



ALTERNATIVES

UNLOCKING ALTS: OPPORTUNITIES IN A NEW INVESTMENT REGIME

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All investments involve risk,
including possible loss of capital.

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INTRODUCTION

The investment landscape remains uncertain. Interest rates have been stubbornly high, and central banks around the world appear to be moving cautiously before pivoting to a more accommodative policy stance. Economies around the globe are moving along divergent paths, underscored by resilient growth in the US that has outpaced many of its peers. The geopolitical environment is likewise unpredictable. Military conflicts and key elections in major economies are blurring the outlook, while heightened economic and technological competition between global powers may create fertile ground for new risks to emerge.

The world is changing quickly, and investors are facing an environment that looks far different than it did during the bygone era of low rates and low inflation. Uncertain times call for investors to construct their portfolios with a long-term view and remain prepared to capture new opportunities as they reveal themselves across a range of asset classes. As market conditions unfold, agile investors can unlock opportunities by viewing alternatives through a wide lens.

When the outlook is murky, it is important for investors to seek returns through a diverse mix of public and private assets. Alts can present investors with an abundance of opportunities to build greater diversification, and potentially, resiliency into their portfolios, whether through liquid or private alternative strategies. By taking a holistic approach to investing in alts, investors will uncover a broad set of strategies to navigate a new investment regime.

As the amount of capital being invested in alternatives increases, it is crucial that global investors not only take advantage of the differentiating power of alternatives, but also identify the opportunities across alts that are yet to be uncovered. To help investors harness these possibilities in 2024 and beyond, PGIM has collected investment ideas from our affiliates to highlight opportunities that are emerging across a broad spectrum of the alts universe. Allocating toward alts could be a powerful tool for investors seeking to both capture opportunities and mitigate downside risk, no matter what the future holds.



THE ONGOING EVOLUTION OF DIRECT LENDING

As demand for non-bank capital increases and yields remain high on a historical basis, direct lending continues to grow as an asset class. While the conditions for growth last year were far from ideal – with central banks continuing to tighten monetary policy for much of 2023 and rising financing costs across the marketplace – direct lending continued to gain market share and remained resilient.¹

That resiliency was primarily driven by direct lending's natural protection against inflation through floating rate loans. The increases in central bank rates have translated into higher yields, and risk premiums also remained at historically wide levels.²

While the high-interest-rate environment has resulted in improved returns, allocators may wonder about its impact on borrower cash flows and their ability to service debt. PGIM Private Capital's (PPC) fundamental approach to underwriting credit on a cash-flow basis – focusing on a company's ability to service debt while also covering its fixed expenses – is key to navigating the credit cycle.

Focusing on the middle market

In recent years, the direct lending market has seen increasing segmentation as it continues to mature. PPC focuses on the core middle market, companies with EBITDA of between \$20 million and \$50 million.

“We believe the core middle market offers opportunity, in light of the fact that many larger direct lenders have moved to pursue larger company financings, which brings them into competition with providers of syndicated loans,” said Matthew Harvey, Head and Partner of PGIM Private Capital's Alternatives Direct Lending Group. “At PGIM Private Capital, we finance companies that are owned by private-equity sponsors as well as family- or management-owned businesses that are looking to expand, recapitalize or make acquisitions.”

PPC's international network of 15 offices organized into nearly 50 deal teams, comprised of more than 200 investment professionals, supports building well-established relationships with companies and private-equity sponsors in their local markets.

¹ Source: S&P LCD Leveraged Lending Review as of 12/31/2023.

² Source: Leveraged Commentary & Data; Morningstar LSTA US Leveraged Loan Index as of 4/10/2024.

“Our global origination capability allows us to work with a diversified pool of borrowers from both a sector and geographical perspective,” Harvey said. “We focus on the more conservative end of the market. Specifically, we work with companies that have leverage of no more than four times EBITDA, with a typical loan-to-enterprise value of 40%. We believe these parameters are specifically important throughout during periods of economic stress.”

PPC continues to expand in the core US market, as well as in Europe, Australia and New Zealand, and Latin America. The increasing liberalization of the direct lending market outside the US has played a key role, with PPC closing inaugural financing for issuers and sponsors in countries such as the Netherlands.

Looking ahead

2023 was a record year for PGIM Private Capital’s direct lending business. Despite the challenging environment for M&A and leveraged-loan activity, PPC’s direct lending team generated new direct-loan originations worth nearly \$2 billion across 50 transactions. Looking forward, as the macroeconomic backdrop continues to stabilize, this will likely lead to a resumption of M&A activity as well as general capital investment.

PGIM Private Capital’s ability to position itself as a first-lien senior secured investor, its emphasis on cash-flow coverage in the underwriting process, and multi-decade experience are key factors as the direct lending space continues to evolve.

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SOLVING FOR HOUSING SUPPLY SHORTAGES THROUGH VALUE-ADD INVESTING

Rental housing in the United States, which accounts for over one-third of all housing, is less affordable now than it has been for at least 40 years. While there have been many contributors to the decline in affordability, the underlying cause is that demand for housing has outstripped net new supply, particularly over the past 15 years. This presents an opportunity for private investors to help, both by investing in regulated units that are available to lower- and moderate-income households, and by providing new market-rate rental housing.

The case for investing in regulated affordable housing¹ is underpinned by the higher durability and predictability of cash flows relative to market-rate rentals. That more stable income is augmented by financial incentives in various forms, including tax abatements, increased permitted units, and other subsidies intended to incentivize affordable housing. Rent increases are indexed to growth in metropolitan area median household

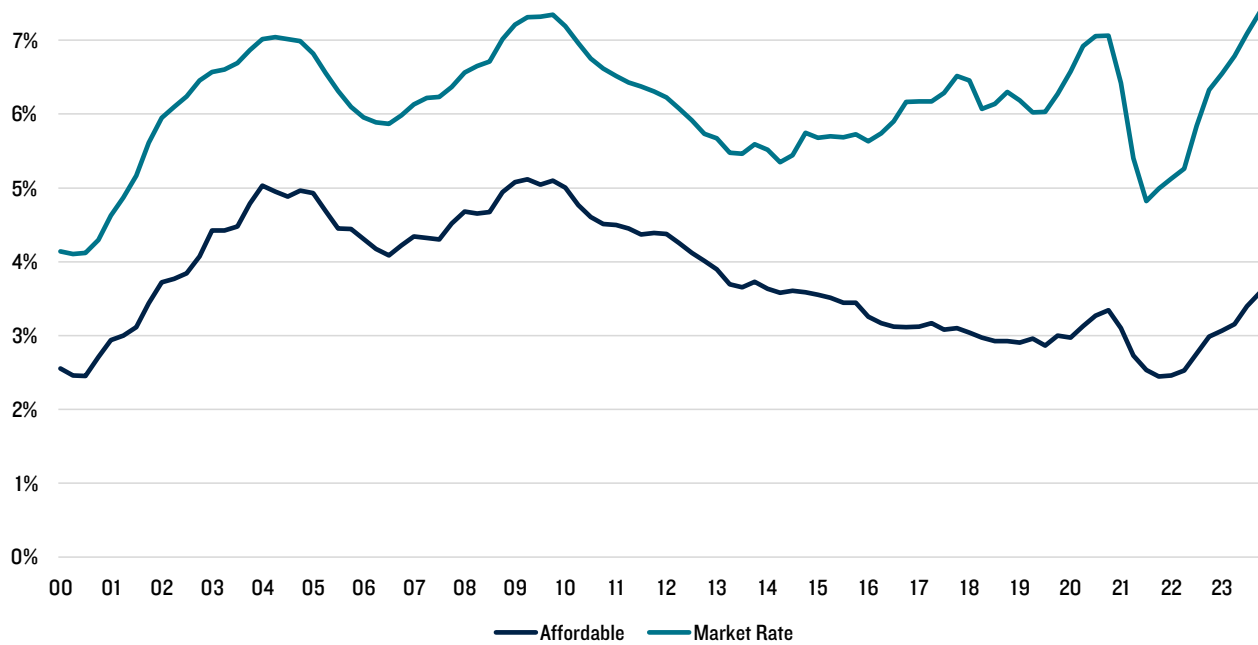
incomes, so that housing accounts for a manageable share (most typically, 30%) of those incomes. Affordable housing programs target households with incomes below to slightly above area medians, with more generous subsidies available for renters that earn well below the area median. Those financial incentives can offset the foregone upside if market rents grow faster than area median incomes.

Regulated affordable housing is not entirely immune from market cycles, but by nature of having rents held below market the sector has built-in shock absorbers. For example, as shown in the chart, vacancies in affordable housing often rise in similar fashion with market rate housing. However, vacancies are structurally lower for affordable housing. According to CoStar, vacancy among affordable housing units averaged 3.8% since 2000, compared to 6.2% for market rate units. Moreover, the gap between market-rate and affordable vacancies has increased over the past decade, which is evidence

¹ Regulated affordable housing includes many different ownership structures and regulatory requirements. Over the past 50 years, ownership of regulated affordable housing has largely transitioned away from the public sector to both non-profit and for-profit owners, most of which benefit from a subsidy for keeping units affordable to low- and moderate-income renter households. Some subsidies are explicit, such as the Low-Income Housing Tax Credit (LIHTC) program. Other subsidies are in-kind, such as density bonuses that allow developers to build more units if subsets of projects are rented as regulated affordable units.

Regulated affordable rental housing is distinct from market-rate rental housing that is affordable to low- and moderate-income renters, often referred to as naturally occurring affordable housing (NOAH). NOAH units exist in most markets because they have fewer amenities than newly built housing, and/or are in locations less desirable for higher-income renters. While rents in NOAH units are lower than in most newer rentals, the lack of regulations means that rent growth may outpace income growth for prolonged periods of time, making them unaffordable for lower-income renters.

Multifamily Vacancy Rates



Sources: CoStar, PGIM Real Estate, as of February 2024

that existing supply is insufficient to meet demand.

The lower volatility in vacancy is mirrored in affordable housing rent growth. Over most time periods, affordable housing rent growth matches or lags only slightly behind market-rate. Rent growth lags market-rate during boom periods, such as the post-GFC period and, notably, the post-2020 frenzy. That underperformance is partially offset by steady growth during weaker market-rate performance, such as the subdued growth in the economically lackluster mid-2010s, and more recently in the brief demand collapse in 2020. We now expect affordable housing rents to continue to grow over the next two years, even as the temporary increase in multifamily supply constrains or potentially depresses market rent growth.

The combination of stable rent growth and low vacancies has drawn increased institutional investment into regulated affordable housing. According to Real Capital Analytics, transactions volumes have grown over the past decade to a peak of just under \$55 billion in 2022, before the recent slowdown in all real estate transactions activity.

Despite that increased investment, cap rates for subsidized sales have tracked closely with broader multifamily markets. In most periods, there is a premium to compensate investors for the lack of upside during strong market rent growth periods. However, the series occasionally converge during periods when market rent growth decelerates, such as the late 2000s, the mid-2010s, and today.

Investing in regulated affordable housing is not without risk. The sector limits the risk of falling property incomes, since

rents are usually set well below market rates – even during periods when market rents fall, regulated affordable rent growth usually remains positive.² The risk in the sector is that legally allowed rent increases are insufficient to offset rising operating and capital expenses. This risk can be mitigated, but not entirely abated, by consistently raising rents by the maximum allowed.

Building Market-Rate Rental Housing

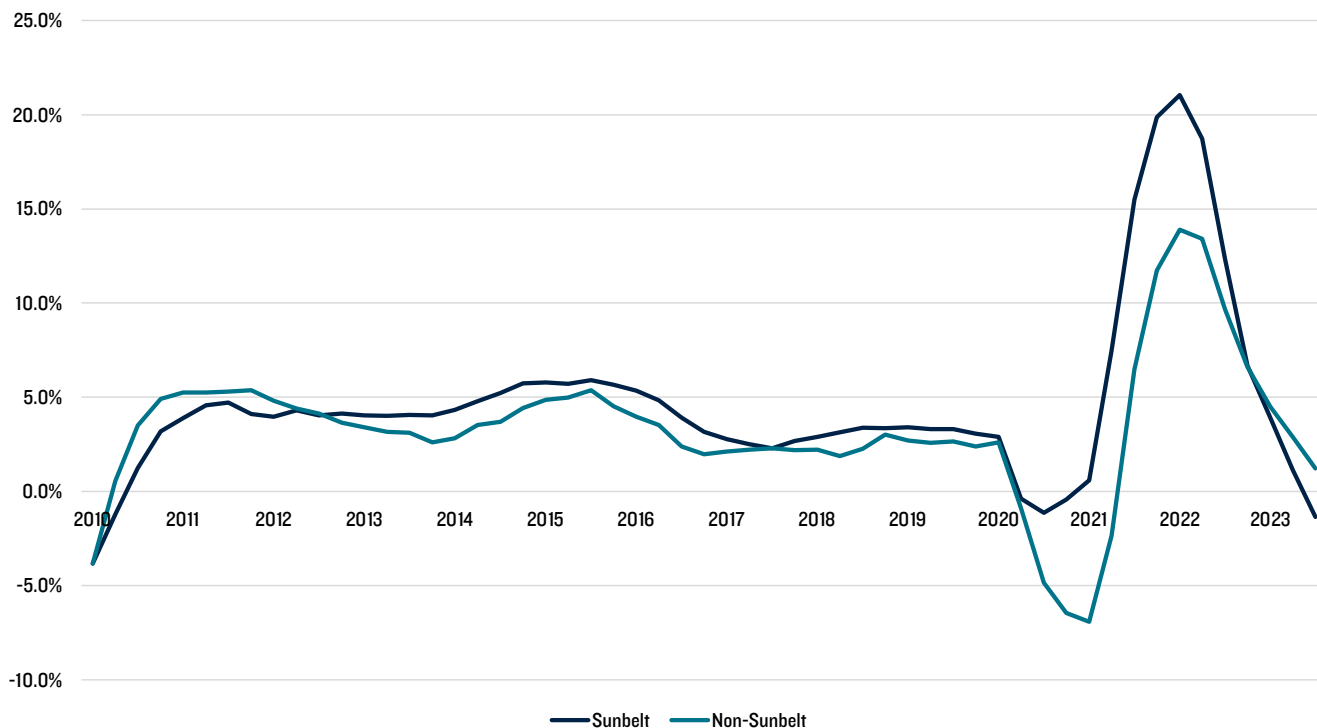
What does market-rate housing, sometimes including non-essential amenities like modern fitness studios and saltwater swimming pools, have to do with affordable housing? While counter-intuitive, construction of luxury multifamily units makes existing rental units more affordable than they would have been without new supply additions. This second-order effect means that building new market-rate housing can improve housing affordability alongside providing regulated-affordable housing.

The need for new housing increases in metropolitan areas that have a growing number of households, rising household incomes, and supply constraints that raise the cost and limit the density of new housing. What is less obvious is that housing can become unaffordable even in places that don't have all three of these things happening at the same time.

The most important housing demand driver is, by definition, household growth. This is closely related to population growth, which is in part due to a combination of domestic and international migration. Over the past two decades, domestic migration flows have generally been from the Northeast,

² The exceptions are periods when nominal household incomes decline, which are rare and usually less than 1%.

Multifamily Rent Growth by Geography



Source: RealPage, PGIM Real Estate. Data as of March 2024.

Midwest and California towards the Sunbelt. Developers in those Sunbelt markets have historically been able to accommodate that growth, and therefore rent growth has been only slightly higher than slower-growing Non-Sunbelt markets since 2010, as shown in the chart below. However, the COVID-era surge in Sunbelt migration was too much and too fast to add enough new housing, causing rents to soar at an average rate of over 20% per year at the beginning of 2022.

A pause in net migration to these Sunbelt markets combined with a supply surge has caused rents to decline slightly since late-2023. Nevertheless, relief for renters will be temporary, assuming migration returns to its historically normal pace. Construction has largely shut down, setting the stage for a further tightening in rental housing markets in 2025 and beyond. New market-rate housing will be needed for those who will continue to move to these high population growth Sunbelt markets.

Meanwhile, despite weak population growth and migration flows, many Northeast and California markets have highly unaffordable housing markets. This is where income growth – and income distribution – factors in. Over at least the past 50 years, household expenses have accounted for an increasing share of personal consumption expenses. Put differently, as household incomes rise, demand for housing increases even faster.

Areas such as the Northeast and California also have a disproportionate share of the highest-earning households in the country. This further contributes to affordability challenges. Areas with the highest level of inequality, as measured by a Gini coefficient, are typically less affordable for average renters. This is because higher-earning households consume a disproportionate share of housing, not only because they prefer larger units, but also because they are more likely to have smaller households (i.e., fewer roommates).

Finally, and perhaps most importantly, physical and regulatory³ supply constraints that limit the supply of housing will cause affordability to deteriorate as long as housing demand is growing. Supply constraints are typically highest in areas that historically have high income growth. This supply inelasticity means that in metropolitan areas such as San Francisco and New York, even small increases in household formations can push housing costs up.

Those supply constraints limit competition for new housing that does get built. While demand shocks can cause housing rents to decline during recessions in places like San Francisco, those downturns are likely to be short-lived given the limited pace of building even during economic boom periods. In short, places where it is hardest to develop new housing also offer high returns to those who can build it.

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³ The Wharton Land Use Regulatory Index (WLURI) is the most cited and accepted measure of regulatory constraints in the U.S. The methodology quantifies the restrictiveness of a variety of regulatory measures, including the number of entities that can approve projects, density restrictions, open space requirements, development fees, and project review delay times.



OPPORTUNISTIC CREDIT STRATEGIES FOR A HIGHER-RATE ENVIRONMENT

Peering across today's credit markets, a common theme emerges: Companies are increasingly going outside traditional channels and relying far more on alternative solutions to meet capital needs. As such, leveraged finance markets have roughly doubled in size following the Global Financial Crisis. This shift will be ever more apparent as a result of the historic rate-hiking cycle, given the likelihood that central banks will not serve as a backstop to financial markets as they have for most of the post-GFC era. With a default cycle beginning to come into view, investors will likely find attractive opportunities in leveraged finance markets amid weakening credit fundamentals and a corresponding rise in special situations activity.

The coming default cycle may prove to be more of a classic one defined by its persistence in duration, rather than its severity. This cycle will play out in an environment that looks far different than the post-GFC years, when investors were accustomed to central bank policies acting as a backstop. Historically, a typical cycle that lasted around five years featured an average cumulative default rate of 30%. In

this type of environment, companies must operate in “self-help” mode. With the era of cheap capital at its conclusion, reduced liquidity may prevent capital from flowing to where it is needed most.

After a decade-plus of loose covenants, borrowers today have flexibility that they can use to their advantage. We see many companies taking a proactive approach to addressing liquidity issues and future capital needs, initiating early conversations to get ahead of expected challenges. Opportunistic credit liability management solutions are poised to become a more pronounced feature among limited partner allocations, representing a durable opportunity in the search for uncorrelated, equity-like returns.

It is also important to consider how semi-liquid and illiquid strategies have grown in scale to become a central part of investors' portfolios. The evolution of these strategies has benefited LPs in meeting their funding objectives. From an individual investor's perspective, a greater level of sophistication in the markets has led to new investment vehicles that provide access to alternative opportunities.

The need for opportunistic credit strategies has grown substantially with the rise of complexity across corporate credit markets along with the large pools of inflexible capital that have been borne out of 15 years of financial repression by central banks around the world. Tranched strategies meant to capture excess spread and carry (yield) under zero-interest policies are seeding the next wave of opportunities that will become available to investors who target special situations, distressed and mezzanine strategies. As markets focus on the contours of a complicated fight against inflation around the world, credit market complexities along with ownership problems are driving increasing levels of stress and a need for capital solutions by companies and financial sponsors despite valuations across credit and equities at or nearing record levels.

Special situations strategies typically benefit from an environment when they can lean into complex situations with flexible capital capture complexity premia at attractive valuations. We see this occurring regardless if a market drawdown occurs (traditional pathway) given the nature of the credit markets today: weakening market multiples, higher interest burden, slowing economies, excessive leverage and reduced corporate pricing power (versus the last three years). Helping companies address balance sheet and capital structure problems through liability management via debt exchanges, preferred equity solutions to reduce leverage, equity injections and process loans, and amend and extend transactions with warrant features are examples of the transactions we are increasingly seeing that can drive significant uncorrelated returns across the credit cycle.

Markets have recently displayed a heightened sense of uncertainty, with the macro implications of higher rates and inflation still taking shape. Investors are therefore taking a shorter-term approach. They are employing strategies that have worked more recently, driving a structural change across credit markets with investors showing a preference for moving up in quality, avoiding downside risk, and preserving capital in anticipation of greater volatility as rates normalize.

Investors might be better served playing the long game. Higher borrowing costs, as well as the likelihood that rates remain higher for longer, are exposing fragilities in the market. Despite the broader array of financing options available to companies, challenges are still emerging as a result of tighter credit conditions and a shortage of dry powder. Companies are in need of solutions to navigate this environment, and they are increasingly seeking managers and pools of capital to help them overcome a challenging operating cycle. Distortions in leveraged finance markets may exacerbate the challenges that companies face. Many investors today are focused more on capturing yield, and they are less interested in taking on credit risk. These investors are likely to sell more quickly when risks do emerge. The flight

to quality in the current market environment could therefore lead to further volatility, credit stress and defaults that fuel a rise in distressed and special situations activity—even against a macro backdrop that is relatively benign.

We expect liability management (LME) to be a main feature of the next credit cycle and are seeing a significant rise in activity as companies are not waiting for more favorable capital market conditions to materialize down the road to address capital structure needs. Rather, companies increasingly prefer to monetize the optionality provided to them by lenders through significant flexibility in credit agreements or bond indentures, and pull forward the conversation to address the needs now through coercive maneuvers with existing lenders by enlisting the help of small group lenders or managers that have flexible capital and good insight into the company's setup value and operating condition. The rise of LME or lender violence is happening at a time when credit spreads are near record tight levels and default rates are still relatively low by historical standards. We believe the rise is tied to a degree of capital misallocation across levered credit as companies and lenders recognize there is a permanent reduction in enterprise value and that market conditions along with idiosyncratic factors suggest a lower terminal value or "backwardation" effect the company's future value.

Conclusion

We believe higher dispersion across credit markets is structural and being driven by years of financial repression, which has driven a sizable amount of unnatural investors and inflexible capital into corporate credit. The added factor of lender violence or liability management is creating a circular dynamic whereby segments of the credit markets exposed are quickly assigned elevated risk premiums for investors to participate, which is seeding future distress especially as maturity walls loom.

As investors retreat from corners of the market, companies are further emboldened by advisors to apply increasingly aggressive tactics. In large part, the reason defaults and distress are rising with credit spreads near record tight levels is because of this feedback dynamic, which is set to amplify stresses and need for capital solutions if credit conditions deteriorate further.

Private equity sponsors are facing a challenging backdrop as exits plummet and leverage across portfolio companies remains elevated along with overall credit risks. The reaction function from sponsors is to dial up competitive pressure between the direct lending market and the broadly syndicated loan (BSL) market to achieve the best terms possible. Liquidity challenges within sponsor portfolios are

ushering in the use of NAV lending which is sub-optimal from the LP perspective. In short, sponsors are set to become increasingly aggressive, which could drive even tighter conditions. We believe the next 15 years will look different from the post-GFC era, as the need for opportunistic credit through special situations and distressed strategies looks to capitalize on the structural challenges in the credit markets and excesses as measured through various forms such as underwriting and return expectations.

We believe the best way to achieve uncorrelated equity-like returns over the next decade will be through opportunistically owning the debt of companies. Specifically,

special situations managers can capitalize on the weakened positioning of debt or private equity investors in good companies that require capital solutions regardless of the credit cycle condition.

The combination of constrained central bank liquidity, market distortions, and the need for alternative capital solutions create fertile ground for investors with experience navigating a variety of credit cycles. With a lengthy period of “self-help” for companies and sponsors likely just beginning, investors with dry powder who can anticipate the coming default cycle will be prepared to capture opportunities as they reveal themselves.

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LIQUID ALTS AND A DEEPER APPROACH TO DIVERSIFICATION

It is hardly a secret today that institutional investors are allocating a growing share of their portfolio to private markets. US state and local pensions alone more than tripled their allocation to private markets and other alternative assets between 2001 and 2022, reaching 27.3%.¹ Demand for private assets continues to expand, with investors broadly anticipating additional growth moving forward.² In large part, the spark for this trend can be attributed to the success of large university endowments, whose sizable allocations toward private markets set the stage for growth. However, asset allocators seeking to replicate the endowment model must also consider the broader, unintended implications of this approach—namely, elevating liquidity risks in the portfolio. This underscores the role that liquid alternatives play in a diversified portfolio.

The rise of the endowment model, bringing with it an increasing share of illiquid assets in portfolios, necessitates that investors put greater emphasis on ex-ante risk

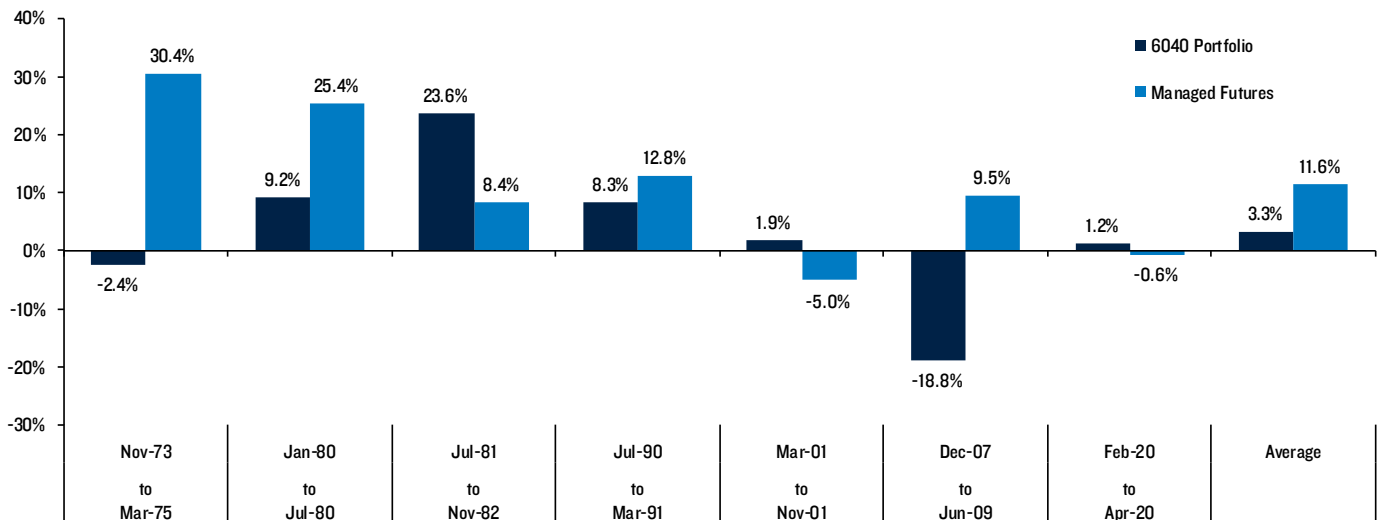
management. To be clear, this has happened for good reasons. Investors have increasingly sought greater choice and, in seeking to build portfolios with a diverse mix of asset classes and investment strategies, turned to private markets. These assets are an important component of a diversified portfolio and became especially attractive during a period of ultra-low interest rates.

But with this shift to illiquid markets comes the potential for hidden concentration risks to develop in a portfolio. Thus, investors should be looking at risk through a wider lens. Rather than focusing solely on volatility, investors need to think about risk in multiple dimensions, including their exposure to liquidity and rebalancing challenges that may arise in an uncertain global environment. As investors observed in 2022, a concurrent decline in equity and fixed income asset prices left some portfolios with an overcommitted book in illiquid assets. The need to draw down on liquid investments for the purpose of funding

1 Public Plans Data, accessed March 2024 <https://publicplansdata.org/quick-facts/national>

2 PGIM Megatrends report, "The New Dynamics of Private Markets: Investment Risks and Opportunities" <https://www.pgim.com/megatrends/private-markets>

Managed Futures Tend to Outperform a 60/40 Portfolio During NBER-Defined Recessions



Source: Bloomberg and PGIM Wadhvani. Chart displays recessions between 1972 and 2020. Provided for illustrative purposes only. Data as of March 2024.

distributions or other obligations widened the imbalance between liquid and illiquid allocations, creating additional challenges for CIOs.

Institutional investors should also note that not all alternatives are made equal when it comes to their liquidity profile. In private markets, some assets might have an investment horizon of three to five years. Others, such as farmland and timberland, may extend well beyond that timeframe.

Constructing a diversified portfolio that is genuinely diversified in its asset classes, strategies and liquidity profile calls for consideration of liquid alts like systematic macro strategies and managed futures. Liquid alts could offer substantial diversifying returns in a world where traditional asset classes come under stress. This could also be true in a world where few asset classes deliver on their expected returns, leading investors to seek diversification through sources of return that can cushion the blow by reducing downside risk and the overall volatility of a portfolio. To achieve this, investment strategies must be agile and disciplined, two things that have contributed to a re-emergence in demand for process-driven and quantitative investing. Facing an uncertain global outlook, a growing number of investors have viewed quantitative techniques as a means of generating returns in a volatile, ever-changing world.

Given their diversification characteristics, liquid alts have generally benefited investors through times when economic outcomes are unclear. Trend following and macro strategies have historically done well against a backdrop of recessions or high inflation, when compared with the 60/40 portfolio. For example, in 2022, a 60/40 portfolio was down more than 15%, while a trend following portfolio was up more than 15%.³ Liquid alts are adaptable as well. During rosier economic times, macro strategies are still likely to generate positive returns, making them conceivably a sound investment regardless of market conditions.

Rather than backing the investment styles, asset classes and investment vehicles that have performed well over the last decade, investors need to be cognizant that diversification comes in many different forms. While the endowment model has served them well, portfolios with a growing share of illiquid assets may be left more vulnerable to a situation where financial stress rises and liquidity once again earns a premia. This is why we believe it's crucial to take a more holistic approach to asset allocation by seeking deeper diversification and uncovering hidden opportunities that can deliver in a changing world.

[LEARN MORE AT PGIMWADHWANI.COM](https://www.pgim.com/alternatives/market-uncertainty-calls-doubling-down-diversification) →

³ PGIM Wadhvani, "Market Uncertainty Calls for Doubling Down on Diversification" <https://www.pgim.com/alternatives/market-uncertainty-calls-doubling-down-diversification>

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