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PORTFOLIO INSIGHTS

Diversified growth funds: The asset allocation all-rounders

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IN BRIEF

- A diversified growth fund is a strategy offering active asset allocation and security selection that can benefit investors in both defined contribution and defined benefit pension plans.
- Our analysis shows that diversified growth funds can improve portfolio efficiency at each stage of a typical defined contribution lifestyle plan, particularly in the mid-growth and pre-drawdown phases. In addition, we have found that the potential for defensive or aggressive systematic bias that can arise from asset allocation can be properly managed.
- A diversified growth fund can also be a cost – and governance – effective means of accessing a diverse range of assets for both defined benefit and defined contribution schemes.
- Our JPMorgan Life Diversified Growth Fund is a low cost, actively managed portfolio that allocates across a broad range of asset classes, including alternatives. Our investment approach incorporates long- and short-term asset allocation views and global macro insights.
- Our DGF has over a 10-year track record with a consistent portfolio manager. During this time, the strategy has exceeded its target return with considerably less volatility than equities.

MAINTAINING A BETTER BALANCE

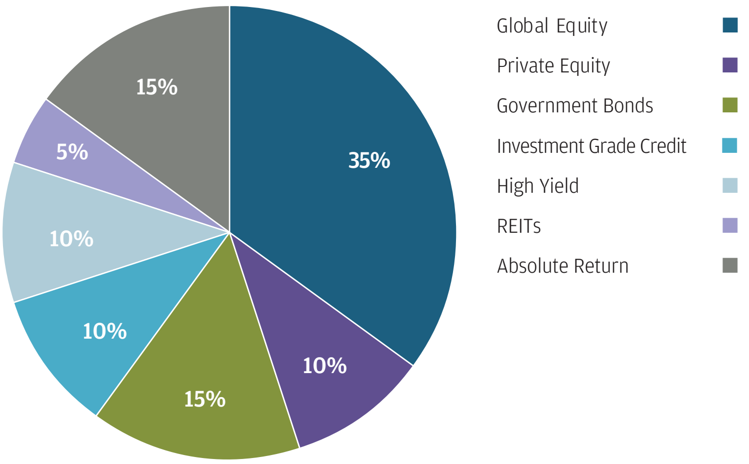
Diversified Growth Funds (DGFs) take a range of approaches as broad as the name suggests. At the passive end of the spectrum, they can be packaged exposures to a pre-set asset allocation with minimal active management, in terms of asset allocation or security selection. At the other end of the spectrum, they can resemble hedge funds in the range and complexity of strategies they offer. In between, DGFs can have various levels of active security selection and asset allocation combined with strategic market exposures.

Depending on their particular flavour, DGFs will have different roles in a pension portfolio. The JPMorgan Life Diversified Growth Fund offers investors access to an actively managed, low-cost multi-asset solution (see **Exhibit 1**). We identify our DGF as a “core” strategy, investing for long-term growth across a broad range of asset classes while offering daily liquidity to clients. This article describes the potential benefits of our DGF in the context of UK pension plans, both defined contribution (DC) and defined benefit (DB). We also describe and seek to quantify some of the long-term risks that may arise from the active asset allocation process.

J.P.Morgan
Asset Management

EXHIBIT 1: OVERVIEW OF THE J.P. MORGAN ASSET MANAGEMENT DGF STRATEGY

JPMorgan Life Diversified Growth Fund



FUND RISK RETURN OBJECTIVES*		
Target return	Cash +4% annualised gross of fees	
Target volatility	8-10% annualised over the medium term	
ASSET ALLOCATION RANGES		
Asset class	Minimum	Maximum
Equity**	20%	80%
Fixed income	0%	70%
Of which high yield EMD	0%	30%
Alternatives	0%	40%
Cash	0%	10%
Currency - typically fully hedged to GBP		
Exposure limits	Maximum	
Net exposure	100%	
Gross exposure	200%	

Source: J.P. Morgan Asset Management; data as of 30 June 2019. **Equity includes private equity. The fund is an actively managed portfolio. Holdings, sector weights, allocations and leverage, as applicable are subject to change at the discretion of the Investment Manager without notice.

* The target risk/return is the investment manager's internal guidelines only. There is no guarantee the objectives will be met.

DIVERSIFYING AT EACH POINT ALONG A LIFESTYLE STRATEGY

Most default investment strategies in UK DC plans are built as lifestyle or lifecycle strategies. Assets are invested in growth-oriented assets, predominantly equities, in the early stages of a member's journey. It has become increasingly common to include a mid-growth phase, where equity risk is diversified across a broader range of assets and strategies to dampen volatility.

Assets are then progressively switched into retirement-ready assets, typically bonds and cash, and a lower level of equity. Freedom & Choice has also changed thinking around the late stages of retirement saving, with an increased emphasis on investing through retirement and into diversified drawdown strategies, rather than targeting cash and an annuity at retirement.

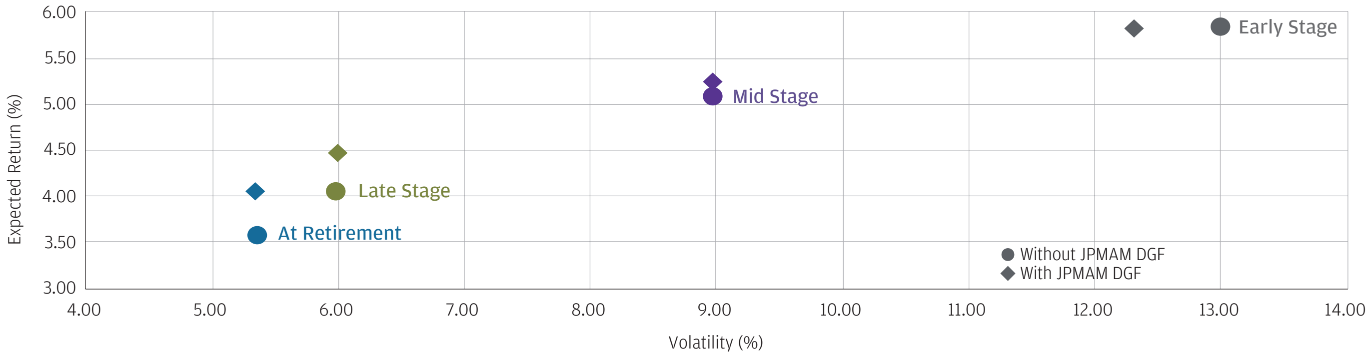
Our DGF strategy is designed to help pension schemes and their members achieve a smoother path to retirement. The strategy can help improve member outcomes in several ways:

- It is well-suited to the mid-growth stage and it can help dampen volatility in the late stages of the lifestyle strategy, while still providing the opportunity for growth.
- It is particularly helpful as a bridge to drawdown in the later years before retirement, allowing a member to remain invested while smoothing volatility as retirement approaches.
- Our DGF strategy can form part of a portfolio of different DGF strategies that complement each other.

Exhibit 2 is a simulation that shows the potential benefit of adding up to 20% of our DGF strategy (based on a static strategic asset allocation as shown in Exhibit 1) to a number of different points along a sample lifestyle fund path. Assets are invested solely in equity in the early growth stage. In the mid-growth phase, assets are split equally between equity and a representative DGF portfolio (based on the aggregate profile of the largest DGFs currently in common use by UK investors). The strategy then switches partially into cash and bonds, retaining 40% in growth strategies at retirement to support a transition to drawdown.

Our DGF strategy can be used to boost return at any point of the lifestyle cycle (**Exhibit 2**). We have chosen in this example to use the strategy to boost returns as much as possible, without increasing risk. Alternatively, the strategy could be used to reduce risk in achieving a pre-stated target level of return.

EXHIBIT 2: IMPACT OF SYSTEMATIC BIAS IN DGFS ON LIFESTYLE STRATEGIES



Allocation (%)	Early Stage		Mid Stage		Mid Stage		At Retirement	
	●	◆	●	◆	●	◆	●	◆
Cash & Gilts	-	-	-	-	20	10	40	27
Global Equity	100	87.5	50	43	16	7	17	10
Representative market DGF	-	-	50	37	64	64	43	43
JPMAM DGF	-	12.5	-	20	-	20	-	20

Source: J.P. Morgan Asset Management, based on Long-Term Capital Markets Assumptions 2019. Representative Market DGF comprises an asset allocation which best fits the average performance of the largest five DGFs in the UK, based on a regression analysis. As at 30 October 2018.

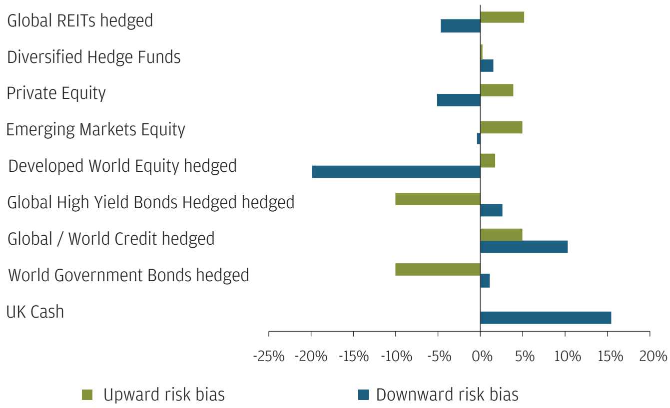
Forecasts are not a reliable indicator of future performance.

ADDRESSING THE RISK OF SYSTEMATIC BIAS IN ASSET ALLOCATION

Asset allocation decisions are a key driver of portfolio risk, generally dominating security selection in contribution to overall portfolio risk. A key feature of many diversified growth strategies, including our own, is the ability of the portfolio manager to actively manage the asset allocation within pre-defined ranges. However, this can introduce the risk of a long-term systematic bias toward a more defensive or a more aggressive portfolio, even while remaining within the allowable ranges.

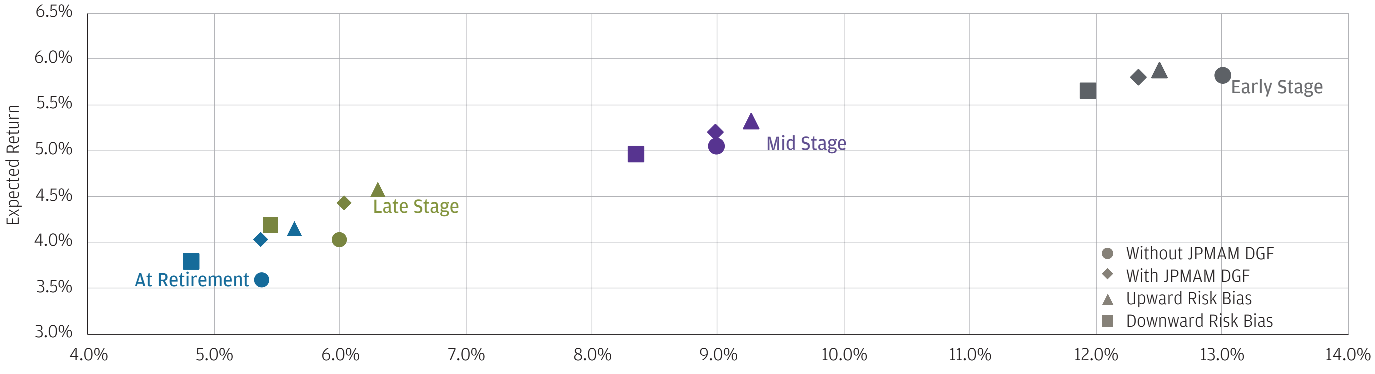
To test how large a risk this might pose to an investor, we looked at portfolios that would have been allowed within our diversified growth strategy, and indeed likely in certain market environments. For example, downward risk a bias towards a more defensive strategy might still be able to achieve the total return target through successful active asset allocation and security selection (underlying manager alpha), and a bias towards a more aggressive strategy may still be able to manage risk in line with target through active asset allocation. **Exhibit 3** shows the systematic deviations from benchmark that represent these two biases in our analysis, and **Exhibit 4** shows the results when we substitute these portfolios for the original diversified growth strategy benchmark, representing a systematic bias over the long term to either a defensive or an aggressive asset allocation position.

EXHIBIT 3: DEVIATIONS FROM STRATEGIC ASSET ALLOCATION (SAA)



It should be noted that these deviations are generated through a risk/return optimisation using our Long-Term Capital Market Assumptions (LTCMAs), which are based on a 10 to 15 year time horizon and represent the potential range of systematic long-term bias. Our long-term view on risk and performance across asset classes drives our strategic asset allocation. Positioning of our diversified growth strategy is driven by shorter-term views on the macro environment, which incorporate both quantitative and qualitative inputs, and can differ considerably from those shown above (please see **exhibit 6**).

EXHIBIT 4: IMPACT OF SYSTEMATIC BIAS IN DGFS ON LIFESTYLE STRATEGIES



Source: J.P. Morgan Asset Management, based on Long-Term Capital Markets Assumptions 2019. As at 30 October 2018.

Forecasts are not a reliable indicator of future performance.

We see that at all points along the lifestyle strategy glidepath, the portfolio efficiency is improved relative to the initial strategy (before adding our DGF strategy) whether a neutral, downward or upward risk bias is in evidence compared to the strategic benchmark. Accordingly, it is unlikely that active positioning in asset allocation could undermine the strategic balance between risk and return expectations. Even if a systematic bias were observed in the asset allocation, the strategic case for including the DGF strategy remains intact.

If a defensive bias is evident in the manager's asset allocation decisions, we estimate the potential opportunity cost relative to the strategic asset allocation to be 0.15% to 0.25%, and the reduction in volatility to be 0.4% to 0.6% at the total strategy level. The portfolio manager would need to generate an additional 0.75% to 1.25% within our DGF strategy from active management in order to make up this shortfall.

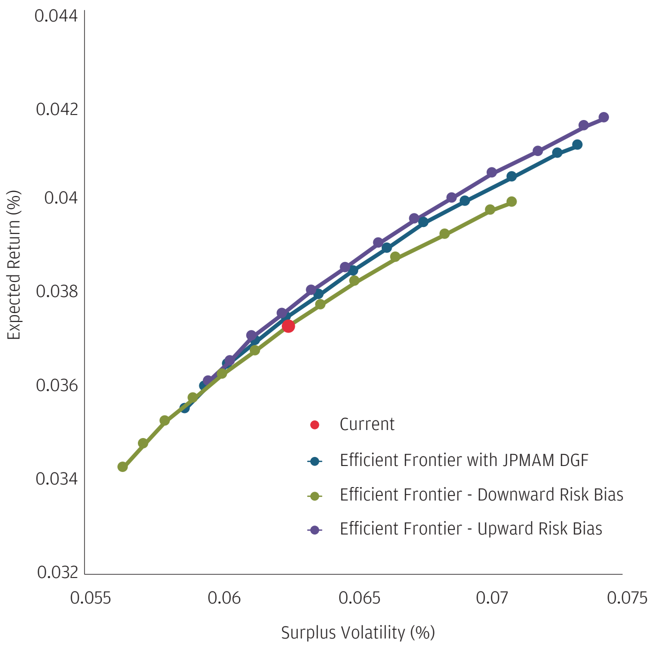
If an aggressive bias is evident, we estimate the increase in volatility to be 0.2% to 0.3% per annum, with an associated increase in expected return of up to 0.35% at the total strategy level. The manager would accordingly need to rely less on active management to generate additional return, but may use it to help manage risk to within target levels.

APPLICATION TO DB PLANS

The above analysis describes the application to DC plans, but diversified growth strategies can also have a role in DB plans. As many DB plans are already well diversified across a range of asset classes, the incremental boost to return or cut to risk for them is less than for the sample DC plans shown in **Exhibit 5**. However, particularly for smaller plans, the ability to access a broad range of asset classes in a single strategy, and to add an element of tactical asset allocation, may be appealing.

We also analysed the frontiers assuming systematic bias in the asset allocation versus benchmark, to test the potential drag from a systematic defensive bias or potential additional risk from a systematic aggressive bias. As in the case for DC, systematic bias is unlikely to undermine the strategic case for accessing diversification through our DGF strategy.

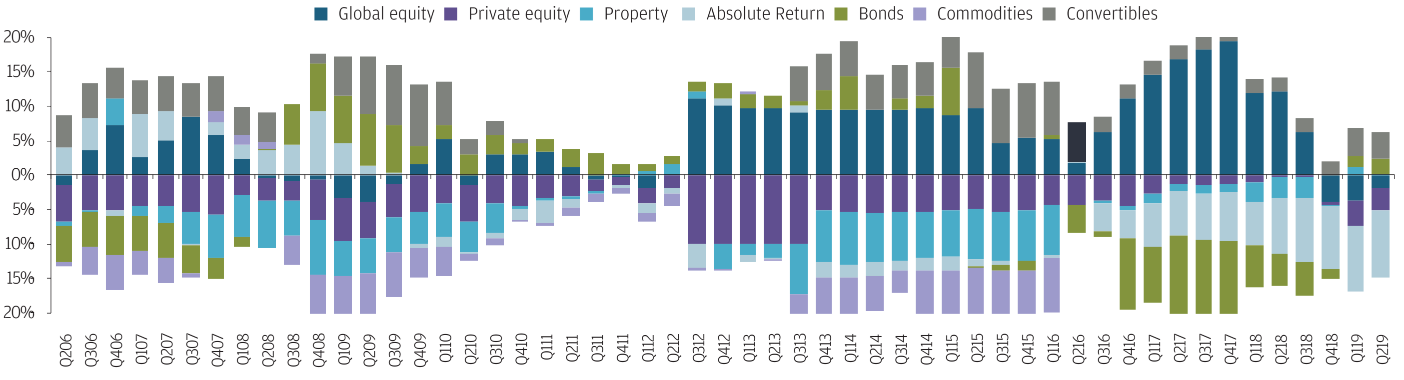
EXHIBIT 5: THE J.P. MORGAN ASSET MANAGEMENT DGF CAN PRESERVE OR INCREMENTALLY ENHANCE PORTFOLIO EFFICIENCY FOR UK DB PLANS



Source: J.P. Morgan Asset Management, based on our 2019 Long-term Capital Market Assumptions.

Forecasts are not a reliable indicator of future performance.

EXHIBIT 6: ACTIVE POSITIONING VERSUS SAA



Source: J. P. Morgan Asset Management as at 31 March 2019, updated quarterly. Please note that the 'bonds' category includes high yield and 'other' bond holdings. The Strategy is implemented by actively managed portfolios.Holdings, sector weights, allocations and leverage, as applicable are subject to change at the discretion of the Investment Manager without notice.

HOW WE MANAGE OUR DGF STRATEGY

Our DGF strategy draws on our LTCMAs, a range of funds available at J.P. Morgan Asset Management, as well as external investment trusts, a robust and repeatable active asset allocation process and the experience and skill of our portfolio managers. We invest in active funds as we believe that manager alpha can add value over the long term. Furthermore, our active asset allocation process enables us to respond to and take advantage of tactical opportunities to potentially enhance the return profile.

ACTIVE ASSET ALLOCATION

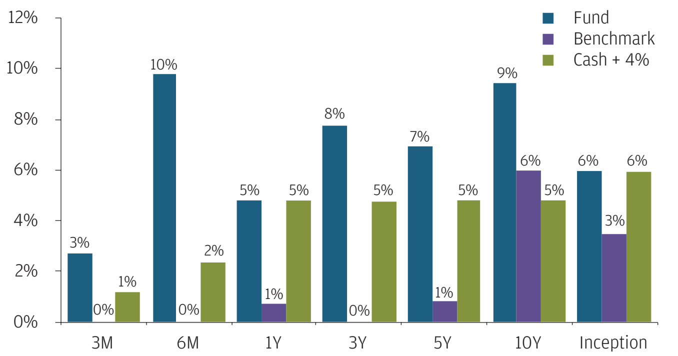
As multi-asset investors, we believe a well-diversified portfolio of traditional and non-traditional assets can contribute to strong risk-adjusted returns. The core of what we do is asset allocation; this is not just designing a strategic framework, but also implementing our shorter-term, cycle-aware views in the portfolios we manage. We recognise that asset allocation opportunities exist within and between asset classes, and reflecting these opportunities in our positioning can provide an uncorrelated source of return.

Exhibit 6 demonstrates the asset allocation changes that we have made since the inception of the strategy. For example, we had significant exposure to equity markets in 2017. In 2018, we reduced our equity exposure in the first quarter as we began to identify risks to global growth. We continued to reduce our equity exposure through the remainder of the year, reaching an allocation of 31% in public equity markets by year-end – the lowest level in the fund's history.

WHAT HAVE WE ACHIEVED?

The strategy has delivered compelling returns since its launch in 2006. Importantly, it has demonstrated an asymmetric profile, capturing more of the upside in rising equity markets and less of the downside in falling ones. Performance has comfortably exceeded the cash +4% target (**Exhibit 7**) and has done so while maintaining a level of volatility well below equity markets (**Exhibit 8**).

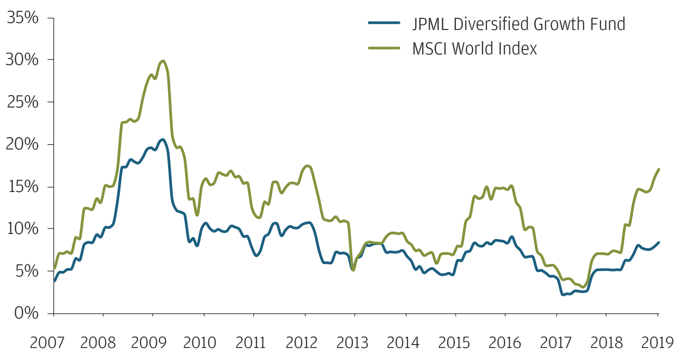
EXHIBIT 7: THE JPMORGAN LIFE DGF HAS EXCEEDED ITS TARGET RETURNS SINCE INCEPTION



Source: J. P. Morgan Asset Management as at 30 June 2019. Performance shown gross of fees (class 1) in GBP, representing the longer track record. Performance for periods greater than 12 months is annualised. Current benchmark: 1 Month GBP LIBOR. Prior to 01 April 2016 the benchmark was 50% MSCI AC World (Global Equities, Private Equity); 7.5% FTSE EPRA NAREIT, 7.5% Developed IPD Monthly Balanced (Property); 15% 1 Month GBP LIBOR (Absolute Return); 10% BofA Merrill Lynch US High Yield Master II Constrained GBP Hgd (High Yield); 10% GSCI (Commodities). Inception date: 30 June 2006. 1 year rolling volatility calculated using monthly data. The benchmark is for comparative purposes only, unless otherwise indicated in the Fund's Investment Objective and Policy.

The strategy has also delivered compelling cost-adjusted returns versus a number of key competitors over the past 3 years (**Exhibit 9**).

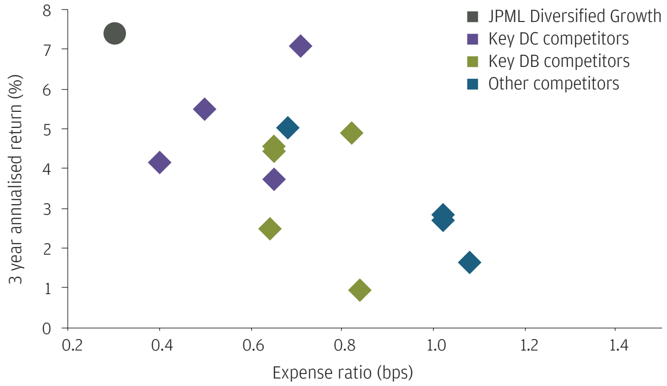
EXHIBIT 8: THE JPMORGAN LIFE DGF HAS EXHIBITED SIGNIFICANTLY LOWER VOLATILITY THAN EQUITY MARKETS



Source: J. P. Morgan Asset Management as at 30 June 2019. Performance shown gross of fees (class 1) in GBP, representing the longer track record. Performance for periods greater than 12 months is annualised.

Past performance is not a reliable indicator of current and future results.

EXHIBIT 9: THREE-YEAR RETURN VERSUS EXPENSE RATIO



Source: Morningstar, J.P. Morgan Asset Management; data as of 30 June 2019. Performance shown is net of fees (class 5) in GBP for the JPML Diversified Growth Fund.

Five year net of fees performance (class 5) in GBP is 6.4%.

CONCLUSION

Investors are currently somewhat disenchanted with DGFs, given a number of high profile disappointments in the sector in light of the extended bull run in equity markets. However, as we enter the later part of the current economic and market cycle, the diversification and tactical management that DGFs bring will be increasingly important.

Our DGF strategy offers pension fund investors:

- a low cost, actively managed portfolio that allocates across a broad range of asset classes, including alternatives
- an investment approach that incorporates long- and short-term asset allocation views and global macro insights
- a strong 10-year+ track record with a consistent lead portfolio manager

Adding our DGF strategy can improve portfolio efficiency at any point along a DC lifestyle strategy, and offers DB investors the opportunity to add a tactical asset allocation element to their overall portfolio.

PENSION SOLUTIONS AND ADVISORY GROUP

J.P. Morgan Asset Management's Pension Solutions and Advisory Group is a dedicated global team of actuarial, portfolio management and capital markets professionals focused on delivering product agnostic advisory services and implementable solutions though the pension lifecycle to clients. We work with product teams across J.P. Morgan Asset Management to ensure that our best proprietary investment thinking is reflected in asset allocation and asset liability management investment recommendations.

MULTI-ASSET SOLUTIONS

Multi-Asset Solutions is the investment engine within J.P. Morgan Asset Management's Solutions business, and comprises a team of experienced investment professionals dedicated to designing, constructing and managing multi-asset class portfolios to achieve specific investment outcomes. For 45 years, the team has managed multi-asset class portfolios in a fiduciary capacity for a wide range of clients including defined contribution plans, defined benefit plans, endowments and foundations, insurance companies, official institutions, as well as financial advisors and their clients.

With USD 260 billion in assets under management as of 30 June 2019, the Multi-Asset Solutions business aims to leverage the best of the JPMAM investment platform through specialist security selection expertise and integrate this within a flexible and dynamic asset allocation process.

RISK PROFILE

The value of equity and equitylinked securities may fluctuate in response to the performance of individuals companies and general market conditions.

The value of bonds and other debt securities may change significantly depending on market, economic and interest rate conditions as well as the creditworthiness of the issuer. Issuers of bonds and other debt securities may fail to meet payment obligations (default) or the credit rating of bonds and other debt securities may be downgraded. These risks are typically increased for high yield bonds which may be more difficult to sell than investment grade bonds.

The Fund may invest in contingent convertible securities. A Fund investing in contingent convertible securities may be adversely impacted should specific trigger events occur (as specified in the terms of the security) and may be at increased risk of capital loss. This may be as a result of the security converting to equities at a discounted share price, the value of the security being written down, temporarily or permanently, and/or coupon payments ceasing or being deferred.

Emerging markets may be subject to increased political, regulatory and economic instability, less developed custody and settlement practices, poor transparency and greater financial risks. Emerging market currencies may be subject to volatile price movements. Emerging market securities may be also subject to higher volatility and be more difficult to sell than nonemerging market securities.

The Fund invests in securities of smaller companies which may be more difficult to sell, more volatile and tend to carry greater financial risk than securities of larger companies.

Companies listed on AIM tend to be smaller and early stage companies and may carry greater risks than an investment in a company with a full listing on the London Stock Exchange.

Investments in companies engaged in the business of real estate may be more difficult to sell and may experience increased price volatility due to changes in economic conditions and interest rates.

Fund may use derivative instruments (derivatives) for either efficient portfolio management or reduction of investment risk purposes. The value of derivatives can be volatile. This is because a small movement in the value of the underlying asset can cause a large movement in the value of the derivative and therefore, investment in derivatives may result in losses in excess of the amount invested by the Fund.

Movements in currency exchange rates can adversely affect the return of your investment.

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