S&P Dow Jones Indices

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INDEX ANNOUNCEMENT

IHS Markit Benchmark Administration Limited Consultation on the iBoxx MSCI EUR/USD High Yield Paris Aligned Capped TCA Indices – Results

LONDON, DECEMBER 19, 2022: IHS Markit Benchmark Administration Limited (IMBA) has conducted a consultation with market participants on potential changes to the iBoxx MSCI EUR High Yield Paris Aligned Capped TCA index and iBoxx MSCI USD High Yield Paris Aligned Capped TCA index (together, the "iBoxx MSCI EUR/USD HY PAB" indices).

BACKGROUND

The iBoxx MSCI EUR/USD HY PAB indices are designed to reflect the performance of high-yield corporate debt denominated in EUR/USD, respectively, and conform to the minimum standards required by the European Union (EU) for Paris-Aligned Benchmarks (PABs). For more information, see the respective EUR and USD index guides.

Index Name	ISIN (TRi)	Ticker (TRi)
iBoxx MSCI EUR High Yield Paris Aligned Capped TCA index	GB00BL0BJ354	IBXXEPAT
iBoxx MSCI USD High Yield Paris Aligned Capped TCA index	GB00BL0BJ792	IBXXUPAT

IMBA is updating the methodology of the iBoxx MSCI EUR/USD HY PAB indices in response to stakeholder feedback, as follows:

(1) Replace Carbon Emissions Scope 3 **Reported** (metric tons) with Carbon Emissions Scope 3 **Estimated** (metric tons). This is driven by higher coverage and availability of Scope 3 Estimated Carbon Emissions data as compared to the Reported Carbon Emissions data.

(2) Update the Carbon Emissions sector phase-in for Scope 3, using Scope 3 **Estimated** Carbon Emissions data, such that this is phased across all remaining economic activity (NACE) sectors. The EU PAB regulation mandates the use of Scope 3 data but allows for a specified phased-in approach.[1] This update facilitates the immediate application of Scope 3 across all sectors, without the need for further phasing in, as it exceeds the minimum timelines necessary for the implementation of Scope 3. This update results in the removal of Scope 3 sector coverage criteria (for phased-in sectors).

(3) Update the optimization objective function to incorporate the difference to bonds' prior weight, as described in the table below. This aims to better control for index turnover.

(4) Apply a new Scope 3 Estimated Carbon Emissions coverage criteria, such that bonds missing Scope 3 Estimated Carbon Emissions data will use the latest ('non-null') Scope 3 Estimated Carbon Emissions data between the previous month end and the rebalance date. Should this data remain unavailable then such bonds will be ineligible for the index.

[1] As per Commission Delegated Regulation (EU) 2020/1818 of 17 July 2020: "*However, due to the insufficient quality of data currently available for Scope 3 GHG emissions, it is necessary to set out an appropriate phase-in timeline and to allow for the use of fossil fuel reserves for a limited period of time. That phase-in timeline should be based on the list of economic activities set out in Regulation (EC) No 1893/2006.*"

(5) Update ‘Outlier Correction’ treatment, such that bonds with Scope 3 Estimated Carbon Emissions data that are deemed to be outliers, will no longer be overridden using the Average Scope 3 Sector Ratio estimation process.

As a result of the changes, the base date for Carbon Emissions decarbonization trajectory calculation will be reset to month-end December 2022 to coincide with the implementation date. This is in line with the EU BMR provision for resetting the base year upon significant changes in the calculation methodology of Carbon emissions. The table below summarizes the changes:

	Methodology	
Change	**Previous**	**Updated**
(1) Carbon Emissions Scope 3 – Data	Carbon Emissions Scope 3 Reported (metric tons) provided by MSCI ESG Research	Carbon Emissions Scope 3 **Estimated** (metric tons) provided by MSCI ESG Research
(2) Carbon Emissions Scope 3 – Phase-In Schedule	Apply Scope 3 data based on minimum phased-in approach set by EU PAB regulation	Apply Scope 3 data across all sectors, removing the need for phasing in and removal of Scope 3 sector coverage criteria (for phased-in sectors).
(3) Optimization	$\min \sum_{i=1}^{n} \frac{(Optimised\ Weight_i - Profile\ Weight_i)^2}{Profile\ Weight_i}$ where: n = number of bonds $Profile\ weight$ is the weight of the bonds in the profile index $Optimised\ weight$ is the output of the optimisation	$\min \left(0.5 \times \sum_{i=1}^{n} (Optimised\ Weight_i - Profile\ Weight_i)^2 + 0.5 \times \sum_{i=1}^{n} (Optimised\ Weight_i - Prior\ Weight_i)^2 \right)$ where: n = number of bonds $Profile\ weight$ is the weight of the bond in the profile index $Prior\ weight$ is the weight of the bond in the index on rebalancing day, prior to rebalancing. For bonds that were not part of the index membership at the previous rebalance, the $prior\ weight$ is zero. $Optimised\ weight$ is the output of the optimisation
(4) Treatment of missing Scope 3 Estimated Carbon Emissions	--	Bonds missing Scope 3 Estimated Carbon Emissions data will use the latest (‘non-null’) Scope 3 Estimated Carbon Emissions data between the previous month end and the rebalance date. Should this data remain unavailable then such bonds will be ineligible for the index.
(5) ‘Outlier Correction’ Treatment	Scope 3 emissions levels that are outliers will be replaced by estimated levels using the Average Scope 3 Sector Ratio, if the estimated emissions are lower than the outlier.	No replacement of outliers. These will reflect the new Scope 3 Estimated Carbon Emissions data.

IMPLEMENTATION TIMING

IMBA will implement the previously described methodology changes following the December 2022 month-end rebalancing, which takes effect prior to the market open on **Monday, January 2, 2023**.

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