

IHS Markit Consultation on the Methodology Update for 5 iBoxx Custom Indices

22 January 2021



1. IHS Markit's Administration

IHS Markit Benchmark Administration Limited (**IMBA UK**) is the Index Administrator of the following indices:

Markit iBoxx EUR FRN Investment Grade 1-3

Markit iBoxx USD Liquid FRN Investment Grade Corporates 100

Markit iBoxx EUR Liquid Corporates Top 75 MID Price TCA (Financials)

Markit iBoxx EUR Liquid Corporates BBB Top 60, and

Markit iBoxx EUR Liquid High Yield 30 Ex-Financial.

IMBA administers these indices in accordance with the International Organisation of Securities Commissions Principles for Financial Benchmarks (the **IOSCO Principles**) and the UK Benchmarks Regulation (**UK BMR**).

2. Background

IHS Markit proposes several updates to the methodology of 5 existing iBoxx benchmarks identified below and outlined in Appendix 1. The methodology of all 5 indices will be updated to reduce the minimum amount outstanding threshold, to incorporate Environmental Social Governance (ESG) rules using MSCI ESG research data, and to update the calculation method to using mid prices with a transaction cost adjustment (TCA). Further updates to individual indices are also proposed in addition to the above and detailed in Appendix 1.

Original Index Name	New (ESG) Index Name
Markit iBoxx EUR FRN Investment	iBoxx MSCI ESG EUR FRN Investment Grade
Grade 1-3	Corporates TCA
Markit iBoxx USD Liquid FRN	iBoxx MSCI ESG USD FRN Investment Grade
Investment Grade Corporates 100	Corporates TCA
Markit iBoxx EUR Liquid Corporates	iBoxx MSCI ESG EUR Financials TCA
Top 75 MID Price TCA (Financials)	IBOXX MISCI ESG EON FINANCIAIS TCA
Markit iBoxx EUR Liquid Corporates	iBoxx MSCI ESG EUR Corporates BBB TCA
BBB Top 60	IBOXX MISCI ESO EON COI POTALES BBB TCA
Markit iBoxx EUR Liquid High Yield 30	iBoxx MSCI ESG EUR High Yield Corporates TCA
Ex-Financial	IBOXX MISCI ESO EON HIGH MEID COLPOTATES TCA

IMBA proposes the changes be implemented over 4 month-end rebalancings and a change to the New Index Name occurring at the final migration. At the final

migration the new indices will also reflect the full new methodologies, as described in the implementation process further below.

3. Proposal

Please find the specific methodology changes outlined in Appendix 1 for each index individually. The tables outline the original methodology configurations and the index configurations for methodologies that are proposed to change. Please see Appendix 2 for detailed ESG screening thresholds and rules.

The issuer cap of "Soft 3%, Hard 5%" (Appendix 1) for the new indices indicates that a capping of 3% per issuer will be applied to the index, if possible. A capping of 5% will be applied to the new indices if there are less than 34 issuers included in the index. The formulae for calculating the transaction cost adjustment are as follows:

$$Cost^{TR} = 1 - \frac{W^-_{CASH,TR} + \sum_i \frac{MV_i^P}{MV_i^I} \cdot W^-_{i,TR}}{W^+_{CASH,TR} + \sum_i \frac{MV_i^P}{MV_i^I} \cdot W^+_{i,TR}}$$

$$Cost^{GI} = Cost^{TR}$$

4. Implementation Process

The implementation is proposed as a transition that will take place over the course of 4 month-end rebalances for all 5 indices beginning on 31 May 2021 and ending on 31 August 2021 rebalancing. The methodology of the original indices will be updated on the 31 May 2021 rebalance to use mid prices with a transaction cost adjustment, but will otherwise retain their original methodologies throughout the transition period.

IHS Markit will keep all the publication of index tickers and identifiers, which will reflect the transitioned index at each stage of the implementation process. IMBA will run the original (with TCA adjustment) and new index simultaneously so that each component will be known at each transition phase. Beginning on 31 May 2021 the indices published under original identifiers will have their individual bond weights calculated as followed:

Index weight = 0.75(Bond Weights in original index) + 0.25(Bond Weights in new ESG index)

This will continue in accordance with the schedule below for the remaining months.

Date (post rebalance)	Original Index	New (ESG) Index	
5/31/2021	75%	25%	
6/30/2021	50% 50%		
7/31/2021	25%	75%	
8/31/2021	0%	100%	

After rebalancing on 8/31/2021, the original index identifiers will be reflecting the methodology in the new iBoxx ESG index exclusively. Thereafter, the index will continue to be published according to the rules of the new iBoxx ESG index. Please refer to Appendix 3 for an example of the transition process.

5. Consultation timetable

The timetable IMBA is suggesting is as follows:

•	22 January 2021	Consultation opens
•	5 February 2021	Consultation closes
•	10 February 2021	IMBA reviews stakeholder feedback and a final decision is communicated
•	31 May 2021	Implementation of rule change in the index (25% of new ESG index)
•	30 June 2021	Implementation of rule change in the index (50% of new ESG index)
•	31 July 2021	Implementation of rule change in the index (75% of new ESG index)
•	31 August 2021	Implementation of rule change in the index (100% of new ESG index)

6. Consultation process

The participation of stakeholders in this consultation is important as IMBA seeks to gather views on the proposals herein and the suggested timetable for implementation of those proposals. IMBA may publish summaries of stakeholders' comments along with IMBA's responses to those comments unless the stakeholder in question expressly requests confidentiality.

To participate in this consultation please respond to IMBA Administration Services at MK-IndexAdminConsultation@ihsmarkit.com.

Please be advised that all comments will be reviewed and considered before a final decision is made; however, IMBA makes no guarantee and is under no obligation to comply with any of the responses. The consultation may result in no changes or outcome of any kind. An announcement will be posted on our website accordingly. IMBA reserves the right to make a final decision on the proposal.

7. Key question

Do you have any concerns regarding IMBA's proposal to update the methodology of the described custom indices?

8. Annotations

GI _t	Gross price index at date t
MV ^P i	Market value of bond i referring to transaction prices
MV^{I}_{i}	Market value of bond i referring to index price
P' i	Index price of bond i
P^{P} ,	Portfolio price of bond i
PI _t	Price index level at time t
TR,	Total Return index level at time t

Consultation paper – Methodology Update for 5 iBoxx Custom Indices

w_i	Weight of bond i
W [*] cash	Weight of cash in the index prior to the rebalancing
$W^{^{+}}_{}}$ cash	Weight of cash in the index after the rebalancing

Appendix 1: Methodology Changes

Existing		<u>New</u>	
Index Name: Markit iBoxx EUR FRN IG 1-3		iBoxx MSCI ESG EUR FRN Investment Grade Corporates TCA	
Bloomberg Ticker:	IBXXFRNT	IBXXFRNT	
Reuters RIC:	.IBXXFRNT	.IBXXFRNT	
	Chang	es Only	
Coupon:	linked to Euribor	linked to Euribor and ESTR	
Time to maturity:	Min: 1 yr	Min: 1 month	
		Min at issuance: 1yr	
	Max: 3yr	Max: no limit	
	Min for inclusion: 18 months	Min for inclusion: no min	
Amount Outstanding:	750mm EUR	300mm EUR	
Lockout:	3 months	no constraint	
Min run:	6 months	no constraint	
Bond Prices:	Bid Prices with ask insertion	Mid Prices with TCA methodology	
Issuer Cap: 5%		Soft 3%, Hard 5%	

Existing		<u>New</u>	
Index Name:	Markit iBoxx USD Liquid FRN Investment Grade Corporates 100	iBoxx MSCI ESG USD FRN Investment Grade Corporates TCA	
Bloomberg Ticker:	IBXXFRN3	IBXXFRN3	
Reuters RIC:	.IBXXFRN3	.IBXXFRN3	
	Chang	es Only	
Coupon:	linked to US Libor	linked to US Libor and SOFR	
Time to maturity:	Min: 1 yr	Min: 1 month Min at issuance: 1 yr	
Amount Outstanding:	500mm USD	300mm USD	
Number of bonds:	Max 100	no constraint	
Liquidity Screening: Based on TRACE		no constraint	
Lockout:	3 months	no constraint	
Min run:	un: 3 months no constraint		
Bond Prices:	Bid Prices with ask insertion	Mid Prices with TCA methodology	
Issuer Cap:	5%	Soft 3%, Hard 5%	

	Existing	New	
Index Name:	Markit iBoxx EUR Liquid Corporates Top 75 MID Price TCA (Financials)	iBoxx MSCI ESG EUR Financials TCA	
Bloomberg Ticker:	IBXXELC3	IBXXELC3	
Reuters RIC:	.IBXXELC3	.IBXXELC3	
	Chang	es Only	
		Include: zero coupon bonds, fixed-	
		to-float perpetuals	
Bond Type			
		Unmentioned types mirror EUR	
		benchmark	
Time to maturity:	Min: 1.5 yr		
Age	Max: 3yr inclusion, 4yr for existing	no constraint	
	750mm EUR 500mm for existing	300mm EUR	
Country of Risk	na	Developed	
Lot Size	100,000 with 1,000 increment	no constraint	
Number of bonds	Max 75	no constraint	
Min run:	1 yr	no constraint	
Rebalancing	Quarterly	Monthly	
Issuer Cap:	5%	Soft 3%, Hard 5%	

	Existing	New		
	Markit iBoxx EUR Liquid Corporates	iBoxx MSCI ESG EUR Corporates BBB		
Index Name:	BBB Top 60	TCA		
Bloomberg Ticker:	IBXXELBT	IBXXELBT		
Reuters RIC:	.IBXXELBT	.IBXXELBT		
	Chang	es Only		
		Include: zero coupon bonds, fixed-		
		to-float perpetuals		
Bond Type				
		Unmentioned types mirror EUR		
		benchmark		
Time to maturity:	Min: 1.25 yr existing	Min: 1 yr		
,	Min: 1.5 for inclusion			
Age	Max: 4yr existing	no constraint		
_	Max: 3yr for inclusion			
Amount				
Outstanding:	750mm EUR	300mm EUR		
_				
Country of Risk	na	Developed		
Number of bonds:	Max 60	no constraint		
Min run:	1 yr	no constraint		
Rebalancing:	Quarterly	Monthly		
_				
Bond Prices:	s: Bid Prices with ask insertion Mid Prices with TCA methodo			
Issuer Cap: 5% Soft 3%, Hard 5%		Soft 3%, Hard 5%		

Existing		New		
Index Name:	Markit iBoxx EUR Liquid	iBoxx MSCI ESG EUR		
	High Yield 30 Ex-Financial	High Yield Corporates TCA		
Bloomberg Ticker:	IBXXLHYT	IBXXLHYT		
Reuters RIC:	.IBXXLHYT	.IBXXLHYT		
	Chang	es Only		
Bond Type:		Exclude: floating rate notes		
		All other types remain the same		
Sector:	Non-Financial only	no constraint		
Credit Rating:	min CCC	min BB		
Time to maturity:	Min: 1.25 yr existing	Min: 1 yr existing		
	Min: 2yr for inclusion	Min: 2yr for inclusion		
Max: at issuance 10.5		no constraint		
Age: Max: 5yr		no constraint		
Amount Outstanding:	500mm EUR	300mm EUR		
Country of Risk:	na	no constraint		
Number of bonds:	Max 30	no constraint		
Rebalancing:	Quarterly	Monthly		
Issuer Cap:	5%	Soft 3%, Hard 5%		

Appendix 2: MSCI ESG Research

The indices will exclude constituents based on the following ESG criteria using MSCI ESG Research data:

MSCI ESG Business Involvement Screening – exclusion driven by exposure to the following activities and at the following involvement thresholds.

- Adult Entertainment
 - derives 5% or more revenue from production of Adult Entertainment material, or;
 - derives 15% or more revenue from Adult Entertainment material.
- Alcohol
 - derives 5% or more revenue from production of Alcohol-related products, or;
 - derives 15% or more revenue from Alcohol-related products.
- Civilian Firearms
 - involved in production of civilian firearms, or;
 - derives 5% or more revenue from civilian firearms.
- Controversial Weapons
 - involved with production/ownership of chemical or biological weapons or related components, depleted uranium weapons, blinding lasers, nondetectable weapons, incendiary weapons, or;
 - has industry tie to manufacturing of landmines, except those for safety purposes, or;
 - has industry tie to cluster bombs.
- Conventional Weapons
 - derives 5% or more revenue from production of Conventional Weapons, or;
 - derives 15% or more revenue from weapons systems, components, and support systems and services.
- Gambling
 - derives 5% or more revenue from ownership or operation of Gamblingrelated activities, or;
 - derives 15% or more revenue from Gambling-related activities
- Genetically Modified Organisms
 - derives 5% or more revenue from activities like genetically modifying plants, such as seeds and crops, and other organisms intended for agricultural use or human consumption.
- Nuclear Power
 - generates 5% or more of its total electricity from nuclear power, or;
 - has 5% or more of installed capacity attributed to nuclear sources, or;
 - derives 15% or more revenue from Nuclear Power-related activities.
- Nuclear Weapons
 - manufactures nuclear warheads and/or whole nuclear missiles, or;
 - manufactures components for nuclear-exclusive delivery platforms, or;
 - provides auxiliary services related to nuclear weapons, or;
 - manufactures components that were developed or are significantly modified for exclusive use in nuclear weapons, or;
 - manufactures components that were not developed or not significantly modified for exclusive use in nuclear weapons but can be used in nuclear weapons, or;

- manufactures or assembles delivery platforms that were developed or significantly modified for the exclusive delivery of nuclear weapons, or;
- manufactures or assembles delivery platforms that were not developed or not significantly for the exclusive delivery of nuclear weapons but have the capability to delivery nuclear weapons.
- Tobacco
 - involved in production of Tobacco products, or;
 - derives 5% or more revenue from Tobacco products.

MSCI Climate Change Metrics

- Oil sands
 - all companies deriving 0% or more of their total revenue from oil sands extraction, which own oil sands reserves and disclose evidence of deriving revenue from oil sands extraction are excluded
- Thermal coal
 - all companies deriving 0% or more of their revenue (either reported or estimated) from the mining of thermal coal (including lignite, bituminous, anthracite and steam coal) and its sale to external parties are excluded. It does not exclude: revenue from metallurgical coal; coal mined for internal power generation (e.g. in the case of vertically integrated power producers); intra-company sales of mined thermal coal; and revenue from coal trading
 - all companies deriving 15% or more of their total revenue from thermal coal-based power generation are excluded

MSCI ESG Ratings

all issuers with an ESG rating of BB and below are excluded

MSCI ESG Controversies and Global Norms – exclusion driven by the following measures

- Controversies score
 - all companies that are involved in very serious controversies involving the environmental, social, or governance impact of their operations and/or products and services. In particular, companies with an MSCI ESG Controversies Score of less than 1 are excluded.

Corporate issuers that have incomplete MSCI ESG data coverage as of the bond selection cut-off date are excluded from the index.

In addition to the above, the following applies for:

- **MSCI ESG Business Involvement Screening** prior to 30th September 2019 issuers not covered under this screen are considered eligible as long as they do not breach any of the other selection criteria.
- **MSCI Climate Change Metrics** prior to 30th September 2019 issuers not covered under this screen are considered eligible as long as they do not breach any of the other selection criteria.

Minimum Issuer Exclusion Rule

After all of the MSCI ESG screenings are applied, indices must exclude at least 20% of the distinct issuers from the reference index at every rebalance date. In the event that the above screenings result in less than 20% of issuers being excluded, additional ranking rules are applied to the issuers in the ESG-screened universe, as follows:

- 1. MSCI ESG rating score (descending)
- 2. MSCI ESG Controversies score (descending)
- 3. Issuer market value in the ESG screened universe (descending)

The ranking criteria are applied to each pair of issuers in the order stated above until a difference can be established (i.e. if two issuers have identical ESG rating scores , but one has a lower ESG controversies score then criteria 1 and 2 are applied, but criteria 3 is not). With the help of the ranking criteria, an issuer hierarchy can be defined, with the issuer that has the highest ESG rating at the top of the hierarchy. If there is still a tie after these criteria are applied, the issuers are sorted in alphabetical order.

Based on the above ranking issuers will be excluded one by one (starting with the lowest ranked issuer) until the 20% minimum exclusion rule is satisfied.

Appendix 3: Transition Implementation Example

			Old Index	New Index		Live Index
4/30/2021	Bond	ISIN	Markit iBoxx EUR Liquid High Yield 30 Ex-Financial	iBoxx MSCI ESG EUR High Yield Corporates TCA		IBXXLHYT
	1	XS1690644668	2.61%	0.00%		2.61%
	2	XS1490137418	2.21%	0.00%		2.21%
	3	XS1960685383	2.67%	0.80%		2.67%
	4	XS0849517650	0.00%	1.82%		0.00%
	5	XS1959498160	0.00%	0.00%		0.00%
		1	75%	25%		
5/31/2021	1	XS1690644668	5.01%	0.00%	-	3.76%
0,02,2022	2	XS1490137418	2.17%	0.00%		1.62%
	3	XS1960685383	2.65%	0.78%		2.18%
	4	XS0849517650	0.00%	1.79%		0.45%
	5	XS1959498160	4.28%	0.00%		3.21%
		${\rm \rlap{\ }}{\rm \rlap{\ }}$	50%	50%		
6/30/2021	1	XS1690644668	4.99%	0.00%		2.50%
	2	XS1490137418	2.18%	0.00%		1.09%
	3	XS1960685383	2.68%	0.75%		1.71%
	4	XS0849517650	0.00%	1.71%		0.86%
	5	XS1959498160	4.32%	0.00%		2.16%
		$\hat{\mathbb{T}}$	25%	75%		
7/31/2021	1	XS1690644668	4.91%	0.00%		1.23%
	2	XS1490137418	2.18%	0.00%		0.55%
	3	XS1960685383	2.68%	0.72%		1.21%
	4	XS0849517650	0.00%	1.63%		1.22%
	5	XS1959498160	4.40%	0.00%		1.10%
		\mathbb{I}				
8/31/2021	1	XS1690644668	-	0.00%	-	0.00%
	2	XS1490137418	-	0.00%		0.00%
	3	XS1960685383	-	0.70%		0.70%
	4	XS0849517650	-	1.53%		1.53%
	5	XS1959498160	-	0.00%		0.00%