

**iBoxx Contingent Convertible
Liquid Developed
Europe AT1 Index Guide
*March 2023***

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1) iBoxx Contingent Convertible Liquid Developed Europe AT1 Index

The index is designed to reflect the performance of financial institutions AT1 contingent convertible debt denominated in EUR, USD, and GBP, whilst also screening out issuers involved in tobacco, controversial weapons, thermal coal and non-compliance with respect to the United Nations Global Compact Principles. The index rules aim to offer good coverage of the Contingent Convertible (CoCo) bond universe, whilst upholding minimum standards of investability and liquidity. The bond universe of the index is based on the following indices:

- Markit iBoxx EUR Contingent Convertible index
- Markit iBoxx USD Contingent Convertible index
- Markit iBoxx GBP Contingent Convertible index

The currency of the index is US Dollar. Foreign currency (FX) conversions for index calculations will be based on 4 pm London exchange rates.

The bonds in the Index must meet all the criteria described below as of the close of business three business days prior to the rebalancing date provided that the relevant bond data can be verified as of such date (“bond selection cut-off date”). The new index composition becomes effective on the first business day of the next month.

All iBoxx indices are priced based on multiple data inputs. The index uses multi-source prices as described in the document *Markit iBoxx Pricing Rules* publicly available on www.ihsmarkit.com.

This document covers the index family structure, rules and calculation methodology.

2) Bond Selection rules

The following selection criteria are used to derive the index constituents from the Contingent Convertible bond universe:

- Bond type
- Credit Rating
- Time to Maturity
- Amount Outstanding
- Sustainability ESG Research

2.1) Bond type

The index contains bonds that are contingent convertible capital securities issued by banks. In order for a bond to be classified as contingent convertible (CoCo), it must have an objective pre specified trigger point.

Features of bonds included in the index are:

- Callable bonds
- Perpetual bonds
- Preferred shares

Bonds with the following features are specifically excluded:

- Private placements
- Bail-In bonds (Bonds with no objective pre specified trigger point)
- Insurance bonds
- Non-subordinated debt
- 144A bonds
- Amortizing bonds or sinking funds

For retail bonds and private placements, publicly available information is not always conclusive and the classification of a bond as a retail bond or a private placement will be made at IHS Markit's discretion based on the information available at the time of determination. IHS Markit may consult with the specific Index Advisory Committees to review potential retail bonds or private placements. Any bond classified as retail or private placement is added to the list of excluded private placements and retail bonds. The list is published on www.ihsmarkit.com under *News and Information* for future reference and to ensure decision's consistency.

In instances where a new bond type is not specifically excluded or included according to the published index rules, IHS Markit will analyse the features of such securities in line with the principles set out in 2.1 of this guide. IHS Markit may consult the specific Index Advisory Committees. Any decision as to the eligibility or ineligibility of a new bond type will be published and the index rules will be updated accordingly.

2.2) Credit rating

All bonds in the iBoxx Contingent Convertible Liquid Developed Europe AT1 Index must have a minimum iBoxx Rating of B. Ratings from the following three credit rating agencies are considered for the calculation of the iBoxx Rating:

- Fitch Ratings
- Moody's Investor Service
- S&P Global Ratings

If a bond is rated by more than one of the above agencies, then the iBoxx rating is the average of the provided ratings. The rating is consolidated to the nearest rating grade. Rating notches are not used. For more information on how the average rating is determined, please refer to the iBoxx Rating Methodology document. The methodology can be found on www.ihsmarkit.com under Methodology.

2.3) Time to Maturity

All new insertions in the iBoxx Contingent Convertible Liquid Developed Europe AT1 Index must have a remaining time to maturity of at least one year at rebalancing. The time to maturity is calculated from the rebalancing date to the assumed workout date of the bond, by using the day count convention of the bond. Index constituents remain in the Index until maturity or until they are fully redeemed.

The workout date for a bond is determined based on the bond features as follows:

- For plain vanilla bonds, the expected workout date is the final maturity date
- For dated and undated callable financial hybrid capital bonds, the workout date is assumed to be the first call date
- For non-financial hybrid capital bonds with an interest rate reset, the workout date is assumed to be the first reset date
- For soft bullets, the expected workout date is determined using the first call date

2.4) Amount outstanding

All bonds require a specific minimum amount outstanding in order to be eligible for the indices, as shown below.

- EUR 700 million for EUR denominated bonds
- USD 700 million for USD denominated bonds
- GBP 700 million for GBP denominated bonds

2.5) Issuer amount outstanding

The issuer amount outstanding must be above or equal to:

- EUR 1 billion for EUR denominated bonds
- USD 1 billion for USD denominated bonds
- GBP 1 billion for GBP denominated bonds

The issuer amount outstanding is derived from the amount outstanding in the corresponding benchmark index in each respective currency. Only bonds from an issuer in the same currency are counted towards this threshold. A combination of issuer amounts outstanding across currencies does not take place.

2.6) Issuer country

Bonds from European countries classified as developed markets based on the *Markit Global Economic Development Classification* are eligible for the index. The country of risk for the issuer must be in the countries listed as developed markets in *Markit iBoxx Country Classifications*. The classification is available at: www.ihsmarkit.com under Documentation → Methodology → *Markit iBoxx Country Classifications*. The following countries fall into this category: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

2.7) Issue Date

Only bonds issued after 1 January 2013 are eligible to be included in the index. This date corresponds with the beginning of the phase-in of the Basel III standards.

2.8) Weight capping

The weights of the five largest issuers in the index are capped at 7.5% of the market value of the index at the rebalancing date. The weights of the other issuers are capped at 4.5%. The size of individual bonds from an issuer is capped in relation to their market value. The capping is applied during the month-end rebalancing after close of business on the last trading day of the month.

2.9) Sustainalytics ESG Research

The iBoxx Contingent Convertible Liquid Developed Europe AT1 Index screens out constituents based on the following criteria:

Sustainalytics Product Involvement Screening – exclusion is driven by exposure to the following activities and involvement thresholds:

- **Controversial weapons**
 - > Tailor-made and essential – all companies involved in the core weapon system, or components/services of the core weapon system that are considered tailor-made and essential for the lethal use of the weapon are excluded.
 - > Significant ownership (Tailor-made and essential) – all companies involved, through corporate ownership, in the core weapon system, or components/services of the core weapon system that are considered tailor-made and essential for the lethal use of the weapon are excluded.
 - > Non tailor-made or non-essential – all companies that provide components/services for the core weapon system, which are either not considered tailor-made or not essential to the lethal use of the weapon are excluded.
 - > Significant ownership (non tailor-made or non-essential) – all companies that provide, through corporate ownership, components/services for the core weapon system, which are either not considered tailor-made or not essential to the lethal use of the weapon are excluded.
- **Tobacco**
 - > All companies are excluded where they have involvement in:
 - the production of tobacco products
 - the production of tobacco related products or services
 - > Retail Companies:
 - retailers are excluded where involvement is such that 5% or more of revenues are derived from the sale of tobacco products
- **Thermal Coal**
 - > Extraction – all companies deriving 5% or more of their total revenue from thermal coal extraction are excluded.
 - > Power Generation – all companies deriving 5% or more of their total revenue from thermal coal-based power generation are excluded.
 - > Product/Services – all companies deriving 5% or more of their total revenue from tailor-made products and services that support thermal coal extraction are excluded.
- **Small Arms**
 - > Civilian Customers (assault weapons) – all companies deriving 5% or more of their total revenue from manufacturing and selling assault weapons to civilian customers are excluded.
 - > Civilian Customers (non-assault weapons) – all companies deriving 5% or more of their total revenue from manufacturing and selling small arms (non-assault weapons) to civilian customers are excluded.
 - > Key Components – all companies deriving 5% or more of their total revenue from manufacturing and selling key components of small arms are excluded.
 - > Retail/Distribution (assault weapons) – all companies deriving 5% or more of their total revenue from the retail and/or distribution of assault weapons are excluded.
 - > Retail/Distribution (non-assault weapons) – all companies deriving 5% or more of their total revenue from the retail and/or distribution of small arms (non-assault weapons) are excluded.
 - > Military/Law Enforcement Customers – all companies deriving 5% or more of their total revenue from manufacturing and selling small arms to military/law enforcement customers are excluded.
- **Arctic Oil & Gas Exploration Extraction**
 - > All companies deriving 5% or more of their total revenue from oil and gas exploration in Arctic are excluded.
- **Oil Sands**
 - > All companies deriving 5% or more of their total revenue from oil sands extraction are excluded.
- **Shale Energy Extraction**
 - > All companies deriving 5% or more of their total revenue from shale oil and gas extraction are excluded.

Sustainalytics Global Standards Screening

- United Nations Global Compact
 - > All *Non-Compliant* rated companies are excluded. A company is assessed as Non-Compliant when it is found to be responsible for egregious and severe violations of commonly accepted international norms related to human rights, labour rights, the environment and business ethics. In other words, a company is assessed as Non-Compliant when it does not act in accordance with the UN Global Compact Principles and its associated standards, conventions and treaties.

Corporate issuers that have incomplete Sustainalytics data coverage as of the bond selection cut-off date are to be excluded from the iBoxx Contingent Convertible Liquid Developed Europe AT1 Index.

3) Bond classification

All bonds are classified based on the principal activities of the issuer and the main sources of the cash flows used to pay coupons and redemptions. In addition, a bond's specific collateral type or legal provisions are evaluated. Hence, it is possible that bonds issued from different subsidiaries of the same issuer carry different classifications.

The issuer classification is reviewed regularly based on updated information received by IHS Markit, and status changes are included in the index at the next rebalancing if necessary.

Where the sector classification of a specific entity is not very clear due to the diversified business of the entity, decision will be made at IHS Markit's discretion. IHS Markit will assign the IHS Markit classification according to its evaluation of the business risk presented in the security prospectus and annual reports, if available. IHS Markit will also compare the classification to peers in the potential sectors and may consult with the Index Advisory Committees. Membership lists including classification are published on the FTP server and in the *Indices* section on www.ihsmarkit.com for registered users.

3.1) Country classification

Bond classification into 'Emerging' and 'Developed' markets is done according to the document *Country classifications* published in the Methodology section of the iBoxx Documentation page that can be found at www.ihsmarkit.com. Bonds are assigned to a market based on the country of risk of the issuer.

3.2) Additional Classification

The respective seniority levels are assigned according to the position of the CoCo bond in the capital structure. The iBoxx Contingent Convertible Liquid Developed Europe AT1 Index tracks bonds in the Additional Tier 1 (AT1) section of banks capital structure.

Market Sector	Seniority Level 1	Seniority Level 2
Banks	SUB	AT1

4) Index calculation

4.1) Static data

Information used in the index calculation is sourced from offering circulars and checked against standard data providers.

4.2) Bond prices

For more details please refer to the *Markit iBoxx Pricing Rules* document, available in the *Methodology* section of the iBoxx Documentation page on www.ihsmarkit.com.

4.3) Rebalancing process

The index is rebalanced monthly on the last business day of the month after the close of business. Any inclusion after the index cut-off day (T-3) will not be considered in the rebalancing process, but will become effective at the end of the following month. New bonds issued are taken into account if they are publicly known to settle until the last calendar day of the month, inclusive, and if their rating and amount outstanding has become known at least three trading days before the end of the month.

Two business days before the end of each month, the rating and amount information for the constituents is updated and the list is adjusted for all rating and amount changes which are known to have taken place three business days before the end of the month which could also result in the exclusion of the bond. The changes made on T-2 for rating and amount will not be considered for inclusion.

Forward files will be published on each calculation day starting on the 6th calendar day of the month or the next index publication day if the 6th calendar day falls on a non-business day.

4.4) Index data

The calculation of the index is based on bid prices. New securities are included in the index at their respective ask prices when they enter the index family. In the event that no price can be established for a particular security, the index continues to be calculated based on the last available price. This might be the case in periods of market stress, or disruption as well as in illiquid or fragmented markets. If the required inputs become impossible to obtain, IHS Markit may consult market participants prior to the next rebalancing date. Decisions are made publicly available on a timely basis and IHS Markit may refer back to previous cases.

A sub-index is calculated if at least one bond matches all inclusion criteria. If no bonds qualify for an index, then its level remains constant. If at least one bond becomes available again, the index calculation resumes and is chained to the last calculated level. All bonds are assigned to sub-indices according to their classification.

The rebalancing takes place after close of market on the last trading day of a rebalancing month.

The indices are transaction cost adjusted. For specific cost factor calculation formulae please refer to the *Markit iBoxx Bond Index Calculus* document, available in the *Methodology* section of the Markit iBoxx Documentation page on www.ihsmarkit.com.

4.5) Index calculus

For specific index formulas please refer to the *Markit iBoxx Bond Index Calculus* document, available in the *Methodology* section of the iBoxx Documentation page on www.ihsmarkit.com.

4.6) Treatment of the special intra-month events

Data for the application of corporate actions in the index may not be fully or timely available at all times, e.g. the final call prices for make-whole calls or the actual pay-in-kind percentage for PIK-payment options. In such cases, IHS Markit will estimate the approximate value based on the available data at the time of calculation.

4.6.1) Index and analytics weights

All Markit iBoxx CoCo Indices are market-value-weighted indices. The amount outstanding of a bond is only adjusted at the monthly rebalancing process at the end of each month. However, scheduled redemptions, principal write-downs or conversions are taken into account from the date they occur, as they have a significant influence on index return and analytical values. In addition, bonds that are fully redeemed intra-month are also taken into account intra-month.

4.6.2) Full redemptions: exercised calls, puts and buybacks

If a bond is fully redeemed intra-month, the bond effectively ceases to exist. In all calculations, the redeemed bond is treated as cash based on the last price, the call price or repurchase price, as applicable. The redemption factor, redemption and the redemption price are used to treat these events in the index and analytics calculation. In addition, the clean price of the bond is set to the redemption price, and the interest accrued until the redemption date is treated as an irregular coupon payment.

4.6.3) Coupon deferrals

If a bond defers coupons, it will remain in the Index. Analytics will be adjusted accordingly. If the issuer resumes paying coupon on an instrument, it will be reflected in the index.

4.6.4) Conversion

If a bond is converted to shares, it will leave the index on the next rebalancing date. The bond will be converted to cash on the conversion date at the respective closing share price and conversion factor. If either the conversion price or factor is not available on the conversion date we will use the available data to calculate a price to be updated once the final price or conversion value is available.

4.6.5) Write-down

Bonds will be written down in the index by adjusting their notional to reflect the amount written down. Provided that there is a write-up option, written down bonds will remain in the index unless the outstanding amount falls below the relevant cut-off threshold. If there is no write-up option and the outstanding amount falls below the relevant cut-off threshold, the bonds will leave the index on the next rebalancing date. If a bond has a write-up option and the outstanding amount is written up to above the relevant cut-off threshold, it may become eligible for the index again, subject to meeting the other inclusion criteria.

Due to the substantial impact that corporate actions may have on the index level, IHS Markit will on a best efforts basis try to obtain all information needed to reflect corporate actions within the indices.

4.7) Unhedged/Hedged index calculation

The index is expressed in hedged and unhedged forms for certain currencies. The formulas for the calculation of the multi-currency hedged and unhedged index versions can be found in the *Markit iBoxx Bond Calculus* document, available on the Indices Documentation page of www.ihsmarkit.com. Spot and forward rates are sourced from WM Reuters and the 4 pm London fixing is used for the index calculation of hedged and unhedged indices.

4.8) Index history

The Index history starts on 31 December 2013. The index has a base value of 100 on that date.

4.9) Settlement conventions

All iBoxx indices are calculated using the assumption of T+0 settlement days.

4.10) Calendar

IHS Markit publishes an index calculation calendar in the *iBoxx Calendars* section of the iBoxx Documentation page on www.ihsmarkit.com. This calendar provides an overview of the index calculation holidays of the iBoxx bond index families in a given year.

4.11) Publication of the Index

All indices are calculated at the end of each business day and rebalanced at the end of each month. The indices are calculated on the basis of end-of-day prices on each trading day defined in the calculation calendar for the respective currencies' benchmark Index. IHS Markit publishes an index calculation calendar which is available on www.ihsmarkit.com in the *Documentation* section under *iBoxx Calendar*. The index calculation calendar conforms to the recommendations of the Securities Industry and Financial Markets Association (SIFMA):

- Pricing for domestic and global bonds takes place on each SIFMA recommended US trading day
- Pricing for Eurodollar bonds takes place on each SIFMA recommended UK trading day (additional holidays to the US calendar: Easter Monday, May Day, Summer Bank Holiday and Boxing Day)
- The indices are calculated on each SIFMA recommended US trading day and on the last calendar day of each

Bond and index analytical values are calculated each day using that day's closing prices. In addition, bond and index analytical values are calculated with the previous trading day's closing prices on the last calendar day of each month if that day is not a regular trading day as well as on common bank holidays as published in the iBoxx index calculation calendar. This index calculation calendar is available on www.ihsmarkit.com under *iBoxx Calendars*. Index data is also available from the main information vendors.

4.12) Data publication and access

The table below summarizes the publication of iBoxx Contingent Convertible Liquid Developed Europe AT1 Index in the *Indices* section of the IHS Markit website www.ihsmarkit.com for registered users and on the FTP server.

Table 1: Publication frequency, file types and access

Frequency	File Type	Access
Daily	Underlying file – Bond level	IHS Markit FTP Server
	Indices file – Index level	IHS Markit FTP Server / IHS Markit website / Bloomberg for index levels only
Daily from the 6 th calendar day of the month (or the next index publication day if the 6th calendar day falls on a non-business day)	Forwards	IHS Markit FTP Server
Monthly	End of Month Components	IHS Markit FTP Server / IHS Markit website

Below is a summary of identifiers for each publication channel:

Table 2: Index identifiers

Index Name	Return Type	ISIN	Ticker
iBoxx Contingent Convertible Liquid Developed Europe AT1 (USD) Unhedged	TRI	GB00BF9Q3T33	IBXXCCL1
iBoxx Contingent Convertible Liquid Developed Europe AT1 (USD) Unhedged	CPI	GB00BF9Q3W61	IBXXCCL3
iBoxx Contingent Convertible Liquid Developed Europe AT1 (USD) Hedged	TRI	GB00BF9Q3V54	IBXXCCL2
iBoxx Contingent Convertible Liquid Developed Europe AT1 (USD) Hedged	CPI	GB00BF9Q3X78	IBXXCCL4
iBoxx Contingent Convertible Liquid Developed Europe AT1 (EUR) Unhedged	TRI	GB00BF9QGW78	IBXXCCL5
iBoxx Contingent Convertible Liquid Developed Europe AT1 (EUR) Unhedged	CPI	GB00BF9QGX85	IBXXCCL6
iBoxx Contingent Convertible Liquid Developed Europe AT1 (EUR) Hedged	TRI	GB00BF9QGY92	IBXXCCL7

Index Name	Return Type	ISIN	Ticker
iBoxx Contingent Convertible Liquid Developed Europe AT1 (EUR) Hedged	CPI	GB00BF9QGZ00	IBXXCCL8
iBoxx Contingent Convertible Liquid Developed Europe AT1 (GBP) Unhedged	TRI	GB00BF9QL779	BF9QL77
iBoxx Contingent Convertible Liquid Developed Europe AT1 (GBP) Unhedged	CPI	GB00BF9QLF56	BF9QLF5
iBoxx Contingent Convertible Liquid Developed Europe AT1 (GBP) Hedged	TRI	GB00BF9QLD33	BF9QLD3
iBoxx Contingent Convertible Liquid Developed Europe AT1 (GBP) Hedged	CPI	GB00BF9QL662	BF9QL66
iBoxx Contingent Convertible Liquid Developed Europe AT1 (CHF) Unhedged	TRI	GB00BF9QL993	BF9QL99
iBoxx Contingent Convertible Liquid Developed Europe AT1 (CHF) Unhedged	CPI	GB00BF9QLH70	BF9QLH7
iBoxx Contingent Convertible Liquid Developed Europe AT1 (CHF) Hedged	TRI	GB00BF9QLG63	BF9QLG6
iBoxx Contingent Convertible Liquid Developed Europe AT1 (CHF) Hedged	CPI	GB00BF9QL886	BF9QL88

4.13) Index review

The rules for the Index are reviewed on a periodic basis during the public review and consultation process to ensure that the index provides a balanced representation of the respective debt market. Decisions made following feedback from market participants, the index review and External Advisory Committees (EAC) will be published on www.ihsmarkit.com shortly after the EACs have been held. The publication will contain a detailed overview and timelines for implementation of any rules changes.

5) Governance and regulatory compliance

IHS Markit Benchmark Administration Limited (IMBA UK) is the Index Administrator of iBoxx indices. Information on IMBA UK's governance and compliance approach can be found [here](#). This document covers:

- Governance arrangements, including external committees
- Input data integrity
- Conflicts of interest management
- Market disruption and Force Majeure
- Methodology changes and cessations
- Complaints
- Errors and restatements
- Reporting of infringements and misconduct
- Methodology reviews
- Business continuity

More details about IMBA UK can be found on the [Administrator's website](#).

6) Summary of key ESG factors

Explanation of how ESG factors are reflected in the key elements of the benchmark methodology	
Item 1: Benchmark administrator	IHS Markit Benchmark Administration Ltd. ('IMBA UK')
Item 2: Type of benchmark	Fixed Income
Item 3: Name of benchmark or family of benchmarks	iBoxx Contingent Convertible Liquid Developed Europe AT1
Item 4: Does the benchmark methodology take into account ESG factors	Yes
Item 5a: List of Environmental factors considered	<p>Exclusion is driven by exposure to the following factors:</p> <ul style="list-style-type: none"> • Thermal coal • Arctic Oil & Gas Exploration Extraction • Oil Sands • Shale Energy Extraction <p>See section 'Sustainalytics ESG Research' of this guide for details</p>
Item 5b: List of Social factors considered	<p>Exclusion is driven by exposure to the following factors:</p> <ul style="list-style-type: none"> • Controversial weapons • Tobacco • Small Arms <p>See section 'Sustainalytics ESG Research' of this guide for details</p>
Item 5c: List of Governance factors considered	<p>Exclusion is driven by exposure to the following factors:</p> <p>N/A</p>
Item 5d: List of any other overall ESG factors	<p>Exclusion driven by additional factors:</p> <ul style="list-style-type: none"> • United Nations Global Compact (UNGC) ratings <p>See section 'Sustainalytics ESG Research' of this guide for details</p>
Item 6: Hyperlink to ESG factors information	iBoxx Contingent Convertible Liquid Developed Europe AT1 Index
Item 7a(i): Source of input	Data is sourced externally from Sustainalytics ESG Research
Item 7a(ii): Data input	<p>Sustainalytics is a leading independent ESG and corporate governance research, ratings and analytics firm that supports investors around the world with the development and implementation of responsible investment strategies.</p> <p>In particular, this index uses the following ESG Products: Global Standards Screening and Product Involvement.</p> <p>For details on Sustainalytics ESG Research's full suite of ESG products, please refer to: http://www.sustainalytics.com</p> <p>Sustainalytics' research process involves the collection and analysis of information made available by third parties, including civil society, corporate, government, industry association, investor, media and regulatory sources. Sustainalytics also uses 3rd party data providers about which information is available at https://www.sustainalytics.com/legal-disclaimers/</p>
Item 7b: Verification and quality of data	<p>Sustainalytics Quality Approach to:</p> <p>A. Global Standards Screening (GSS)</p>

	<p>Company Research</p> <ul style="list-style-type: none"> • Continuous improvement and maintenance of quality and research standards • Companies are contacted to verify allegations that are relevant in Sustainalytics Global Standards Screening methodology and their response is taken into consideration, and whenever relevant included • Quality reviews of ESG assessments before publication • For Sustainalytics Global Standards Screening, proposals for assessment changes are reviewed by an internal oversight body. If the proposal is approved, a written report is drafted according to the GSS guidelines. Before a Watchlist or Non-Compliant status for an issue is published, a quality and editorial review is conducted on the report and the sources used therein <p>Data and deliverable management</p> <ul style="list-style-type: none"> • Quality and reliability of Sustainalytics Covered Company and identifier data through automated quality assurance • Quality and reliability of Sustainalytics proprietary (i.e. research) data through automated quality assurance, prior to publication • Quality and reliability of standard deliverables through end-of-gate quality assurance process • Quality and reliability of custom client deliverables through end-of-gate quality assurance processes (automated and manual) • Monitoring and investigating ESG score fluctuations and their root causes using automated tools <p>Update cycle</p> <ul style="list-style-type: none"> • Continuous monitoring is conducted as incidents occur and feed into updates of Sustainalytics Global Standards Screening reports • Quarterly updates to Sustainalytics Global Standards Screening reports • New companies added to the universe as a result of rebalancing are researched and updated in client systems quarterly • Corporate actions are processed in client systems on a quarterly basis in order to capture any involvement changes arising from mergers, acquisitions or other corporate actions. <p>B. Product Involvement</p> <p>Company Research</p> <ul style="list-style-type: none"> • Continuous improvement and maintenance of quality and research standards • All Product Involvement research is reviewed by senior analysts. The review comprises checking the accuracy of the involvement analysis by studying the original source as well as consistency with the research methodology and framework • Final validation of the research before publication is done by the Research Manager. Assessment changes are additionally reviewed by an internal oversight body
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	<p>Data and deliverable management</p> <ul style="list-style-type: none"> • Quality and reliability of Sustainalytics Covered Company and identifier data through automated quality assurance • Quality and reliability of Sustainalytics proprietary (i.e. research) data through automated quality assurance, prior to publication • Quality and reliability of standard deliverables through end-of-gate quality assurance process • Quality and reliability of custom client deliverables through end-of-gate quality assurance processes (automated and manual) • Monitoring and investigating ESG score fluctuations and their root causes using automated tools <p>Update cycle</p> <ul style="list-style-type: none"> • Product Involvement Research is updated annually • New companies added to the universe as a result of rebalancing are researched and updated in client systems quarterly • Corporate actions are processed in client systems on a quarterly basis in order to capture any involvement changes arising from mergers, acquisitions or other corporate actions
Item 7c: International reference standards	<p>The methodology behind Sustainalytics Global Standards Screening is based on the following international standard:</p> <ul style="list-style-type: none"> • UN Global Compact Principles • OECD • World Governance Indicators • On top of these international (convention-based) standards Sustainalytics also look at industry specific standards or initiatives. Examples are the Round Table on Sustainable Palm Oil, the standards for Systemically Important Banks, local Corporate Governance codes, and many others • Said industry specific standards are incorporated in Sustainalytics assessments of companies' management of ESG issues in Sustainalytics ESG Risk Rating <p>For Product Involvement Sustainalytics does not rely on international standards or conventions.</p>
Item 8a: Information updated on	31 March 2023
Item 8b: Reason for update	Methodology change

7) Changes to the iBoxx Contingent Convertible Liquid Developed Europe AT1 Index

31 March 2023	<ul style="list-style-type: none"> • Changes made to bond selection rules for issuers involved in tobacco and thermal coal, based on Sustainalytics ESG Research dataset • Bond selection rules adjusted to screen out issuers involved in small arms, arctic oil & gas exploration extraction, oil sands, and shale energy extraction, based on Sustainalytics ESG Research dataset
30 Jun 2022	<ul style="list-style-type: none"> • Monthly forward start date updated from 10th calendar day to 6th calendar day
30 Sep 2021	<ul style="list-style-type: none"> • Bond selection rules adjusted to screen out issuers involved in tobacco, controversial weapons, thermal coal and non-compliance with respect to the United Nations Global Compact Principles, based on Sustainalytics ESG Research dataset • Monthly forward start date updated from 12th calendar day to 10th calendar day
31 Mar 2021	<ul style="list-style-type: none"> • Governance and Regulatory Compliance section added
28 Feb 2021	Annual Index Review 2020 <ul style="list-style-type: none"> • New securities enter at their respective ask prices
Aug 2020	<ul style="list-style-type: none"> • Changes to weight capping (Section 2.8) from 31 August 2020
Jan 2020	<ul style="list-style-type: none"> • Addition of Finland to the list of Developed European countries from 31 January 2020 (Section 2.6) • Introduction of minimum iBoxx rating of B from 31 January 2020 (Section 2.2)
Mar 2018	<ul style="list-style-type: none"> • Launch of the iBoxx Contingent Convertible Liquid Developed Europe AT1 Index (USD, EUR)
Jun 2018	<ul style="list-style-type: none"> • Launch of the iBoxx Contingent Convertible Liquid Developed Europe AT1 Index (GBP, CHF)

8) Further information

Glossary of key terms

The Markit iBoxx Glossary document of key terms is available in the *Methodology* section of the iBoxx *Documentation* page on www.ihsmarkit.com.

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Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

Information presented prior to an index’s launch date is hypothetical back-tested performance, not actual performance, and is based on the index methodology in effect on the launch date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. In addition, forks have not been factored into the back-test data with respect to the S&P Cryptocurrency Indices. For the S&P Cryptocurrency Top 5 & 10 Equal Weight Indices, the custody element of the methodology was not considered; the back-test history is based on the index constituents that meet the custody element as of the Launch Date. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results.

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