PORTFOLIO INSIGHTS

Pension Pulse

Covid-19: Assessing the impact on corporate pension fund allocations

July 2020

IN BRIEF

- As corporate pension funds look to repair the damage to funding caused by the Covid-19 crisis, we consider the experiences of funds with differing maturity profiles, risk appetites and investment strategies to find out how funds can best position themselves for the new market cycle.
- We look at the investment opportunities and challenges that are being created for funds with a variety of different objectives: those that are able to add risk to take advantage of market dislocations, those that are looking to refine their hedging strategies, those that will diversify further as they rebalance, and those that may need to take risk down given a change in circumstance.
- To see how different types of pension fund may look to optimise portfolio allocations for the new cycle, our case studies consider the impact on risk-adjusted returns (surplus Sharpe ratios) of adding 5% allocations to a range of asset classes, based on the average plan, a more mature plan and a less mature plan.
- While funds with differing objectives will need to ensure their allocations are designed to match their individual risk profiles, we find that adding exposure to core credit, high yield, emerging market debt and real assets is more efficient for all the types of plan we cover, while in general adding LDI carries a heavy expected return penalty.

AUTHORS

Sorca Kelly-Scholte
Head of EMEA Pensions Solutions and Advisory

Jerry Song
Vice President, EMEA Pensions Solutions and Advisory

INTRODUCTION

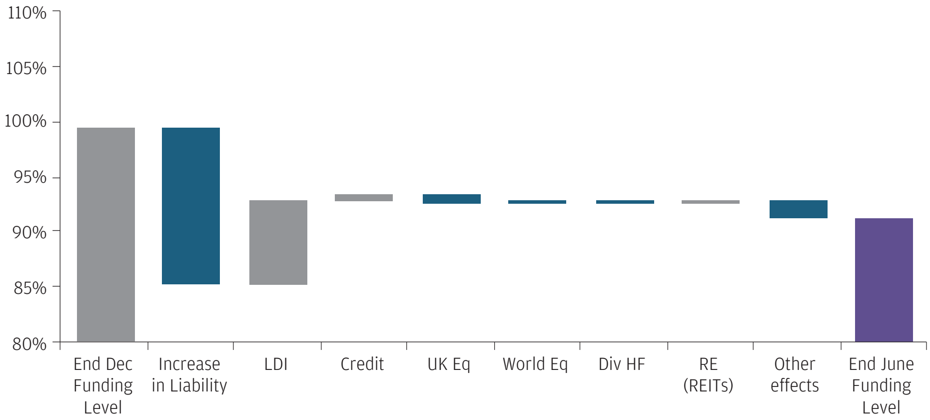
As has been widely commented on, the impact of the Covid-19 outbreak on markets was unprecedented—both in terms of the ferocious pace of the bear market in March and the subsequent rally, and the speed and scale of the policy response.

Although equity markets have rebounded, particularly in the US, falls in interest rates are more structural and likely longer-lasting. The fact that equity markets have raced ahead of fundamentals may suggest a degree of fragility, with measures of volatility still elevated. Currency effects have also had an important bearing on investors' experience of the crisis, with sterling selling off against the dollar. Those who did not hedge their currency exposure were somewhat cushioned in the downturn.

Overall, UK corporate pension funding levels have fallen by an estimated 8.5% from the end of 2019 to the end of June 2020, principally attributable to falls in yields, with the equity bounce largely reversing the effect of sell-offs in March, at least for now (**EXHIBIT 1**).

J.P.Morgan Asset Management

EXHIBIT 1: ATTRIBUTION OF ESTIMATED CHANGE IN UK DEFINED BENEFIT FUNDING LEVEL 31 DECEMBER 2019 – 30 JUNE 2020



End Dec Funding Level	99.4%
Increase in Liability	-14.2%
LDI	7.7%
Credit	0.5%
UK Eq	-0.7%
World Eq	0.1%
Div HF	-0.1%
Property	0.2%
Other effects	-1.8%
End June Funding Level	91.0%

Source: Bloomberg, Pension Protection Fund, PPF 7800 Index, XPS Liability Driven Investment Survey 2019, J.P. Morgan Asset Management; data as of end 30 June 2020.

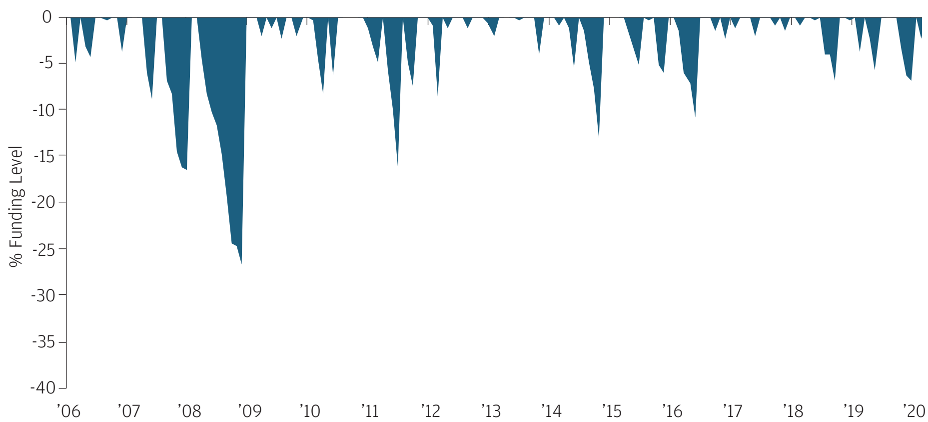
The crisis in context

The Covid-19 crisis has been challenging for corporate pension funds. However, it's worth noting that, while painful, the drawdown in funding levels since the beginning of the year so far pales in comparison with what was experienced during the global financial crisis, when pension funds held much higher allocations to equities (**EXHIBIT 2**). While equity and credit sell-offs took longer to play out in 2008/09, falls were much deeper than they have been in the current crisis.

Nonetheless, the recent experience will have been acutely painful for UK corporate pension fund sponsors and trustees, particularly given all that has been done to reduce the pension burden over the last decade—not least cash contributions, which for the FTSE 100 alone have been estimated at over £175 billion since the financial crisis, against a background of steadily tightening regulation.

While some regulatory pressures were eased at the height of the present crisis to allow pension funds space to manage cashflows and assess the impact on corporate covenants and funding plans, there is little sign of any pullback from the more general push to tighten regulation. The regulator has, for example, shown no appetite to delay or soften the revision of the defined benefit funding code. The pressure for pension funds to de-risk further can therefore be expected to intensify.

EXHIBIT 2: UK CORPORATE FUNDING LEVEL DRAWDOWNS



	2008	2019
Gvt	22	47
Credit	11	16
Equity	54	24
Real Assets	6	5
Other	7	8

Source: Pension Protection Fund, PPF 7800 Index, XPS Liability Driven Investment Survey 2019, J.P. Morgan Asset Management; data as of end 30 June 2020.

Repairing the damage

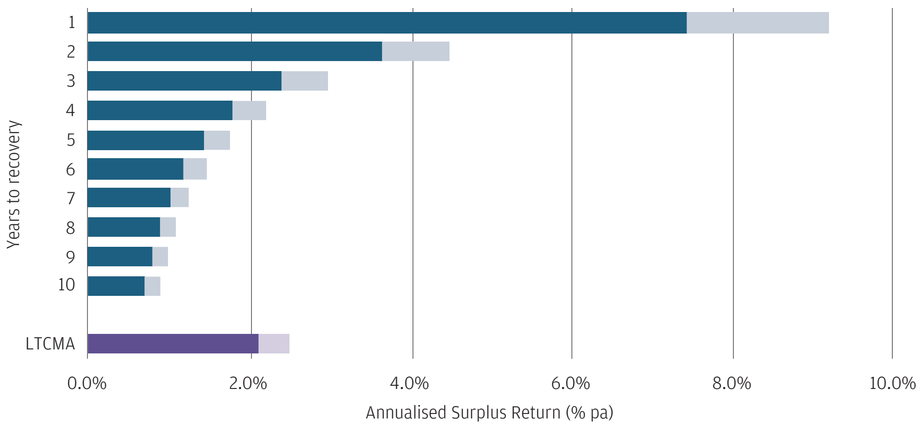
We think that it will most likely take three-to-four years for investment returns and falls in yields to bring funding levels for the average pension fund back up to December 2019 levels, based on our 2020 Long-Term Capital Market Assumptions (**EXHIBIT 3**). Put another way, the Covid-19 crisis has likely set back existing funding plans by three-to-four years on average.

If current equity valuations hold firm into a recovery, the shorter three-year deficit repair horizon is expected. However, if equity valuations suffer further shocks before a recovery gets underway, then the repair period will naturally be longer.

These estimates are for the average fund. The impact of the crisis will be different depending on the maturity profile and asset strategy of individual pension funds. More mature funds are generally more de-risked, and will have experienced less of a setback. Less mature funds, on the other hand, continue to carry substantially more investment risk and may accordingly have suffered bigger falls in funding levels and bigger setbacks to long-term funding and de-risking plans (**EXHIBIT 4**).

It has by no means been plain sailing for mature funds, however. Many of the funds in this category have been hit by operational and liquidity challenges in the crisis, particularly those that use substantial leverage to hedge liabilities (in March, the spike in interest rates caused substantial collateral movements), use currency hedging, or maintain substantial allocations to private market assets where striking valuations has been difficult. No doubt, mature funds will be refining their strategies as they reflect on the experience and lessons learnt through the crisis.

EXHIBIT 3: REQUIRED SURPLUS RETURN TO RECOVER TO END DECEMBER 2019 FUNDING LEVELS OVER DIFFERENT TIME HORIZONS

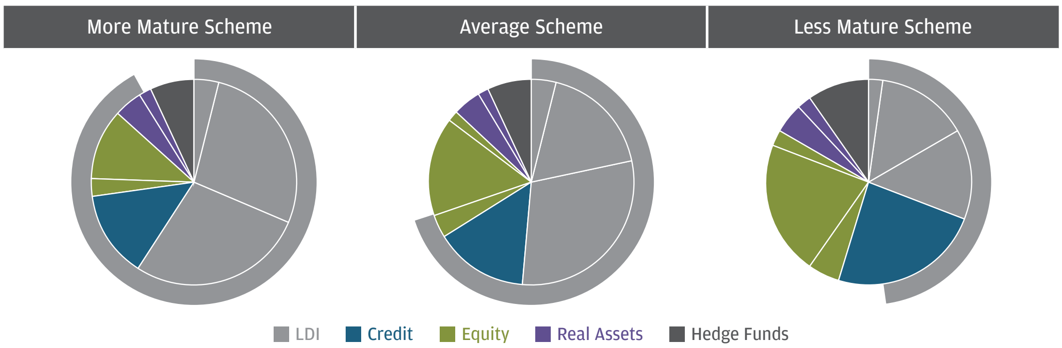


Probability range
16% - 25%
32% - 41%
42% - 51%
49% - 58%
54% - 63%
59% - 67%
62% - 70%
65% - 73%
68% - 76%
71% - 78%

Shaded range covers risk asset valuations from high (end June) to low (end March).

Source: Pension Protection Fund, PPF 7800 Index, XPS Liability Driven Investment Survey 2019, J.P. Morgan Asset Management. Estimates based on J.P. Morgan Asset Management 2020 Long-Term Capital Market Assumptions as of 30 September 2019, marked to market as of 31 March 2020. Data as of end 30 June 2020.

EXHIBIT 4: HEDGE RATIO AND FUNDING DRAWDOWNS OF PENSION FUNDS BY MATURITY



Maturity	50%-75% pensioner liability	25%-50% pensioner liability	<25% pensioner liability
Hedge Ratio	80%	54%	30%
Funding Level drawdown YTD	-4.5%	-10.0%	-17.0%

Source: Pension Protection Fund Purple Book 2019, XPS Liability Driven Investment Survey 2019, J.P. Morgan Asset Management; data as of 6 May 2020

Tailoring the investment response

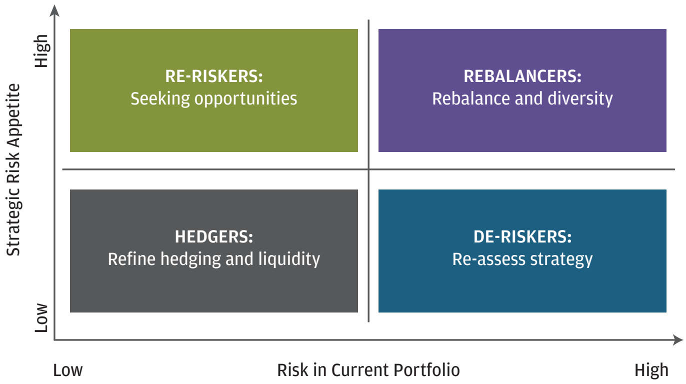
The response of pension funds of all maturities will vary depending on their individual circumstances, and in particular on whether their investment strategy continues to be aligned with their risk tolerance.

Generally we expect risk tolerance and investment strategy to be aligned, or at least to appear to be aligned. But in market dislocations such as the one we've just experienced, a gap can open up and investor responses will vary accordingly. As such, we've categorised pension funds depending on how much risk they are currently taking relative to their appetite for risk:

- **RE-RISKERS**—funds that had low risk strategies ahead of the crisis, but are now seeking opportunities to deploy risk in their portfolios as markets recover.
- **HEDGERS**—funds that had low risk strategies ahead of the crisis, and are looking to refine hedging and liquidity policies to keep risks low.
- **REBALANCERS**—funds with significant risk in their portfolios and regular rebalancing policies designed to maintain exposure to risk assets.
- **DE-RISKERS**—funds that had significant risk in their portfolios ahead of the crisis, and are now actively looking to reduce portfolio risks.

In normal circumstances, most funds will fall into the hedger or rebalancer categories. However, in times of market dislocation, misalignments may arise; for example, due to changes in the sponsor covenant.

EXHIBIT 5: HOW PENSION FUNDS RESPOND WILL DEPEND ON RISK CIRCUMSTANCES



Source: J.P. Morgan Asset Management. For illustrative purposes only.

New cycle, new opportunities

Without doubt, the deep recession sparked by the Covid-19 outbreak marks the end of the last market cycle. With the onset of a new market cycle comes new opportunities to refine investment strategies, particularly for pension funds in the hedger and rebalancer categories, but also for those that find themselves looking to add risk to portfolios.

We would expect hedgers to shift from hedging interest rates through derivatives to hedging with physical instruments, and to further diversify their range of income sources to service and stabilise cashflows.

Rebalancers, meanwhile, could take advantage of the new return-generative opportunities created by the crisis to diversify away from listed equities. Typically, these new opportunities become most visible first in the credit markets before appearing in the wider alternatives and private markets. And with equity risk and return now much more in balance than was the case late in the previous cycle, rebalancers may have the confidence to rebuild their portfolios in a more sustainable manner as the market structure evolves in response to what we have learnt from Covid-19.

The new cycle will also bring opportunities for pension funds in the "re-risker" category. While in practice few pension funds will actually be outright re-riskers, there were some who were reticent to deploy capital in the later stages of the last cycle—not because they didn't have the appetite to take risk, but because they thought the markets were unlikely to pay them for taking risk. This is the group of investors who spurned the "TINA" (there is no alternative) philosophy in favour of sitting on the sidelines, but may now be willing to step back into the markets where they see value. We think this is most likely to happen in credit and real assets.

Unwilling de-risking

Our final category of pension funds—the de-riskers—face a much greater challenge in this new market cycle. Many funds will feel intensifying pressure to de-risk against the general backdrop of regulatory tightening, especially those who now find that their sponsor covenant has been impaired. These funds find themselves, perhaps unwillingly and perhaps unexpectedly, in the de-riskers category. According to the Pensions Regulator, around 10% of schemes have agreed temporary suspension or deferment of deficit contributions. Some of these may be seeing permanent rather than temporary impairment of their sponsor covenants.

However, today's ultra-low bond yields mean that the opportunity cost of de-risking by shifting equity allocations into high quality bonds is significantly higher than in the past, and may actually come into conflict with long-term funding goals. We also see little prospect that rising interest rates will come to the rescue and help to remove deficits. While we expect rates to rise in our Long-Term Capital Markets Assumptions, we do not expect that these rate rises alone will not be sufficient to repair funding gaps and we do not think that they are imminent.

For some time, a key element of our thinking in our Long-Term Capital Market Assumptions has been that interest rates would normalise over the next 10 to 15 years, albeit to lower levels than have historically been the case. We assumed rates would likely fall further through the end of the last cycle, but that a fiscal boost in response to an economic downturn would set the scene for rates to start rising. This appears to now be playing out, although we would never have predicted the trigger.

However, we do not believe that rising interest rates alone will be sufficient to recover funding levels. While the massive fiscal boost that we've seen in response to the Covid-19 outbreak may put upward pressure on yield curves, these policy measures first have to plug the economic hole that the virus has created before boosting a recovery. Inflation expectations have remained fairly subdued since the policy response to the Covid-19 outbreak was announced. Therefore, while we expect yields to rise over our long-term horizon, it is likely that interest rates will remain low in the near term.

Rethinking safe havens

Clearly pension funds cannot rely on rising interest rates to remove deficits. On the face of it, therefore, funds that need to de-risk face a Hobson's choice—they can either lock in losses with an impaired prospect of recovery through investment returns or they can continue with a higher level of investment risk than they really have appetite for.

There is, however, a more palatable option. Rather than simply switching some equity exposure to low-returning bonds, or maintaining a higher risk exposure in portfolios than they are comfortable with, de-riskers can instead look to build exposure to a wider range of "safe haven" assets. As we discuss in our recent thematic paper, *Rethinking Safe Havens*, we find that equity risk can be effectively diversified in today's markets by adding allocations to public and private credit, currencies, commodities and real assets.

For those investors who can tolerate the associated illiquidity, core real assets provide a particularly compelling opportunity for risk mitigation in portfolios. Like bonds, the stable cash flows provided by real assets act as an effective portfolio stabiliser in market downturns. But unlike bonds, our forecasts suggest that the stability provided by real assets is without significant detriment to long-term performance.

Currency hedging

The move towards more globally-diversified portfolios means that currency management is another key challenge for pension funds in today's markets—in particular, how to deal with the US dollar. As has been clearly demonstrated through the Covid-19 crisis, the dollar has continued to act as a safe haven, despite our *long-term expectation* that the dollar will depreciate from its current elevated levels in line with long-term real exchange rates. A weakening dollar would act as a material drag on sterling returns if dollar-exposure is left unhedged.

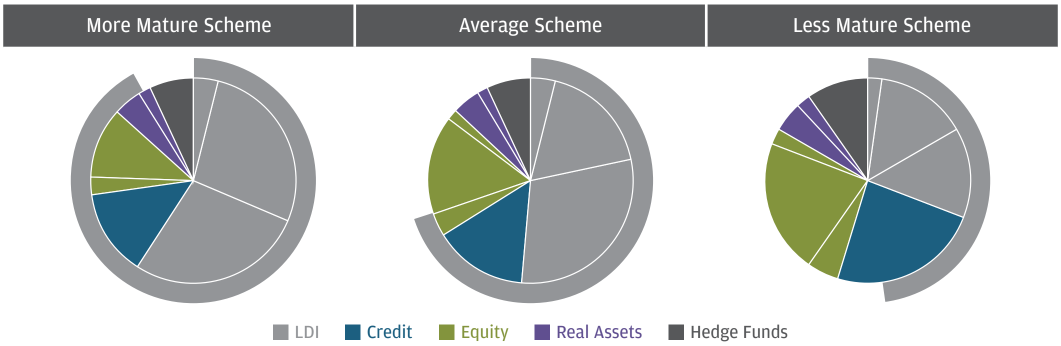
However, the pound's recent sell-off against the dollar is not all associated with the dollar's reserve and safe haven status. Sterling is coming under pressure from worries over a hard Brexit at the end of 2020, while underlying vulnerabilities in the pound (particularly the UK's large current account deficit) have also been exposed by the Covid-19 shock.

Therefore, while we have reason to believe that the dollar may depreciate over the long term, our expectations for further sterling weakness—and the dollar's continued safe haven qualities—suggests that a dynamic approach to currency hedging should be applied to help manage global portfolios through periods of volatility.

Putting it all together: Asset allocation case studies

To assess the impact of different asset allocation decisions on different types of corporate pension fund, we consider three case studies based on our average plan, an illustrative more mature plan and an illustrative less mature plan.

EXHIBIT 6: CASE STUDIES FOR AVERAGE, MORE MATURE AND LESS MATURE PLANS



	More Mature Scheme	Average Scheme	Less Mature Scheme
Maturity	50%-75% pensioner liability	25%-50% pensioner liability	<25% pensioner liability
Funding Level (Buyout)	85%	75%	65%
Hedge Ratio	85%	75%	65%
Asset Allocation			
LDI	55.5%	47.2%	27.5%
Credit	15.0%	16.1%	25.0%
Equity	15.0%	22.6%	30.0%
Real Assets	7.0%	6.7%	7.5%
Hedge Funds	7.5%	7.5%	10.0%
Case Studies	Hedger – rebalance & refine Re-risker – on the margin	De-risker – on the margin Re-risker – on the margin	Rebalancer – rebuild & diversify De-risker – forced

Source: Pension Protection Fund Purple Book 2019, XPS Liability Driven Investment Survey 2019, J.P. Morgan Asset Management; data as of 15 May 2020.

For each type of plan, we consider the potential benefit in today's markets of adding a 5% allocation to a range of high level asset categories:

- **LIABILITY-DRIVEN INVESTMENT (LDI)**—in line with the existing LDI strategy, without further leverage.
- **CORE CREDIT**—global aggregate investment grade corporate credit.
- **HIGH YIELD**—split equally across US high yield, European high yield and US leveraged loans.
- **EMERGING MARKET DEBT**—split equally across hard currency sovereign, hard currency corporate and local currency sovereign debt.
- **EQUITIES**—between developed and emerging markets in line with market cap, and with developed equity hedged back to GBP.
- **REAL ASSETS**—split 60%/40% between global real estate and global infrastructure. For real estate the regional split is 50% US, 30% Europe and 20% Asia Pacific. US dollar exposure is hedged back to GBP.
- **HEDGE FUNDS**—split equally across the five categories for which we maintain long-term capital markets assumptions, all hedged to GBP.

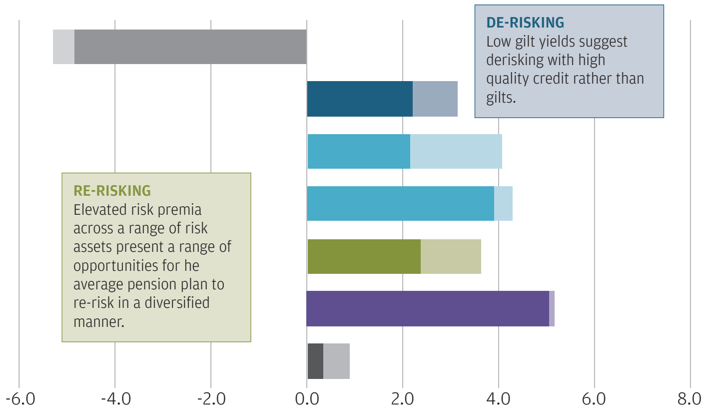
All bond categories are hedged to GBP, with the exception of emerging market local currency debt.

In order to fund the new 5% allocation, we sell a pro-rata slice of the plan's existing assets and we measure its benefit as the improvement (or otherwise) in the Surplus Sharpe ratio—an asset-liability measure of portfolio efficiency.

We also tested the results on two different sets of forecasts – using our Long-Term Capital Market Assumptions as they stood at both the end of March 2020 and the end of September 2019 for risk assets, and our Long-Term Capital Market Assumptions as at the end of March for sovereign and investment grade credit. The difference in assumptions for risk assets is based entirely on the change in initial values between the end of September and the end of March, with 31 March 2020 marking a low point before markets rallied strongly in the second quarter.

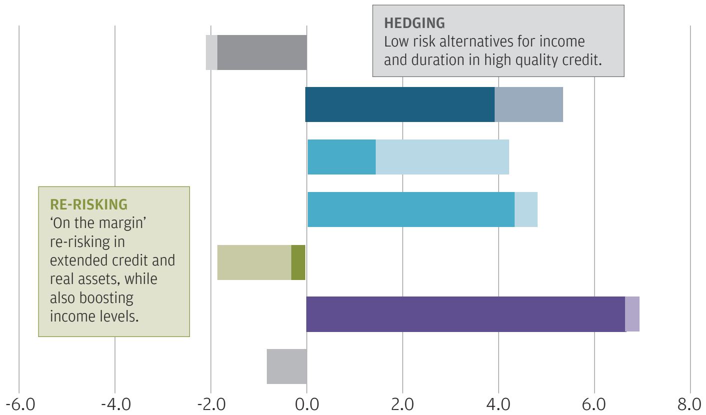
Using a range that covers the initial values experienced year to date allows us to draw conclusions that should be robust to any continuing volatility over the coming months. By contrast, falls in interest rates are likely to be more structural, and therefore we do not see an imminent return to the interest rate conditions that prevailed in September. The results are shown in **EXHIBIT 7.**

EXHIBIT 7A: IMPACT ON AVERAGE UK PENSION PLAN PORTFOLIO EFFICIENCY FOR 5% ALLOCATION, PERCENTAGE CHANGE IN SHARPE RATIO



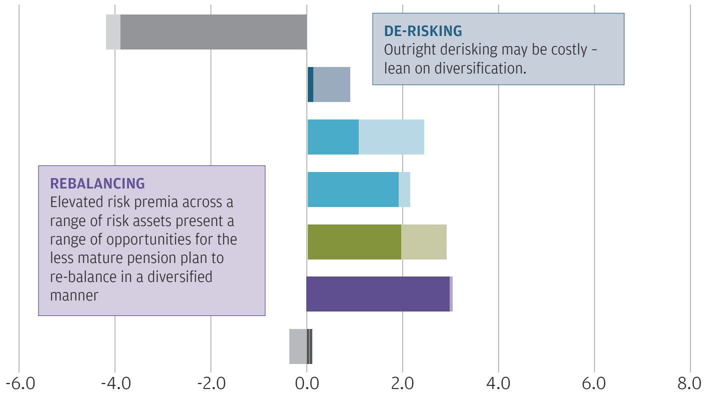
	Sharpe	Return	Volatility
LDI	-5.28	-0.19	-0.17
Core Credit	2.17	-0.01	-0.14
High Yield	4.08	0.14	0.09
Emerging Market Debt	4.26	0.09	-0.04
Equities	3.61	0.22	0.32
Real Assets	5.06	0.14	0.03
Hedge Funds	0.90	0.06	0.12

EXHIBIT 7B: IMPACT ON MATURE UK PENSION PLAN PORTFOLIO EFFICIENCY FOR 5% ALLOCATION, PERCENTAGE CHANGE IN SHARPE RATIO



	Sharpe	Return	Volatility
LDI	-2.07	-0.20	-0.31
Core Credit	3.93	0.02	-0.08
High Yield	4.23	0.17	0.17
Emerging Market Debt	4.82	0.12	0.06
Equities	-0.34	0.26	0.49
Real Assets	6.72	0.18	0.10
Hedge Funds	-0.03	0.09	0.18

EXHIBIT 7C: IMPACT ON LESS MATURE UK PENSION PLAN PORTFOLIO EFFICIENCY FOR 5% ALLOCATION, PERCENTAGE CHANGE IN SHARPE RATIO



	Sharpe	Return	Volatility
LDI	-4.24	-0.16	-0.09
Core Credit	0.09	-0.06	-0.14
High Yield	2.40	0.10	0.05
Emerging Market Debt	2.12	0.06	-0.06
Equities	2.87	0.18	0.23
Real Assets	2.98	0.11	-0.01
Hedge Funds	0.18	0.02	0.08

Source: J.P. Morgan Asset Management. For illustrative purposes only. Expected returns and volatility statistics based on J.P. Morgan Asset Management 2020 Long-Term Capital Market Assumptions marked to market as of 31 March 2020. Data as of 11 May 2020.

ASSESSING THE INVESTMENT IMPLICATIONS

LDI and core credit

We find that adding further exposure to LDI is inefficient for all plans compared to adding high quality credit, which is neutral to positive in all cases. It's also worth noting that the efficiency of adding core credit can be further enhanced by shaping it to the plan's liability duration profile, in a buy & maintain or other customised duration format. We suggest that this approach may be a more efficient way of extending duration than traditional LDI, particularly for de-riskers.

Re-riskers and hedgers may alter their physical bond exposures in favour of credit for the same reasons, although to a different extent, with hedgers making more modest shifts and with a greater emphasis on cashflow generation through higher cash yields.

High yield, emerging market debt and real assets

For all plans, adding extended credit (high yield or emerging market debt) and real assets enhances efficiency, by adding return with only modest increases in risk. Emerging market debt in some instances actually reduces risk—which is perhaps not surprising given much of emerging market debt is investment-grade quality, particularly in the corporate portion of the market, which has held up well through the crisis, potentially hastening its emergence as core credit.

High yield, on the other hand, offers long-term return potential, and we generally expect that dislocation-driven opportunities will become visible most quickly in this segment. We note in particular that, while spreads have rallied on average in the second quarter, there remains a high level of dispersion, with a significant proportion of the market still experiencing greatly elevated yields. This creates opportunities for distressed debt strategies in particular.

Core real assets continue to offer stable, income-driven returns that offer strong diversification to both equities and bonds. We do expect, however, that investors will refocus on tried and tested core assets with established stable income streams that have remained more resilient through the crisis. This positioning may require some moderation in expected returns for those investors that had extended into more alternative core real assets.

Equities

For the average plan and the less mature plan, there is a case to be made for adding equities. This does, of course, add risk, but based on market conditions at the end of March, risks were expected to be well rewarded. Some of this potential upside has been eroded by the recent rally, but these results should underpin the confidence of investors to *rebalance portfolios* and to "buy on the dips" should we experience further volatility in listed equity markets.

Hedge funds

Hedge funds are marginal in this analysis, but our return expectations are based on the median manager. Hedge fund returns are of course widely dispersed across managers, and in general the median manager return is not sufficient to reward investors for the idiosyncratic risks that they take on when investing. For those investors who have confidence that they can select above-median managers and secure a higher-than-median return, the potential improvement in efficiency will be greater than our research suggests, and so hedge funds in this case may be a better option than seeking return through equity investment—especially for more mature plans where stability of return is a key requirement.

CONCLUSION

The Covid-19 crisis and the accompanying market volatility has had a significant negative impact on corporate pension funding levels, even after accounting for the strong subsequent stock market rally. Repairing the damage is a priority, which will mean reassessing portfolio allocations as we enter a new market cycle.

As our case studies show, adding exposure to core credit, high yield, emerging market debt and real assets is more efficient for all the plans we cover, while adding more LDI appears less efficient at this point, given the paltry returns expected from gilts even if the risk reduction benefit is clear. Our average plan and less mature plan can draw confidence from this analysis in re-balancing equity exposure and “buying on the dips” as markets remain volatile. More mature plans seeking stable returns, meanwhile, may look towards hedge funds rather than equity—particularly if they have the confidence that they can select above-median managers.

As we move into the new market cycle new opportunities are being created—but not all funds will benefit equally. Funds with differing objectives will need to ensure their allocations are designed to match their individual maturity profiles and account for risk that they are willing to take as they look to remove deficits.

LV–JPM52821 | 07/20 | 0903c02a8294a92c