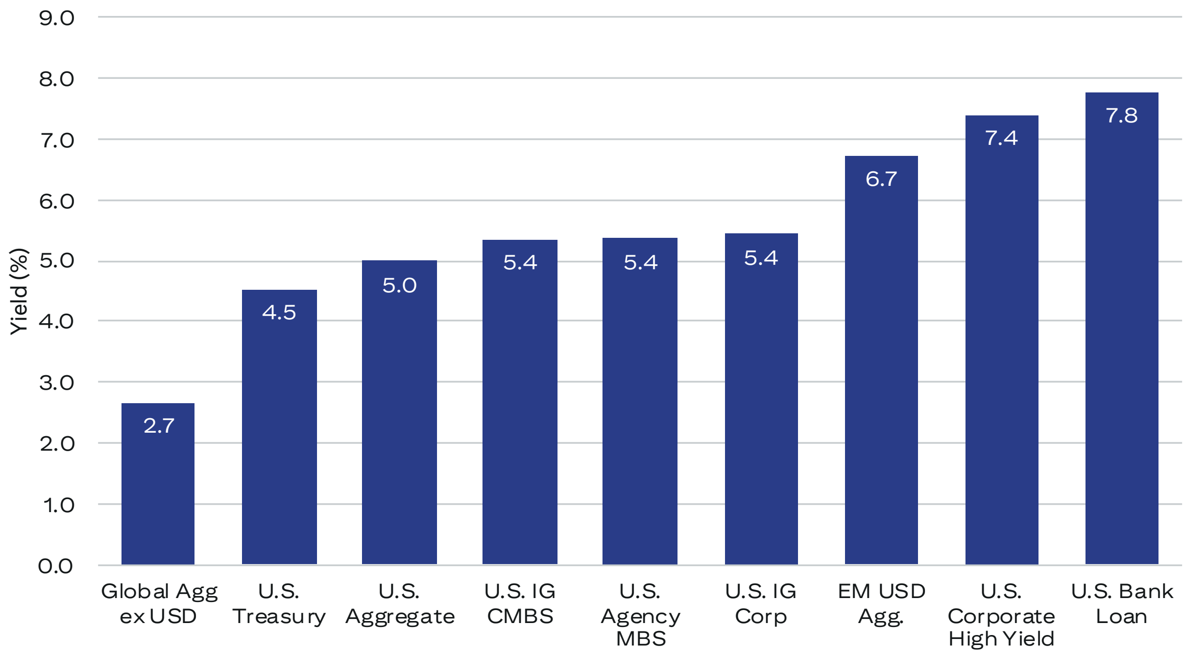
HEDGE FUND CREDIT FOR YIELD

Many investors hold narrower fixed income allocations than their long-term investment plans envisage. We frequently see portfolios that hold only U.S. Treasuries within fixed income. In 2025, we expect further but limited Fed interest rate cuts amid uncertainty over the incoming Trump administration's tax and spending plans. In this environment, we see a case for seeking fixed income yield in all areas for which an investor is suitable. These may include investment grade and high-yield corporate, structured credit and bank loans – **figure 1**.

For investors who understand and are comfortable with the complexity and other risks, we see further possibilities among hedge fund credit strategies targeting specific segments and profiles within high-yield, syndicated bank loans and structured credit products.

FIGURE 1

yields on various fixed income assets



Source: Bloomberg, as of Jan 7, 2024. Indices cited: Bloomberg Global Aggregate Fixed Income ex USD Index, Bloomberg US Treasury Index, Bloomberg US Agg index, Bloomberg US Investment Grade CMBS Index, Bloomberg US MBS Index, Bloomberg U.S. Investment Grade Corporate Index, Bloomberg Emerging Markets USD Aggregate Index, Bloomberg US Corporate High Yield Index, Morningstar LTSA US Leverage Loan 100 Index. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. **Past performance is no guarantee of future results. Real results may vary.** See Glossary for definitions.

By accessing credit markets via a quarterly liquidity structure, credit hedge fund managers can take higher conviction position sizes and focus on more complex, less liquid credits where they identify potentially higher yields and total returns. At times they can also pursue illiquid private credit and distressed opportunities, which are much less available via traditional fixed income markets. For those who can take on more risk, the ability to dynamically reposition between credit markets can be a key differentiator in positioning a fixed income portfolio in a period of some potential political and economic uncertainty. The tradeoff for accessing potentially higher yielding strategies is reduced liquidity for investors combined with additional credit risk.

One growing opportunity set is within regulatory capital relief transactions. Regulatory capital transactions have been a consistent tool for UK and European banks over the last fifteen years, though participation among U.S. banks has increased following the regional banking crisis and updated guidance from the Federal Reserve Board in 2023 – **figures 2 and 3**. In this area, banks seek to free up capital held for regulatory requirements by sharing risk on core lending portfolios with strategic alternative credit firms. The credit funds providing this capital seek to generate a premium yield on underlying collateral that is rated investment grade on average. These transactions are partnerships in which the terms and collateral are negotiated, with the bank retaining the assets on its balance sheet and the ongoing servicing requirements. Historically, losses for corporate loans retained on bank balance sheets have been below that of investment grade corporate bonds. However, these transactions are typically 3–5 years and require capital to be locked up; a credit fund is providing junior capital which is first in line to share in losses should they occur.

FIGURE 2

total notional issuance, by source

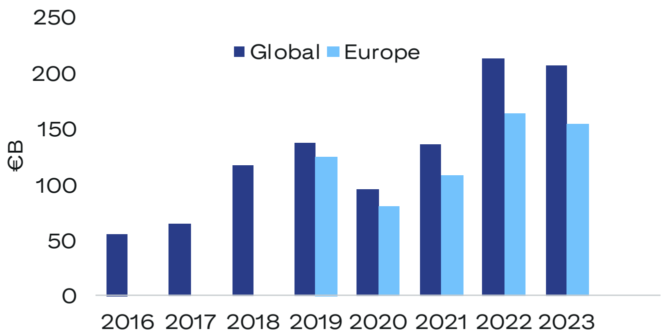
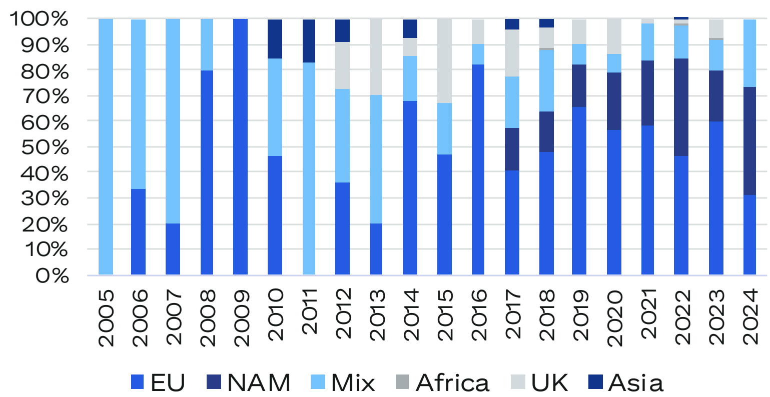


FIGURE 3

deal count

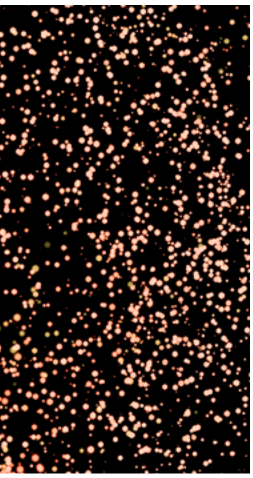


Source: Citi Research, Bloomberg, Structured Credit Investor (SCI), European Central Bank (ECB)/European Systemic Risk Board (ESRB), International Association of Credit Portfolio Managers (IACPM) via Citi Research SRT (Synthetic Risk Transfer) Mid-Year Outlook, as of Jul 25, 2024. Figure 2 visualizes the growth in the notional Euro volume of issuances of synthetic securitizations, globally as reported by IACPM and in Europe as reported by ESRB. Figure 3 illustrates the geographical distribution by country of synthetic securitizations, as reported by SCI.

MULTI-STRATEGY HEDGE FUNDS TO POSITION FOR UNCERTAINTY

Amid elevated uncertainty and volatile markets, some hedge fund strategy types have tended to hold up better and even take advantage. Their low correlations with many other asset classes have thus enabled them to complement portfolios of equities and fixed income. These "diversifying" strategies – as we call them – include relative value, equity market neutral, arbitrage and global macro. While these strategies can be found as single strategy funds, each approach will have environments that are more and less favorable. So, utilizing various types of exposures when constructing a diversifying alternatives allocation should be a consideration.

We see a case for multi-strategy hedge funds that combine uncorrelated strategies in a vehicle that offers diversification and centralized risk management oversight. Individually, these strategies have low correlation to equities and bonds. If combined in a multi-strategy fund, one can target diversification, consistency of returns and potential downside mitigation in periods of market stress through a ready-made allocation across diversifying strategies. What's more, multi-strategy funds can seek to improve risk-adjusted returns and diversification by incorporating new strategies. This ability may help them seek returns in a wider range of scenarios, with capital shifting between strategies according to the market environment.



Investors from institutions to suitable and qualified private clients have recognized the benefit of adding multi-strategy hedge funds to portfolios. According to Q3 2024 data from HFR data, multi-strategy funds had the highest net flows in recent quarters and account for the largest portion of assets amongst the $4.5 trillion in hedge fund industry assets.

Multi-strategy hedge funds take two broad approaches: systematic and multi-PM (Portfolio Manager). Both seek to generate consistent returns across market cycles with reduced volatility and low correlation to traditional markets. However, each has nuances that might make one approach more suitable for different investors.

- Systematic strategies quantitatively analyze and model tens of thousands of data points across markets in search of potential market inefficiencies and risks. These strategies typically use a combination of fundamental, technical, and alternative data sources to identify investment opportunities. These funds do not typically have pass-through fees used to compensate large investment teams, and as such tend to have a lower cost and fee profile than a similar sized multi-PM fund. Systematic funds also tend to be less risk constrained than multi-PM funds, and therefore exhibit higher volatility.

- Multi-PM funds employ multiple in-house portfolio managers who operate independently within different strategies, geographies, and asset classes, with the goal of building a diversified exposure to target uncorrelated returns across market cycles. Structurally, these funds provide the teams with oversight, risk management, research, data, and trading resources that enable them to generate alpha. Given that multi-PM funds tend to have higher fee and cost structures, being bigger can be advantageous. Larger entities can spread costs more easily, run more strategies and attract talent. The largest funds have historically outperformed their smaller counterparts. Multi-PM funds tend to value capital stability as another means to attract and retain talented portfolio managers, so they are more inflexible in redemption terms than systematic strategies.

UNSTOPPABLE TRENDS: BIOTECHNOLOGY EQUITY HEDGE FUNDS

Rapid aging of the global population and innovation are powerful forces driving the healthcare industry. As people age, their need for healthcare rises. Innovation is key to finding treatments to help keep them healthy and address ailments. We see aging and healthcare innovation as part of an unstoppable trend, to which we seek portfolio exposure.

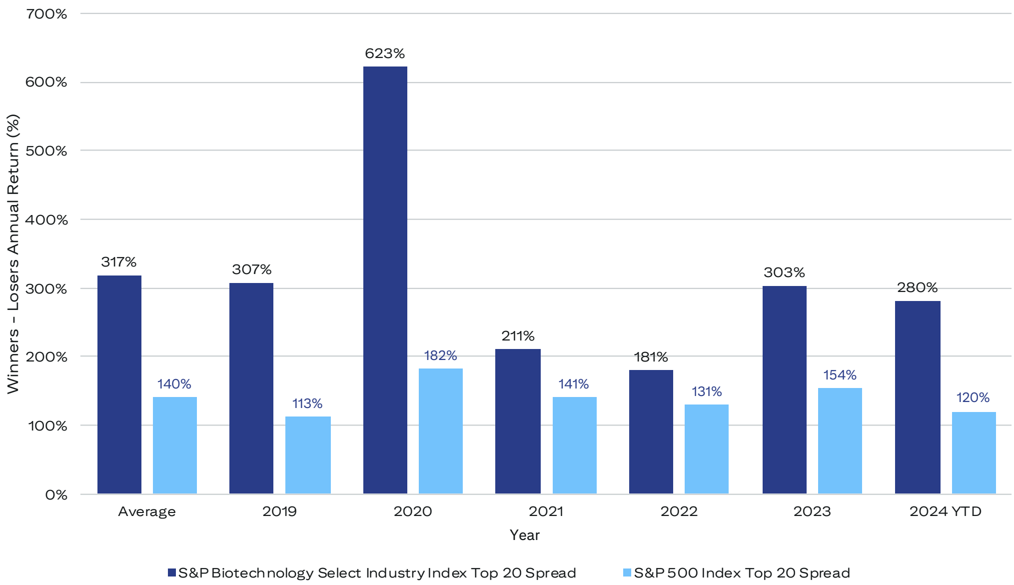
The biotechnology industry is at the cutting edge of healthcare innovation. However, investing in publicly traded biotech companies is a challenging proposition for investors, as only about 20% of them are profitable. For comparison, if we look at companies across all sectors in the Russell 2000 and S&P 500 indices, the figures are around 60% and 100%, respectively.

Biotech companies tend to have a set of drugs under development rather than revenue generating therapeutics. Therefore, the market often values the sector based on the perceived probabilities of drugs gaining regulatory approval rather than on current earnings. Drug development is risky and expensive. Some 90% of drugs under development fail and it costs $800 million to $2.3 billion to develop a drug. However, the upside is also significant for scientific breakthroughs that improve longevity. The technical complexity of evaluating the viability of a drug or treatment and its commercial opportunity may be best handled market by specialists in the biotechnology industry. And this dispersion between potential winners and losers provides opportunities for hedge funds, specifically, to seek returns and generate alpha.

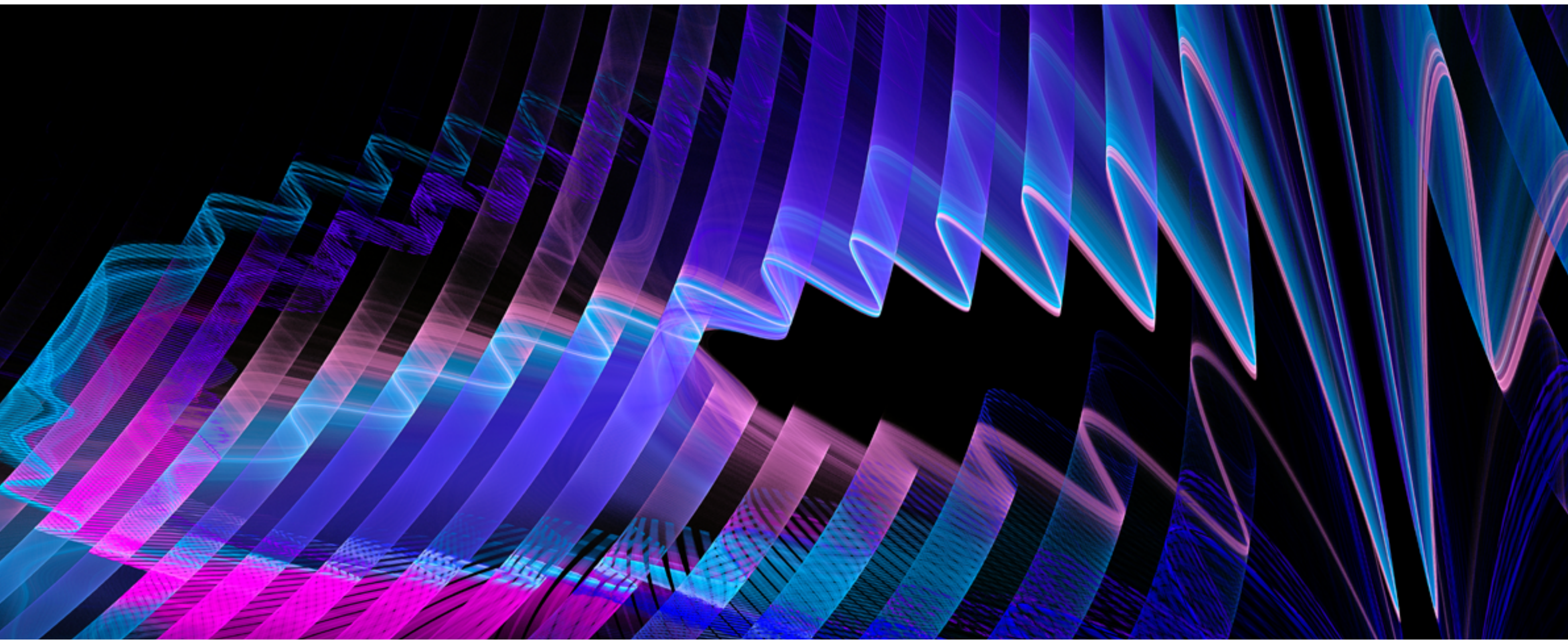
The S&P Biotechnology Select Industry Index has historically had significant dispersion between winners and losers. Since 2019, the top twenty biotech equities have outperformed the bottom twenty by an average of 317% annually. In the S&P 500, by comparison, the top twenty equities have outperformed the bottom twenty by only 142% annually – **figure 4**. By nature, biotechnology equities are more volatile. They frequently see one-day moves greater than 10% following a positive or negative pipeline announcement.

FIGURE 4

annual spread between top 20 winners and top 20 losers for S&P biotech index vs. S&P 500

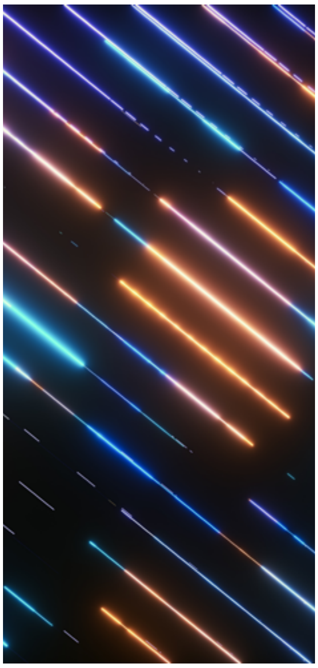


Source: FactSet, as of Sep 30, 2024. The spread is calculated by taking the average annual return of the winners and subtracting the average annual return of the losers in the S&P 500 Index and the S&P Biotechnology Select Industry Index. 2024 YTD is through the third quarter. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. **Past performance is no guarantee of future results. Real results may vary.** See Glossary for definitions.



momentum and normality returning to private markets

Private asset classes may offer potential portfolio benefits for suitable and qualified investors prepared to accept the risks



key takeaways

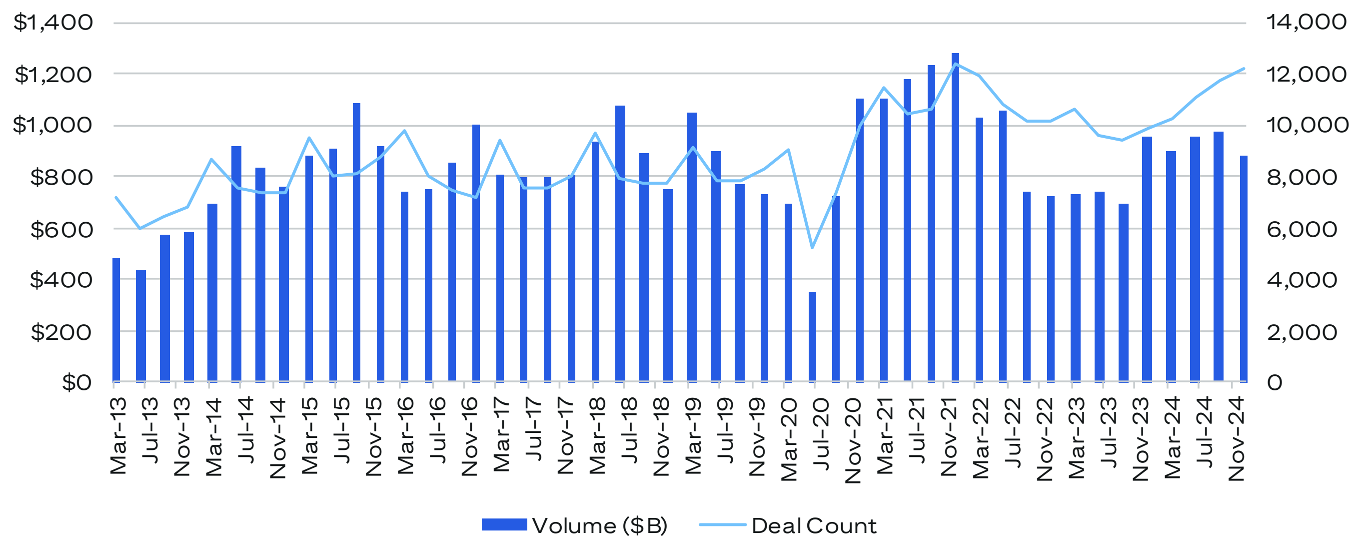
- → Private assets may see a continuing resurgence in activity in 2025
- → GP-led secondaries could help ease the backlog of deals waiting to be done
- → The next generation of potential AI and biotechnology leaders is being incubated and developed in the venture capital, growth and private equity ecosystem
- → In real estate, we are optimistic that the overall trough in valuations is behind us, with scope for more deal activity over the coming year
- → With short-term rates having receded, seeking enhanced yield sources such as private credit becomes more appealing

In 2024, the global economy continued its return to normality following the massive disruption of the pandemic era and the outbreak of the Russia-Ukraine war. Private market dealmaking also showed some signs of returning to its former levels, although there is still far to go. While privately owned companies are in a healthy state overall, there is still a wide gap between the price that those who want to sell such companies are willing to accept and what potential buyers are willing to pay.

Having dipped to a 10-year low in 2023 of approximately $3.1 trillion, global mergers and acquisitions (M&A) activity is rebounding. Deal volumes hit $3.7 trillion in 2024, growing 19% year-over-year.[5] Growing confidence in the economic outlook, a slight reduction in U.S. and European interest rates, public equity market strength, and a pickup in the syndicated loan market all helped.

FIGURE 1

dealmaking volumes rose in 2024



Source: Bloomberg, as of Dec 31, 2024

[5] Bloomberg, as of December 31, 2024.

FIGURE 2

trailing six-month U.S. leveraged loan issuance for LBOs ($bn)

Source: Pitchbook, as of Dec 31, 2024.

For year December 31 2024, global leveraged loan volume was $773.3 billion, up 104% over 2023. Importantly, private equity (PE) buyout managers are accessing this market – **figure 2** – where we can see a meaningful upward trend in U.S. leveraged loan issuances for leveraged buyouts.

Lastly, IPO markets in the Americas and Europe saw a resurgence in 2024. In 2024, there were 205 IPOs in the Americas totaling $33.1 billion in proceeds, with 446 IPOs in Europe totaling $32.5 billion. These were significant increases over 2023. PE and venture capital backed IPOs made up six of the top 10 leading global IPOs, representing some 33% of global IPO proceeds. These IPOs accounted for 52% of the total proceeds in the Americas.[6]

In all, these market factors provide some confidence that private markets are poised for a continuing comeback in activity in 2025. There is widespread acceptance that interest rates will not be returning to the deal-friendly near-zero levels that prevailed between 2008 and 2021. Instead, we believe that stable but moderate interest rates alongside more consistent economic growth are likely to encourage buyers and sellers to find common ground over pricing. And the risks of an unsustainable, debt-fueled frenzy of dealmaking seem low.

PRIVATE EQUITY

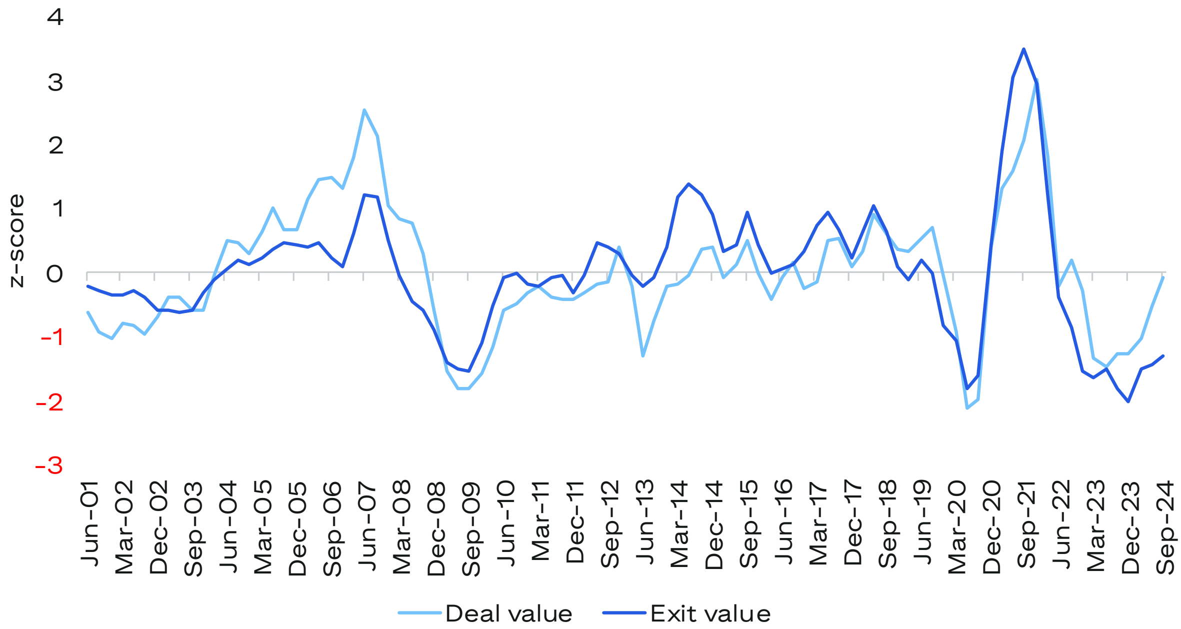
Amid greater confidence in the outlook for growth and interest rates, private equity dealmaking began recovering in 2024. U.S. private equity acquisitions rose 24% in value and 12% by deal count, year-over-year through the third quarter of the year. Exit value rebounded 50.5% year-over-year, although this was concentrated in larger deals, as managers brought their highest quality assets to market first.[7] This trend can be seen by tracking deals and exits relative to their long-term trends – **figure 3**. Both deals and exits are converging towards their long-term trend lines, although deal activity began its rebound two quarters earlier than exits in 2024.

[6] EY Global IPO Trends Q4 2024.

[7] Pitchbook, as of Sep 30, 2024.

FIGURE 3

U.S. PE buyout deal and exit values returning towards long-term trend



Source: Pitchbook, as of Sep 30, 2024. Trailing quarterly six-month U.S. PE buyout deal and exit values relative to the long-term trend, as measured by the Z-score. The z-score is a statistical measure that captures how many standard deviations a number is above or below its average.

SECONDARIES CAN FILL THE LIQUIDITY VOID

Despite the pickup in exit activity, the private equity industry has much catching up to do and investors' patience is not unlimited. The secondaries PE market is seeking to fill the void. Secondaries investors are able to potentially buy into mature portfolios at a discount to net asset value. Secondaries funds can either acquire fund interests from cash-strapped limited partners ("LP-led" secondaries) or invest in special purpose vehicles acquiring ownership interests in one or more portfolio companies in coordination with managers to provide liquidity to their aging funds ("GP-led" secondaries, or "continuation funds").

Secondaries transaction volume hit $162 billion in 2024. This was 45% above 2023's deal volume and surpassed 2021's record volume of $132 billion, a peak year for exits. GP-led transactions represented approximately half of total volume. Continuation funds represented 11% of all sponsor exit activity in 2023, a tough year for distributions.[8] This continued increase demonstrates the "all-weather" potential of GP-led transactions, which have become important to managers seeking to maximize company outcomes while being responsive to investor liquidity needs.

BUYOUTS IN THE NEW NORMAL

Between the Global Financial Crisis and Covid, buyout firms were able to perform well, on average, in an environment of near-zero interest rates. The market environment expected in 2025 and beyond is one of more normalized base interest rates of 3–4.5%, which will put a premium on managers' ability to add value via operational improvements. Therefore, we believe managers with deep sector knowledge and operational capabilities may offer a potential opportunity. Their expertise is more likely to allow them to identify promising sub-sectors and companies, determine appropriate valuations, and implement strategies to accelerate growth and drive transformational change in portfolios.

[8] Jefferies Global Secondary Market Review, January 2025, as of December 31, 2024.

Without the tailwinds of abundant and cheap debt capital, managers' ability to perform by driving fundamental revenue growth and profitability improvement becomes the crucial differentiator to performance.

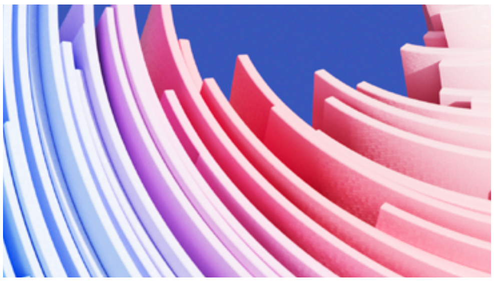
UNSTOPPABLE TRENDS: INVESTING IN AI AND BIOTECHNOLOGY VIA PRIVATE EQUITY

The unstoppable trends that we identify – powerful, long-term forces that are transforming the world around us – are intimately linked to innovation. Many of the companies at the forefront of innovation are not accessible via public markets. Instead, exposure may only be gained via private equity strategies such as venture capital and growth funds.

THE AI ADOPTION CYCLE

The buildout of artificial intelligence (AI) infrastructure leaped ahead in 2024. Billions of dollars have been gone into developing and deploying related technology and software. We believe this is set to continue. The International Data Corporation forecasts AI-related spending on hardware, software and services will rise from $232 billion in 2023 to over $632 billion by 2028, or compound annual growth of 29%.[9]

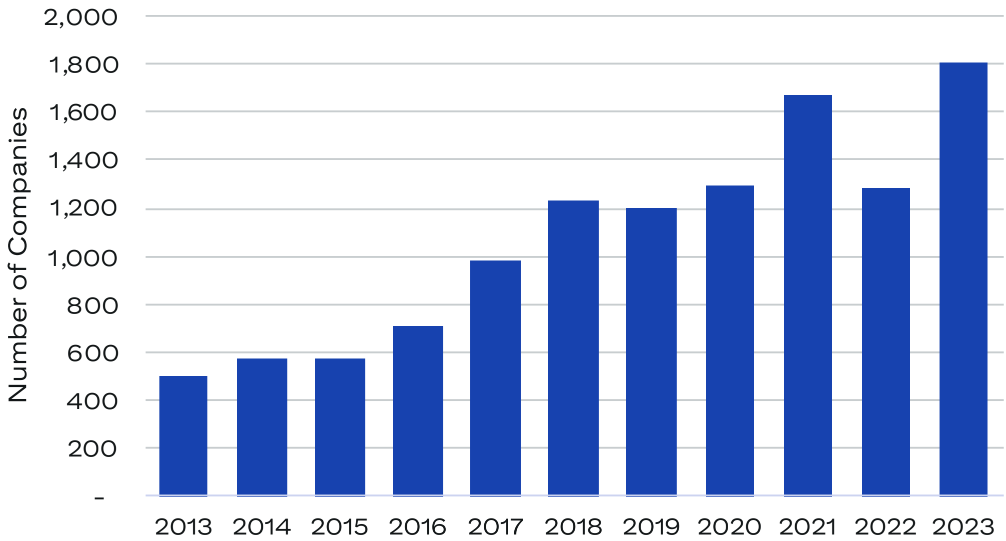
Much of the hardware spend is focused on large, public companies, and to date, the deepest participation in the needed infrastructure buildout by private capital managers is occurring in the digital infrastructure space, particularly data centers.



However, the next generation of potential AI leaders is being incubated and developed in the technology venture capital, growth, and private equity ecosystem. Private market strategies targeting next generation solutions in software and computing are a way for investors to seek early-stage exposure to this next phase of the digital age. While large-cap public technology companies might currently be enjoying strong investment performance, their valuations are quite elevated. Private strategies can seek technology and AI-driven returns at much smaller scale, albeit with potentially higher technology and adoption risks.

FIGURE 4

newly funded AI companies worldwide



Source: "The AI Index 2024 Annual Report," AI Index Steering Committee, Institute for Human-Centered AI, Stanford University, Stanford, CA, Apr 2024.

[9] IDC Worldwide AI and Generative AI Spending Guide – Forecast 2024, as of Aug 19, 2024.

The number of newly funded AI companies increased 40.6% in 2023 year-over-year to 1,812. This represented an 8.1% increase over the prior all-time high of 1,676 in 2021 – **figure 4**. The average size of investment in these new companies was $32.4 million. While large-cap public AI companies might currently be enjoying strong investment performance, their valuations are already quite elevated. Private strategies can seek AI-driven returns at a much smaller scale, albeit with potentially higher technology and adoption risks.

BIOTECHNOLOGY – THE INTERSECTION OF LONGEVITY AND INNOVATION

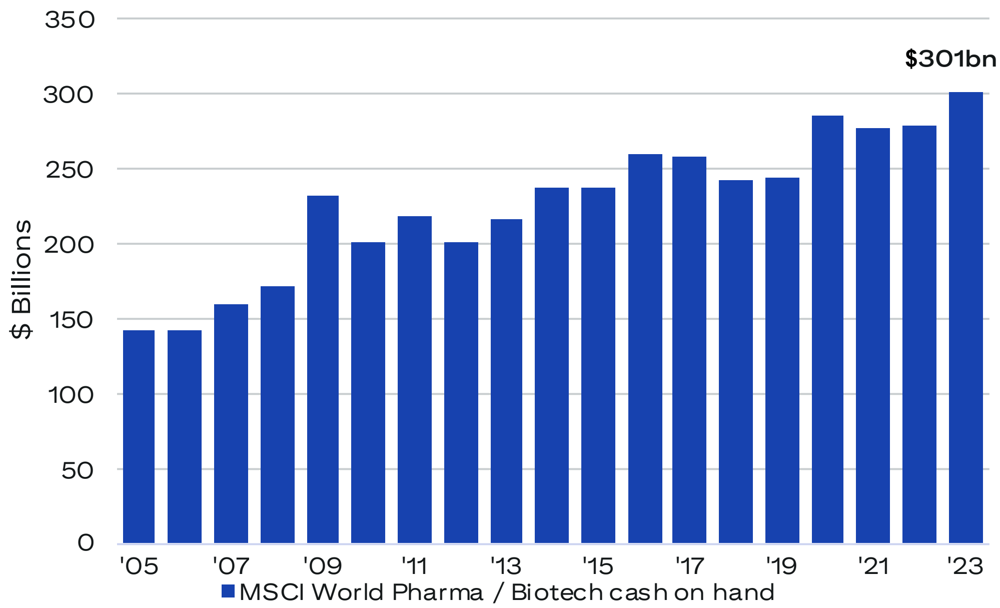
The biotechnology industry is driving significant innovation in healthcare. Such progress is coming thanks to the advancements in genetic research and molecular biology. We believe artificial intelligence may accelerate biotech's efforts further. The industry's growing influence in drug development has come at the expense of large pharmaceutical companies. Previously, big pharma did much of the research & development into new treatments themselves. These days, though, they tend to focus on commercializing products that have received regulatory approval. To replenish their product pipelines as patents expire, they often resort to buying up biotech firms. Over 190 drugs accounting for $236 billion in 2023 revenues are set for patent expiry by 2030.[10] Given their need to bolster their sales and profit margins, a wave of mergers & acquisitions seem likely to us.

A wave of mergers & acquisitions seem likely to us

In biotechnology, much of today's innovation is happening within smaller, privately held entities backed by private equity players. If their drug development efforts prove successful, these biotechs may be bought out by large, cash-rich pharmaceutical firms as illustrated by the cash on hand in the MSCI World Pharm/Biotech Index – **figure 5**. Of course, the risks of failure are high. We therefore seek out private equity managers who concentrate on clinical-stage biotechs – i.e., those whose products are being trialed on patients but are not yet approved – and that also address conditions where current treatments are insufficient.

FIGURE 5

large pharma has plenty of dry powder for dealmaking



Source: Bloomberg, as of Sep 30, 2024. Chart displays the aggregate cash balances reported by the companies in the MSCI World Pharma/Biotech index. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. **Past performance is no guarantee of future results. Real results may vary. See Glossary for definitions.**

[10] PharmaVoice, "How steep is pharma's patent cliff?", author Meagan Parrish, published Jun 14, 2023.

Given its growth potential, we seek long-term portfolio exposure to the biotechnology sector. Naturally, the businesses involved are typically complex. Clinical trial outcomes, regulatory intervention and drug price negotiations pose ongoing risks for investors. For these reasons, we prefer exposure via specialist private equity and hedge fund managers with an established record of clinical success and performance.

REAL ESTATE

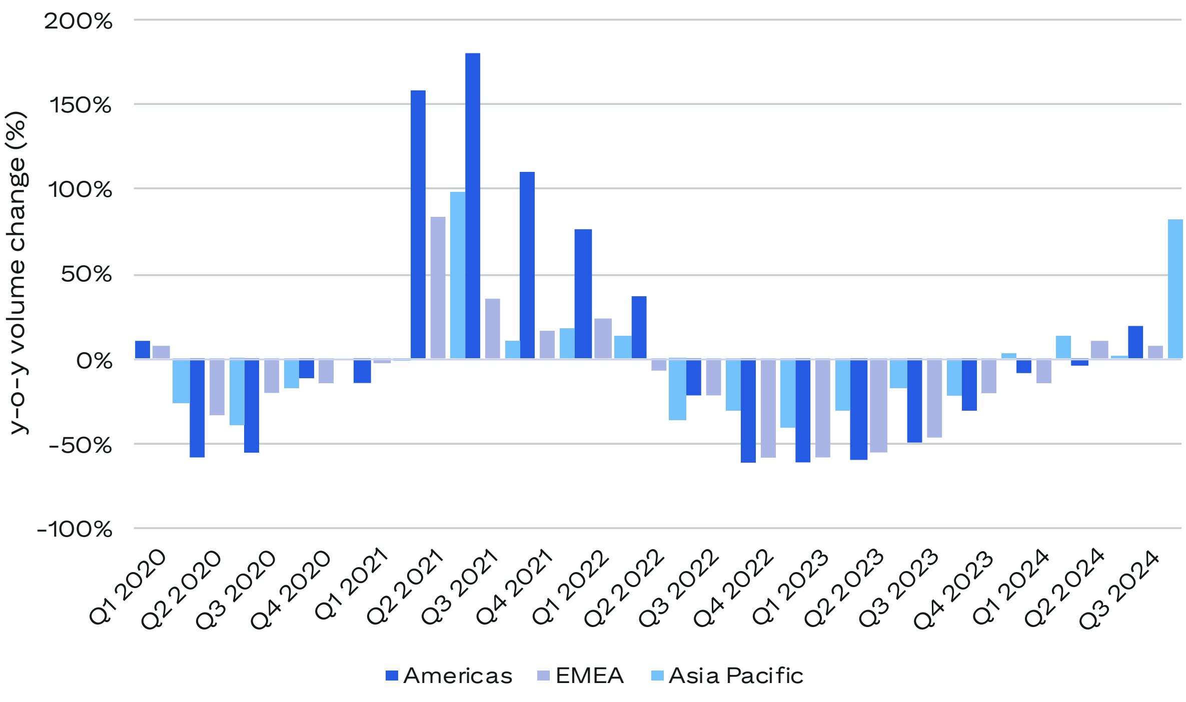
Elevated interest rates and tight credit conditions have held back real estate over the last couple of years. That is despite the sector's solid operating performance across most property types. So, U.S. property values dropped 22% from their recent peak during this period.[11]

However, easing inflation concerns and moderating long-term interest rates in the latter half of 2024 have brightened the outlook. Historically, lower interest rates tend to be positive for real estate equity, unless also accompanied by a sharp slowing of economic activity. Thus far, there is little sign of such a slowdown.

In markets that weathered the last two years well, the slight easing in financing costs raises the chances that the overall trough in valuations is behind us. If so, an increase in deal activity could be in store. Dollar volumes of real estate direct investment activity – deals involving properties – were up across the Americas, EMEA and Asia Pacific in the second and third quarters of 2024 after experiencing a significant trough in 2022 and 2023 – **figure 6**.

FIGURE 6

direct investment volume changes since 2020



Source: Jones Lang LaSalle Research, as of Oct 2024. Chart shows the quarterly year-over-year percentage change in direct real estate investment volume (in USD) by region for transactions greater than $5 million, excluding land/development or corporate acquisition deals.

[11] GreenStreet Commercial Property Price Index, as of Oct 1, 2024. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns do not include any expenses, fees or sales charges, which would lower performance. Past performance is no guarantee of future results. Real results may vary.

Admittedly, the extent and timing of any recovery in valuations and investment activity is uncertain. However, we believe that the 10-year U.S. Treasury yield will likely trade between 4.25% and 4.75% in 2025. Such steadiness would relieve pressure on capitalization rates or "cap rates"[12] – a key valuation metric – which were forced higher in 2022 and 2023. Constrained development activity could also support rents and property prices, which would also help cap rates.

SECTOR FOCUS: INDUSTRIALS

Long-term industrial real estate fundamentals remain healthy globally. Supply chain relocation and strong online sales growth are driving leasing demand growth through 2025 and into 2026. Admittedly, vacancy rates increased in the first three quarters of 2024. This was due to record high deliveries of new inventory over the past 18 months. But now, the new development pipeline is constrained, with many new development projects being pushed into late 2025 or beyond.

The U.S. industrial market sees tenants focused on locations that ensure supply chain resiliency and meeting the needs of their customers. For example, e-commerce continues to be a critical driver of industrial real estate demand, as its share of total retail sales hit a record high of 23.2% in Q3 2024 and is expected to reach 25% in 2025.[13] However, these customers require modern and new facilities with reliable access to power that can accommodate their technology and automation needs. Therefore, these tailwinds will primarily favor newer buildings in specific core logistics corridors, rather than older properties.

In Europe, the secular tailwinds for industrial real estate offset more modest growth expectations across the region than expected in the U.S. The bifurcation in performance between prime, well-located properties and everything else coupled with significant barriers to new development, place a premium on redeployment and modernization of existing industrial properties. The fact that these properties may potentially be acquired from owners that have seen 3 years of stress, provides the potential for attractive pricing.

SECTOR FOCUS: HOSPITALITY

Hospitality has continued to thrive as consumers make up for lost time during COVID. For hotels globally, revenue per available room (RevPAR) – a metric that reflects prices charged and occupancy levels – was 13.2% above 2019's pre-COVID levels at the end of October 2024. While this bounce back has begun slowing in 2024 as consumers reset their spending habits, accelerating business travel has somewhat offset the effects.

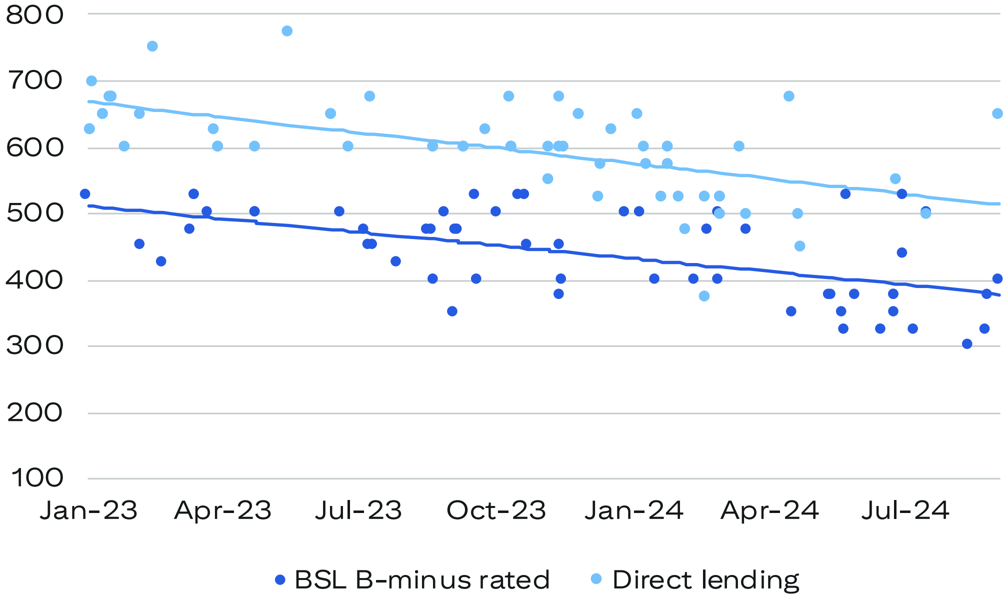
e-commerce continues to be a critical driver of industrial real estate demand

[12] Capitalization rate is an unlevered rate of return that is expected to be generated by a real estate investment property and is defined as the net operating income (primarily from rents) of a property divided by its asset value. A rising cap rate denotes a falling valuation, while a falling cap rate means valuations are rising.

[13] CBRE Research, as of Q3 2024.

FIGURE 7

the private credit yield premium over B-minus rated bank syndicated loans (basis points)



Source: Pitchbook, as of Nov 2024. Chart shows U.S. new-issue spreads (in basis points) for B-rated bank syndicated loans (BSLs) and private credit acquisition-related deals for PE-backed companies. See Glossary for definitions.

With new construction expensive, global hotel supply is only expected to grow at around 2.4% over the next five years, 180 basis points below the long-term average and 8.5% lower than 2019's growth rate.[14] This likely cap on new supply may encourage those with existing hotel properties to invest in improving their buildings and operations. Hotels in urban cores and other high-barrier-to-entry markets. Until construction costs abate and supply chain disruptions ease, the only projects being built are those with exceptional sponsorship funded by well-capitalized investors. Therefore, we see potential in value-add strategies in the hospitality sector that revitalize existing properties.

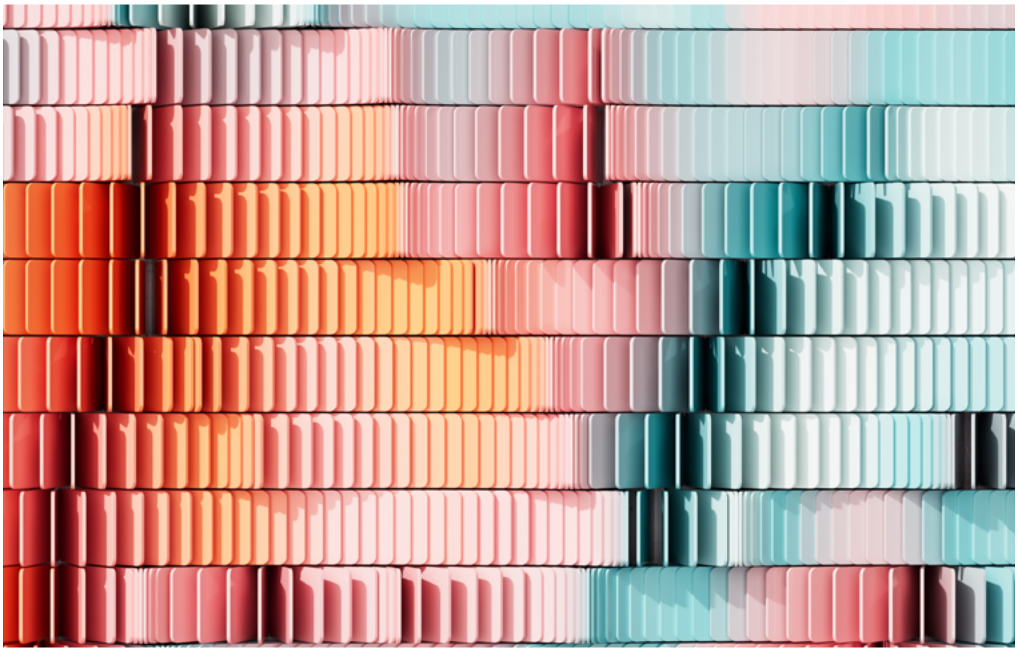
PRIVATE CREDIT

Alternatives credit managers' role as non-bank suppliers of capital to corporate borrowers keeps growing. Since the Global Financial Crisis of 2007–09, banks and other traditional lenders have significantly reduced their activities across much of the economy. This reduction in credit availability saw private credit emerge as a substitute, particularly for middle-market companies with limited access to bond markets.

Private credit providers have set themselves apart by underwriting complex transactions that traditional banks or capital markets might turn down. So, they frequently offer faster and more flexible loan decisions, can structure deals creatively and potentially give access to a broad network of resources to support a borrower, such as the business services teams within many private capital firms today.

Consequently, borrowers have proven willing to pay 150–200 basis points more in interest on senior private loans than they would have on equivalent syndicated bank loans – **figure 8**. With short-term rates having receded lately, sources of enhanced yield will become more important for investors reallocating from their existing cash holdings.

[14] Jones Lang LaSalle, as of Oct 31, 2024.



OPPORTUNISTIC APPROACHES TO PRIVATE CREDIT

Direct corporate lending funds make up more than 55% of all private credit assets under management today. Beyond this, there are further investment possibilities we are seeing in drawdown funds. Private managers have historically been opportunistic and are increasingly exploring asset-based lending and possibly even residential and commercial lending. These approaches to credit are expected to have a higher risk and return profile because they might require more flexibility on the part of the lender with regard to underwriting standards or cash dynamics. Many of these strategies are also better suited to more traditional private capital structures, rather than evergreen funds. These funds often deliver lower periodic yields to investors in exchange for a potentially higher return.

Some private asset managers and banking institutions have formed partnerships

One trend that we are following closely is that some private asset managers and banking institutions have formed partnerships, matching up the banks' ability to find lending opportunities with the capital from institutional and private investors. This has the potential to open up additional deal flow for private credit providers. With traditional drawdown structures, certain private credit strategies can deliver first-lien credit risk profiles while embracing these new opportunities and sectors such as residential and commercial lending.

Naturally, private credit comes with many risks. There can be vintage deployment risk, sector concentration risk, and potential transparency risk around the valuation of assets held by funds. Also, as capital has entered the sector, competition has intensified between providers and with semi-liquid alternatives such as hedge funds.

GLOSSARY

ASSET CLASS DEFINITIONS

Cash is represented by U.S. 3-month Government Bond TR, measuring the U.S. dollar-denominated active 3-month, fixed-rate, nominal debt issues by the U.S. Treasury.

Commodities asset class contains the index composites – GSCI Precious Metals Index, GSCI Energy Index, GSCI Industrial Metals Index, and GSCI Agricultural Index – measuring investment performance in different markets, namely precious metals (e.g., gold, silver), energy commodity (e.g., oil, coal), industrial metals (e.g., copper, iron ore), and agricultural commodity (e.g., soy, coffee) respectively. Reuters/Jeffries CRB Spot Price Index, the TR/CC CRB Excess Return Index, an arithmetic average of commodity futures prices with monthly rebalancing, is used for supplemental historical data.

Developed Market Corporate Fixed Income is composed of Bloomberg Barclays indices capturing investment debt from seven different local currency markets. The composite includes investment grade rated corporate bonds from the developed market issuers.

Developed Market Equity is composed of MSCI indices capturing large-, mid- and small-cap representation across 23 individual developed market countries, as weighted by the market capitalization of these countries. The composite covers approximately 95% of the free float-adjusted market capitalization in each country.

Developed Investment Grade Fixed Income is composed of Barclays indices capturing investment grade debt from twenty different local currency markets. The composite includes fixed-rate treasury, government-related, and investment grade–rated corporate and securitized bonds from the developed market issuers. Local market indices for U.S., UK and Japan are used for supplemental historical data.

Direct lending, sometimes referred to as "private credit investing" or "private lending," refers to non-bank lending where the debt is not issued or traded on the public markets. Direct lending covers a wide variety of strategies that span the capital structure and borrower types – from senior secured loans for blue-chip corporate borrowers to special and distressed situations. Different direct lending carries different risk/reward based on the seniority of the loans.

Directional funds are alternatives funds expected to display moderate to high positive correlation and/or beta to traditional risk asset classes such as equities over an investment cycle (though some funds in this category may display variable levels of correlation at certain points of the cycle). Such funds often invest with a (sometimes significant) net-long bias, and because of this, may also carry a higher level of risk. This internal classification is based on the analysis and subjective views of Citi Wealth Alternatives and Investment Manager Solutions. The internal classification is subject to change without notice to investors and there is no guarantee that the funds will perform as described above. It is important to note that the market strategy described above will not completely eliminate market risk. There is no guarantee that alternatives funds classified as "Directional" will perform as described above. Alternatives funds should not be invested in based on their classifications as "Directional" and other assets in a client's overall portfolio should be taken into consideration before an investment is made.

Diversifying funds are alternatives funds that are typically expected to display low and often negative correlation and/or beta to traditional risk asset classes such as equities over an investment cycle (though some funds in this category may display variable degrees of market correlation at certain points of the cycle). Such funds are designed to perform better during periods of high market volatility and generally may provide attractive diversification benefits to a client's portfolio, although returns may vary between gains and losses and can be volatile during any given period. This internal classification is based on the analysis and subjective views of Citi Wealth Alternatives and Investment Manager Solutions. The internal classification is subject to change without notice to investors and there is no guarantee that the funds will perform as described above. It is important to note that the market strategy described above will not completely eliminate market risk. There is no guarantee that alternatives funds classified as "Diversifying" will perform as described above. Alternatives funds should not be invested in based on their classification as "Diversifying" and other assets in a client's overall portfolio should be taken into consideration before an investment is made.

Emerging Market Fixed Income is composed of Barclays indices measuring performance of fixed-rate local currency emerging markets government debt for 19 different markets across Latin America, EMEA and Asia regions. iBoxx ABF China Govt. Bond, the Markit iBoxx ABF Index comprising local currency debt from China, is used for supplemental historical data.

Emerging Markets (EM) Hard Currency Fixed Income is represented by the FTSE Emerging Market Sovereign Bond Index (ESBI), covering hard currency emerging market sovereign debt.

Equity Market Neutral is an investment strategy in which the portfolio manager attempts to exploit differences in stock prices by being long and short an equal amount in closely related stocks.

Evergreen Fund is a broad term used to describe an investment fund that is open-ended and has no set maturity or termination date and continually accepts new investors and capital while also providing a mechanism for investors to exit their investment. Evergreen funds reinvest profits and may or may not distribute yield to investors.

Hedge Funds are composed of investment managers employing different investment styles as characterized by different sub categories – HFRI Equity Long/Short: Positions both long and short in primarily equity and equity-derivative securities; HFRI Credit: Positions in corporate fixed income securities; HFRI Event Driven: Positions in companies currently or prospectively involved in wide variety of corporate transactions; HFRI Relative value: Positions based on a valuation discrepancy between multiple securities; HFRI Multi Strategy: Positions based on realization of a spread between related yield instruments; HFRI Macro: Positions based on movements in underlying economic variables and their impact on different markets; Barclays Trader CTA Index: The composite performance of established programs (Commodity Trading Advisors) with more than four years of performance history.

High-Yield Bank Loans are debt financing obligations issued by a bank or other financial institution to a company or individual that holds legal claim to the borrower's assets in the event of a corporate bankruptcy. These loans are usually secured by a company's assets, and often pay a high coupon due to a company's poor (non-investment grade) credit worthiness.

High Yield Fixed Income is composed of Barclays indices measuring the non-investment grade, fixed-rate corporate bonds denominated in U.S. dollars, British pounds and euros. Securities are classified as high yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below, excluding emerging market debt. Ibbotson High Yield Index, a broad high-yield index including bonds across the maturity spectrum, within the BB-B rated credit quality spectrum, included in the below-investment grade universe, is used for supplemental historical data.

Multi-Strategy Hedge Funds combine different single hedge fund strategies in one portfolio and differentiate considerably from each other. Most often, such portfolios include a variety of long-short, relative value and event-driven strategies.

Private Credit is debt financing provided by non-bank lenders such as hedge funds, private debt funds, business development companies (BDCs) and specialty finance companies. Private credit can take on various forms, including direct loans, mezzanine financing or private debt funds. Small- and medium-sized companies most commonly take on private credit.

Private Equity is an alternative investment class which at its most basic form is the capital or ownership of shares not publicly traded or listed on a stock exchange. Its characteristics are often driven by those for Developed Market Small-Cap Equities, adjusted for illiquidity, sector concentration and greater leverage.

Real Assets are physical assets that have an intrinsic worth due to their substance and properties. Real assets include precious metals, commodities, real estate, land, equipment and natural resources.

Real Estate Investment Trust or REIT is a corporate entity that either has bulk or all its asset base, income and investments related to real estate. In the U.S., under Security and Exchange Commission (SEC) guidelines, for an entity to qualify as an REIT, at least 90% of its taxable annual income to shareholders in the form of dividends must be from real estate. While typically REITs are publicly traded, not all are, as Public Non-Listed REITs (PNLRs) can register with SEC as REITs, but do not trade on major stock exchanges.

Relative Value Hedge Funds maintain positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities. Managers employ a variety of fundamental and quantitative techniques to establish investment theses, and security types range broadly across equity, fixed income, derivative or other security types. Fixed income strategies are typically quantitatively driven to measure the existing relationship between instruments and, in some cases, identify attractive positions in which the risk adjusted spread between these instruments represents an attractive opportunity for the investment manager. RV position may be involved in corporate transactions also, but as opposed to ED exposures, the investment thesis is predicated on realization of a pricing discrepancy between related securities, as opposed to the outcome of the corporate transaction.

Structured Credit is an investment strategy which involves pooling similar debt obligations and selling off the resulting cash flows. Structured credit products are created through a securitization process, in which financial assets such as loans and mortgages are packaged into interest-bearing securities backed by those assets, and issued to investors. This, in effect, re-allocates the risks and return potential involved in the underlying debt.

Syndicated Loan is a loan made to a single borrower, typically a corporate entity, by a lender or group of lenders, which is then syndicated (or divided) among a broader group of investors to spread the financing burden across more parties to manage downside risk in the event of a default. Such loans are often initially sourced by banks and are thus often called Bank Syndicated Loans (BSLs) and are also often used to finance leveraged buyout transactions. Therefore, the term Leveraged Loan is also commonly used interchangeably for these securities.

INDEX DEFINITIONS

Bloomberg Barclays Global Aggregate Bond Index is a flagship measure of global investment grade debt from 24 local currency markets. This multi-currency benchmark includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers.

Bloomberg Emerging Markets USD Aggregate Index measures the performance of hard currency Emerging Markets (EM) debt, including fixed and floating-rate U.S. dollar-denominated debt issued from sovereign, quasi-sovereign and corporate EM issuers.

Bloomberg Global Aggregate Index is a benchmark for the global fixed income market, incorporating global investment grade debt from 24 local currency developed and emerging markets. This multi-currency benchmark includes Treasury, government-related, corporate and securitized fixed-rate bonds.

Bloomberg Global Aggregate Fixed Income ex USD Index measures the performance of global investment grade bonds. This index does not include bonds from the U.S. This characteristic allows this index to serve well for tracking international bond exposure.

Bloomberg US Aggregate Index is a broad base, market capitalization-weighted bond market index representing intermediate term, investment grade bonds traded in the United States.

Bloomberg US Corporate High Yield Bond Index measures the USD-denominated, high-yield, fixed-rate corporate bond market.

Bloomberg US Investment Grade CMBS Index measures the market of Agency and non-Agency conduit and fusion CMBS deals with a minimum current deal size of $300 million.

Bloomberg US Investment Grade Corporate Index is a benchmark of investment grade, fixed-rate, taxable corporate bonds. It includes U.S. dollar-denominated securities publicly issued by U.S. and non-U.S. industrial, utility and financial issuers.

Bloomberg US MBS Index tracks fixed-rate agency mortgage-backed pass-through securities guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA) and Freddie Mac (FHLMC).

Bloomberg US Muni Index measures the performance of the Bloomberg U.S. Municipal bond market, which covers the USD-denominated long-term tax-exempt bond market across state and local general obligation bonds, revenue bonds, insured bonds and pre-refunded bonds.

Bloomberg US Treasury Index measures US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury.

Cliffwater Direct Lending Index (CDLI) measures the unlevered, gross-of-fees performance of US middle-market corporate loans, as represented by the underlying assets of Business Development Companies (BDCs), including both exchange-traded and unlisted BDCs, subject to certain eligibility criteria.

HFRI (EH) Equity Hedge: Equity Market Neutral Index is an index of equity market neutral strategies, which employ sophisticated quantitative techniques of analyzing price data to ascertain information about future price movement and relationships between securities, select securities for purchase and sale. These can include both factor-based and statistical arbitrage/trading strategies. Equity Market Neutral Strategies typically maintain characteristic net equity market exposure no greater than 10% long or short.

HFRI ED (Event Driven): Merger Arbitrage Index is an index of merger arbitrage strategies, which employ an investment process primarily focused on opportunities in equity and equity related instruments of companies which are currently engaged in a corporate transaction. Merger Arbitrage involves primarily announced transactions, typically with limited or no exposure to situations which pre-, post-date or situations in which no formal announcement is expected to occur. Opportunities are frequently presented in cross border, collared and international transactions which incorporate multiple geographic regulatory institutions, with typically involve minimal exposure to corporate credits. Merger Arbitrage strategies typically have over 75% of positions in announced transactions over a given market cycle.

HFRI Fund of Funds Composite Index is an index of fund of funds, which invest with multiple managers through funds or managed accounts. The strategy designs a diversified portfolio of managers with the objective of significantly lowering the risk (volatility) of investing with an individual manager. The Fund of Funds manager has discretion in choosing which strategies to invest in for the portfolio. A manager may allocate funds to numerous managers within a single strategy, or with numerous managers in multiple strategies. The minimum investment in a Fund of Funds may be lower than an investment in an individual hedge fund or managed account. The investor has the advantage of diversification among managers and styles with significantly less capital than investing with separate managers.

HFRI Fund Weighted Composite Index is a global, equal-weighted index of single-manager funds that report monthly net of all fees performance in US Dollar and have a minimum of $50 Million under management or $10 Million under management and a 12-month track record of active performance. The index does not include fund of funds.

HFRI Macro (Total) Index is an equal weighted index of multiple macro fund managers. Macro involves investing by making leveraged bets on anticipated p rice movements of stock markets, interest rates, foreign exchange and physical commodities. Macro managers employ a " top-down" global approach and may invest in any markets using any instruments to participate in expected market movements. These movements may result from forecasted shifts in world economies, political fortunes or global supply and demand for resources, both physical and financial. Exchange-traded and over-the-counter derivatives are often used to magnify these price movements.

HFRI Relative Value (Total) Index is an equal weighted index that maintains positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities. Managers employ a variety of fundamental and quantitative techniques to establish investment theses, and security types range broadly across equity, fixed income, derivative or other security types.

Merrill Lynch High Yield Master II Index is an index commonly used for high-yield corporate bonds. The Master II is a measure of the broad high yield market, unlike the Merrill Lynch BB/B Index, which excludes lower-rated securities. It is an unmanaged index comprised of over 1,200 high yield bonds representative of high yield bond markets as a whole. It includes zero-coupon bonds and payment-in-kind (PIK) bonds.

Morningstar LSTA US Leveraged Loan 100 Index is designed to measure the performance, activity, and key characteristics of the most tradeable loans in the US leveraged loan market (see "Bank loans, also known as leveraged loans," above). Index constituents include the 100 largest facilities (i.e., outstanding loans) at any given time in the US, weighted by market value, subject to a single loan facility weight cap of 2%.

MSCI World Pharmaceuticals, Biotechnology and Life Sciences Index is composed of large and mid cap stocks across 23 Developed Markets countries. All securities in the index are classified in the Pharmaceuticals, Biotechnology and Life Sciences industry group (within the Health Care sector) according to the Global Industry Classification Standard (GICS®).

MSCI World TR Net Index covers large- and mid-cap equities across 23 Developed Markets countries. With 1,603 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

Pitchbook Private Capital Index is a capital-weighted, aggregate quarterly returns index which captures private equity, venture capital, real estate, real assets, private debt, funds of funds, and secondaries funds.

Preqin Global Private Capital Index (USD) uses fund-level cash flow transactions, net asset values and performance data to calculate a time-weighted return for over 14,000 global private capital funds with LP commitments collectively worth more than $11.7tn.

Preqin Global Infrastructure Index (USD) is the subset of the Preqin Global Private Capital Index that encompasses funds focused on Infrastructure investing. It uses fund-level cash flow transactions, net asset values and performance data to calculate a time-weighted return.

Preqin Global Private Debt Index (USD) is the subset of the Preqin Global Private Capital Index that encompasses funds focused on Private Debt investing. It uses fund-level cash flow transactions, net asset values and performance data to calculate a time-weighted return.

Preqin Global Private Equity Index (USD) is the subset of the Preqin Global Private Capital Index that encompasses funds focused on Private Equity investing. It uses fund-level cash flow transactions, net asset values and performance data to calculate a time-weighted return.

Preqin Global Real Estate Index (USD) is the subset of the Preqin Global Private Capital Index that encompasses funds focused on Real Estate investing. It uses fund-level cash flow transactions, net asset values and performance data to calculate a time-weighted return.

S&P 500 Index is a capitalization-weighted index that includes a representative sample of 500 leading companies in leading industries of the US economy. Although the S&P 500 focuses on the large-cap segment of the market, with over 80% coverage of US equities, it is also an ideal proxy for the total market.

S&P 500 Investment Grade Corporate Bond Index, a subindex of the S&P 500 Bond Index, seeks to measure the performance of U.S. corporate debt issued by constituents in the S&P 500 with an investment-grade rating. The S&P 500 Bond Index is designed to be a corporate-bond counterpart to the S&P 500, which is widely regarded as the best single gauge of large-cap U.S. equities

S&P U.S. High Yield Corporate Bond Index is designed to track the performance of U.S. dollar-denominated, high-yield corporate bonds issued by companies whose country of risk use official G-10 currencies, excluding those countries that are members of the United Nations Eastern European Group (EEG).

OTHER TERMINOLOGY

Aggregate Deal Value USD BN is the total value of deals that occurred in the specified time period, for the specified asset class.

Business Development Company, also known as a BDC, is a regulated investment company that raises capital from individual and institutional investors through the sale of shares in the stock market. BDCs provide financing to private companies, typically small- and mid-sized businesses. BDCs are required to distribute a significant portion of their taxable income to shareholders in the form of dividends.

Collateralized loan obligations or CLOs are securities that are backed by a pool of loans. CLOs are a means to repackage portfolios of loans to be sold to investors and generate liquidity for loan underwriters to make additional loans.

Corporate Acquisition is defined as a corporate transaction where one company purchases a portion or all of another company's shares or assets. Acquisitions are typically made in order to take control of, and build on, the target company's strengths and capture synergies.

Correlation is a statistical measure of how two assets or asset classes move in relation to one another. Correlation is measured on a scale of 1 to -1. A correlation of 1 implies perfect positive correlation, meaning that two assets or asset classes move in the same direction all of the time. A correlation of -1 implies perfect negative correlation, such that two assets or asset classes move in the opposite direction to each other all the time. A correlation of 0 implies zero correlation, such that there is no relationship between the movements in the two over time.

EV/Revenue Multiple is a ratio that compares the total valuation of a firm's operations (enterprise value) to the amount of sales generated in a specified period (revenue).

Extreme Downside Risk is a measure used to estimate the risk of an asset allocation. EDR seeks to estimate the typical type of loss, over a 12– month time horizon, that an asset allocation may experience in a period of extreme market stress. It is calculated using a proprietary methodology and database. For a given asset allocation, this approach estimates the loss, over a 12–month time horizon, that the asset allocation may have experienced during historical periods of extreme market stress. EDR is calculated by taking the average loss in the worst 5% of this historical periods of extreme market stress. EDR does not estimate the maximum possible loss. Potential losses for a given asset allocation may exceed the value of the EDR.

G2 or Group of Two is a hypothetical and an informal grouping made up of the United States of America and People's Republic of China that was first proposed by C. Fred Bergsten . While the original concept had a strong economic focus, more recent iterations have a more all-encompassing focus.

IPO or Initial Public Offering refers to the process of offering shares of a private corporation to the public in a new stock issuance for the first time. An IPO allows a company to raise equity capital from public investors.

IRR or Internal Rate of Return is a metric used in financial analysis to estimate the profitability of potential investments. IRR is a discount rate that makes the net present value (NPV) of all cash flows equal to zero in a discounted cash flow analysis.

Leveraged Buyout (LBO) is the acquisition of another company using a significant amount of borrowed money (bonds or loans) to meet the cost of acquisition. The assets of the company being acquired are often used as collateral for the loans, along with the assets of the acquiring company.

Nearshoring refers to a business strategy that involves companies shifting their manufacturing and production operations closer to their main markets, allowing them to reduce transportation costs and deliver their products faster to customers.

Net IRR, or internal rate of return, is a performance measurement equal to the internal rate of return after fees and carried interest are factored in. It is used in capital budgeting and portfolio management to calculate an investment's yield or overall financial quality by calculating an expected rate of return.

Non-traditional credit is a term used to describe debt instruments that are not issued by regulated banks or traded on an open market.

Public listing refers to a security which is publicly traded on an established stock exchange or national market system; and, with respect to an entity, that such entity is the issuer of a security that is publicly listed.

Refinancing refers to the process of revising and replacing the terms of an existing credit agreement, usually as it relates to a loan or mortgage.

Restructuring is a significant action undertaken by a company in order to modify its operations with the intention of reducing debt, increasing efficiency and improving the business going forward. A business restructure is most common in companies facing financial difficulties.

Secondary Buyout refers to a transaction involving the sale of a portfolio company by one financial sponsor or private equity firm to another. This kind of buyout indicates the end of the seller's control or involvement with the company.

Shadow banking system is a term used to describe financial intermediaries that engage in bank-like activities, usually lending, but are not subject to banking regulatory oversight.

Sponsor Acquisition refers to the acquisition directly or indirectly by a company (and/or its respective affiliates).

Strategic Return Estimates (SRE) are Citi Global Wealth Investments' forecast of returns for specific asset classes over a 10-year time horizon. The forecast for each specific asset class is made using a proprietary methodology that we believe is appropriate for that asset class.

Trade Sale is the disposal of a company's shares or assets, in whole or in part to another company, an M&A exit, in other words, in which the target company is acquired for cash or stock.

Vintage Year in the private equity and venture capital industries refers to the year in which a fund began making investments or, more specifically, the date in which capital was deployed to a particular company or project. Investors may cite the vintage year in order to gauge a potential return on investment (ROI).

Volatility is a statistical measurement of the variability of return, commonly defined as either the standard deviation of returns. The higher an asset or asset class's volatility, the riskier it is seen as being.

IMPORTANT INFORMATION

Notice pursuant to Rule 206(4)-1 under the Investment Advisers Act of 1940, as amended (the "Marketing Rule")

This disclosure is provided as required under the Marketing Rule in connection with communications by Citibank, N.A. and certain of its branches and affiliates (collectively "Citi") relating to investment opportunities on the Citi private equity and real estate private funds platform (the "Platform").

- Where permitted under applicable law and regulation, Citi receives cash compensation for soliciting clients of Citi ("Citi Clients") as investors to invest (directly or indirectly) in investment products (each, a "Fund") offered on the Platform.[15]

[15] Citi Distributors providing services to Citi Clients that are subject to the United Kingdom's Retail Distribution Review ("RDR") will not receive compensation for services to such clients where such compensation would be prohibited under RDR rules and guidance and references to compensation shall not include any compensation prohibited under RDR.

- Due to such compensation, Citi has an incentive to recommend investments in such products and make positive statements about such products and their investment advisers.

Citi is not, and is not expected to be, a client or investor of such products (or other investment vehicles managed by the applicable investment advisers), but certain personnel of Citi, in their personal capacities, may be investors in such products or other investment vehicles.

The compensation Citi receives for soliciting investors falls in the following categories and ranges:

- A one-time upfront fee in an amount typically ranging from 0.00% to 2.00% of the aggregate capital commitments of Citi Clients (directly or indirectly) to the relevant Fund ("***Citi Commitments***"); and
- An annual fee for investor relations services provided to the relevant Fund's adviser equal to (A) during the relevant Fund's investment period (the "***Investment Period***"), an amount typically ranging from 0.20% to 0.25% of the Citi Clients' aggregate capital commitments to such Fund and (B) thereafter until the final dissolution and winding up of the affairs of such Fund, an amount typically ranging from 0.20% to 0.25% of the Citi Clients' aggregate contributed capital to the Fund as determined by the relevant Fund adviser or general partner, as applicable.

In addition, Citi Clients will pay Citi or its affiliates cash compensation in connection with their investments in the Fund as follows:

- Citi Clients will pay Citi or its affiliates a one-time fee of between zero percent (0.00%) and two and three-quarters percent (2.75%) of such Citi Client's direct or indirect commitments to the Fund; and
- Citi Clients investing in a Feeder Fund advised by Citi Global Alternatives, LLC ("CGA") will bear a fee paid to CGA typically ranging between 0.00% and 0.75% per annum that will typically be based on such Citi Clients' capital commitments during the investment period of the relevant master fund and thereafter will be calculated by reference to such Citi Clients' contributed capital to the relevant Feeder Fund.

Where permitted under applicable law and regulation, Citi receives compensation with respect to certain investment products. As such, Citi has an incentive to endorse and make positive statements about the applicable investment advisers, their investment products, and their employees and affiliates. In addition, Citi has an incentive to make positive statements about the applicable investment advisers and investment products in order to maintain goodwill in connection with current and future relationships with such investment advisers, their investment products, and their employees and affiliates.

This disclosure is provided as required under the Marketing Rule in connection with communications by Citibank, N.A. and certain of its branches and affiliates (collectively "Citi") relating to investment opportunities on the Citi hedge funds platform (the "Platform")

- Where permitted under applicable law and regulation, Citi receives cash compensation for soliciting clients of Citi ("Citi Clients") as investors to invest (directly or indirectly) in investment products (each, a "Fund") offered on the Platform.[15]
- Due to such compensation, Citi has an incentive to recommend investments in such products and make positive statements about such products and their investment advisers.

Citi is not, and is not expected to be, a client or investor of such products (or other investment vehicles managed by the applicable investment advisers), but certain personnel of Citi, in their personal capacities, may be investors in such products or other investment vehicles.

The compensation Citi receives for soliciting investors falls in the following categories and ranges:

- A one-time upfront fee in an amount typically ranging from 0.0% to 1.0% of the aggregate subscriptions of Citi Clients (directly or indirectly) to the relevant Fund; and

[15] Citi Distributors providing services to Citi Clients that are subject to the United Kingdom's Retail Distribution Review ("RDR") will not receive compensation for services to such clients where such compensation would be prohibited under RDR rules and guidance and references to compensation shall not include any compensation prohibited under RDR.

- An annual fee for investor relations services provided to the relevant Fund's manager equal to an amount typically ranging from 0.25% to 1% of the net asset value of the Fund interests held by Citi Clients.

In addition, Citi Clients will pay Citi or its affiliates cash compensation in connection with their investments in the Fund as follows:

- Citi Clients will pay Citi or its affiliates a one-time fee of between zero percent (0.00%) and two percent (2.00%) of such Citi Client's direct or indirect subscriptions to the Fund; and
- Citi Clients subscribing to a Fund advised by Citi Global Alternatives, LLC ("CGA") (a "Feeder Fund") will bear a fee paid to CGA typically ranging between 0.00% and 1.0% per annum that will typically be based on the net asset value of the Citi Clients' investment in the Feeder Fund.

Where permitted under applicable law and regulation, Citi receives compensation with respect to certain investment products. As such, Citi has an incentive to endorse and make positive statements about the applicable investment advisers, their investment products, and their employees and affiliates. In addition, Citi has an incentive to make positive statements about the applicable investment advisers and investment products in order to maintain goodwill in connection with current and future relationships with such investment advisers, their investment products, and their employees and affiliates.

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