

LGIM Matching Core Indices Consultation on Constituent Rebalancing Process

LONDON, NOVEMBER 5, 2024: S&P Dow Jones Indices ("S&P DJI") is conducting a consultation with market participants on a potential change to the LGIM Matching Core indices methodology.

BACKGROUND

The indices are designed for pension schemes seeking simple access to a Liability-Driven Investment strategy (LDI) solution in order to reduce funding level volatility caused by changes in sterling interest rates and inflation rates. Each Matching Core index is constructed to hedge a liability cash flow profile.

LDI is an investment strategy for a company or individual based on the cash flows needed to fund future liabilities and is designed for situations where future liabilities can be predicted with some degree of accuracy.

Each LGIM Matching core index undergoes monthly rebalancing, with the exception of December. The primary objective of this rebalancing is to identify the most efficient and cost-effective instruments for hedging the interest rate and inflation sensitivities of corresponding liability cash flows. Trades are initiated for two main reasons:

1. To update instrument selection for more efficient and cost-effective tenor PV01/IE01 hedging.
2. To adjust the notional amounts of selected instruments to align the liability cash flow PV01/IE01 at both the tenor and portfolio levels within margin limits.

Ideally, the index PV01/IE01 should closely align with the corresponding liability cash flow PV01/IE01 following these monthly rebalances. This alignment implies that significant directional PV01/IE01 trades are unnecessary when there are no substantial interest rate or inflation rate fluctuations from month to month.

During the October 2024 rebalancing, the matching core short fixed index exhibited a significant directional PV01 trade despite minimal interest rate movement since the September rebalancing. This trade was attributed to a cumulative PV01 gap between the index and the liability cash flow over time. In the preceding monthly rebalances, the maximum allowable PV01 that could be traded on either side was reached, and most of the permitted trades were utilized to transition to more efficient hedging instruments (as noted in point 1). Consequently, the short fixed index was unable to reset to the ideal PV01 of the liability cash flow for several months, resulting in a substantial cumulative PV01 gap.

At the October rebalancing, fewer instruments required adjustment, allowing the available PV01 to be used to rectify the accumulated PV01 gap. Thus, despite minimal interest rate movement, the index reflected a significant directional PV01 trade as a result.

PROPOSAL

S&P DJI is considering updating the monthly portfolio rebalance process within the LGIM Matching Core indices methodology, including the PV01 difference check between the Liability PV01 and the

Current Portfolio PV01. The proposed new method aims to avoid the index adjusting exposure in the absence of interest and inflation rate movements. The proposed change is described in the following table.

Proposed Change	Current	Methodology Proposed
Index Construction and Constituents Rebalance Process	--	<p>During the monthly portfolio rebalance process, on T-5, where T is the last Index Business Day of each month, if the level of hedging between the portfolio and the liabilities deviates by more than 10%, the following occurs:</p> <ul style="list-style-type: none"> Update the Liability CF Multiple of the cash flow liability profile such that the PV01 of Liability matches the PV01 of the Current portfolio.

IMPACTED INDICES

Index Name	Ticker
LGIM LONGFIXED Index	LGIM_LONGFIXED_Portfolio
LGIM LONGREAL Index	LGIM_LONGREAL_Portfolio
LGIM SHORTFIXED Index	LGIM_SHORTFIXED_Portfolio
LGIM SHORTREAL Index	LGIM_SHORTREAL_Portfolio

IMPACT ANALYSIS

To assess the impact on the indices, we applied the proposed change to the September 2024 and October 2024 rebalances, analyzing the resulting hypothetical exposure change in the index for both periods.

September 2024 Rebalance

When implementing the proposed 10% PV01 threshold across the four affected indices, only the Matching Core Short Fixed Index exceeded this threshold (calculated as $128586.4777/107406.1509 - 1 = 19.70\% > 10\%$). Consequently, this index was subject to the new rule. The liability cash flow multiple for the Matching Core Short Fixed Index was adjusted from 1776.3918 to 2126.3297, ensuring that the total index PV01 (128564.478) equaled the total liability PV01 (-128564.478). The same instrument selection and notional optimization process was followed. The total positive and negative PV01 trades required to achieve optimal hedging were approximately equal, at 17830.2109 (up) and -17679.955 (down). After applying PV01 capping, the actual positive trade was 6428.2239 (up) and the negative trade was -6428.2239, both equal in size. As anticipated, there were no directional PV01 trades, either positive or negative, for the September rebalancing.

October 2024 Rebalance

Following a month of monitoring the selected portfolio, the October 2024 rebalancing revealed that the 10% threshold was not exceeded for any of the Matching Core indices. Specifically, for the Matching Core Short Fixed Index, with the liability cash flow multiple remaining at 2126.3297, the total index PV01 of 123656.388 and the total liability cash flow PV01 of -123428.46 were closely aligned, with less than a 10% difference. Then the usual rebalancing process for this index was conducted, utilizing the same instrument selection and notional optimization. The total positive and negative PV01 trades required for optimal hedging were also similar in size, at 11505.4835 (up) and -11128.868 (down). After capping, the actual positive trade was 6182.8194 (up) and the negative trade was -6182.8194, again

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equal in size. As expected, there were no directional PV01 trades, either positive or negative, for the October rebalancing.

This exercise demonstrates that when the PV01 difference between the index and liability cash flow exceeds 10%, adjusting the liability cash flow multiple effectively prevents unnecessary directional PV01 trades, particularly in the absence of significant interest rate movements.

For an analysis highlighting the hypothetical impact of the proposed change on the LGIM SHORTFIXED Index, please see the file [here](#).

Additional data and analysis may be made available in the Client Resource Center www.spglobal.com/spdji/en/client-services/, which may be updated from time to time throughout the consultation without notice. Additional data and analysis may also be made available upon request.

IMPLEMENTATION TIMING

S&P DJI is proposing to implement the previously described methodology change, if adopted, in conjunction with the November 2024 month-end rebalancing, which takes effect prior to the market open on **December 2, 2024**. If adopted, the change will first be visible to clients in preliminary membership files beginning on **November 22, 2024**.

QUESTIONS

Please answer the following questions and provide S&P DJI with the reasoning behind your answers:

- 1. Do you agree with the proposed methodology change for the LGIM Matching Core indices?**
- 2. Should the proposed methodology change be adopted, do you agree with the proposed implementation date?**
- 3. Do you have any other comments or feedback regarding the proposed change outlined above?**

Participation in this consultation is important as S&P DJI gathers information from various market participants to properly evaluate the market participants' views and preferences. Please respond to this survey by **Tuesday, November 12, 2024**, as S&P DJI does not accept responses post the survey closure date. Prior to the Index Committee's final review, S&P DJI may request clarifications from respondents as part of that review.

To participate in this consultation, please visit the online survey available [here](#).

Please be advised that S&P DJI reviews and considers all feedback before a final decision is made. However, S&P DJI makes no guarantees and is under no obligation to comply with any of the responses. The survey may result in no changes or outcome of any kind. If S&P DJI decides to change the index methodology, the change(s) will be announced to clients and posted on the S&P DJI website with prior notice ahead of the effective date.

Thank you for taking the time to complete this survey.

ABOUT S&P DOW JONES INDICES

S&P Dow Jones Indices is the largest global resource for essential index-based concepts, data and research, and home to iconic financial market indicators, such as the S&P 500® and the Dow Jones Industrial Average®. More assets are invested in products based on our indices than products based

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on indices from any other provider in the world. Since Charles Dow invented the first index in 1884, S&P DJI has been innovating and developing indices across the spectrum of asset classes helping to define the way investors measure and trade the markets.

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