2024 Alternatives Outlook

Navigating a shifting investment landscape

J.P.Morgan
ASSET MANAGEMENT

Contents

Foreword

Uncertainty has remained a central theme in financial markets over the past several years. Surging inflation, rapid interest rate increases, slowing global growth, increased geopolitical risks and elevated stock and bond market volatility have all dramatically shifted the investment landscape for individual investors. In this environment, alternative investments have exhibited performances as varied as the category itself, with some asset classes rising and others being more challenged, which is all the more reason for needing a trusty outlook for the coming 12–18 months.

The case for investing in alternatives remains as strong as ever. These assets have historically helped investors diversify traditional portfolios by pursuing investment returns largely independent from publicly traded equity and bond markets. Consequently, their additive characteristics can be a valuable part of a long-term investment plan, potentially helping to diversify portfolio correlations, lower overall volatility, expand investment income sources, mitigate inflation risk and enhance both absolute and risk-adjusted performance. With all this in mind, we continue to see these assets as more essential than optional.

Looking ahead into 2024, we expect to continue to see growing demand for alternative investments driven by three broad themes:

- **Democratization:** Investment innovation continues to expand access to alternative investments through a growing range of strategies and structures available to a much broader number of investors.
- **Diversification:** The investment markets of the past few years have shown the limits of relying solely on traditional stocks and bonds to provide adequate portfolio diversification in the current market cycle. Alternative investments can offer solutions to tap into new, dynamic investment opportunities designed to help better balance portfolio risk/return exposures, while helping to counter the impact of persistent inflation.
- **Dislocation:** Much of 2023 saw a slowdown in private market activity, which broadly pressured pricing in some alternative asset classes. This has opened considerable investment value in some segments and will likely result in a compelling 2024 vintage, especially if the current interest rate tightening cycle proves to be at or near its peak.

To help investors take advantage of these changes and successfully navigate the shifts we are seeing in the investment landscape, we asked experienced investment leaders from across J.P. Morgan's $210+ billion Global Alternatives platform to share their outlooks on several alternative investment markets. Their insights into the trends, risks and opportunities influencing multi-alternatives strategies, core private infrastructure, private equity and commercial real estate are in the chapters that follow.

We hope this information proves useful as you plot your investment course through 2024. Please let us know if we can be of help in implementing any of the ideas presented in this Outlook or if you would like additional information from any of our contributors.

On behalf of J.P. Morgan Asset Management, thank you for your continued trust and confidence.

Anton Pil
Global Head of Alternatives

Alternatives asset allocation outlook

Strengthening portfolio resiliency with expanded diversification

Author

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“In this environment, we believe a diversified multi-alternatives allocation remains beneficial given the collective diversifying attributes of these assets and the relatively attractive valuations now available.”

Alternatives asset allocation outlook

In brief

- The current investment cycle continues to point to the potential benefits of including alternative assets in a well-diversified portfolio.
- Investments in private equity, private core infrastructure and private real estate can collectively help bring “AID” to a traditional asset portfolio in the form of alpha, inflation risk mitigation and dislocation opportunities.
- A diversified multi-alternatives allocation can provide flexibility in pursuing investment goals by potentially increasing returns, reducing volatility and diversifying overall portfolio exposures irrespective of the risk appetite of the investor.
- Enhanced return dispersion in core alternatives and generally much wider manager return outcomes in non-core alternatives offer considerable potential to improve performance through active management.
- At this point in the cycle, core infrastructure, de novo real estate assets and secondary investments appear particularly attractive as macro uncertainty persists.

The broad market volatility and decades-high inflation of the last several years have highlighted the challenges of limiting portfolio diversification to traditional assets, such as publicly traded stocks and bonds. Fortunately, alternative investments, such as private equity, private core infrastructure and private real estate strategies have become increasingly accessible to individual investors.

The term “alternative investments” refers to a broad mix of asset types and investment strategies that are generally outside the major, traditional types of asset classes. These types of assets have long been utilized by institutional investors and offer considerable potential to help expand and strengthen overall portfolio characteristics. Distinction is typically made between core alternative investments, which tend to have a majority of returns from highly forecastable and predictable cash flows relative to non-core alternative investments where returns are predominately driven by capital appreciation.

Alternatives can provide a diverse range of additive investment attributes to a portfolio, helping to enhance diversification, increase return potential and lower return volatility and downside risk, as well as mitigate inflation risk, depending on the type of alternative investment selected. Even more powerful is how they may be used together to help bring greater balance to a portfolio strategy. Actively managing a multi-alternatives allocation can help strengthen overall positioning in an effort to help navigate a broader array of both positive and challenging investment climates, customized to investors’ specific needs and goals.

Beyond the traditional: The role of alternatives

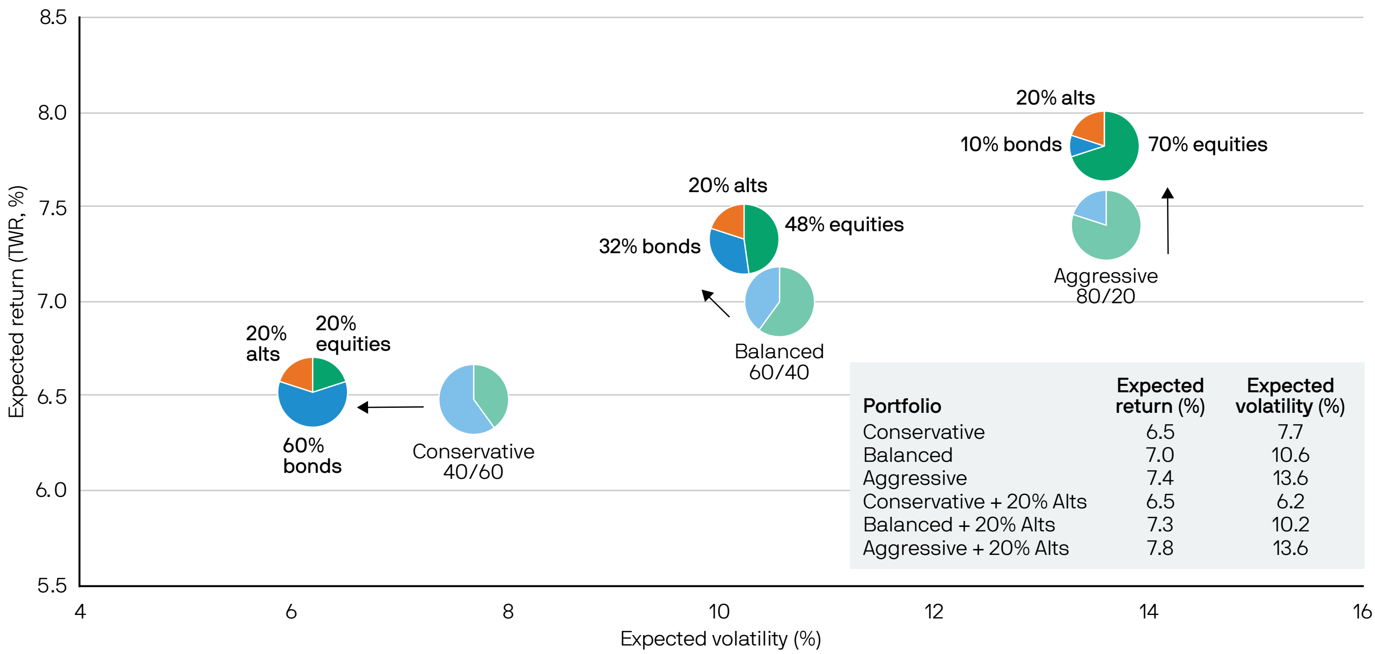
Alternative investments continue to provide essential portfolio support by potentially increasing returns, reducing volatility and diversifying overall portfolio exposures. While a standalone alternative investment category might offer some of these benefits, an all-weather, diversified multi-alternatives allocation may provide more resilient expected investment outcomes across different market cycles.

In addition, it is important that investors also consider their risk appetite for determining the allocation composition and funding source (i.e., equities, fixed income or both). A diversified multi-alternatives allocation that incorporates private equity, infrastructure and real estate can continue to offer investors more resilient investment outcomes irrespective of their risk appetite — conservative, balanced or aggressive.

This is illustrated in the following exhibit, showing three hypothetical portfolios with different risk profiles and how a diversified multi-alternatives allocation has the potential to improve long-term portfolio outcomes whether funded from fixed income, equities or both.

A diversified multi-alternatives allocation may reduce risk, improve returns or provide a balance of both

Exhibit 1: 2024 Long-Term Capital Market Assumptions



Portfolio	Expected return (%)	Expected volatility (%)
Conservative	6.5	7.7
Balanced	7.0	10.6
Aggressive	7.4	13.6
Conservative + 20% Alts	6.5	6.2
Balanced + 20% Alts	7.3	10.2
Aggressive + 20% Alts	7.8	13.6

Source: J.P. Morgan Asset Management. Expected returns and expected volatilities are based on 2024 LTCMA asset class assumptions, net of management fees and are denominated in USD. Expected returns denotes 10–15 years of median manager net of fees returns. Alts portfolio is equally weighted between private equity, global core infrastructure and U.S. private core real estate. The expected returns and expected volatilities are for illustrative purposes only and are subject to significant limitations. An investor should not expect to achieve actual returns similar to the target returns and volatilities shown above. Forecasts are not a reliable indicator of future performance. For illustrative purpose only.

Stronger together through active management

The key in this process is active management, including asset class selection and portfolio positioning in core alternatives across market cycles and manager selection in non-core alternatives, such as private equity. In core alternatives, relative performance has varied over time depending on the stage of the market cycle, similar to what investors are familiar with in traditional assets. Importantly, the average annual return dispersion between core alternatives categories has been significant — over 20% historically. As a result, actively managing allocations to core alternatives is critical in achieving success and mitigating downside risk as markets evolve over time.

Additionally, in non-core alternatives, the range of performance outcomes by managers have tended to be far greater than traditional assets and core alternatives, as the majority of returns are driven by capital appreciation and a greater degree of differentiation in investment strategy across managers. This creates significant opportunities to further enhance performance through selecting top-quartile managers.

With this in mind, building a diversified multi-alternatives allocation that actively adapts asset class and strategy exposures can provide a compelling risk/reward solution, both through changing market cycles and over the long term. This starts by carefully developing a strategic allocation based on specific investor long-term portfolio needs and then actively managing these allocations over time as market dynamics evolve.

Broader is better, active is better: Annual return dispersions across global core/core+ alternatives have been 20%+

Exhibit 2: Annual performance ranked highest to lowest

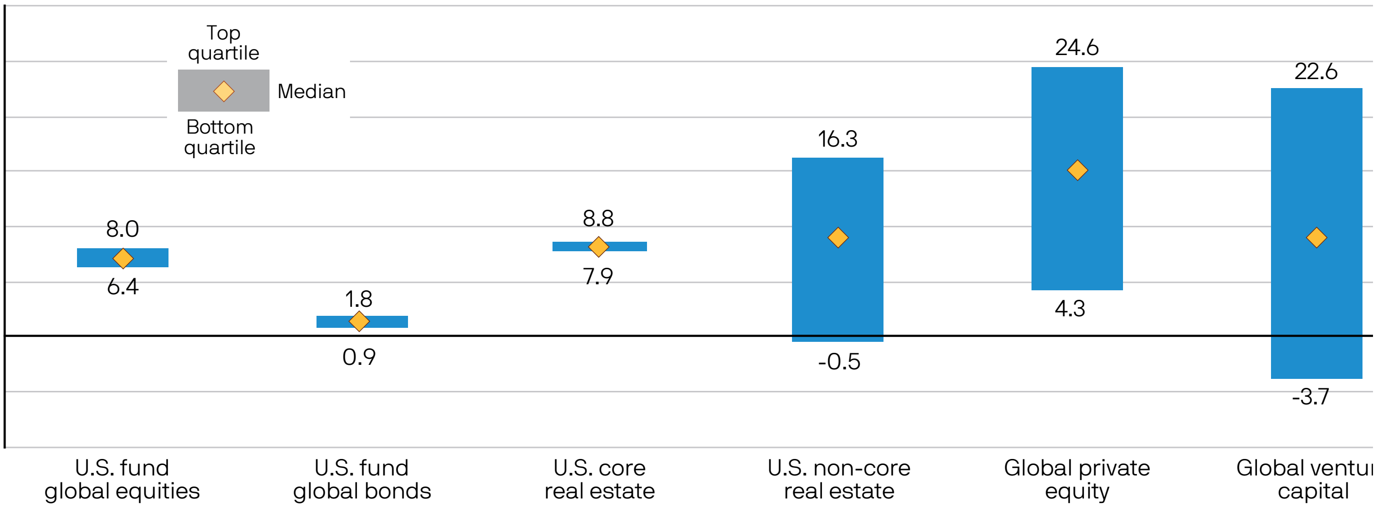
Return	2008	2009	2010	2011	2012	2013	2014	2015
Higher	Global Core Infra	U.S. Core Liquid RE	U.S. Core Liquid RE	Global Core Infra	U.S. Core RE Mezz Debt	Global Core Transport	U.S. Core Liquid RE	APAC Core RE
	Global Core Transport	Global Core/ Core+ Alt Credit	Global Core/ Core+ Alt Credit	U.S. Core RE Mezz Debt	U.S. Core Liquid RE	U.S. Core RE	APAC Core RE	Global Core Transport
	U.S. Core Mortgage Debt	U.S. Core RE Mezz Debt	Global Core Infra	U.S. Core RE	Global Core/ Core+ Alt Credit	APAC Core RE	U.S. Core RE Mezz Debt	U.S. Core RE
	U.S. Core RE Mezz Debt	U.S. Core Mortgage Debt	APAC Core RE	APAC Core RE	Global Core Infra	Global Core/ Core+ Alt Credit	U.S. Core RE	Global Core Infra
	Global Core/ Core+ Alt Credit	Global Core Infra	U.S. Core RE	Global Core Transport	Global Core Transport	Global Core Infra	Global Core Infra	Global Core/ Core+ Alt Credit
	U.S. Core RE	Global Core Transport	Global Core Transport	Global Core/ Core+ Alt Credit	U.S. Core RE	U.S. Core RE Mezz Debt	Global Core/ Core+ Alt Credit	U.S. Core RE Mezz Debt
	APAC Core RE	APAC Core RE	U.S. Core RE Mezz Debt	U.S. Core Liquid RE	APAC Core RE	U.S. Core Mortgage Debt	Global Core Transport	U.S. Core Liquid RE
Lower	U.S. Core Liquid RE	U.S. Core RE	U.S. Core Mortgage Debt	U.S. Core Mortgage Debt	U.S. Core Mortgage Debt	U.S. Core Liquid RE	U.S. Core Mortgage Debt	U.S. Core Mortgage Debt

Return	2016	2017	2018	2019	2020	2021	2022
Higher	APAC Core RE	Global Core Transport	APAC Core RE	U.S. Core Liquid RE	Global Core Infra	U.S. Core Liquid RE	APAC Core RE
	Global Core Infra	APAC Core RE	Global Core Infra	Global Core Transport	U.S. Core RE Mezz Debt	U.S. Core RE	Global Core Transport
	Global Core/ Core+ Alt Credit	Global Core Infra	U.S. Core RE Mezz Debt	U.S. Core RE Mezz Debt	Global Core/ Core+ Alt Credit	APAC Core RE	Global Core Infra
	Global Core Transport	Global Core/ Core+ Alt Credit	U.S. Core RE	APAC Core RE	Global Core Transport	Global Core/ Core+ Alt Credit	U.S. Core RE Mezz Debt
	U.S. Core RE	U.S. Core RE	Global Core Transport	Global Core/ Core+ Alt Credit	APAC Core RE	Global Core Transport	U.S. Core RE
	U.S. Core Liquid RE	U.S. Core RE Mezz Debt	Global Core/ Core+ Alt Credit	Global Core Infra	U.S. Core RE	Global Core Infra	Global Core/ Core+ Alt Credit
	U.S. Core RE Mezz Debt	U.S. Core Liquid RE	U.S. Core Mortgage Debt	U.S. Core RE	U.S. Core Mortgage Debt	U.S. Core RE Mezz Debt	U.S. Core Mortgage Debt
Lower	U.S. Core Mortgage Debt	U.S. Core Mortgage Debt	U.S. Core Liquid RE	U.S. Core Mortgage Debt	U.S. Core Liquid RE	U.S. Core Mortgage Debt	U.S. Core Liquid RE

Source: Barclays, Bloomberg, CBRE Jones Lang LaSalle, Clarksons, Cliffwater, Dow Jones, FTSE EPRA/NAREIT, MSCI, Nasdaq, NCREIF, S&P, J.P. Morgan Asset Management. Data notes: (1) Illustrative long-term real assets analysis using asset class annual returns from 2008 to 2022 with a few exceptions (use gross return of J.P. Morgan U.S. Real Estate Mezzanine Debt Fund from 2020 to 2022 as a proxy for U.S. Core RE Mezz Debt; use gross return of J.P. Morgan Global Transport Income Fund from 2019 to 2022 as a proxy for Global Core Transport). (2) Alternative asset class returns based on best data available as of June 30, 2023. (3) Annual return dispersion based on the average of annual dispersions over the past 15 years. (4) Direct lending is used as the proxy for global core/core+ alt credit. (5) Core/Core+ abbreviated as Core/C+. Real estate abbreviated as RE. For discussion purposes only. Past performance is not a reliable indicator of current and future results. Diversification does not guarantee investment returns and does not eliminate the risk of loss.

Manager performance dispersions have been much wider in non-core alternatives versus public markets and core alternatives

Exhibit 3: Top-quartile, median and bottom-quartile based on 10-year annualized returns



Source: Burgiss, Morningstar, NCREIF, J.P. Morgan Asset Management. Global equities (large cap) and global bonds dispersion are based on the world large stock and world bond categories, respectively. Manager dispersion is based on the annual returns for U.S. Fund Global Equities, U.S. Fund Global Bonds and U.S. Core Real Estate are over a 10-year period ending 3Q 2023. Non-core Real Estate, Global Private Equity and Global Venture Capital are represented by the 10-year horizon internal rate of return (IRR) ending 2Q 2023. U.S. Fund Global Equities and Bonds are comprised of U.S.-domiciled mutual funds and ETFs. Data is based on availability as of November 30, 2023.

Opportunities in the market

In the current market cycle, alternative investments can continue to bring "AID" to a traditional asset portfolio in the form of alpha, inflation risk mitigation and dislocation opportunities that have created attractive value potential.

- **Private equity assets** can help increase alpha potential through capital appreciation-driven investments, with current market dynamics offering opportunities to acquire investments on the secondary market at attractive discounts to net asset value.
- **Private core infrastructure assets** can provide enhanced diversification, stable income sources, inflation risk mitigation and downside protection due to the low relative economic sensitivity of the services provided by many of these assets. Pricing power through inflation pass-through mechanics, both explicit and implicit, also historically has helped to generate positive real returns during inflationary environments, making infrastructure an attractive investment during inflationary periods.
- **Private real estate assets** can provide similar attributes as core infrastructure with a greater potential for capital appreciation, depending on the strategy and risk profile. Recent pricing corrections also have offered better entry points in the segment given the lower entry valuations following the recent dislocation. Mispriced risk in the asset class should bode well for newer buildings relative to legacy assets, especially in the office sector.

In summary: Favorable outlook with specific areas of opportunity

Our macroeconomic expectation for the new year is anchored around slowing gross domestic product (GDP) growth, elevated but declining interest rates and tighter credit and liquidity. In this environment, we believe a diversified multi-alternatives allocation remains beneficial for investors given the collective diversifying attributes of these assets and the relatively attractive valuations now available.

Infrastructure, de novo real estate assets and secondary investments appear particularly attractive relative to other assets at this point in the cycle. However, we continue to view the investment potential of these types of strategies through the lens of a more broadly diversified multi-alternatives allocation. Ongoing macro uncertainties in the current environment should also lead to a continued increase in return dispersions among these assets, making active management key.

Private equity outlook

Diligent manager and asset selection will be crucial to success in the current market cycle

Authors

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“Last year’s pricing headwinds appear to have created a number of attractive entry points in private equity for those with dry powder to invest.”

Private equity outlook

In brief

- The long-term outlook for private equity remains broadly attractive, offering potential opportunities to enhance portfolio return and reduce volatility.
- Last year's slowdown in deal activity reduced upward pressure on valuations.
- In the current landscape, secondaries and co-investments appear to offer compelling investment opportunities.
- On the buyout side, we continue to favor the small mid-market given generally lower entry multiples, greater value creation potential and broader exit avenues.
- Return dispersions are likely to expand even more in the current cycle, making diligent manager selection even more critical to capture top-quartile returns.

Private equity (PE) strategies offer investors an opportunity to diversify their portfolios and the potential to enhance return and reduce volatility. Historically, the asset class has consistently outperformed public equity markets across a variety of market environments. It also presents a much broader investment opportunity set, representing roughly 85% of the total equity investment universe.[1] Therefore, investing only in public equities limits investors' exposure to just 15% of the market.

While the asset class faced fundraising challenges and declines in deal activity in the last year, the long-term investment potential of the market remains favorable. However, diligent manager and investment selection remain critical when seeking top-quartile returns.

Slower fundraising and higher interest rates shaped investment dynamics

After reaching record transaction volumes between 2000 and the first half of 2022, last year saw a notable slowdown in PE deal activity. Declines began to unfold in the second half of 2022 and continued through 2023 due largely to two major market shifts.

First, the run-up in interest rates made debt more difficult and expensive to access. This had a more material effect at the large end of the buyout market, where most deals are executed using leverage.

Second, the broad declines posted by traditional public equity and fixed income markets across much of 2022 created a denominator effect — investors became overallocated to private markets as the value of their public portfolios declined. As a result, many limited partners (LPs) slowed their commitment pace or stopped committing to illiquid asset classes altogether. This dynamic continued to dampen fundraising in 2023.

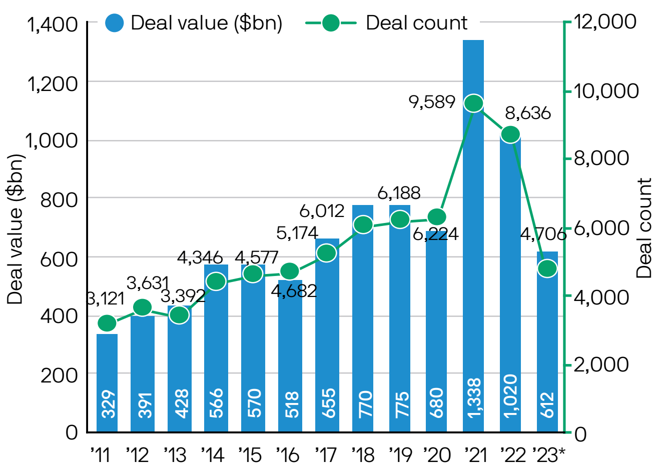
Muted deal activity may continue into 2024 given that the interest rate environment remains uncertain. However, at the same time, these dynamics have created a number of attractive entry points for those with dry powder to invest.

[1] S&P Capital IQ, as of August 31, 2022.

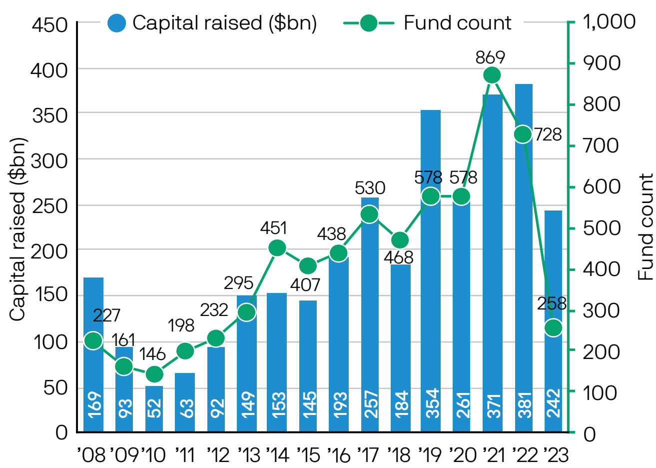
PE transactions have slowed from recent record highs

Exhibit 1: U.S. PE deal activity

1A: U.S. PE deal activity



1B: U.S. PE fundraising activity



Source: PitchBook Q3 2023 U.S. PE breakdown as of September 30, 2023. Includes estimated deal count and value as of September 30, 2023.

Emerging opportunities in secondaries and co-investments

The current market environment has fueled significant interest in secondary transactions and co-investments. Secondary transactions led by both LPs and general parters (GPs) are of particular interest for investors with dry powder. The overall market continues to see secondary interests priced at a discount to net asset values (NAVs), providing a favorable entry point for secondary buyers. LP buyout portfolios were priced at an average of 87% of NAV in 2022 and 90% as of the first half of 2023.[2] Given the significant slowdown in distributions across the market, selling PE interests on the secondary market has created liquidity for LPs. While discounts offer an added layer of immediate upside, secondary returns are primarily driven by asset appreciation. Thus, it remains critical to evaluate the underlying asset quality.

Co-investments — investments made directly into a single company alongside a GP — are also an attractive part of the market. These investments can generally be an opportunity for GPs and LPs alike. Amid fundraising challenges, GPs can offer co-investments to strategic partners to reduce their overall capital commitment, and staples are a way to entice LPs to future primary commitments. With co-investor capital, GPs can upsize their equity checks, and LPs can gain access to a potentially high-returning, targeted opportunity alongside a strategic partner. Further, many LPs are offered co-investments on a no-fee, no-carry basis as an added incentive.

Continued focus on small mid-market

On the buyout side, our view is that the small mid-market remains more attractive than the large and mega-markets given the segment's structural characteristics. Entry multiples tend to be more favorable, on average 1.3x lower for companies valued below $1 billion versus companies valued above $2.5 billion based on buyouts between 2010 and YTD 2023.[3] This is due to the fact that the small mid-market is relatively less competitive for investors and offers more room to find pricing dislocations.

[2] Jeffries Report, as of August 2023.

[3] PitchBook. Median Transaction Value / EBITDA Multiples of U.S. buyout deals occurring between 2010 and YTD 2023.

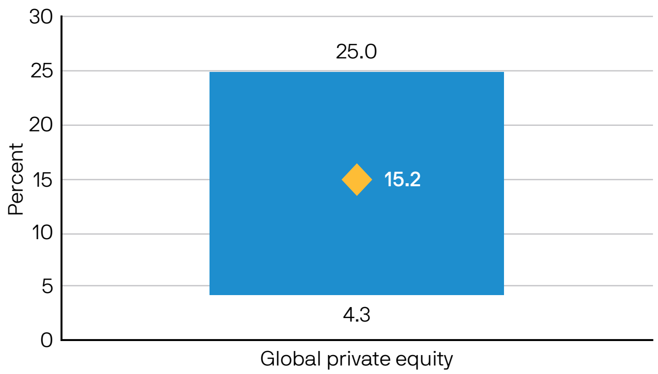
The small mid-market segment offers higher return potential, with top-quartile performance data showing that smaller fund sizes outperformed larger funds by more than 200 basis points over 2010 to 2020 vintages.[4] Businesses in this segment are often still family- or founder-owned at the time of investment and can benefit greatly from enhancements in the form of organic and inorganic expansion and operational improvements.

The segment is less sensitive to current IPO headwinds, which have weighed heavily on the exit possibilities of large PE deals. Instead, the small mid-market has a broad range of exit avenues. In addition to IPO, small mid-market companies often also exit via strategic acquisition or acquisition by another financial sponsor. Strategic acquirers are typically larger, publicly traded or financial sponsor-backed companies looking to add or expand a specific business capability. Financial sponsors may also acquire small mid-market companies as platform investments in sectors of interest or areas where they feel they can optimize and enhance the business.

[4] MSCI Private I. Top quartile IRR of U.S. and European buyout funds with vintages between 2010 and 2020.

The wide dispersion of PE strategy returns offers considerable opportunities for active management and manager selection

Exhibit 2: Top-quartile, median and bottom-quartile returns for 10-year period ended 1Q23



Source: Burgiss, J.P. Morgan Asset Management. Manager dispersion is based on the annual global PE returns as represented by the 10-year horizon internal rate of return (IRR) ending 1Q23. Data are based on availability as of August 31, 2023.

In summary: Asset selection remains key

Robust PE manager and asset due diligence will be crucial to success in the year ahead. The dispersion of manager returns in the asset class has always been relatively large across vintages over the years, especially in the small mid-market, and this dispersion may increase further given continued uncertainty in the market, emphasizing the importance of selecting top-quartile managers.

Despite recent volatility, PE continues to be a solid investment opportunity and has historically often been an outperforming investment following periods of dislocation. In this environment, we have seen earnings growth remain solid, continued technological advancements driving innovation and efficiencies across industries and pricing dislocations, which have created attractive opportunities. With this in mind, the outlook for PE remains favorable, and choosing the right partner will be critical to navigating the complexities and breadth of this compelling opportunity set.

Real estate outlook

Pricing resets offer considerable upside potential

Authors

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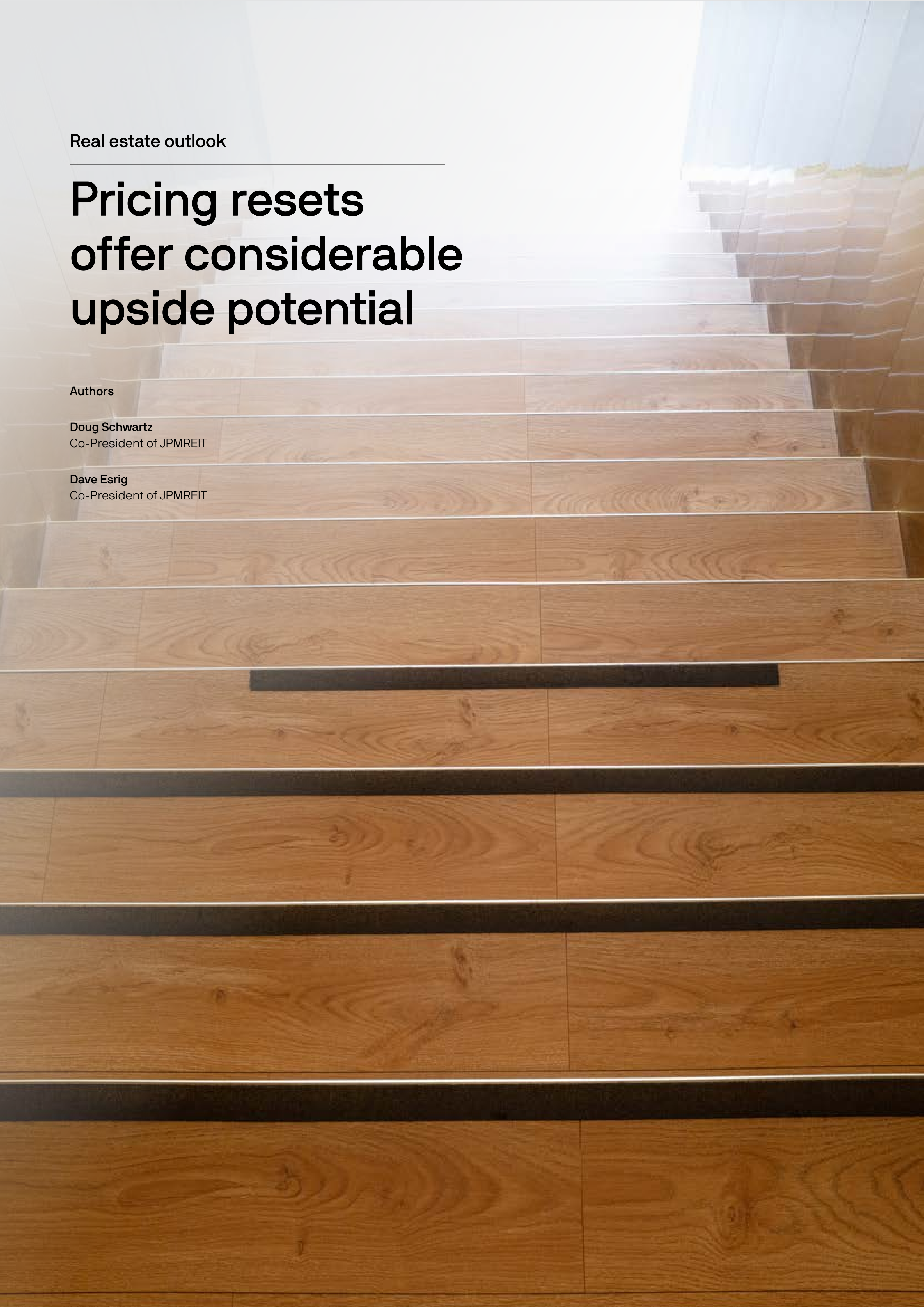


“Investors able to see past recent volatility and surrounding market noise have an opportunity to invest in some exceptional property assets at significant discounts.”

Real estate outlook

In brief

- Commercial real estate investments have historically offered higher income than bonds with inflation-correlated appreciation.[1]
- The rapid run-up in interest rates and resulting deal activity slowdown have meaningfully reset property valuations from early 2022 peaks, offering opportunities to invest in select, high-quality assets at significant discounts.
- Broad repricings have occurred across sectors, creating meaningful value in properties that remain fundamentally solid.
- Opportunities are also being driven by major shifts in how people consume, live and work due to changes in demographic, technological and social trends that continue to reshape how people use real estate.
- We see potential in single-family rentals, last-mile logistics and development optionality as the market begins to recover and evolve through the current cycle.

[1] Private Real Estate: NCREIF Fund Index—Open-End Diversified Core Equity.

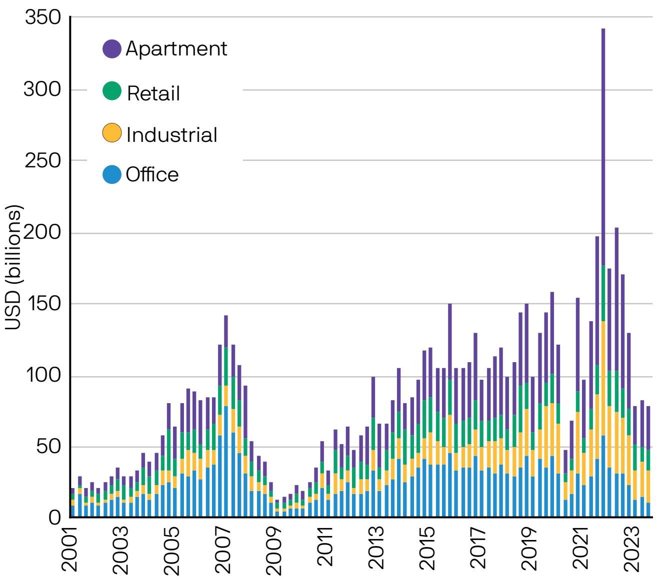
Commercial real estate (CRE) investors weathered a challenging period since mid-2022 as markets reacted to the surge in interest rates and a sharp slowdown in available investment capital. Overall transaction volumes throughout 2023 remained sharply lower than the peaks reached in 2021 and early 2022. This softness in deal activity has prompted a significant pricing reset that has been both broad and deep, often irrespective of property fundamentals. The result for investors with capital to deploy: a tremendous potential buying opportunity for high-quality assets.

Dissonance between valuations and fundamentals offers opportunity

The broad repricing environment has helped to skim off much of the market's froth. Of note, every major CRE sector has been affected by the recalibration in valuations, despite notable differences in underlying market dynamics and outlook.

Transaction volume remained muted but stable in 2023

Exhibit 1: Deal activity



Source: Real Capital Analytics, J.P. Morgan Asset Management; as of September 30, 2023. Shown for illustrative purposes only.

For example, consider offices versus apartments. Both sectors have experienced meaningful pricing pullbacks relative to their market fundamentals. Spot prices for the former have fallen by an average 32% from their pre-pandemic peak[1] and continue to face significant headwinds as the market has been forced to adjust to lower demand resulting from the rise in remote and hybrid workplace models and general shifts away from large urban centers. Office vacancy rates are at all-time highs. In contrast, the spot market for residential apartment building values is down an average 29% from its 2021 peak, even though rents are up an average 5% over the same period, amidst historically low vacancies. Further, a waning apartment construction pipeline should maintain upward pressure on rents over the long term. For apartment prices to fall so significantly in the face of such strong fundamentals now represents an outstanding buying opportunity.

Looking ahead, we expect this type of imbalance between valuations and fundamentals to begin to normalize. Transactions are expected to pick up significantly in 2024, based on refinancing and liquidity needs and as investors become used to new pricing levels in the context of an anticipated "higher-for-longer" interest-rate climate. This should lead to a preference for properties strongly positioned to perform well in the cycle ahead.

Megatrends also driving market transformation

Additionally, we believe it can be beneficial to approach CRE investing with an appreciation of the potential growth opportunities offered by the changing ways people use real estate today compared to years past. How we consume, work and live have all fundamentally transformed.

[1] Greenstreet as of October 31, 2023.

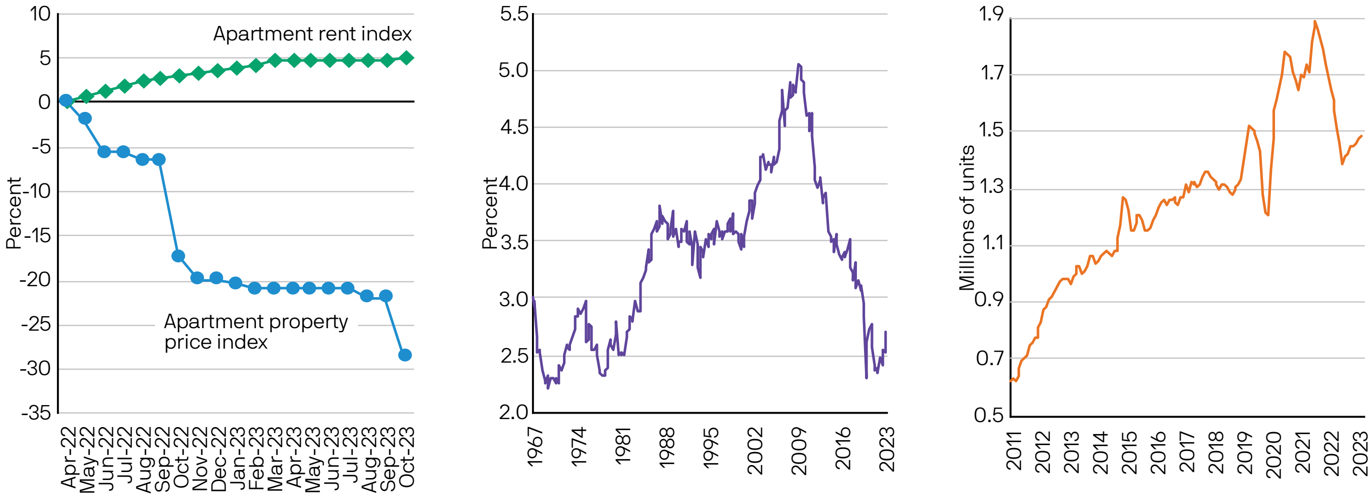
Apartment properties appear to offer attractive value given a price pullback despite increasing rent prices, historically low vacancies and reduced construction

Exhibit 2: Rental apartment trends

2A: U.S. apartment rent price index vs. rent level index

2B: Residential vacant for sale or rent

2C: Residential construction permits



Source: J.P. Morgan Asset Management. Shown for illustrative purposes only. Left side chart: Data complied as of September 30, 2023. U.S. non-financial corporate data is an estimate of EBITDA data from Fed flow of funds. EBIT series adjusted for depreciation estimate from S&P 500 EBIT and EBITDA series. NCREIF NFI-ODCE Index data reflects the returns of a blended portfolio of institutional-quality real estate and does not reflect the use of leverage or the impact of management and advisory fees. The NFI-ODCE Index has material differences from an investment in JPMREIT, including those related to investment objectives, risks, fees and expenses, liquidity and tax treatment. The NFI-ODCE Index is not a measure of non-listed REIT performance. It is not possible to invest directly into an index. Middle and right side charts: Census Bureau; as of September 30, 2023.

Housing demand is being driven by changes in lifestyle preferences and demographic trends, including the aging of the U.S. population. Working patterns continue to undergo tremendous change as flexible arrangements become embedded. The acceleration of e-commerce has not only changed how people shop for almost everything but also has created significant demand for fast and convenient transport and delivery of these goods and services. While many of the megatrends driving these changes had emerged long before the COVID-19 pandemic, the crisis certainly accelerated momentum — as well as the real estate opportunities poised to benefit from them.

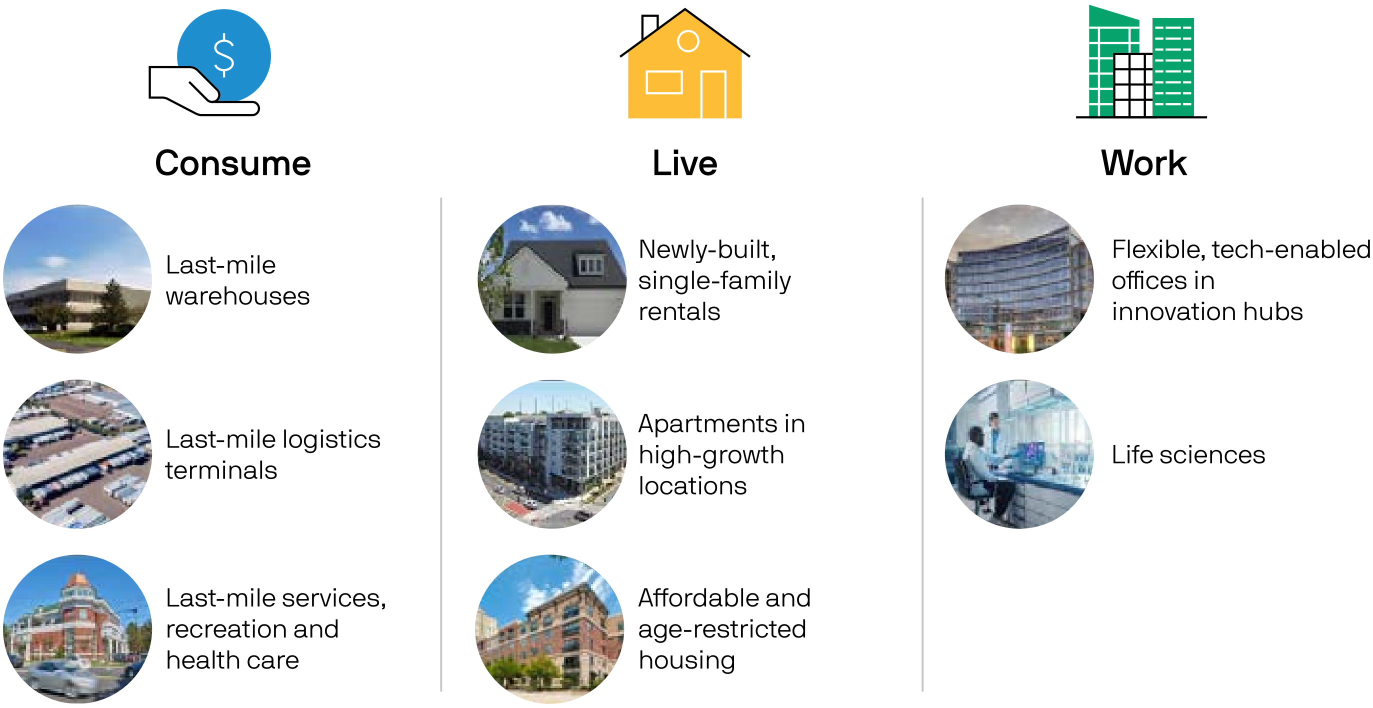
Specific market segment beneficiaries

These trends are playing out across a range of CRE sectors, property types and market themes. Some of the most attractive appear to be:

- **Single-family rentals:** The dynamics between owning or renting a home have been rapidly changing, driven by a U.S. housing shortage, escalating home values and rising interest rates. At the same time, people are looking for larger spaces and more modern amenities that may be out of their price reach to own. For example, the large millennial generation has entered the family formation age, with a desire to leave apartments in favor of renting a more spacious home with room to work from home as well as an attached garage and yard for the dog and kids. This has opened new, attractive CRE investment opportunities, such as cases where homebuilders have been interested in selling vacant parcels for build-for-rent housing developments.
- **Last-mile logistics:** People are increasingly looking for goods and services to be delivered directly to or close to their homes. "Last mile" refers to the final step in this logistics journey and includes properties that enable it, such as industrial outdoor storage, truck terminals and local warehouses. Many of these operations tend to be in areas where it can be difficult to build new capacity, providing added value to existing facilities. The segment is not just limited to shopping for goods. There is a growing movement for services in areas such as medical care and recreation to also be delivered to end users in a more convenient way through strip centers and other closely located options.
- **Development optionality:** Right now, it generally costs less to buy an asset than build a new one. However, at some point, the reverse will be true. With this in mind, investors should look for real estate investment managers able to 1) take advantage of today's discounts with available investment capital and 2) pivot to development when the environment changes. This should help offer the greatest flexibility for long-term investment success from both equity multiple and volatility perspectives as the market naturally evolves over time.

Building a portfolio for tomorrow requires looking beyond traditional sectors

Exhibit 3: A move away from low-growth, old-economy assets



Source: J.P. Morgan Asset Management. Shown for illustrative purposes only.

In contrast, sectors such as traditional office and all properties are likely to face continued headwinds, though even in those segments there are pockets of opportunity.

In summary: A generational opportunity to invest at very attractive prices

In our view, investors able to see past the recent CRE volatility and surrounding market noise have an opportunity to invest in some exceptional property assets at significant discounts. History shows that periods of CRE valuation corrections are usually followed by attractive rebounds, particularly in times like these when vacancy rates are low and assets can be purchased for cheaper than it would cost to build them. For example, the peak-to-trough drawdown of -13.3% in the early 1990s was followed by a rebound of 11.5% compound annual growth rate (CAGR) for the subsequent 15 years, the drawdown of -37.8% during the Great Financial Crisis was followed by an 11.2% CAGR for the subsequent 10 years and the -1.6% drawdown during the COVID-19 pandemic was followed by a 16.3% CAGR for the subsequent two years.[2] Asset and sector selection will also likely be key to ensure the greatest long-term success, both today and in the future as demographics, technology and social forces continue to shape how CRE is used.

[2] NCREIF, J.P. Morgan Asset Management as of September 30, 2023. The subsequent total return for the early 1990s represents returns from September 30, 1993 –June 30, 2008. The subsequent total return for the Great Financial Crisis represents returns from March 31, 2010–March 31, 2020. The subsequent total return for COVID represents returns from September 30, 2020–September 30, 2022.

Core private infrastructure outlook

Attractive opportunities for long-term private investors

Author

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“The often-essential nature of core infrastructure assets has generally resulted in the asset class remaining relatively cycle agnostic through periods of economic stress and macro uncertainty, including recently.”

Core private infrastructure outlook

In brief

- Core infrastructure should continue to benefit from strong structural tailwinds around the need to modernize, replace and decarbonize existing assets.
- While the asset class, like many, has seen a compression in risk premia, valuations have remained largely resilient, supported by the essential nature of these services and stable cash flows, as well as explicit and implicit inflation pass-through attributes.
- The recent more challenging fundraising environment, caused by rising interest rates and the denominator impact, has created opportunities for well-capitalized private investors.
- We expect opportunities in 2024 to be driven by the magnitude of investment required for the energy transition, closed-end funds looking for exit opportunities and corporates looking for additional capital outside of the public markets.
- Active, as opposed to passive, management remains key in the segment given the wide dispersion of asset and strategy returns and continued uncertainty around the current macroeconomic environment.

Core private infrastructure investments have historically offered investors a potential way to enhance portfolio diversification with cash flow–producing assets that have exhibited low historic correlations to traditional asset classes and defensive inflationary characteristics. The often-essential nature of the services provided by these assets has generally resulted in the asset class remaining relatively resilient and cycle agnostic through periods of economic stress and macro uncertainty, including recently.

However, the overall macro outlook across asset classes has been complicated by compressed risk premia, especially for real assets. The rapid rise in interest rates in the current cycle has led to the core private infrastructure equity risk premium dropping from a high of 8% in mid-2020 to an estimated 5.5% at the end of 2023.[1] Nevertheless, private infrastructure valuations have generally held steady as asset cash flows have remained largely resilient, supported by the essential nature of these services as well as explicit and implicit inflation pass-through attributes.

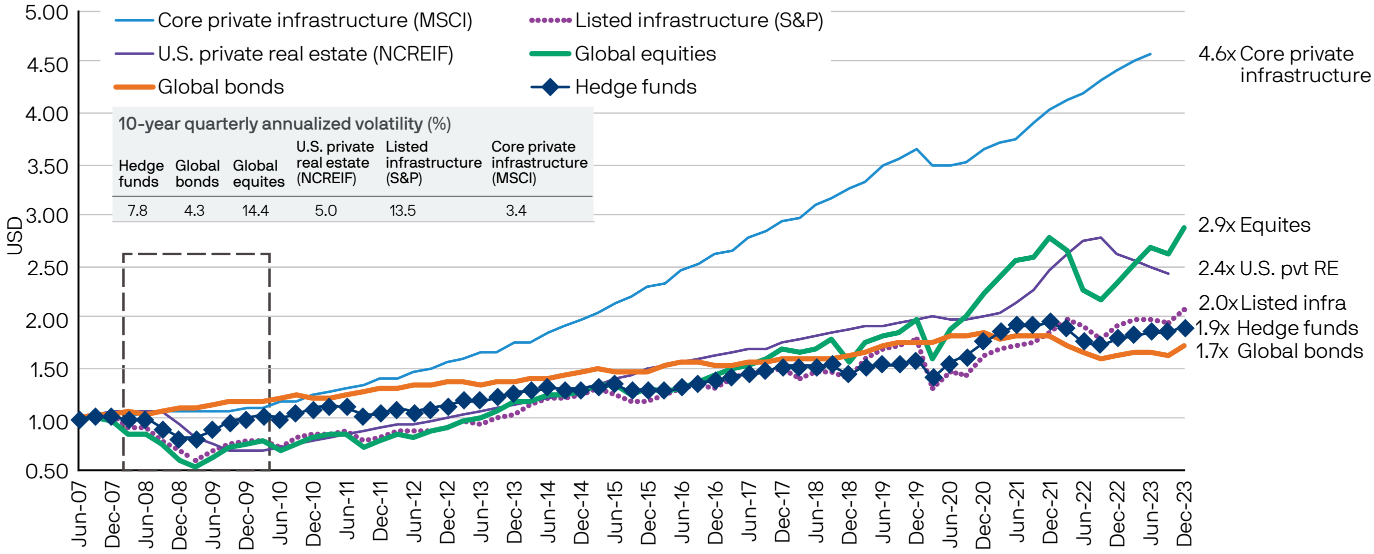
There has also been a concurrent move toward traditional assets resulting from the denominator effect created by 2022's market volatility — as public market values dropped, existing portfolio allocations to core private infrastructure increased, reducing investor demand for new commitments. As a result, 2023 saw lower deployment of capital than 2022.

Looking ahead, the fundraising environment appears to be improving, alongside continued moderation of inflation and a more stable rate environment. This points to a number of opportunities in the asset class, though the dispersion of manager performance is also likely to widen.

[1] J.P. Morgan Asset Management and MSCI Global Private Infrastructure Index.

Demonstrated history of diversification potential: Infrastructure has historically delivered an uncorrelated low volatility relative return profile through market cycles

Exhibit 1: Evolution of USD1 invested in 2Q07 to 4Q23, quarterly returns



Source: Bloomberg, J.P. Morgan Asset Management. Net total return local currency represents the return of the portfolio companies in their home currency. IIF local currency returns are net of fees, taxes and expenses. Global equities and global bonds are measured by MSCI World and Barclays Global Agg, respectively. Real estate data is from NCREIF ODCE Index. All series are total return indices (reinvestment of yield) and in local currency; data as of 3Q23. Past performance is not a reliable indicator of current and future results. Indices do not include fees or operating expenses and are not available for actual investment.

Inflation pass-through mechanics offer support

Many core infrastructure assets offer robust inflation pass-through attributes in the form of inflation-adjusted cash flows or allowed returns linked indirectly to inflation via base rates. Allowed return increases for utilities are an example of implicit inflation protection. In the 116 gas and electric U.S. rate cases pending at the end of 3Q23, requested returns on equity (ROE) ranged from 9.30% to 12.95%.[2] In comparison, gas and electric ROE determinations in 2019[3] authorized by state public utility commissions ranged from 8.91% to 10.25%.[4,5]

Although it is too early to tell if authorizations will match utilities' requests, there have been numerous cases since inflation began to trend up where adjustments have been approved.[6] Additionally, the historical link between inflation and utilities' allowed returns shows that utility costs remain relatively affordable as a percentage of overall disposable income, indicating that there is still potential headroom for increases without impacting volumes.

Last year's muted deal activity giving way to a robust pipeline

Merger and acquisition (M&A) activity has been muted over the past year, with deal volume slowing from more than 2,650 representing approximately $420 billion in 2022 to fewer than 2,000 representing less than

[2] *S&P Global Market Intelligence,* "US Energy Utilities Seek Almost $24B In Pending Rate Cases," Lisa Fontanella, October 2023.

[3] Time period used as a comparison given the uncertainty during and post-COVID.

[4] *S&P Global Market Intelligence,* "A Deep Dive Into US Gas ROE Authorizations In 2019," Lisa Fontanella, February 2020.

[5] *S&P Global Market Intelligence,* "Electric ROE Authorizations Drift Lower in H1'20 As Virus Worries Continue," Lisa Fontanella, August 2020.

[6] *S&P Global Market Intelligence,* "Inflation Rearing Its Head In Electric, Gas, General Rate Cases Nationwide," Dan Lowrey, October 2022.

$310 billion as of December 31, 2023.[7] This slowdown was largely driven by the rapid increase in debt costs, less new capital availability due to factors such as the denominator effect and an overall lack of sales catalysts given the generally resilient performance of the asset class, which has allowed many sellers to be patient without pressures to sell in the current environment, broadly avoiding the types of operational or financial-structure stress that might prompt more "distressed" sales.

As we move into 2024, the current pipeline is significant and well beyond existing dry powder in our view, providing attractive investment opportunities particularly from the energy transition and the need to modernize, replace and decarbonize existing infrastructure assets. For the first time in this maturing asset class, capex appears likely to outpace depreciation for at least the next decade, resulting in a robust pipeline for those investors who remain well capitalized.[8]

[7] Preqin, https://pro.preqin.com/analysis/deals/infrastructure, accessed November 30, 2023.
[8] J.P. Morgan Asset Management.

Areas of potential opportunity

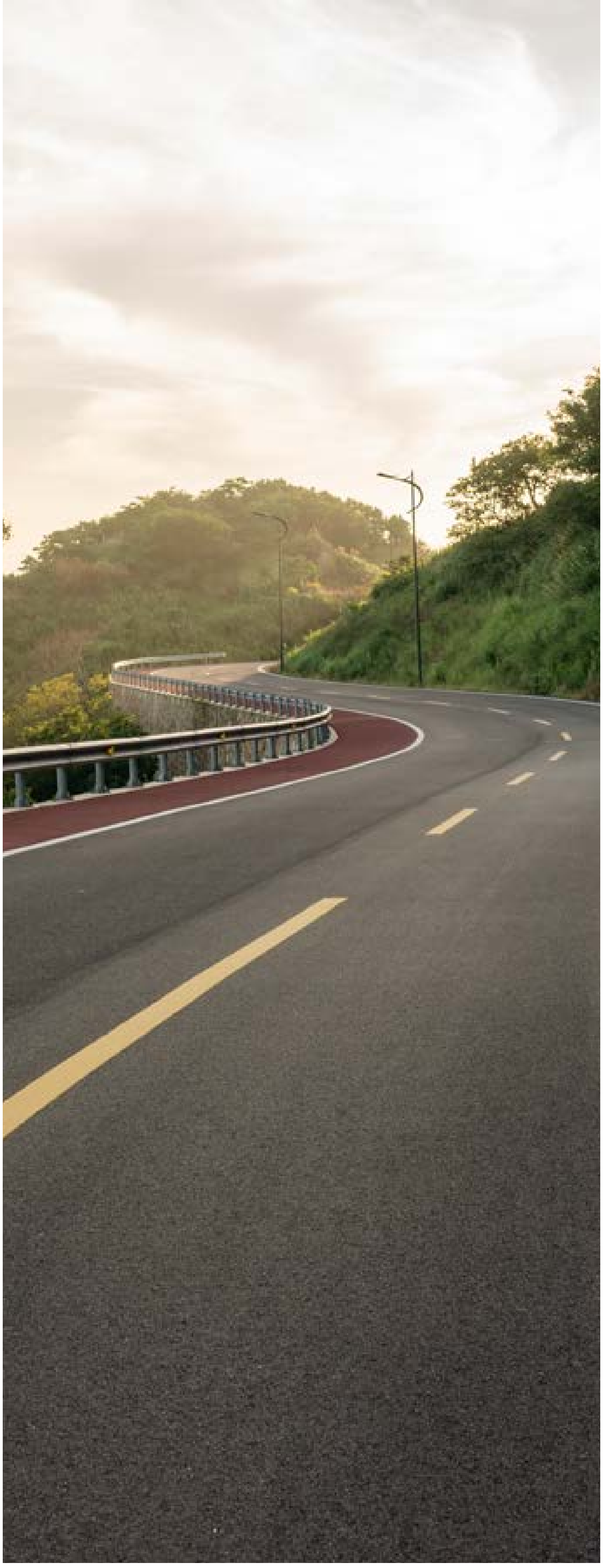
In the current cycle, we continue to favor investments into platform companies driven by the magnitude of investment required for the energy transition, closed-end funds looking for exit opportunities and corporates looking for additional capital outside of the public markets. Against this backdrop, we find several segments of the market particularly appealing:

- **Regulated utilities:** As highlighted earlier, regulated utilities are likely to see a continued widening in the range of allowed returns, which is mostly expected to benefit larger utilities able to reduce cost volatility and more easily replenish their rate base. This presents an opportunity for investors who are able to keep up with capital plans and build on large-scale platforms.
- **Power generation and the energy transition:** Decarbonization is expected to remain an investment theme near term. For example, electrification is expected to support steady power demand growth, which in turn will result in increased investment in improving transmission systems and processes. Traditional thermal generation is likely to remain a requirement as the need for reliable power through the transition increases and will continue to facilitate bringing more intermittent renewable power online as grids struggle to keep up with decentralization of power production.

In contrast, we continue to remain fairly cautious around digital infrastructure assets. Although there is potential within the sector, many digital infrastructure assets in our view have risk and return profiles more typical of a strategy with a value-add growth orientation.

In summary: Resilient investment potential through diligent selection

Core private infrastructure is expected to continue to provide uncorrelated returns, consistent cash yield and inflation protection through 2024 and long term. Macro headwinds remain an important factor for investors to consider and will likely result in a broader spread of manager returns for the year ahead. The asset class has continued to showcase cycle-agnostic behavior, and we expect relative volatility to remain low and support continued steady growth in multiple on invested capital (MOIC). There clearly is an enormous requirement for ongoing investment in the asset class, providing continuing opportunities for investors to achieve diversified and consistent returns.



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