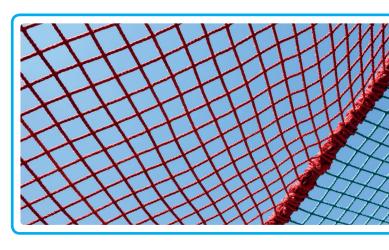
Collateral damage – Building a safety net



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By incorporating leverage, liability driven investment (LDI) strategies have assisted pension schemes in managing the competing capital requirements of hedging liability risk and generating returns to reduce deficits. The drawback of leverage is it introduces a new requirement for pension schemes: maintaining adequate collateral reserves.

In event of a severe market move and depletion of the collateral reserves, a call for additional collateral may need to be met within a short time horizon.

In this paper, we describe:

- Why implementing an effective plan to deal with calls for additional collateral as they fall due is so important
- What attributes make an asset attractive for use if there is a call for more collateral
- How we believe absolute return bond strategies, combined with flexible governance, can play a vital role in achieving effective collateral management

A PATH OF UNCERTAINTY LIES AHEAD

Pension schemes have been investing in LDI strategies and incorporating leverage for the best part of 20 years. Why is having a plan to ensure there is adequate collateral so pertinent now?

Since the global financial crisis, central banks globally have adopted accommodative monetary policy through record low interest rates and quantitative easing (central bank purchasing of government bonds and other assets). This has driven yields lower and led to strong performance for many LDI funds. As a result, they have in general been net receivers of collateral.

However, the tone from central banks over recent months appears to be signposting a change of course for monetary policy. The US Federal Reserve is already on a tightening path, hiking rates on four occasions over the past 18 months, whilst the European Central Bank (ECB) is considering tapering its extensive quantitative easing programme.



Closer to home, the Bank of England (BoE) Monetary Policy Committee (MPC) is increasingly becoming split in its decision on whether to implement the first rate hike in over a decade.

Our central view is that structural issues such as deteriorating global demographics, an ever-growing debt burden and ballooning fiscal deficits all ultimately lead to deflationary pressure and constrain interest rates from returning to their pre-global financial crisis levels¹. However, as central banks head towards normalisation of monetary policy we could see upward pressure on bond yields, and volatile market conditions reminiscent of the 'taper tantrum' experienced in 2013. This could lead to periods of deterioration in a pension scheme's overall collateral position.

CHANGING REGULATION

Aside from the market implications on a pension scheme's collateral requirements, new EU regulatory technical standards under EMIR came into force this year, changing the way collateral is managed and also what constitutes collateral held against derivative positions. The new rules involve a number of changes (including shortened settlement times for the transfer of margin and requirements as to the form of eligible margin and collateral haircuts).

The biggest change for pension schemes will be the requirement to margin currency transactions (both currency forwards and swaps). This is a significant change as currency is currently not collateralised. Collateral eligible for margining will be strictly cash and government bonds. As a result of these additional collateral burdens, it is imperative that collateral can be managed and sourced more efficiently across the entire pension scheme.

MAKING THE RIGHT 'CALL' ON COLLATERAL

In the event of a substantial rise in yields, immediate collateral calls in the majority of instances need to be met as previously mentioned with either government bonds or cash held within the LDI fund. As such, an important part of an LDI manager's responsibility is to manage the level of available collateral to ensure it is sufficient to meet these calls.

If an LDI fund's collateral position deteriorates, it may need to top up the collateral reserves. This could lead to a scheme being forced to sell down some of its holdings in its non-LDI assets to transfer to its LDI fund in order to maintain sufficient collateral for its overall hedge. However, it is important to highlight if the scheme is required to sell assets to meet a collateral call, the governing factor when selecting the asset should still be in line with achieving the scheme's target strategic asset allocation (SAA). This can vary between pension schemes, however, in this scenario we believe the following attributes are desirable in the assets reserved to act as the collateral safety net:

Liquid with low transaction costs

Depending on the severity of the market move and depletion of the collateral pot, the call for additional collateral may need to be met within a short time horizon. The assets therefore need to be liquid, even when market conditions have deteriorated. In a similar vein, investments with high transaction costs are less desirable, particularly if the transactions costs are likely to increase at times of market stress.

Diversified from interest rate and inflation risk

The 'perfect storm' for a pension scheme would be if the call for additional collateral occurs at the same time as poor performance across asset classes. This would leave the pension scheme in the uncomfortable position of deciding whether to crystallise losses on its non-LDI assets or to reduce the level of its overall liability hedge.

This is particularly topical given the market moves or 'mini tantrum' we saw in the last week of June 2017. Following hawkish comments from a number of central banks, government bond yields spiked higher, equities fell and credit markets weakened. The majority of asset classes performed poorly, with the prospect of tighter monetary policy and the associated implications for future growth leading to contagion across asset classes. While market moves to date have not been comparable to that of the 2013 'taper tantrum', we believe a more significant rise in yields could have significant implications for collateral positions and performance across asset classes.

Do you know how much available cash and eligible collateral your pension scheme has?

How sustainable are your collateral reserves during times of market stress?

Are you aware of the full remit of the collateral management changes under EMIR?

^{1.} For more details please read our Market Insights publication "UK yields to stay low?" http://www.lgim.com/library/knowledge/thought-leadership-content/market-insights/Market_Insights_UK_yields_to_stay_low_June_17_UMBRELLA.pdf

HOW CAN AN ABSOLUTE RETURN BOND STRATEGY PROVIDE SHELTER?

An absolute return bond (ARB) strategy seeks to generate stable and consistent above-cash returns in all market conditions, primarily through investing in liquid investment grade credit securities, but with some flexibility to invest in asset-backed securities, high yield, emerging market debt, global sovereigns and global currencies.

In order to target consistent returns, an absolute return bond strategy should place significant emphasis on risk management and avoiding downside scenarios. There is no one size fits all philosophy when it comes to absolute return bond strategies. We believe an absolute return bond strategy should offer a robust track record consisting of minimal drawdowns in all market conditions. This increases the chance that capital is preserved and available to the investor should it be needed to meet a collateral call. However, some absolute return bond strategies can target, although do not guarantee, returns upwards of 4% over cash. Strategies such as these tend to follow a long-risk bias, leading to returns that are highly correlated with underlying credit markets and therefore potentially leading to large drawdowns at certain points in the credit cycle or when markets suffer short, sharp sell-offs.

We believe that a true absolute return bond strategy should have no embedded market directional bias, so that market risk positioning is the lone contributing factor to performance. Correlations are a very important observation—and using principal component analysis (Figure 1) it is possible to track the factor sensitivity of performance relative to market factors. An absolute return bond strategy should demonstrate returns uncorrelated to

both credit and rates markets, generating return potential in both up and down markets.

WHERE DOES ARB SIT IN YOUR OVERALL INVESTMENT STRATEGY?

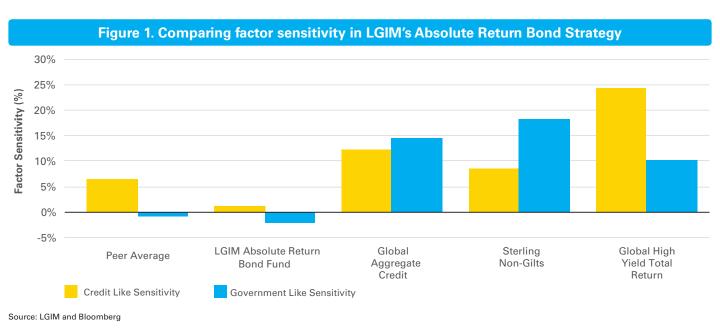
Given the implications we have raised surrounding the changing market and regulatory environment, as well as the risk of a sharp move in yields, we believe an absolute return bond strategy is highly complementary sitting alongside an LDI approach to support potential calls for a top up of collateral. An absolute return bond strategy should:

- be relatively liquid, with low transaction costs
- aim to have no market directional bias generating performance potential in both up and down markets
- seek to provide an attractive return over cash.

This marginal gain of putting your collateral assets to work helps the scheme to be more efficiently invested in assets that are focused on generating a return and contribute towards reducing the overall funding gap to assist in meeting the principal target of a pension scheme, to pay benefits as they fall due.

What should an absolute return bond strategy seek to provide?

- No embedded market directional bias
- · Stable and consistent returns
- Minimal drawdowns
- Relatively liquid trading
- Low transaction costs



TIME TO ACT?

As previously discussed, we believe there are good reasons for UK real yields to remain low for some time to come. But taking the UK's structural weakness to its limit, particularly if policymakers misdiagnose problems or miscalculate their response, we believe there is a risk that yields reverse direction, potentially in dramatic fashion. Given how quickly markets could move, we believe it is important for pension schemes to prepare a safety net for how they would meet calls for additional collateral.

If we were to see a repeat of the 2013 'taper tantrum', the spike in yields could also result in negative total returns for growth assets, leading to a 'perfect storm' for collateral management within a pension scheme. We believe allocating to an ARB strategy to act as a first line call for collateral helps protect against this risk, while providing attractive return potential over cash if a 'safety net' is not required.

WHAT NEXT FROM LGIM?

We would be delighted to meet with you in person to discuss our absolute return bond strategies in more detail, and to show how they could be relevant for you. To set up a meeting, please contact your Client Relationship Manager.

LGIM offers LDI and Absolute Return Bond solutions. Capital is at risk.

- http://www.lgim.com/library/knowledge/thought-leadershipcontent/client-solutions/Client_Solutions_investment_ governance_July_17_UMBRELLA.pdf
- 3. http://update.lgim.com/e/22472/aware-investing-march-2017-pdf/5zicks/364778839

UNLOCKING HIDDEN VALUE

Tweaking current governance processes to create flexibility to allow for change may sound obvious, but it is not apparent in many schemes. In our recent Client Solutions publication Finding hidden value in your investment governance² we discuss how many schemes have not factored in the cost of the new collateral regulations. Pension schemes are often 'divided up' into units run by different managers rather than being managed holistically, which means that a pool of gilts which is considered eligible collateral may be difficult to access quickly across different parts of the pension scheme.

In our **liability aware investing publication**³ we highlighted the benefits for pension scheme trustees to take a more outcome-orientated approach to investment. Holistic management of collateral is part of this thesis, as there could be an efficiency drag to operating multiple portfolios seeking similar returns. Each manager will need to hold collateral against any derivative position and there could be as much as 10% or more sitting in cash or eligible collateral at any one time across a pension scheme. We believe it could usefully be consolidated and redeployed elsewhere such as through the use of an absolute return bond strategy.

As we have spent time looking at governance with trustees and their advisors it has become apparent that small changes such as these could reap potentially large benefits and unlock hidden value.

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