

# A Case For Cashflow Driven Investing (CDI)

- Many pension schemes face challenges in meeting obligations amid difficult market conditions, therefore liquidity planning is an important consideration as schemes mature.
- At State Street Global Advisors, we have a long heritage of fixed income investing and providing pooled and bespoke solutions for clients.
- Our CDI approach is built around three pillars: a low risk/low governance approach, an investment process that benefits from both quantitative and fundamental insights, and a rigorous ESG screening process.

## Pension Scheme Challenges

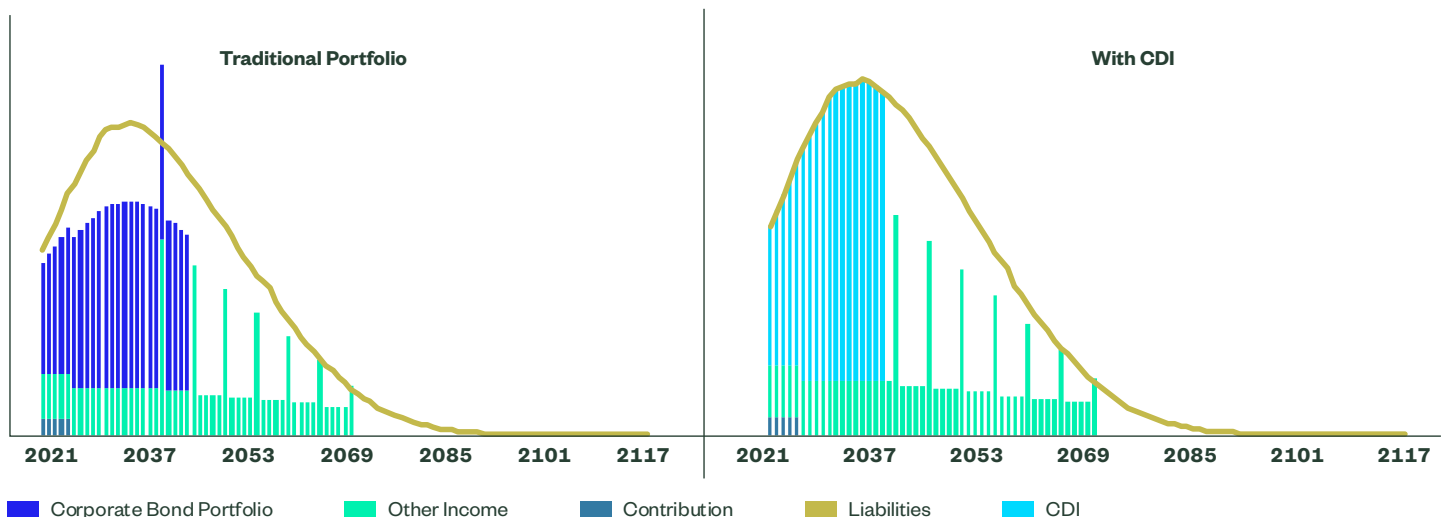
Pension schemes today face a variety of challenges. Recent years have seen trustees and corporate sponsors exploring ways of managing and reducing risks as they meet their obligations to members. A prolonged period of low interest rates, combined with high levels of volatility sparked by the COVID-19 pandemic, have provided challenges for scheme funding levels.

Schemes must effectively manage risks and achieve a degree of certainty over their future cashflows. In this regard, CDI is useful for schemes of all sizes. Indeed, larger schemes have used this approach for some time using segregated mandates. The introduction of pooled structures has resulted in CDI strategies being open to small and mid-sized schemes as well.

## Defining CDI

CDI strategies use assets that provide a contractual income to match the future expected cashflow of a pension scheme. The assets are intended to be held to maturity and so provide a greater level of certainty over return. As the chart on the left in Figure 1 shows, the cashflows of the traditional portfolio do not match outgoing liability cashflows well. Cashflows are much better matched in the right-hand chart, due to the inclusion of CDI.

Figure 1 **Greater Certainty of Returns Over Time**



The information contained above is for illustrative purposes only. Past performance is not a reliable indicator of future performance.

CDI approaches are useful for a range of schemes, as outlined in Figure 2.

Figure 2 **Who is CDI Appropriate for?**

<b>CDI is Suitable for Schemes of all Sizes</b>	Larger schemes have used CDI for some time using segregated mandates
	The introduction of pooled structures means this strategy is open to small and mid-sized schemes
<b>Schemes that are Cashflow Negative</b>	As schemes mature, liquidity planning becomes an important consideration, especially where cashflow requirements represent a significant proportion of a scheme's assets
<b>Mature schemes</b>	CDI can provide an alternative 'self-sufficient' approach to buyout
	Liquid CDI type assets can be attractive to insurers, representing a suitable "stepping-stone"
<b>Looking to Reduce Reliance on the Sponsor</b>	CDI approaches help to lower funding level volatility and reduce the probability of needing future sponsor support
	A CDI strategy can reduce the impact of unforeseen changes in a sponsor's contributions

CDI approaches have three key benefits:

Figure 3 **What are the Benefits of Using CDI?**

<b>Better Control</b>	Reliable income to meet obligations — schemes reduce the risk of becoming forced sellers of assets
	Maturing cashflows — assets generate the cashflows through time as the strategy matures
<b>Lower Governance</b>	Avoids the need for cashflow disinvestments — provides regular stream of cashflows to meet obligations
	Locks in the yield on corporate bonds — reduces market risk
<b>Reduced Costs</b>	Cashflows do not need to be met through redemptions — lower transaction costs
	Makes schemes more tolerant to market stress — assets do not need to be sold in times of market stress, when the cost of trading increases

## Our CDI Approach

At State Street Global Advisors, we have a long heritage of fixed income investing and providing pooled and bespoke solutions for clients. As a leading index manager, our focus is on cost minimisation and efficient implementation. Our global scale translates into significant depth in investment capabilities and trading resources and we have unrivalled access to new issuances.

In addition to being a pioneer in indexing, we have an extensive history of delivering active, indexed and factor-based credit solutions across regions. These capabilities are built on the discipline and efficiency of indexing combined with the rigour of quantitative analysis.

We have developed a range of CDI funds that allow investors to reliably manage their cashflow obligations using a liquid, diversified and transparent approach. Our CDI investment approach is built upon four pillars:

Figure 4 **Our Fixed Income Platform**

<b>£675B+</b> Total Fixed Income AUM	<b>100+</b> Strategies across indexing, active, factor-based and cash management	<b>£250B+</b> Fixed income trading desk volume in 2018
<b>£68B+</b> Global credit AUM across active, index and factor based strategies		<b>£58B+</b> Credit trading in 2018
<b>140+</b> Professionals on our global fixed income team	<b>1,000+</b> Institutional clients across 50 countries	<b>£5.5B</b> Average AUM in each funded strategy

**1 Heritage & Capabilities** We are a global manager with significant scale

- Index heritage — focus on cost minimization and efficient implementation
- Global relationships — access to new issuance
- Trading resources — across the globe

**2 Low-Risk and Low-Governance Approach** Our CDI strategies use high-quality corporate bonds only

- Simple to understand and implement
- Transparent asset prices for monitoring purposes
- Liquid assets to add flexibility

We intentionally avoid illiquid assets which offer higher yields, but have higher (transaction) costs, additional risks and can potentially hinder near-term buyout plans.

**3 Innovative Strategy** A quantitative-based approach with fundamental oversight optimised to match cashflows. We select from a global bond universe:

- Reduces concertation risk
- Provides for higher-capacity solution

**4 Strong ESG Capabilities** A solution based on our ESG experience:

- We screen for UN Global Compact violators and, controversial weapons in our CDI pooled funds
- We can adapt to client-specific requirements for segregated portfolios

The following sections outline in more detail State Street Global Advisors' CDI approach with respect to two key facets: our use of global corporate bonds and our buy and maintain strategy.

## Why Global Investment Grade Corporate Bonds?

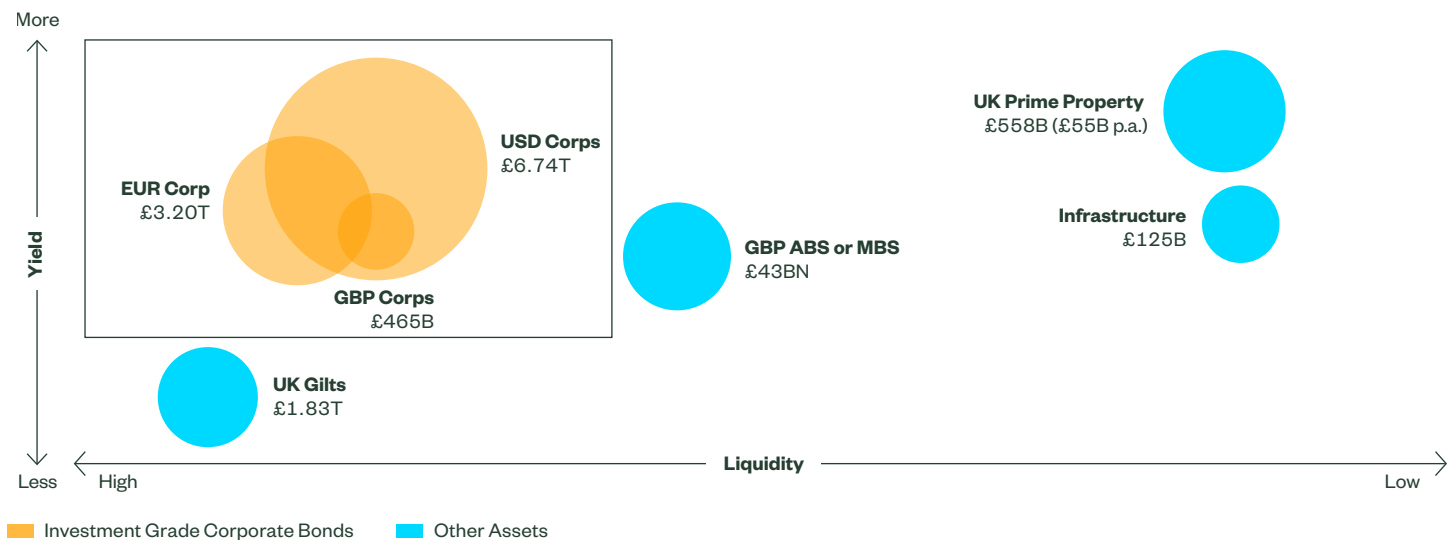
Investment grade (IG) corporate bonds have several attributes that make them compelling as a matching asset.

Figure 5 Why Investment Grade Bonds for CDI?

<b>Reliability</b>	Excellent source of contractual cashflows given empirically low cumulative credit losses (50bps on average over five years)
	Empirical results can be improved upon through credit screening process
	Credit spreads have overcompensated investors for this risk, making them attractive from a risk-reward perspective and also suitable as a matching asset
<b>Flexibility</b>	IG credit has sufficient liquidity to facilitate changes to strategy over time
	Individual portfolios can also evolve as client or market circumstances change
	Pooled vehicles are feasible when IG credits are used
<b>Scalability</b>	At £6 trillion, the global IG credit universe is enormous, compared to GBP IG credit at £260 billion
	This facilitates significant capacity and diversification for GBP investors
	Global IG universe has 8,000 issues, compared to 560 in GBP universe

Source: State Street Global Advisors, Bloomberg Barclays Indices, data as of 31 December 2019. Information provided is for illustrative purposes.

Figure 6 Global Investment Grade Bonds: A Reliable and Scalable Source of Assets for Cashflow Matching



Source: State Street Global Advisors and Bloomberg Barclays Indices. Data as of 31 December 2020. Infrastructure data as of 31 December 2019. Information provided is for illustrative purposes.

## Our Buy and Maintain Approach

At State Street Global Advisors, we have built a strong and well-established foundation of buy and maintain strategies. With our new CDI strategies, we have enhanced this approach through additional quantitative and fundamental credit screening, and selection and maintenance of global credit portfolios. Figure 7 shows a summary of our overall approach.

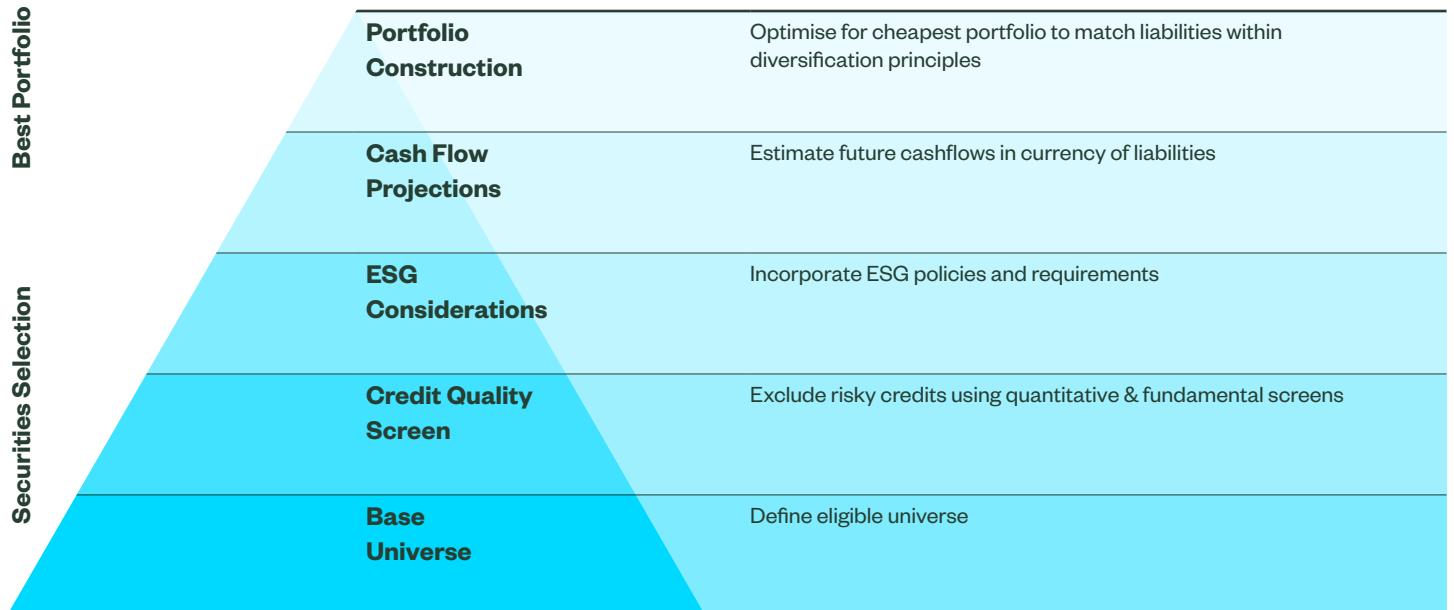
## Investment Process

We offer comprehensive and flexible cashflow matching solutions, based on a modular approach to securities selection and portfolio construction, while also incorporating ESG considerations. Figure 8 shows how we start with an initial base universe and proceed step-by-step to the optimal portfolio.

Figure 7 **Our Buy and Maintain Approach**

<b>Buy and Maintain</b>	<b>Low Cost</b> Holds assets to maturity, resulting in low turnover and low investment costs
	<b>Protection and Provision</b> Mitigates potential credit deterioration and accumulates credit reserve as a cushion
	<b>Risk Control</b> Well-defined risk parameters to ensure diversification across maturity, quality, sector, issuer and currency
<b>Global Approach</b>	Structures reliable cashflow streams from the global investment grade credit universe
	Harvests both the credit and liquidity premium from global credit markets
	Adopts a spread-over-liability investment approach
<b>Innovative</b>	Combines both quantitative credit techniques with qualitative oversight from fundamental credit research analysis
	Quantitatively screens the global credit universe from both a quality and value perspective

Figure 8 **Investment Process Overview**



Source: State Street Global Advisors. For illustrative purposes only.

Our base universe is the Bloomberg Barclays Global Aggregate Credit index, which consists of USD, EUR and GBP- denominated bonds. The bond universe includes corporate bonds and quasi-sovereign bonds.

## Our Solutions

Our solution can be applied in both segregated and pooled fund structures, as shown Figure 9:

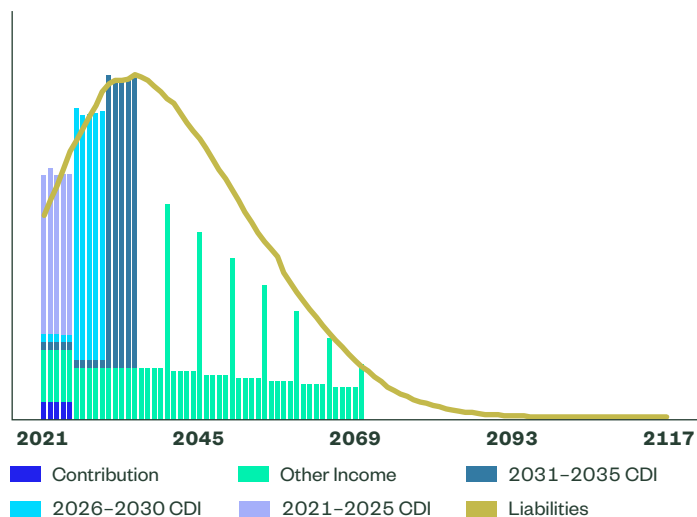
Figure 9 **Our Solution: Match You Profile**

Pooled Fund CDI	Segregated CDI
<p><b>Our CDI funds can be combined to match a desired liability profile and also blended with LDI to deliver a comprehensive solution</b></p> <ul style="list-style-type: none"> <li>• Three maturing funds with 5-year ranges</li> <li>• Funds distribute coupons and principals</li> <li>• Allocation to each fund tailored to your needs</li> </ul>	<p><b>For larger portfolios, clients can set their own cashflow requirements, as well as bespoke portfolio constraints</b></p> <p>Set your cashflow requirements and tolerances Customise your own constraints:</p> <ul style="list-style-type: none"> <li>• Ratings constraints</li> <li>• Sector constraints</li> <li>• Maximum allocation to foreign currency bonds</li> <li>• Custom exclusion list or ESG screens</li> </ul>

### CDI Pooled Funds Solution

Our CDI funds can be combined to match desired liability profile and also blended with LDI to deliver comprehensive solution:

Figure 10 **Illustrative State Street Pooled CDI Strategy**

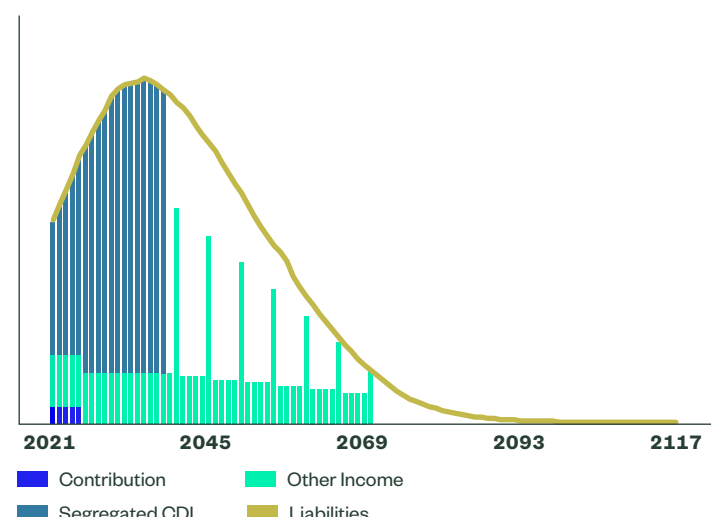


Source: State Street Global Advisors. The information contained above is for illustrative purposes only.

### CDI Segregated Funds Solution

For larger portfolios clients can set their own cashflow requirements, as well as bespoke portfolio constraints:

Figure 11 **Illustrative State Street Segregated CDI Strategy**



Source: State Street Global Advisors. The information contained above is for illustrative purposes only.

## Combining CDI and LDI

Combining our CDI offering and LDI proposition clients can overlay their CDI portfolios to match their interest rate risk and inflation rate risk arising from their liabilities. A CDI strategy requires an inflation hedging overlay to match inflation linked liabilities.

## State Street CDI Funds Summary Details

	State Street CDI Credit Fund		
	2021-2025	2026-2031	2031-2036
Exposure	Global Investment Grade Corps	Global Investment Grade Corps	Global Investment Grade Corps
Investment Style	Buy and Maintain	Buy and Maintain	Buy and Maintain
Domicile	Ireland	Ireland	Ireland
Structure	QIAIF sub-fund of SSGA Qualified Trust	QIAIF sub-fund of SSGA Qualified Trust	QIAIF sub-fund of SSGA Qualified Trust
Settlement Cycle	DD+2	DD+2	DD+2
NAV (Frequency)	Daily	Daily	Daily
Cut-off Times	DD-1 10:00 a.m.	DD-1 10:00 a.m.	DD-1 10:00 a.m.
Share Classes	Distributing	Distributing	Distributing
AMC	TER 0.05% of NAV per annum max (IM fee paid outside fund)	TER 0.05% of NAV per annum max (IM fee paid outside fund)	TER 0.05% of NAV per annum max (IM fee paid outside fund)
Min Initial / Subsequent	GBP1,000,000 / GBP500K	GBP1,000,000 / GBP500K	GBP1,000,000 / GBP500K
ISIN / Bloomberg Code	TBC	TBC	TBC
Dividend Policy	Semi-annual distributions of Income in March and September except where the Directors in their sole discretion, determine not to pay a dividend on any given distribution date.		

Source: State Street Global Advisors as at 31 December 2020.

## About State Street Global Advisors

State Street Global Advisors serves governments, institutions and financial advisors with a rigorous approach, breadth of capabilities and belief that good stewardship is good investing for the long term. Pioneers in index, ETF, and ESG investing and the world's third-largest asset manager, we are always inventing new ways to invest.

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