

Non-market risks in liability driven investment (LDI): getting it right

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Liability driven investment (LDI) arrangements are legally complex. While they are often tailored to suit the requirements of individual schemes, there are a number of common legal issues which are critical to understanding and managing a number of risks in LDI arrangements. The Pensions Regulator requires Trustees to put in place the right governance and controls, and understand the risk they carry in their investment strategy.

Segregated LDI mandates and Pooled LDI funds are legally very different creatures. In segregated mandates, the Trustee will become the legal party to all relevant arrangements such as the IMA and all derivatives and repo agreements. In pooled fund arrangements, the Trustee will only have a direct relationship with the relevant fund entity. Non-market risks, such as counterparty credit risk, operational risk, compliance risk, legal risk are common to both – but in segregated mandates, it falls on the Trustee actively to design and shape the arrangement to manage these risks. By contrast, in pooled fund this becomes essentially, a due diligence exercise.

The critical challenge is to understand all of the underlying dynamics and how managing one risk or realising one commercial objective can result in unwanted trade-offs. For example, guarding against counterparty credit risk can raise the risk of a liquidity squeeze. More control for the Trustee can shift liability from the investment manager to other advisers.

The liability of the Trustee and the ability to recover for losses will depend on how well these dynamics are understood and addressed.

The paper deals with

- Legal Relationships and Set-up
- Counterparty Credit Risk in LDI Arrangements
- Collateral

- Liquidity Risk
- Compliance Risk - Derivatives Regulation
- Additional considerations for Pension Scheme Trustees
- Contractual terms and recourse
 - IMAs
 - Engagement terms with third party advisors
- Derivatives / Repos
- Legal Enforceability
- Recourse
- Pooled Funds

Segregated Mandate

Legal Relationships and Set-up

1. In a segregated mandate, the Trustee directly appoints a discretionary investment manager (IM) to manage a portion of the Scheme's assets in accordance with bespoke LDI investment guidelines. The arrangement will be set out in an Investment Management Agreement (IMA).
2. The securities managed by the IM and comprising the LDI mandate (such as gilts and bonds) will be held with the Trustee's primary Custodian in accordance with the terms of the Scheme's general Custody Agreement. The Investment Manager is likely to be given powers to act as agent of the Trustee and instruct the Custodian directly.
3. One of the key rationales for using a segregated mandate is to achieve a Scheme-specific hedge. Almost inevitably, this will require a periodic updating of the relevant liability cash-flows to maintain the intended accuracy of the hedge. In most cases this will involve the Scheme actuary updating liability cashflows and providing these to the Trustee and potentially directly to the Investment Manager.
4. Trustees typically use the services of consultants (usually their regular investment consultant) and/or other financial services firms to monitor and value their LDI arrangement.
5. Further legal agreements will be required in order to trade derivatives and repos. The Trustee will become the legal party to all derivatives and repos, and hence all liabilities under derivatives and repos will be direct

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liabilities of the Trustee. The IM will take on the day-to-day operational management of derivatives and repos in accordance with the scope set out in the IMA and the derivatives and repo documentation. The nature and scope of these agreements will depend on the types of traded instruments.

- Derivatives can be exchange-traded or over-the-counter (OTC), and OTC derivatives can be cleared or non-cleared. The legal agreements backing each type will be different. While there is a high degree of commonality within each type, there can be substantial differences depending on the IM, the relevant exchanges, clearinghouses and counterparties.
- Repos can be exchange-traded or over-the-counter (OTC), and OTC repos can be non-cleared, cleared or entered into via a custodian bank (often referred to as tri-party repo). (Although for the time being most repos in the context of LDI arrangements tend to be non-cleared OTC.)

6. This means the Trustees' rights and liabilities will be set out across a wide range of contracts and counterparties. In simple terms, the main purpose of the contracts is to:

- allocate responsibilities (i.e. who does what, when?) and to ensure there is no gap risk between contracts;
- define the scope of any recourse between the parties for mistakes and breaches (e.g. exclusion of liability, indemnities); and
- manage various non-market risks such as counterparty credit risk, operational risk, compliance risk etc..

7. The presence of contracts inevitably means that there will be legal risk: do the parties have the power to enter into the contracts in the first place? Are the contracts legally enforceable as they are written?

Counterparty Credit Risk in LDI Arrangements

8. Put simply, counterparty credit risk arises for the Scheme if (i) a third party defaults and (ii) following the default of that counterparty, the Scheme will be

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left with unsatisfied claims against that counterparty (be that temporary or long-term). The main sources of counterparty credit risk in LDI arrangements are the custodian and the derivatives and repo counterparties (Trustees will clearly take performance risk on the IM. However, it should have little direct credit risk exposure to the IM. The IM manages the Trustee's assets and all assets will (or should be) directly settled into and from the Trustee's custody account.).

9. The Custodian credit risk tends to be a continuation of the credit risk already taken by the Scheme on the Custodian in respect of all other assets of the Scheme held with the Custodian. Having said that, if LDI arrangements require cash balances for liquidity purposes in excess of those normally held by the Scheme then that would increase the credit risk exposure on the Custodian. This is, because, in short, cash balances with a custodian are legally unsecured credit claims against the custodian. The most common route for mitigating this risk is to require cash balances regularly to be swept and held in money market funds (i.e. in a securities format). This will need to be properly embedded into the IMA and an arrangement with the Custodian.
10. The commercial dynamics of derivatives and repos typically result in the parties to the derivative/repo taking on counterparty credit risk. Derivatives and repos will often require one or both of the parties to make payments or deliveries at some point in the future. Broadly speaking, the net recipient is exposed to the risk of non-performance by the other party; in other words, it takes counterparty credit risk¹. This risk is normally managed through a combination of contractual terms (such as information / monitoring rights, optional early termination rights, mandatory early termination triggers) and the exchange of collateral. Each of these are legal mitigation tools and will only be effective if they are legally enforceable (see the section on 'Legal Enforceability' below).

Collateral

11. Collateral is short-hand for a range of legal structures under which a party is given (preferential) access to assets (typically cash and securities) by its derivative / repo counterparty to cover the counterparty credit risk which it takes on that counterparty. The

derivatives and repo market tends to use two different legal forms of collateral arrangements: title transfer and security arrangements.

12. **Security arrangements:** the parties to a derivative / repo calculate at agreed intervals which of the two parties is taking counterparty credit risk on the other at that particular point in time (i.e. which party is in-the-money). The party which is out-of-the money (the security provider, or in English legal speak, the chargor) then has to create a legally enforceable security interest in favour of the other party which is in-the-money (the secured party) over a pool of assets which satisfies pre-agreed eligibility criteria. These collateral assets need to have a value which covers the counterparty credit risk exposure of the secured party. This valuation process is repeated (daily) and the pool of assets is then adjusted daily to reflect the then current exposure. If the shift in value is big enough, this could also mean that the party which previously has been the security provider becomes the security taker.
13. The purpose of a legal security interest is to 'ringfence' a pool of assets and to give the secured party preferential access to this pool of assets so that the secured party can use these assets or proceeds from a sale of these assets against the amounts owed to it by the security provider. The ability to enforce the security interest is typically linked to an early termination of the derivative / repo linked to some credit or fault trigger. The enforcement actions which are available to the security taker will depend on the nature of the actual security interest and the law governing the security interest. In theory the parties are free to pick the law to govern the security interest, but in practice they will normally select the governing law by reference to the jurisdiction in which the security provider is incorporated or in which the assets subject to the security interest are located.
14. **Title transfer arrangement:** Under a title transfer collateral arrangement the parties to a derivative / repo calculate at agreed intervals which of the two parties takes counterparty credit risk on the other at that particular point in time (i.e. is in-the-money). The party which is out-of-the money (the collateral giver) then has to transfer assets which satisfy pre-agreed eligibility criteria with a value which covers the

1 For example, the scheme is exposed to interest rate risk (i.e. market risk). The Trustee enters into an interest rate swap under which it turns the uncertainty of future interest rate market movements into a certain fixed interest rate. While the Trustee has managed to remove market risk, this has now been replaced with potential counterparty credit risk on the counterparty. If the counterparty to the interest rate swap fails to perform as obligated the Trustee will be exposed to interest rate risk.

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counterparty credit risk exposure to the party which is in-the-money (the collateral taker). This valuation process is repeated (daily) and if the exposure changes, the collateral giver either has to transfer additional assets, or the collateral taker has to transfer back equivalent assets to the collateral assets previously transferred. It could also mean that the party which was previously the collateral taker becomes the collateral giver. The collateral assets transferred to the collateral taker become the assets of the collateral taker and the collateral taker is free to deal with these assets (e.g. it could sell them or use them as collateral under other arrangements).

15. This can, inadvertently, lead to a new source of counterparty credit risk. If collateral is to be returned following changes in the exposure, or if the valuation of the collateral is subject to haircuts, then the actual market value of collateral held by the collateral taker could exceed the amount of the exposure under the derivative / repo transaction. This means the collateral provider takes an unsecured risk on the return of the collateral or the haircut. Legally the collateral provider has an unsecured claim for the

redelivery of equivalent collateral assets against the collateral taker. This is one of the key differences between security collateral and title transfer collateral arrangements. Whereas security arrangements rely on enforcement of the security (such as selling the assets and using the proceeds to discharge the debt owed to the party), title transfer collateral arrangements rely on netting / set-off. In short, the collateral assets are valued and then netted / set off against any termination payments with only the resulting net amount being payable.

Liquidity Risk

16. But collateral can be a double-edged sword – as was seen during the LDI crisis. While collateral should mitigate against the ultimate counterparty credit risk, it can be a significant – if not the major – source of liquidity risk. As market movements affect the value of the derivative / repo or the value of collateral previously provided in respect of a derivative / repo, a party may need to provide additional collateral to the counterparty to cover that exposure. Derivatives



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regulation has effectively tightened the regime governing the provision of collateral by mandating certain entities (incl. pension schemes and certain funds) to exchange collateral in accordance with fixed rules. Entities such as Pension Schemes have to collateralise all of their derivative positions. Valuations and collateral exchanges have to be completed at least daily (with cleared derivatives potentially requiring collateral moves several times a day). Most derivatives and repos are as a result collateralised by cash and government securities (typically gilts for UK entities).

17. If a party runs out of assets which can be posted as collateral (including where the value of the assets already posted drops below the required level), it will be forced to close out its derivative and repo at the current market value. This can turn mark-to-market book losses into actual losses, which is what happened to a number of Pension Schemes in September 2022. Many of the major defaults in the financial markets were caused by parties running out of assets of sufficient value to meet collateral calls.
18. Keeping a sufficient amount of readily available cash and gilts comes at an opportunity cost. A number of Trustees recognised this years ago and started to explore ways to solve this collateral liquidity challenge. Possible solutions are corporate bond CSAs or collateral transformation trades using repos. This has become more pressing with the new liquidity buffers imposed by regulators.

Compliance Risk - Derivatives Regulation

19. The users of derivatives (and derivatives themselves) are subject to a range of financial services regulatory obligations. Pension Schemes are treated in the same way as, for example, banks and insurance companies. There can be a temptation solely to rely on the Investment Manager for compliance. However, the compliance obligation rests (and remains) with the Trustees, and the Trustee needs to be confident that it is achieving compliance through a combination of its own policies and the actions taken by the IM on its behalf.
20. Obligations include, for example, the requirement to have in place risk management procedures for non-cleared derivatives. These procedures need to cover, amongst other things, the eligibility of collateral, calculations, and reporting of the terms of the

agreements. Entities are also expected to perform an independent legal review of the enforceability of the relevant agreements (see also the section on "*Legal Enforceability*" below).

Additional considerations for Pension Scheme Trustees

21. Pension Scheme Trustees also have to consider their integrated risk management obligations and their requirement to exercise internal controls over known and identified risks. The events of September 2022 should serve as a reminder that this includes scenario-testing economic shocks which may trigger a combination of risk-events such as an increase in derivative exposure with a reduction in the value of collateral.
22. The Trustees' scenario-testing should include understanding their contractual position on the balance of powers under their investment management agreements. So, who chooses what assets to sell if an urgent collateral call has to be met? Trustees should in advance set delegated authority to manage investment decisions (including commissioning and considering professional advice if necessary or desirable), consult with the employer (including who has authority on the employer side to agree changes and whether subsequent updating of the statement of investment principles and statement of funding principles may be required).
23. Schemes with additional covenant support, such as guarantees, asset-backed funding or contingent assets, may find that those arrangements include an enhanced role for the employer in investment strategy or even a term that failure to follow an agreed strategy is an event of default allowing employer termination. Such arrangements need particular care and may need amendment to facilitate temporary non-compliance with the agreed strategy.

Contractual terms and recourse

IMAs:

24. The complexity of IMAs has increased as LDI mandates have become more sophisticated and derivatives regulation has imposed additional obligations and disclosures.

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25. The drafting of the investment guidelines requires particular attention and consideration. If there has been a trend, it is that investment guidelines have overall become more granular. No doubt there will be little surprise in us saying this, but the days in which the 'front-end' of the IMA is left to the lawyers and the investment guidelines to the investment consultants should be long gone. Ambiguity and gaps in the guidelines will expose the Trustee to potential legal risk. LDI investment guidelines can especially benefit from the know-how developed in connection with other structured credit products such as CLOs.
26. The investment guidelines will set the boundaries within which the IM has to exercise its discretion. More granular guidelines can give the Trustee more control, but also shift some of the responsibility (and hence liability) for trying to achieve a particular outcome from the IM to the party advising the Trustee on the design of the investment guidelines. If the Trustee's investment consultant advises the Trustee on very granular investment guidelines, then the Trustee needs to ensure this (and the liability for it) is adequately covered in the engagement terms with the Investment Manager. These particular dynamics can be underappreciated.

Engagement terms with third party advisors

27. If the Trustee relies on its existing advisers (such as Investment Consultants and the Actuary) to provide specific services in respect of an LDI arrangement, then the engagement terms with these service providers need to cover this work properly.

Derivatives / Repos:

28. A significant number of additional documentation will be required to trade derivatives and repos. The documentation for a typical non-cleared OTC derivatives arrangement comprises an ISDA Master Agreement per bank counterparty². The more trading counterparties are targeted, the more individual contracts will be needed. The same applies to repos³. Although in the past some Schemes negotiated their own derivatives and repo documentation, these days most LDI arrangements will use contracts which are often referred to as Agency ISDAs and Agency GMRA's.

These are agreements which the relevant IM will have previously negotiated with selected bank counterparties and which should link into the operational systems of the Investment Manager.

29. The IM will make these agreements 'available' to the Trustee. This is typically done on the basis that the Trustee can review, but **not** (really) negotiate, these agreements. The Trustee will simply sign up to these agreements. A similar approach applies to cleared OTC and exchanged traded derivatives and repos. It is worth establishing the basis on which the Trustee enters into each trading relationship: Who takes responsibility for the contractual terms? Who selects the suitability of a trade counterparty both at the outset and on an ongoing basis?

Legal Enforceability

30. The most significant issue arises in respect of derivatives and repos. Both rely on set-off / netting and the enforceability of the relevant collateral arrangements to manage and mitigate counterparty credit risk. These concepts are embedded in the relevant documentation. Legally they may not always be enforceable – the analysis depends on the interplay between the insolvency law in the jurisdiction in which a party to the derivative is incorporated and the governing law of the contract (usually English or New York Law). Without enforceable set-off / netting and collateral arrangements, the Trustee could face significant counterparty credit risk⁴. This analysis is not a one-off exercise, the legal position can change over time as the law changes. Trustees will have to discuss with their legal advisors the appropriate approach.

Recourse

31. The direct legal relationships between the Trustee and the Investment Manager, Advisors, Service Providers and derivative and repo counterparties means that Trustees who suffer losses may have various options under which they can seek direct recourse against each of their counterparties.

² The bespoke elements will usually be a Schedule to the ISDA Master Agreement and collateral terms in a CSA.

³ Repos are typically transacted under a GMRA, which has a bespoke annex negotiated with each bank counterparty.

⁴ In the context of derivatives documented under ISDAs, netting operates in the following way: if the Trustee has entered into two or more derivative transactions with the same counterparty, each of the transactions will have its own market value (which can continuously move for or against the Trustee). Netting will achieve a single net exposure across all transactions. Without netting, there could be a risk that on the insolvency of one party, the insolvent party could insist on performance by the other party of the transactions under which the insolvent party is in the money (i.e. the insolvent party could demand payment or delivery to it), but leaving the solvent party to sue the insolvent party for performance on the other transactions.

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32. The key question is how the relevant contracts deal with potential recourse rights: are there limitations on the type of losses which can be recovered? Is there an overall cap on liabilities?

Pooled Funds

33. An LDI pooled fund arrangement is, from the Trustees' perspective, a very different beast to a segregated arrangement. Trustees will only be party to a single legal relationship: namely with the relevant fund entity. The fund entity will likely have other investors (probably Trustees of other pension schemes). These investors are in the same position as the Trustee.

34. The LDI assets of the Scheme will be the interest in the fund entity itself; the Trustees will not have any direct rights to the individual assets held by the fund entity.

35. The legal nature of the relevant fund interest will depend on the set-up of the fund entity and the jurisdiction in which it is set up.

36. It is the fund entity which will enter into the investment management agreement and all derivatives and repo relationships. All the issues which we outlined for segregated mandates equally apply to LDI pooled funds, but they sit at the level of fund entity (and will be dealt with by the fund at the time of its set-up). There will not be a direct relationship between the Trustees and the various counterparties of the fund entity. The Trustees will depend on the terms which the fund entity has agreed with each of these parties (but without the Trustees having any direct recourse against these other parties).

37. The Trustees may also take some counterparty credit risk on the other investors in the fund entity. If the fund entity has the ability to demand further capital from its investors (e.g. to meet collateral calls on its derivative positions) then the Trustees will depend on whether the other investors can meet their capital calls on time and in full. If some or all of the other investors fail to meet capital calls then that could result in the fund entity suffering losses, which could end up being mutualised across the entire investor base.



Contacts



Sebastian Reger

Partner, Financial Markets & Products

+44 330 460 6415

sebastian.reger@fieldfisher.com



David Gallagher

Partner, Employment, Pensions and Immigration

+44 330 460 6708

david.gallagher@fieldfisher.com



Michael Calvert

Partner, Employment, Pensions and Immigration

+44 330 460 6721

michael.calvert@fieldfisher.com



Jeremy Harris

Partner, Employment, Pensions and Immigration

+44 330 460 6716

jeremy.harris@fieldfisher.com



Andrew Patten

Director, Employment, Pensions and Immigration

+44 330 460 6704

andrew.patten@fieldfisher.com



Leya Beidas

Solicitor, Derivatives & Structured Finance

+44 330 460 6407

leya.beidas@fieldfisher.com



Guy Usher

Partner, Derivatives & Structured Finance

+44 330 460 6484

guy.usher@fieldfisher.com



Duncan Black

Partner, Derivatives & Structured Finance

+44 330 460 6472

duncan.black@fieldfisher.com