ALTS: IN PURSUIT OF ALPHA, INCOME AND DIVERSIFICATION

# Alternative investments: The essential buyer's guide

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## IN BRIEF

If you are convinced of *why* you should invest in alternatives but unsure *how* to build out your allocation, invest more effectively or just get started, our guide is designed to:

- Help you focus on your desired investment outcomes and take a holistic approach to allocating to alternatives.
- Provide tools for matching desired outcomes with the appropriate categories of alternative assets and choosing the potentially best investment vehicles for execution.
- Emphasize that even as access to alternatives improves with an expanding set of more liquid vehicles, the risks inherent in private market investing remain.
- Offer insights for allocating within core and non-core alternatives,[1] and explain the advantages and limitations of different measures of risk and return.
- Present approaches to portfolio construction, categorized to help you select those most closely aligned with your investment objectives.

[1] Core alternatives are scalable asset categories in which the majority of the return is derived from long-dated, forecastable, stable cash flows. Non-core alternatives are asset categories intended to deliver global diversification and return enhancement, with the majority of the return derived from capital appreciation.

## ADDRESSING THE "*HOW*"

Diminishing opportunities for alpha, income and diversification in the public markets have made alternative investments essential, not optional, for meeting portfolio objectives.[2] Convinced of *why* alternatives are necessary, investors now grapple with *how* to add alternatives.

Incorporating alternatives into portfolios presents unique challenges for outcome-oriented investors, be they experienced institutions or first-time alternatives investors. Barriers to effective execution can include lack of familiarity, limited information and transparency, liquidity concerns, risk budgets, vehicle access restrictions, fee loads, minimum investment requirements, measuring and modeling complexities, and intra- and inter-asset class correlations and dispersions, among others.

Too often, investors have approached alternative investments as ad hoc, one-off opportunities or by searching within specific asset class silos (e.g., real assets, private equity, private credit and hedge funds). Without a disciplined and holistic allocation framework and a "how to" guide for execution, the result is frequently a haphazard collection of "great investment ideas" rather than a purpose-driven portfolio.

Rising target (if not actual) alternatives allocations are evidence investors have been won over by the *why*. Here, we address the *how*.

## HOW TO CHOOSE ALTERNATIVE ASSET CLASSES FOR A PURPOSE-DRIVEN PORTFOLIO

In building an allocation to alternatives, investors first need to determine their investment objectives. The multi-faceted nature of alternatives and the differences across the alternatives universe provide a robust investor toolkit. The broadness of this array is advantageous but requires an added level of scrutiny to uncover the underlying attributes of each alternatives category, as well as any overlapping risks. While some alternatives have distinct primary functions in a portfolio (e.g., private equity as a source of appreciation-driven returns), other categories can play multiple roles.

**EXHIBIT 1** compares broad categories of alternatives according to three main portfolio functions – public equity diversification, income and capital appreciation – and the degree to which each category can be expected to deliver on these goals.

Using this filter, investors can sort the universe of alternatives according to the primary (and secondary) attributes they are looking to target. Once alternatives categories are identified, investors can turn their attention to determining the best way to access them.

**Choose alternative asset classes by their investment attributes**

**EXHIBIT 1: ALTERNATIVES AS SOURCES OF DIVERSIFICATION, INCOME AND APPRECIATION***

● High ◑ Medium ○ Low

| | ALTERNATIVES CATEGORY | PUBLIC EQUITY DIVERSIFICATION** | INCOME-DRIVEN RETURNS** | APPRECIATION-DRIVEN RETURNS** |
|---|---|---|---|---|
| CORE FOUNDATION | Core private credit | ◕ | ● | ○ |
| | Core real assets | ● | ◕ | ◔ |
| | Low vol core equity*** | ○ | ◕ | ◔ |
| CORE COMPLEMENTS | Subordinated credit | ◔ | ◑ | ◑ |
| | Hedge funds | ◕ | ◔ | ◕ |
| | Non-core real assets | ◑ | ◔ | ◕ |
| RETURN ENHANCERS | Distressed credit | ○ | ◔ | ◕ |
| | Private equity | ○ | ○ | ● |

Source: J.P. Morgan Asset Management; data as of September 2021. * For additional details on the role alternatives can play in a portfolio, see "Alternatives: From optional to essential," *2021 Long-Term Capital Market Assumptions*, J.P. Morgan Asset Management, November 2020. ** Public equity diversification score is based on public equity beta; income-driven returns are based on the component of total returns derived from contracted income; appreciation-driven returns are based on the component of total returns attributable to increases in valuation over time. All scores are in the context of the alternatives shown in the table. *** Low volatility core equities are representative of liquid alternatives with an income-oriented return profile.

[2] For more on the "why" of alternatives, see "Alternatives: From optional to essential," *2021 Long-Term Capital Market Assumptions*, J.P. Morgan Asset Management, November 2020.

# ACCESS AND EXECUTION IN ALTERNATIVE INVESTMENTS

## Better access – similar private market risks

Opportunities in the private marketplace are becoming increasingly accessible to noninstitutional investors. However, for some investors, improved access should not necessarily mean larger allocations – and no investment should be made without first understanding the nuances of investing in alternatives.

The institutionalization of terms for accessing alternatives and a proliferation of new investment vehicles are allowing smaller investors to build more diversified portfolios incorporating unique potential alpha sources. That is a positive development, but buyer beware! This improved access comes with the traditional risks inherent in private market investing, and these risks can vary significantly depending on the underlying investment characteristics of the private market asset class.

Semiliquid strategies (interval funds[3] or evergreen strategies,[4] for example) can create a false sense of security that one's capital is readily accessible, masking the fact that the underlying investments may not be very liquid.

Investors also need to consider risks associated with the dispersion of returns characteristic of alternative investments. The very wide dispersion of returns across managers is well recognized. But asset class dispersion (the difference in returns between the best- and worst-performing sub-asset classes within a given time period) can also be wide, and the distribution of returns tends to have fat tails (implying a higher than "normal" probability that extreme high or low returns will occur).

Asset class dispersion risk is somewhat elevated for noninstitutional investors. That's because investors with smaller pools of capital may make more concentrated allocations, encounter greater competition for top manager access and face the marginally higher fees generally associated with noninstitutional vehicle structures.

While the potential for additional capital inflows may give asset managers an incentive to improve investment vehicle terms, the headwinds for smaller investors will likely be reduced, but not eliminated, in the intermediate term.

## Matching investment vehicles to desired outcomes

Investors acknowledge the benefits that private markets can provide but rarely discuss execution. To us, the choice of investment vehicle starts with defining the outcome an investor is trying to achieve and then identifying the best fund structure for achieving it – while being aware of some common misperceptions.

When the goal is diversifying public equity risk and generating income-driven returns – which often involves investing in higher quality, yield-oriented, stabilized assets (such as core real estate, infrastructure and transportation) – an evergreen (open-ended) fund structure makes the most sense. On the other hand, when the goal is capital appreciation (as, for example, in private equity and distressed credit), closed-end funds can provide general partners with the time they need to make the necessary operational improvements before an asset is sold and capital is distributed to investors.

A note of caution: Investors considering allocating through a fund-of-funds structure should not assume liquidity alignment between the master fund and the subfund components. If the master fund is offering more favorable liquidity terms than its component funds, this may result in a liquidity squeeze during periods of market stress or languishing product performance.

**EXHIBIT 2** illustrates factors investors should take into account before making an allocation to alternatives – from fund structure to how a given strategy incorporates environmental, social and governance (ESG) considerations in its investment process. Many of these factors are particularly relevant for smaller investors, who may confront limitations in accessing and competing for excess returns in the private markets. Importantly, the potential illiquidity premium, or additional return, expected for locking up an investor's capital may be compromised by some vehicles' terms. As ESG becomes more fully integrated into the management of alternatives, all investors should understand its implications for their investments.

[3] Interval funds are closed-end funds that do not trade on the secondary market and periodically offer to buy back a percentage of outstanding shares at net asset value (NAV).

[4] Evergreen strategies are strategies with perpetual life, open-end vehicle structures.

**Be sure the vehicles you choose for alternatives execution align with your investment objectives**

**EXHIBIT 2: KEY CONSIDERATIONS FOR ALTERNATIVES EXECUTION**

| EXECUTION FACTORS | DRIVER | KEY CONSIDERATIONS |
|---|---|---|
| **FUND STRUCTURE** | Liquidity alignment | Ensure alignment between the liquidity of a fund's structure and the liquidity needed for its underlying investments to achieve desired investment objectives.<br>As a rule of thumb, investments with a more opportunistic risk profile that depend on operational improvements to generate returns should be accessed through vehicles with minimal liquidity in the early period. |
| **PORTFOLIO CONSTRUCTION** | Investment objectives | Clearly define investment objectives (e.g., equity diversification, income-driven returns or appreciation-driven returns), and align these with the profile of alternative investments under consideration.<br>In determining allocation sizing, consider investment objectives and factor in liquidity needs. Determine whether more liquid investments in the public markets may provide sufficiently comparable desired outcomes. |
| **COMMITMENT SIZING** | Available capital | With investment objectives in mind, let the amount of capital being committed to alternatives largely dictate the investment options to be considered: Smaller allocations are better suited to more diversified single-fund solutions; larger allocations provide flexibility to consider multiple and more targeted investments, including direct/co-investments. |
| **FEES** | Gross/net return spread | Understand the range of fees that may be charged (placement fees, management fees, performance fees) and how dilutive they may be at different return levels. |
| **ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG)** | Attractive risk-adjusted returns in a sustainable manner | Implement a systematic framework for making investment decisions that takes into consideration ESG factors in identifying risks and opportunities across investments. Identify strategies that have an established ESG framework as part of the ongoing asset management process, including the screening of new investments. |

Source: J.P. Morgan Asset Management, September 2021.

### Bridging the public-private market gap

Investors for whom liquidity is a nonfungible investment attribute may turn to public market equivalents, where available. REITs, for example, can provide a substitute for private real estate. High yield bonds can provide a substitute for distressed debt. The inefficiency of small or mid cap equities offers an alpha opportunity similar to core private equity's. However, while these options may potentially deliver similar long-term return outcomes, they are typically more highly correlated with public equities. That means their diversification benefits may be less pronounced.

At the same time, the three key drivers of excess returns – quality of execution, optimal vehicles and fee structures – are becoming increasingly accessible to smaller institutions and individuals. Put differently, a bridge is being built for those investors who cannot or will not take a full step into private markets. Investors should monitor these developments, understand the risks and assess the ability of an evolving set of investment vehicles to help them meet their investment objectives.

## BALANCING MANAGER DISPERSION AND ASSET CLASS SELECTION

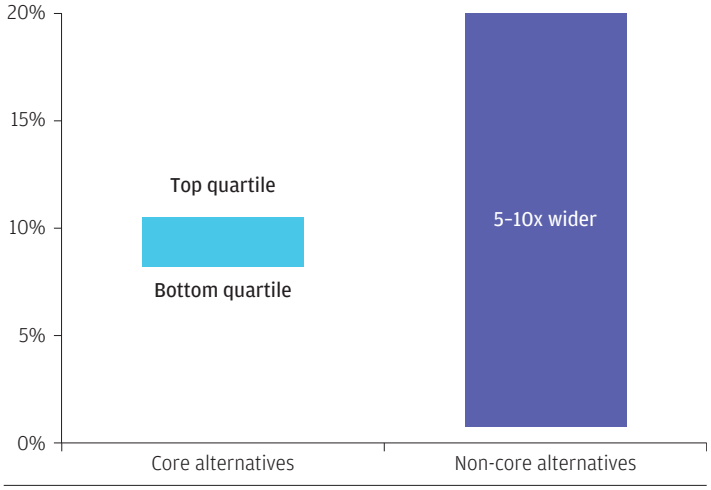
As previously mentioned, there are two measures of return dispersion that investors should consider when allocating to alternatives: *manager dispersion* and *asset class dispersion*. Whether investing in core or non-core alternatives, both types of dispersion matter. However, for reasons we will discuss, the emphasis and implications may be different when allocating to core vs. non-core assets.

In our view, investors should be laser-focused on manager selection when allocating to non-core alternatives, where manager dispersion is relatively high. Within core alternatives, the primary focus should be on actively managing an allocation across core categories. While manager dispersion within core asset classes is low, there is a high level of return dispersion across core asset classes, which may offer opportunities for diversification and potential return enhancement.

The far greater manager dispersion within non-core vs. core alternatives likely reflects the tremendous importance of manager skill in creating value within, for example, private equity, venture capital or non-core real estate. Poor manager selection can seriously jeopardize the capital appreciation outcomes for these investments – the primary objective driving investors' non-core allocations (**EXHIBIT 3**).

## Manager dispersion is far more pronounced in non-core than in core alternatives

**EXHIBIT 3: MANAGER DISPERSION FOR CORE VS. NON-CORE ALTERNATIVES**




Source: Cambridge Associates, HFRI, Lipper, NCREIF, *J.P. Morgan Asset Management Guide to Alternatives 3Q 2021*; data as of September 2021.

Core alternatives are represented by core real assets; non-core alternatives are represented by hedge funds, private equity and non-core real estate. Manager dispersion is based on the annual returns for U.S. core real estate over the 10-year period ended 2Q 2021. Hedge fund returns are based on annual returns from February 2011–January 2021. U.S. non-core real estate, global private equity and U.S. venture capital are represented by the internal rate of return for the 10-year horizon ended 1Q 2021.

While core alternatives exhibit relatively low manager dispersion, the category has consistently exhibited high asset class dispersion, exceeding 20%, on average, over the past 15 years. That speaks to the importance of a diversified exposure to the core opportunity set (**EXHIBIT 4**).

One explanation for this high asset class dispersion is that the underlying drivers of return vary across core assets and are impacted by different economic factors at different stages of the economic cycle. For example, core infrastructure, with its relatively stable cash flow profile, outperformed within core alternatives in 2020 amid COVID-19-driven macro uncertainty. Conversely, periods of broad macroeconomic strength have benefited core private real estate. Additionally, elevated shorter-term correlations between core liquid real estate (e.g., REITs) and public equities often lead to dislocations between market pricing and operating fundamentals, providing compelling relative value opportunities in REITs vs. private core real estate.

This diversity in return drivers, combined with the potential for dislocations at extremes within the economic cycle, may add another potential source of enhanced portfolio returns for investors who actively manage a broad core alternatives allocation. That may round out the two primary objectives for allocating to core alternatives: diversifying portfolio equity risk and generating income-driven returns.

## Allocate to the full core alternatives opportunity set to take advantage of its high asset class dispersion

**EXHIBIT 4: RELATIVE RETURN RANKINGS BY YEAR FOR CORE ALTERNATIVE ASSET CLASSES**

| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Higher return | U.S. REITs | APAC core RE | Global core infra | U.S. REITs | U.S. REITs | Global core infra | U.S. REITs | Global core transport | U.S. REITs | Global core transport | APAC core RE | APAC core RE | APAC core RE | U.S. REITs | Global core infra |
| | APAC core RE | Global core transport | Global core transport | Direct lending | Global core transport | U.S. core RE | Direct lending | U.S. core RE | Global core infra | APAC core RE | Global core infra | Global core transport | Global core infra | Global core transport | Global core transport |
| | U.S. core RE | U.S. core RE | APAC core RE | Global core infra | U.S. core RE | Global core transport | Global core infra | Direct lending | U.S. core RE | U.S. core RE | Direct lending | European core RE | U.S. core RE | Direct lending | Direct lending |
| | European core RE | Direct lending | Direct lending | European core RE | Direct lending | Direct lending | U.S. core RE | Global core infra | APAC core RE | European core RE | U.S. core RE | Global core infra | European core RE | Global core infra | European core RE |
| Lower return | Direct lending | Global core infra | U.S. core RE | APAC core RE | Global core infra | APAC core RE | APAC core RE | APAC core RE | Global core transport | Global core infra | U.S. REITs | U.S. REITs | Global core transport | APAC core RE | U.S. core RE |
| | Global core infra | European core RE | European core RE | Global core transport | APAC core RE | U.S. REITs | Global core transport | European core RE | Direct lending | Direct lending | Global core transport | Direct lending | Direct lending | European core RE | APAC core RE |
| | Global core transport | U.S. REITs | U.S. REITs | U.S. core RE | European core RE | European core RE | European core RE | U.S. REITs | European core RE | U.S. REITs | European core RE | U.S. core RE | U.S. REITs | U.S. core RE | U.S. REITs |

Annualized return dispersion across core alternative asset classes has averaged over 20% (2006–20)

Source: ANREV, Bloomberg, Cliffwater, EPRA/NAREIT, FTSE, INREV, MSCI, NCREIF, J.P. Morgan Asset Management. Illustrative long-term analysis using asset class annual returns from 2006 to 2020. Note: 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. For discussion purposes only.

## HOW TO MEASURE RETURN AND RISK IN ALTERNATIVES

Using a quantitative lens to evaluate the risk and return of alternative investments has traditionally been challenged by data limitations and a potentially confusing array of performance measures. An awareness of the pitfalls and what measures are most appropriate for different types of alternatives is essential to an objective assessment.

Data on alternative investments, especially those in the private markets, is limited in terms of historical returns, quality and transparency. Datasets have grown in recent years, enhancing investors' ability to analyze these asset classes, but as the breadth and depth of data increase, taking its quality into account becomes even more important.

### Performance measurement

Rates of return are measured differently across alternatives, depending on the underlying vehicle structure (**EXHIBIT 5**).

- An evergreen (open-end) strategy is often measured by its time-weighted return (TWR), which excludes the timing of cash flows, over which managers have no control, in the calculation of investment performance.
- Closed-end strategy performance is measured using the internal rate of return (IRR), where the timing of cash flows can impact the end result.

This difference in methodologies means IRRs and TWRs cannot be directly compared and often yield very different results, particularly over short horizons. We advocate looking at multiples on invested capital (MOIC),[5] net of fees, for an apples-to-apples comparison of long-term performance across alternative assets.

Measuring volatility is also challenging. Private investments have an inherent "smoothing effect," as returns are often derived from appraisal-based valuations on a time lag. Applying a de-smoothing approach to mitigate the impact of any prior valuations on current valuations is likely to provide a closer representation of these investments' "true" volatility. Furthermore, to adjust for the nonnormal return distribution of alternative assets, we prefer an approach that incorporates downside volatility, such as the Sortino ratio,[6] value at risk (VaR)[7] or conditional value at risk (cVaR).[8]

[5] Multiple on invested capital is an investment return metric that states an investment's current value as a multiple of the amount of the initial investment, regardless of the length of the investment period.

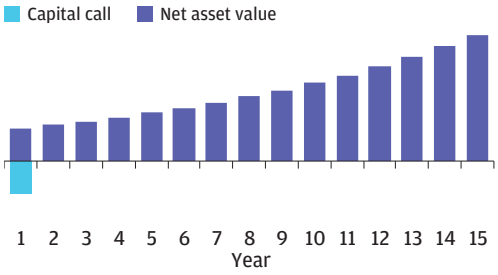
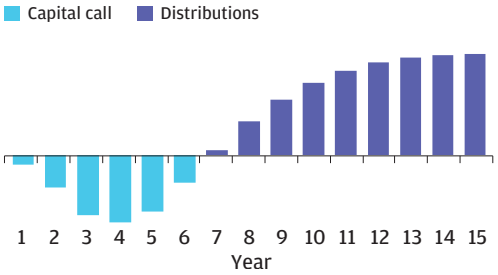
[6] The Sortino ratio is defined as excess portfolio expected return over portfolio downside volatility.

[7] Value at risk measures the potential investment loss at a given confidence level.

[8] Conditional value at risk measures the amount of tail risk at a given confidence level.

**Vehicle structure matters when measuring performance and risk**

**EXHIBIT 5: STANDARD MEASURES OF RISK AND RETURN FOR DIFFERENT ALTERNATIVES STRUCTURES**

| TYPICAL VEHICLE STRUCTURE | EVERGREEN PRIVATE FUNDS | CLOSED-END PRIVATE FUNDS |
|---|---|---|
| CAPITAL GROWTH PROFILE |  |  |
| RETURN MEASUREMENT | Time-weighted return (TWR) | Internal rate of return (IRR) |
| DEFINITION | Captures the true investment performance by eliminating all the effects of capital addition and withdrawals from the portfolio | Measures the portfolio performance by including all cash inflows and outflows |
| CHALLENGE | Does not differentiate between an initial investment and a series of investments | Impacted by the timing of cash flows |
| | As a result, TWR and IRR measure different return performance and cannot be compared directly. | |
| SOLUTION | Use of multiple on invested capital (MOIC), net of fees, to compare long-term performance | |
| RISK AND CORRELATION | Private market returns are subject to smoothing effects and often have nonnormal distributions and embedded optionality. An empirical approach with adjustments for nonnormality and optionality is recommended and used in our analysis.* | |

Source: J.P. Morgan Asset Management. Capital growth profile is for illustrative purposes only. Illustrative cash flows shown here for closed-end private funds are representative of a single vintage. In our Long-Term Capital Market Assumptions, the returns shown for private funds are based on a steady-state investment profile.
* See "Volatility and correlation assumptions: Stable forecast in a dislocated world: Risk outlook little changed, uncertainty rising," *2022 Long-Term Capital Market Assumptions*, J.P. Morgan Asset Management, November 2021, for detailed methodology and analysis.

## HOW TO DESIGN ALTERNATIVES ALLOCATIONS FROM A TOTAL PORTFOLIO PERSPECTIVE

A range of portfolio construction methodologies can help investors determine the size and composition of alternatives allocations within a total portfolio context.

Determining a strategic alternatives allocation depends largely on factors specific to the investor, including risk-return objectives, liquidity constraints, level of access to alternatives and the ability to execute. Variation in these and other parameters can be significant across investors, with implications for choosing portfolio construction approaches.

We summarize some common portfolio construction methodologies, along with their objectives, strengths and limitations when allocating to alternatives (**EXHIBIT 6**). These approaches may not be mutually exclusive, and the list is not exhaustive. Although some investors may prefer to rely on a single methodology, the complexity of investor objectives and constraints, and the variations across models, suggest there are potential benefits to be gained from employing multiple methodologies.

**Let investment objectives guide your approach to portfolio construction**

**EXHIBIT 6: STRENGTHS AND LIMITATIONS OF SOME METHODOLOGIES FOR CONSTRUCTING ALTERNATIVES PORTFOLIOS**

| | POTENTIAL METHODOLOGY | PORTFOLIO CONSTRUCTION OBJECTIVES | STRENGTHS AND LIMITATIONS | ALTERNATIVES ALLOCATION IMPLICATION |
|---|---|---|---|---|
| 1 | Modern portfolio theory | Improve portfolio risk and return profiles through a quantitative framework | + Able to quantify return, risk and correlation<br>+ Efficient frontier provides a visual of the role of diversification<br>– Assumes normal return distribution, thus ignores asymmetries and tail risks | Favors higher Sharpe ratio alternatives |
| 2 | Post-modern portfolio theory | Optimize portfolio downside risks over return through a quantitative framework | + Incorporates downside risk measurement to address the asymmetrical return distribution<br>– Downside risk can be hard to measure in alternatives due to data limitations | Favors alternatives categories with fewer and smaller drawdown events |
| 3 | Risk budgeting models | Risk management | + Capture the importance of setting limits on risk and risk contributions<br>– Do not specify an explicit return goal | Varies by client's risk target; favors lower risk alternatives |
| 4 | Omega ratios | Outperform portfolio return threshold | + Optimize gain vs. losses based on return target<br>– Risk minimization is not the priority | Favors alternatives categories with higher upside volatility |
| 5 | Scenario-based models | Examine alternatives portfolio in various macroeconomic environments | + Estimate the impact of macroeconomic variables on the portfolio in an isolated environment<br>– Less applicable to alternatives with low correlation to macroeconomic variables | Varies by scenario |
| 6 | Liability-driven investments | Liability cash flow management | + User-friendly for pensions and insurance companies to meet projected liabilities<br>– Not suitable for all types of investors | Favors alternatives with high surplus risk-adjusted returns |
| 7 | Endowment model | Seek aggressive returns through alternatives | + Takes illiquidity premium into account<br>– Limited to investors with greater illiquidity tolerance | Tends to overweight alternatives with higher return, less liquidity and complex fee structures |
| 8 | Factor-based models | Establish quantitative research approach for a more liquid-oriented alternatives portfolio | + Focus on effects of common factors that drive return and risk<br>– Require a great amount of data; certain alternatives categories might show high residuals in the regression model<br>– Factors might be unstable; definition and selection can be arbitrary | Limited to alternatives categories with better data transparency and higher correlation with selected factors |
| 9 | Pre-defined portfolios | Choose pre-defined alternatives model portfolios based on objectives and constraints | + Easier process for selection; more suitable for less sophisticated investors<br>– Less flexibility for customizing choice of alternatives and size of allocation within pre-set portfolios | Varies by investment policy target |
| 10 | Core (traditional) vs. satellite (alternatives) portfolios | Group alternatives exposure into one simple satellite portfolio | + Simplified allocation process, allowing more effective decision-making<br>– Difficult to differentiate attributes within alternatives | Varies by investor risk profile |

Source: Chartered Alternative Investment Analyst Association (CAIA), J.P. Morgan Asset Management.

To aid investors in choosing suitable portfolio construction methodologies, we group the approaches discussed in Exhibit 6 according to some primary objectives and/or constraints investors commonly have when allocating to alternatives:

**MANAGING RISK AND/OR RETURN**: When screening alternatives on a risk-return basis, *modern portfolio theory (MPT), post-modern portfolio theory (PMPT)* and *Omega ratio models* are appropriate, as they use various approaches to quantify the return potential and/or risk of different alternative investments.

For buyers with an emphasis on risk management, *risk budgeting models* are useful tools that specifically address an investment's contribution to total portfolio risk, when an overall portfolio risk limit has been set. *Scenario-based modeling* is used to analyze the risks to portfolio performance under different macroeconomic assumptions.

**MANAGING LIQUIDITY**: For less constrained investors with a generous liquidity budget, the *endowment model* is appropriate. A *liability-driven investment framework* may be more suitable for pensions or insurance companies with ongoing liability obligations and liquidity/cash flow needs.

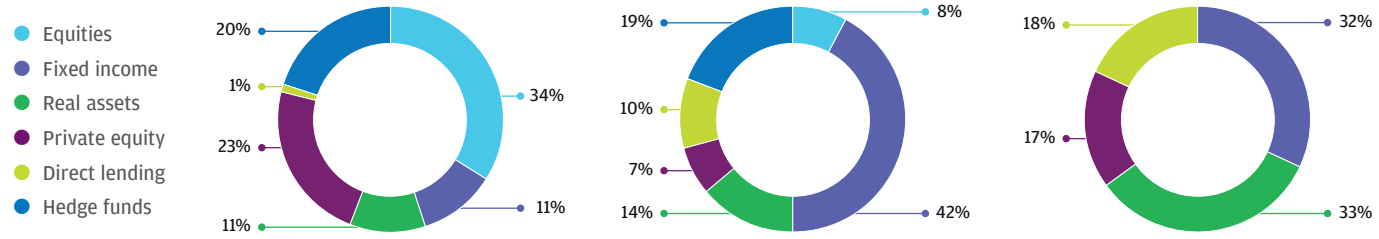
**LIMITED ABILITY TO EXECUTE ALTERNATIVES**: For investors whose ability to execute limits them to using only liquid alternatives, we suggest taking advantage of *factor-based models*. These data-intensive models are specifically designed for more liquidity-oriented alternatives portfolios.

**LIMITED ACCESS TO ALTERNATIVES**: Access has traditionally been more limited for individual investors vs. larger institutions. As alternatives are becoming more accessible, *a pre-defined portfolio* or the *core vs. satellite model* offers relatively straightforward execution and can deliver diversified exposure to alternatives with lower investment minimums.

Our **CASE STUDY: COMPARING RESULTS FOR THREE PORTFOLIO CONSTRUCTION METHODOLOGIES**[9] uses different portfolio construction models to illustrate how distinct their resulting portfolio/alternatives allocation solutions can be. The takeaway? It's important to clearly define objectives and factor in constraints when choosing an appropriate methodology.

[9] See "Portfolio implications," *2022 Long-Term Capital Market Assumptions*, J.P. Morgan Asset Management, November 2021 for a further discussion of how to allocate to alternatives across the overall portfolio.

## CASE STUDY: COMPARING RESULTS FOR THREE PORTFOLIO CONSTRUCTION METHODOLOGIES




| | ENDOWMENT MODEL | EQUAL RISK MODEL | POST-MODERN PORTFOLIO THEORY |
|---|---|---|---|
| **PORTFOLIO SUMMARY** | | | |
| Return | 6.2% | 4.5% | 6.0% |
| Volatility | 10.9% | 5.0% | 6.6% |
| Sharpe ratio* | 0.44 | 0.64 | 0.71 |
| Downside volatility** | 9.4% | 4.8% | 6.7% |
| Sortino ratio | 0.52 | 0.67 | 0.70 |
| Liquidity | Medium | High | Low |

Source: 2020 NACUBO-TIAA Study of Endowments, data as of June 30, 2020; J.P. Morgan Asset Management 2022 Long-Term Capital Market Assumptions, data as of September 30, 2021.

* The Sharpe ratio is defined as excess portfolio expected returns relative to the risk-free rate, divided by portfolio volatility.

** Downside volatility is defined as the standard deviation across returns that are below a certain level. Here, we use the historical average as the threshold.

For illustrative purposes, we have made simplified portfolio allocation assumptions in this case study. The imposed portfolio constraints may not reflect an investor's specific situation or asset allocation parameters. In practice, investors should view the output of these models in the context of market themes and cyclical trends while maintaining the flexibility to adjust allocations over time.

## CASE STUDY *continued*

METHODOLOGIES DEFINED

The **ENDOWMENT MODEL** was originally made prominent by large endowment funds – institutions that typically have perpetual investment horizons and relatively high illiquidity budgets. The approach assumes that illiquid asset strategies will reward investors with an illiquidity premium and can be expected to deliver greater returns over the long run relative to more liquid investments. Resulting portfolios tend to have a relatively high allocation to alternatives, along with a relatively low Sharpe ratio.

The **EQUAL RISK MODEL** is a specialized risk budgeting model that looks to assign an equal risk budget to individual portfolio assets. Applying this model results in a fixed income-dominated portfolio with lower returns and lower risk but also higher liquidity.

**POST-MODERN PORTFOLIO THEORY** solves for the highest Sortino ratio while limiting the contribution to downside volatility from individual portfolio components. The model favors alternatives that exhibit higher Sortino ratios, such as real assets, direct lending and private equity, as these asset classes demonstrate upside skew† with less frequent and/or smaller magnitudes of return drawdown. Although PMPT portfolios have relatively high Sharpe and Sortino ratios, this comes at the cost of lower liquidity and, potentially, a more concentrated allocation.

† Upside skew denotes the higher likelihood of nonnegative asset returns.

## ALLOCATING TO ALTERNATIVES – SUMMING UP THE "HOW"

Investors of all types and sizes may find themselves suffering from what behavioral scientists call "overchoice" – a term first coined by Alvin Toffler in 1970 to describe how decisions become increasingly difficult due to an abundance of options, many potential outcomes and the risks that may result from the wrong choice.[10] Though investors may be convinced they need the diversification, income and alpha that alternatives can potentially deliver, even the most intrepid "shoppers" can be easily overpowered by the array of alternative asset classes, styles, combinations, frameworks, models and vehicles on offer.

The multitude of asset managers specializing in specific alternative asset classes may not make the buyer's job any easier, as they may be peddling the idea that somehow it's always the right time to invest in a particular alternatives category.

Keep in mind that successful alternatives investing starts with a well-defined investment objective. With the investment objective as true north:

- Screen the universe of alternative investments by function within a portfolio to match investment choices with your desired investment outcomes.
- Determine the investment vehicles or structures most appropriate for executing on your investment objectives.
- Improve portfolio outcomes by emphasizing inclusion of the full opportunity set within core alternatives, and focus on manager selection for non-core alternatives.
- Pay attention to the quality of the data being used to make decisions.
- Take into account the nuances of how volatility is calculated and important differences among the various measures of return.
- Consider using a variety of portfolio construction approaches, aligned with different aspects of your investment objectives, to ensure a broad perspective.

We wish the buyer's guide were simpler – do this, don't do that – but knowing *why* to invest in alternatives is far more obvious than knowing *how* to invest in them. With this guide, our intent is to provide investors with the essential information needed to build a purpose-driven alternatives portfolio and make informed decisions on investment solutions aligned with their specific investment needs.

[10] Alvin Toffler, *Future Shock* (New York: Random House, 1970).

## PORTFOLIO INSIGHTS




**LV–JPM53234 | 11/21 | US | 09wu210311145339**

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