The third era of LDI: Interesting investment choices in a world of uncertainty

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The breakout of COVID-19 and accompanying market turmoil have led corporate pension plans to revisit their liability-driven investing portfolio and seek ways to improve risk management, strengthen asset allocation and better manage their funded status fluctuations. In this roundtable discussion, three experts share practical insights and prudent strategies, through diversification or rebalancing, that pension funds can consider today as they look out at a low-yield environment that is likely to last for some time. The panel includes Kevin McLaughlin, head of liability risk management – North America, at Insight Investment, Jared Gross, head of institutional portfolio strategy at J.P. Morgan Asset Management and Serge Lapierre, global head of LDI, financial engineering and quantitative research, at Manulife Investment Management.

Pensions & Investments: Has the COVID-19 pandemic, and the accompanying market volatility and economic and political turmoil this year, been a triggering event for defined benefit plans in LDI?

JARED GROSS: The broad impact of COVID-19 has been generally negative on plan funding largely on the back of lower interest rates, which have reduced the discount rate and, therefore, raised liability values. There was a period of stress in March and April, and since then markets have, broadly speaking, recovered. But the level of financial stress has disincentivized corporate sponsors from making contributions this year. Time will tell as to how much additional money goes into plans through 2020 but we'd expect that it will be somewhat diminished.

Going forward, the interesting question is, how will plans assess the LDI opportunity set, specifically Treasuries that are trading at historical lows across the curve and corporate credit risk, which is significantly elevated given the economic environment we're in? We're likely to see an increased focus on diversifying the LDI opportunity set, both within the hedged portfolio where we expect to see plans migrate from holding just corporate bonds and Treasuries to other long duration assets, particularly long duration securitized portfolios. On the return-seeking portfolio side, plans will look for broader diversification away from equities into lower volatility return-seeking strategies, primarily in the alternative asset classes.

SERGE LAPIERRE: For pension plans, the COVID-19 pandemic wasn't necessarily a trigger but it has led them to revisit the way they manage their LDI strate-

gies and asset allocation. Many plans were concerned about credit exposure, and they are now looking at ways of getting the necessary yield, not necessarily without taking on more credit risk, or they are looking at diversification alternatives. Some plans were also really stressed about illiquidity and that they wouldn't be able to actually pay pensioner benefits. There was a lack of liquidity in March and April before the Fed intervened, when we didn't know how big the intervention would be. All those events have made clients realize the risks in their LDI strategies, that they need to understand and manage those risks, and ensure their LDI strategy can sustain those kinds of conditions in the future.

KEVIN MCLAUGHLIN: With the COVID-19 events of early this year, our clients are much more risk aware, more liquidity aware, more conscious of elevated transaction costs, and have much greater focus on credit spreads, both as a risk and as an opportunity. I would view the events in March and April as a sea change in market risk awareness. It's become evident that the system is very highly levered, there's no real political appetite to restructure debt, and it's clear that the Fed is going to keep rates low for a long period of time. The solution out of these problems is becoming much more political than market driven, which is a very different environment than we were previously in.

Some commentators say this may be a bad time for LDI, but we take the opposite view. What's important to understand is that while there's been a huge drop in Treasury yields, that's meant there's been a very great extension in duration and much more convexity risk in liabilities than in the past. It's now much more



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important than ever that you develop LDI, rather than do less LDI.

P&I: What's been the experience for your clients with LDI strategies in place, and for clients thinking about modifying or implementing an LDI strategy? Have you seen them pause, shift or move forward?

LAPIERRE: We have a custom approach to managing LDI for all of our clients. Their experience has varied depending on the type of constraints they face. It depends on the duration of the liabilities, and also the government bond, credit and inflation exposures of the liabilities and their portfolios. Portfolios that were low on credit exposure and

high in Treasuries performed better during the crisis, and their funded status deteriorated a little less than those with a larger exposure to equities. Those with significant exposure to credit saw large market value declines on their portfolios, but if they had a relatively large allocation to LDI and a smaller allocation to equities, their funded status remained relatively stable over time since liability discount rates are linked with credit yields. For plans with exposure to inflation, TIPS underperformed relative to Treasuries and their funded status was probably more affected than the funds that didn't have that type of exposure. So, it's been a roller-coaster ride for all pension funds earlier this year.

For clients at the beginning of the process of implementing LDI, many postponed their decision as they had more pressing issues to manage. But clients who were already close to adopting LDI actually moved forward as they saw the value it would bring to the pension fund. We won a mandate in March and implemented that throughout the crisis and it went pretty well.

MCLAUGHLIN: By and large it has been a good experience for plans with LDI strategies in place. Investors did particularly well if they were invested in STRIPS and Treasuries in the portfolio for two reasons: they provided a good hedge for the liabilities and they've been a strong diversifier to equity returns when the equity market is under pressure. The story for corporate bonds is a little bit tougher, but we've advised clients to stay the course and to keep the focus on good credit underwriting. Going forward, the big challenge is uncertainty. We're very risk conscious. We are advising clients to stay high in credit quality and the credit structure and, despite the low yield environment, to consider increasing Treasury and government bond holdings.

GROSS: We entered 2020 somewhat on a roll, following years of relatively steady improvement in funded status and where return-seeking assets have delivered positively over the last few years. Most LDI portfolios were delivering above benchmark performance, or at least benchmark-like performance. This episode has called into question some assumptions about assetclass stability and diversification across the portfolio, including the role of Treasuries as a risk diversifier and the ability of concentrated corporate credit portfolios to deliver over the long horizon. If we're in a credit cycle where elevated defaults and downgrades become the norm for the next few years, that would be a very material concern for the asset portfolio. It's also reinforced the value of active management, both with respect to the fixed income portfolios themselves and the ability to do dynamic rebalancing within the 66

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- KEVIN MCLAUGHLIN

LDI program in response to market movement. Those plans that had asset allocation flexibility came through this episode far better off than those that were locked into a very fixed approach.

P&I: What issues are currently at the forefront for pension funds managing funded status fluctuations and how are they considering asset allocation changes?

GROSS: At a very high level, the best investment strategy for any pension fund is regular contributions. Over time, that's proven to be the single-greatest factor in plans reaching their ultimate goal of full funding. As we drill down into LDI strategy, the choices right now are quite interesting, and plans need to think through how they will diversify their LDI programs to achieve plan objectives going forward. Consider that the classic LDI benchmark mix is 75% to 80% high-quality corporate bonds and 20% to 25% Treasuries. With Treasuries yielding around 1.5% or less, there's significant negative carry to the natural accrual rate of the liabilities, which makes that form of diversification and risk management extremely costly. The credit portfolio is yielding historically low levels, and in this economic environment, we could reasonably expect elevated levels of downgrade and default activity over the next several years. The likelihood of a traditional LDI benchmark keeping pace with liabilities is going to be increasingly challenged from both sides. So, the intuition behind adding diversified asset classes to the LDI program is that you can help to insulate from low yields relative to Treasuries and from credit losses relative to corporate portfolios. One of the more actionable opportunities is the use of longer-duration securitized bonds, which are triple-A quality with levels of yield and spreads commensurate with corporate Treasuries.

MCLAUGHLIN: Just to go back to how we see LDI, we view pension plan liability as a set of default-free cash flows, which means that there's no inherent credit spread. For accounting purposes, they are discounted on credit-based curves and so there's a lot of focus on credit hedging. However, Treasuries are ultimately the best hedge for liabilities. Long-duration Treasuries and STRIPS have had off-the-chart returns for the past 10, 20, 30 years. So, before we head down the path of saying take more risk now, go down the credit spectrum and go more into alternatives, we believe it is necessary to stand back and reevaluate the LDI benchmark and potentially look at more Treasuries, not less.

What's top of mind for plan sponsors now are three questions. The first is about risk: 'How low can yields

go?' Our view is that yields can go lower, and there's a lot of focus from the Fed on managing them in that way. Second, 'Where do I get yield from?' Hence, the focus on alternatives and diversifying. And third, 'What should be the expected return for planning assumptions and cash contributions?' Given the focus on long-term capital markets assumptions, we may need to lower our expectations for the decade ahead. In addition, plans need to realize that they're in the decumulation phase, which means the investment time horizon is shortening greatly; they need to focus more on liquidity and they need to define their endgame - pension risk transfer, self-managed immunization or something else - this should determine their asset allocation strategy.

LAPIERRE: As has been discussed, yields are relatively low and pension plans are looking to make up that gap between Treasuries and their discount rate. They also want the equity exposure to make up for their unfunded status. But what they have realized is that credit and equity risk are quite correlated. They need to diversify away from that with some other type of risk or additional income from other asset classes in an LDI strategy, otherwise they can end up having an entire balance sheet that's related to credit on both sides. We recommend what we call LDI plus, which adds value by exposing the portfolio to asset classes with an income component, more long duration in nature, and with an illiquidity premium that, if the plan can sustain it, will materialize over time. That includes infrastructure, real estate, timber and agriculture. It could also include alternative asset classes like hedge fund strategies and go-anywhere bond mandates that can be embedded within LDI and provide a more diversified portfolio that makes up for the gap between the discount rate and the yield you need to earn on your LDI strategy.

P&I: Pension risk transfer premiums continue to fall this year. Looking at derisking solutions today, what would be your recommendations and why?

MCLAUGHLIN: We're in a period of unprecedented uncertainty. All elements are pointing in that direction: social change, political change, financial markets change. So, we are much more cautious than the average investor. We're encouraging clients to focus both on certainty of proceeds and of income. We want to stay high in the capital structure. We want to be very well protected if we're taking on any extra credit risk. As I said, better diversifying portfolios in many cases would be simply adding more Treasuries rather than adding less and staying focused on the benchmark for LDI purposes.

GROSS: I'll take a slightly counter position to Kevin's view which is that, as much as it's nice to think about achieving certainty with guaranteed cash flow payments into the future, the cost associated with doing that in the real world is prohibitive. It's not realistic for plans to hold laddered Treasuries as they require some level of return over that of the natural growth rate of the liabilities, and that is compounded by the fact that they may be underfunded.

I would observe that managing an underfunded pension plan is akin to walking up a down escalator. You have to walk faster or you don't go anywhere. So the choice investors face is, 'What is the method by which



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we're going to walk faster and make up ground against the liabilities?' Serge had good points earlier around the role of less liquid assets and more dynamic, maybe delegated, portfolios that allow a plan to outsource some of its liquidity to a manager who can move dynamically across markets. None of these are riskless, but they are essential if we're going to ultimately pay the benefits when they come due.

LAPIERRE: I agree with both Jared and Kevin and see it as more of a trade-off. We're not saying that you need to be completely certain about your investment strategy against liabilities or you need to take on more risk. It's a trade-off between the risk that you are willing to take and the cost that you're willing to pay for the certainty. If your company is cash strapped, obviously you will have to make up for those costs through excess returns. If you just rely on Treasuries, you'll have a gap in the long-term return relative to your liability, which will make it difficult to get to a better funded position. We recommend a strategy that is in line with the discount rate of the liabilities by having a diversified exposure to credit and alternative asset classes that can earn a greater return and provide a good hedge to the liabilities. On the other hand, if your company has enough cash to fund the plan, you may be willing to fund a portion of your deficit with some cash in order to reduce the need to have a significant exposure to riskier assets.

We ask clients: 'How much excess return do you need to earn on your portfolio if you want to make up for that, say, 80% funded status you're in?' If you're targeting to be fully funded in 10 years, you'll need to earn about a 3% excess return on your portfolio above your liability discount rate to make up for that underfunded status solely through returns. To achieve this level of excess return, you have to allocate a significant amount of your portfolio to growth assets. If you're not able to take on that additional risk, either you'll have to pay more or wait a longer period of time to reach a fully funded status.

MCLAUGHLIN: I'd agree with Jared and Serge that there are potential trade-offs. However, the way to better manage the trade-off in terms of increasing Treasury exposure without tying up all your assets is to have more leveraged instruments like STRIPS or interest rate overlays, which are capital efficient. Clearly, how much risk plans want to take will depend on both their risk appetite and risk capacity, and there's no one-size-fits-all answer.

P&I: As LDI has become more sophisticated, could you go back to basics and define LDI? What is the central challenge that LDI solves?

LAPIERRE: LDI is a way to manage balance sheet risk and the cost of funding the benefits that you promise to your plan members while at the same time minimizing the impact on the company's financials or on plan members' ability to get the retirement they need. LDI is useful for any type of pension fund, whether a corporation, public plan or union plan. It's not just about long bonds or matching the duration of the liabilities. It's about managing your whole balance sheet, the risks that it entails, and the impact it has on the various stakeholders of the pension plan.

As pension funds derisk even more, a custom and

adaptable approach to LDI becomes even more important to minimize funded status volatility. Today, not only large pension plans but smaller pension plans can have access to custom approaches using a mix of LDI funds designed to closely match liabilities and calibrate their credit exposure.

GROSS: I think that we're entering a third era of LDI. The first era, which I'd peg from the mid-2000s through the financial crisis, was convincing pension funds to move their fixed income from traditional core to long duration. That was the first toe in the water for plans looking at managing risk versus liabilities. The second era, which has taken place since the financial crisis and which may now be coming to a gradual end, is the glidepath phase. Plans have been incrementally shifting assets from

return-seeking portfolios heavily invested in equities to LDI portfolios that are customized and concentrated in investment-grade long-term corporate bonds. As LDI allocations have grown, many plans have the ability to hedge out the majority of their liability risks, involving some of the techniques that Kevin suggested, the use of STRIPS, overlays and so forth.

As we enter this third era, we can hedge the majority of liability risks with less than all the assets. That opens up flexibility to be more creative across the asset allocation spectrum. Portfolios may become a little bit less barbelled in terms of having high-return, high-risk equities on one side and very low-return, low-tracking error LDI on the other. We may become a bit more liability aware and focus more on the holistic blend of risk and return.

MCLAUGHLIN: We view LDI as a risk management philosophy, and for us it's about delivering greater certainty of outcome. It's much more focused on achieving liability returns than total returns. Once you have a target outcome in mind, we find that clients tend to redefine risk as anything which then prevents them



Another important issue, as you get closer to fully funded status, is the need to have a flexible strategy that enables you to lock in your funded status as it improves.

- SERGE LAPIERRE

from achieving this outcome. So, your whole portfolio becomes an LDI framework, so to speak, and your key objective is to mitigate or manage the shortfall risk of assets to liabilities.

What's remained ever present in the last 20 years and going forward is that interest rates are generally an uncompensated risk factor. So all else equal, you want to hedge out as much interest rate risk as you can and to spend your risk budget in different ways. Secondly, diversification is still your best friend, and there's many ways to do that. Thirdly, as plans are now more cash flow negative, the focus on liquidity is going to be even more important in the next 10 years.

P&I: Given where we are in the economic and credit cycle, could you elaborate on how plan sponsors can approach diversification in LDI portfolios?

MCLAUGHLIN: If we look at the problem we're trying to solve for in terms of closing funded status gaps, we have to recognize that to achieve more yield means more risk. Not all corporate plan sponsors may want more risk, nor realize it is more risk. If we then move toward diversification and find an opportunity for the LDI portfolio to achieve the same level of return but at a lower level of risk, we'd want to make that switch. Conversely, if we can get a higher return to help close

the funding gap at the same level of risk, those are attractive opportunities.

We foresee more plan sponsors adding secured assets and asset backed in the LDI portfolio. Where we probably differ from some is our emphasis on holding these investments at shorter maturities rather than longer maturities. There's clearly less duration, but you can add back through overlay, while you benefit from a higher spread capture and diversification as more bonds are available versus the long end.

GROSS: I'd point out that securitized assets have been somewhat overlooked during the evolution of LDI. Most pension funds used to hold securitized assets when investing in core bonds, but they were dropped in LDI portfolios as they don't tend to have a lot of duration in aggregate and have characteristics like negative convexity. However, there are fairly meaningful components of securitized assets with long duration and relatively stable duration. They present a real opportunity today as the third leg of the stool, given that the other two legs - Treasuries and corporate credit - have real challenges on a forward-looking basis. They are high quality, largely triple-A assets with yields and spreads on par with corporate credit. Again, this will probably not comprise more than 20% or 25% of an LDI portfolio, but it has the potential to improve returns and reduce risk as a diversifying higher-yielding asset class.

LAPIERRE: As has been discussed, we're in a low-return environment, which makes it harder for plans to get out of a deficit. If you only take equity risk, it's not diversified enough. So you need to diversify with different types of asset classes that expose you to different types of risk premium, not only credit premium or equity risk premium, but illiquidity and other premiums that can be harvested through different types of asset classes. Another important issue, as you get closer to fully funded status, is the need to have a flexible strategy that enables you to lock in your funded status as it improves. You need to be able to act in a timely manner while taking care not to reduce your exposure to growth assets too fast if you want to be able to reach a fully funded status.

P&I: Peering into your crystal ball, where do you see pension plan funding status 10 years from now?

GROSS: The fundamental question is what will happen to interest rates going forward? If we will be in a persistently low interest rate environment, then funded status 10 years from now will probably look a lot like it is today. All of the ideas we've discussed here — diversifying the hedge portfolio, a greater focus on



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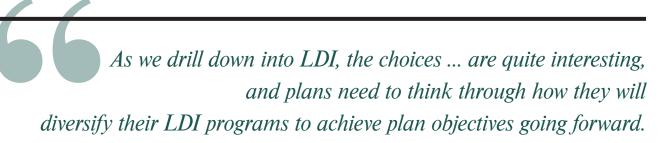
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income-generating assets, considering the use of illiquidity and alternatives, becoming more capital efficient — are tools that plans can deploy to materially improve their funded status over time. But a significant increase in interest rates, barring a negative stagflationary scenario, could improve funded status materially independent of these asset allocation choices. The other wild card is funding. If we see more plan funding, either because corporations see it as being in their best interest, or perhaps we get new legislative or tax changes that incentivize it, that will move the needle as well.

LAPIERRE: I would agree that rates are probably going to stay low, at least for the next couple of years.

Plan sponsors should not be thinking about the best or most likely scenario that can occur, but about the worst scenario that they can sustain. We live in a world of uncertainty. From the impacts of climate change on the economy, the impact of COVID-19, the impact on longevity, and even potential changes in the nature of financial markets — all these factors might bear on the ability of pension funds to become fully funded down the road. So plans need to identify the risks, determine if their strategy allows them to sustain this uncertainty going forward, and use that as their basis to make strategic decisions.

MCLAUGHLIN: The reason I do LDI is because I don't

have a crystal ball. I'm focused on risk management. If you look where you will be in 10 years, you need to solve for three things: close the funding gap, hedge liabilities to control risk and pay out benefits. You will need to have solutions or strategies around all three objectives. In terms of closing the gap, it's very important to understand what decumulation means for your particular situation as it gets harder to generate returns when your asset pool is decreasing. You want to do more hedging, not less. And then, generally, stay the course. You've had a derisking problem for 10 or 20 years. Keep chipping away at it and you'll end up in a better spot in a few years, if not sooner.

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