

ICE Data Indices, LLC Benchmark Statement

Volatility Index family

November 2023

1.	Introduction	.2
2.	Benchmark Statement	. !
3.	Disclaimer	14



ICE Data Indices Benchmark Statement

Created	May 2021
Last update	November 2023
Name of the benchmark administrator	ICE Data Indices, LLC ("IDI")

1. Introduction

ICE Data Indices, LLC ("IDI") is a U.S. subsidiary of Intercontinental Exchange, Inc. ("ICE"), and is the administrator for the indices in the Volatility Index Family. The full list of indices in the Volatility Index Family (each, an "Index" and collectively the "Indices") is available on the ICE Index Platform https://indices.ice.com/ under Index Finder -> Volatility, filtering on the "Benchmark Statement Family" column for "Volatility Index Family".

A link to IDI Benchmark Statements is available on the Index Platform and can also be found here: https://www.ice.com/fixed-income-data-services/index-solutions/regulation/benchmark-statements, where users can view the list of Index Families and their corresponding Benchmark Statements.

The Volatility Index Methodology document is available on the ICE Index Platform under the Methodologies Tab -> Volatility.

This benchmark statement has been created in accordance with Article 27 of the European Benchmark Regulation ("the EU BMR")¹ which was translated into UK law under the Benchmarks (Amendment and Transitional Provision) (EU Exit) Regulations 2019 ("the UK BMR")², and with reference to the supplementary delegated regulation (EU) 2018/1643³ ("RTS 2018/1643") and delegated regulation (EU) 2020/1816⁴ ("DA 2020/1816"), and (EU) 2020/1818⁵ ("DA 2020/1818") on the content of benchmark statements.

References in this document to EU Regulations or Directives (including EU BMR and applicable Commission Delegated Regulation) include, in relation to the UK, those Regulations or Directives as they form part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018 or have been implemented in UK domestic law, as appropriate.

IDI has been recognized in the UK as a third country Benchmark Administrator for purposes of Article 32 of the UK BMR with the FCA as the relevant competent authority. The benchmarks that are available for use by supervised entities in the UK are published on the FCA register https://register.fca.org.uk/s/resources#Other registers, under Third Country Benchmarks Register.

¹ https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R1011&from=EN

² https://www.legislation.gov.uk/uksi/2019/657/contents/made

³ COMMISSION DELEGATED REGULATION (EU) 2018/1643 of 13 July 2018 https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L:2018:274:FULL&from=EN

⁴ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020R1816

⁵ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020R1818

2. Benchmark Statement

	Relevant BMR, Regulatory Technical Standard ("RTS") or Delegated Act ("DA") provision	Requirement	IDI's Response
1	ISIN	RTS 2018/1643 Art(1)(1)(b): The benchmark statement shall state: (b) where available, the international securities identification number (ISIN) of the benchmark or benchmarks; alternatively, for a family of benchmarks, the statement may provide details of where the ISINs are publicly accessible free of charge;	ISINs are not currently assigned to the indices.
2	Contributions of Input Data	RTS 2018/1643 Art(1)(1)(c): The benchmark statement shall state: (c) whether the benchmark, or any benchmark in the family of benchmarks, is determined using contributions of input data;	The Volatility Index Family does not use contributions of input data

3	Types of Benchmarks	RTS 2018/1643 Art (1)(1)(d): The benchmark statement shall state: (d) whether the benchmark or any benchmark in the family of benchmarks qualifies as one of the types of benchmarks listed under Title III of Regulation (EU) 2016/1011, including the specific provision by virtue of which the benchmark qualifies as that type.	The indices in the Volatility Index Family do not qualify as regulated data, interest rate or commodity benchmarks, and also do not qualify as Climate Transition Benchmarks or Paris-Aligned Benchmarks. ⁶ The Volatility Index Family contains only non-significant benchmarks as defined under point (27) of Article 3(1) of the BMR. ⁷
4	Economic Reality	RTS 2018/1643 Art(1)(2): In defining the market or economic reality, the benchmark statement shall include at least the following information: (a) a general description of the market or economic reality;	The market or economic reality, and the geographical boundaries, that an individual benchmark intends to represent is clearly described in the Volatility Methodology document which can be found, free of charge, by entering the ticker for a selected benchmark in the Index Snapshot section of the home page of the ICE Index Platform (https://indices.ice.com/).
		(b) the geographical boundaries, if any, of the market or economic reality;	The Volatility Index Methodology document can also be found on the ICE Index Platform, free of charge, under the Volatility section of the Methodologies tab.
		(c) ¹ any other information that the administrator reasonably considers to be relevant or useful	The circumstances under which market conditions might impair the ability of the benchmark to measure a given market

⁶ The benchmark statement does not therefore need to disclose the information required by RTS 2018/1643 Articles 2 to 5.

⁷ As a result, BMR Article 1(7) provides that the benchmark statement does not need to disclose the information required by Article 1(2)(c), Article 1(3)(b) and (c), and Article 1(4) and (5).

¹ Not applicable - the Volatility Index Family consists of non-significant benchmarks only.

		to help users or potential users of the benchmark to understand the relevant features of the market or economic reality, including at least the following elements insofar as reliable data on these elements is available: (i) information on actual or potential participants in the market; (ii) an indication of the size of the market or economic reality. BMR Art27(1)(a): The benchmark statement shall: (a) clearly and unambiguously define the market or economic reality measured by the benchmark and the circumstances in which such measurement may become unreliable;	are described in the Limitations section of the Volatility Index Methodology document.
5	Limitations	BMR Art27(2)(g): A benchmark statement shall contain at least: (g) the identification of potential limitations of the benchmark, including its operation in illiquid or fragmented markets and the possible concentration of inputs.	The interest rate swaps contained in the Volatility Index Family comprise a limited number of representative instruments that correspond to four key maturity points on the yield curve. In the event there is not sufficient market information to allow IDI's source to provide the necessary input implied volatilities used to compile the benchmarks, IDI would be unable to determine the affected Volatility Index(es). Other limitations may include the ability of the Benchmark to operate in illiquid or fragmented markets.

		RTS 2018/1643 Art(1)(3)(a):	
		In defining the potential limitations of the benchmark and the circumstances in which the measurement of the market or economic reality may become unreliable, the benchmark statement shall include at least:	IDI seeks to manage and mitigate these limitations through the benchmark design, review and oversight process.
		(a) a description of the circumstances in which the administrator would lack sufficient input data to determine the benchmark in accordance with the methodology;	
6	Discretion	BMR Art27(1)(b):	The Volatility Index Methodology document clearly sets out how the benchmarks are to be calculated.
		The benchmark statement shall: (b) lay down technical specifications that clearly and unambiguously identify the elements of the calculation of the benchmark in relation to which discretion may be exercised, the criteria applicable to the exercise of such discretion and the position of the persons that can exercise discretion, and how such	While IDI mostly relies on input data obtained from its sources, on certain occasions, where decisions relating to the pricing or determination of a Benchmark are required to maintain the integrity of the values and ensure that the Benchmark continues to operate in line with the methodology, IDI may apply Expert Judgment. Where it is required in a Benchmark determination, it may only be applied by suitably experienced and qualified staff
		discretion may be subsequently	members on the IDI team in accordance with the Volatility Index Methodology document. Using their expertise and

			appropriate to correctly reflect the Benchmark objective. Ultimately, any exercise of Expert Judgment is overseen by
			the Governance Committee of IDI, which ensures that the published Methodologies have been followed.
7	Factors beyond the control of the administrator	BMR Art27(1)(c): The benchmark statement shall: (c) provide notice of the possibility that factors, including external factors beyond the control of the administrator, may necessitate changes to, or the cessation of, the benchmark; and	From time to time, events outside of the control of IDI may occur that may require changes to, or cessation of benchmarks in the Volatility Index Family. IDI has implemented a Benchmark Cessation Procedure, which is published on the IDI website (https://www.ice.com/fixed-income-data-services/index-solutions/regulation) and which set out the steps IDI would take if termination of a benchmark was being considered. IDI has also published a Consultation Policy which is available on the IDI website (https://www.ice.com/fixed-income-data-services/index-solutions/regulation) and which sets out the steps IDI would take if a material change was needed in relation to a Panelmark in the Veletility Index Family.
0		DAAD A 407/4// I)	relation to a Benchmark in the Volatility Index Family.
8	Impact of changes or cessation	BMR Art27(1)(d): The benchmark statement shall: (d) advise users that changes to, or the cessation of, the benchmark may have an impact upon the financial contracts and financial instruments that reference the	Changes to, or cessation of a benchmark may have an impact upon the financial contracts and financial instruments that reference the benchmark or the measurement of the performance of investment funds. Where changes to a Benchmark are subject to a consultation, users are encouraged to provide feedback on the proposed change and the impact it may have.
		benchmark or the measurement of the performance of investment funds.	Any users of benchmarks that are to be discontinued are advised to take account of the upcoming cessation and ensure their contractual and other arrangements linked to the

			benchmarks contain appropriate fallback or other arrangements to address the cessation.
			IDI has implemented a Benchmark Cessation Procedure, which is published on the IDI website (https://www.ice.com/fixed-income-data-services/index-solutions/regulation) and which set out the steps IDI would take if termination of a benchmark was being considered.
			IDI has also published a Consultation Policy which is available on the IDI website (https://www.ice.com/fixed-income-data-services/index-solutions/regulation) and which sets out the steps IDI would take if a material change was needed in relation to a benchmark in the Volatility Index family.
9	Key Terms	BMR Art27(2)(a): A benchmark statement shall contain at least: (a) the definitions for all key terms relating to the benchmark	All key terms relevant to the Volatility Index Family are set out in the Volatility Index Methodology document.
10	Rational for adoption and procedures for review and approval	BMR Art27(2)(b): A benchmark statement shall contain at least: (b) the rationale for adopting the benchmark methodology and procedures for the review and approval of the methodology;	The Volatility Index Methodology document for the benchmarks within the Volatility Index Family sets out what the benchmarks intend to cover and achieve. The IDI Governance Committee is responsible for overseeing the development, design, issuance and operation of the benchmarks and the respective methodology documents. The IDI Governance Committee Charter is available on the IDI website (https://www.ice.com/fixed-income-data-services/index-solutions/regulation). IDI has also published a Consultation Policy which is available
			on the IDI website (https://www.ice.com/fixed-income-data-

			services/index-solutions/regulation) and which sets out the steps IDI would take if a material change was needed in relation to a benchmark in the ICE Volatility Index family
11	Criteria used to determine the benchmark	BMR Art27(2)(c) A benchmark statement shall contain at least: (c) the criteria and procedures used to determine the benchmark, including a description of the input data, the priority given to different types of input data, the minimum data needed to determine a benchmark, the use of any models or methods of extrapolation and any procedure for rebalancing the constituents of a benchmark's index;	In order to determine the benchmarks within the Volatility Index Family, the implied yield volatilities are provided by ICE Data Derivatives, Inc., an affiliate of ICE Data Indices, LLC. Implied volatilities are calculated using the SABR model and based on market data sourced from a network of market makers and inter-dealer brokers. ICE Data Derivatives has its own methodology for determining implied volatilities and the hierarchy of data inputs used therein. The general procedures for determining the benchmarks in the Volatility Index Family are set out in the Volatility Index Methodology document.
12	Exercise of Judgement or Discretion	BMR Art27(2)(d): A benchmark statement shall contain at least: (d) the controls and rules that govern any exercise of judgement or discretion by the administrator or any contributors, to ensure consistency in the use of such judgement or discretion;	Where exercise of judgement or discretion is required in a Benchmark determination, it may only be applied by suitably experienced and qualified staff members on the IDI team in accordance with the Volatility Index Methodology document. Using their expertise and knowledge, and the information available to them, they will make an assessment of what adjustment would be most appropriate to correctly reflect the Benchmark objective. Ultimately any exercise of Expert Judgment is overseen by

			the Governance Committee of IDI, which ensures that the published Methodologies have been followed.	
13	Periods of Stress	BMR Art27(2)(e): A benchmark statement shall contain at least: (e) the procedures which govern the determination of the benchmark in periods of stress or periods where transaction data sources may be insufficient, inaccurate or unreliable and the potential limitations of the benchmark in such periods;	Actions taken by IDI for the Volatility Index Family in exceptional market conditions are outlined in the Volatility Index Methodology document. IDI retains the right to delay the publication of the benchmark level or suspend the publication of the level of the benchmark if it believes that circumstances prevent the proper calculation of the benchmark. In the event that there is a market-wide event resulting in implied volatilities not being available, IDI will determine its approach on a case-by-case basis, and communicate the action taken to its stakeholders.	
14	Errors	BMR Art27(2)(f): A benchmark statement shall contain at least: (f) the procedures for dealing with errors in input data or in the determination of the benchmark, including when a redetermination of the benchmark is required;	Reasonable efforts are made to ensure the correctness and validity of data used in benchmark calculations. Where errors have occurred in the determination or calculation of a benchmark, the decision to make a restatement will be assessed on a case-by-case basis. Such decision will take account of the significance; impact; age; and scale of the error. All revisions or issues with the publication of the indices will be communicated to stakeholders during the day through the regular client communication channels; in addition, IDI may also contact clients directly; post a notice on the ICE Index	
			Platform https://indices.ice.com/; send a message via the market data portal, or use other such forms of communication.	
Sp	Specific disclosure requirements on ESG Factors and how they are reflected in each benchmark or family of benchmarks			

15	ESG Factors Specific discle	BMR Art 27(2a) DA 2020/1816 Specific disclosure requirements on ESG Factors and how they are reflected in the benchmark statement and the benchmark methodology Desure requirement on the alignment with	The Volatility Index Family does not take ESG factors into account in the benchmark design and does not pursue ESG objectives. the objectives of the Paris Agreement
16	Alignment with Paris Agreement	DA 2020/1816 Does the benchmark (or family of benchmarks) align with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement.	No
17	Temperature Scenario	The temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or attaining of the objectives of the Paris Agreement; The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	N/A

3. Disclaimer

The products and services mentioned herein solely in relation to the Indices (each an "Index" or "Benchmark") may not be available in all jurisdictions. This document does not constitute an offer of services in jurisdictions or circumstances where ICE Data Indices, LLC ("ICE Indices") does not have the necessary or appropriate licenses or approvals for the offering of the products and services described herein. Each Index provides a general investment strategy, does not take into account any of the specific needs or financial circumstances of any person, entity or group of persons and should not be considered investment advice. All information provided by ICE Indices, including without limitation, any materials that describe any Index, is of general nature only.

The development or creation of any financial product that is based on, developed in connection with, or uses directly or indirectly any index of ICE Indices, including any bi-lateral contract, fund, investment vehicle or issue of securities (an "Investable Product"), is prohibited without the prior written consent of ICE Indices. ICE Indices is not obligated to enter into or promote Investable Products or other transactions or investments that are linked to any ICE index or any of its constituents.

ICE Indices receives compensation in connection with the licensing of its indices to third parties.

It is not possible to invest in an index directly. Exposure to an asset class or sector represented by an index or an interest the index seeks to measure may be available through Investable Products based on that index. ICE Indices does not sponsor, endorse, sell, promote or manage, and has not reviewed or passed on the legality or suitability with respect to any person of, any Investable Product that is offered by third parties or any associated document, literature or publication, including without limitation, any prospectus or offering memorandum. ICE Indices makes no assurance that Investable Products based on any Index will accurately track index performance or provide positive investment returns or not result in a loss of some or all of any investment in such Investable Products. ICE Indices makes no representation regarding the advisability or suitability of investing in or assuming any risk in connection with any such Investable Products.

The products and services described herein may not be suitable for all purposes and for all investors and ICE Indices makes no representation regarding (a) the level at which any Index stands at any particular time on any particular date, (b)the ability of any Index to track corresponding market performance (c) the results to be obtained by any party from the use of any Index or any data included in it for the purposes of issuing securities or carrying out any financial transaction or (d) any other matter.

A decision to invest in any Investable Product should not be made in reliance on any of the statements set forth in this document. Prospective investors should carefully consider, prior to making a decision to invest in any Investable Product, the risks associated with investing in such Investable Product, as detailed in an offering memorandum or similar document that is prepared by or on behalf of the issuer or obligor of the Investable Product and whether it is appropriate for their purposes and circumstances. Prospective investors should consult with an attorney, tax advisor, or accounting professional regarding any specific legal, tax, or accounting situation, or the impact of making any particular investment decision. Inclusion of a security within an index is not a recommendation by ICE Indices to buy, sell, or hold such security, nor is it considered to be investment advice.

ICE Indices is under no obligation to maintain or calculate any Index and may cancel or cease to calculate any Index without notice, subject to applicable regulation and its policies and procedures.

ICE Indices does not assume any obligation or duty to any party in relation to any Index and under no circumstances does ICE Indices assume any relationship of agency or trust or of a fiduciary nature for or with any party. Any calculations or determinations in respect of any Index or any part thereof will be made by ICE Indices in accordance with the terms of its methodology at the relevant time and acting reasonably and in good faith.

Unless otherwise indicated, for the purpose of calculating any Index, ICE Indices has relied on publicly available sources and has not independently verified the information extracted from these sources and accepts no responsibility or liability in respect thereof. ICE Indices, its affiliates and its third-party providers and licensors and co-branding partners (where applicable) (collectively "ICE Indices Parties") do not guarantee that the Content is accurate, complete, timely or error free and it should not be relied upon as such. ICE Indices Parties are not responsible for any errors, omissions, or interruptions regardless of the cause, or for the results obtained from the use of the Content. THE CONTENT IS PROVIDED ON AN "AS IS" BASIS. ICE INDICES PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES AND CONDITIONS, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM VIRUSES, BUGS, WORMS, OTHER HARMFUL COMPONENTS OR OTHER PROGRAM LIMITATIONS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall ICE Indices Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of the Index and/or Content even if advised of the possibility of such damages.

Any available index returns are hypothetical and do not represent the results of actual trading of Investable Products, and as such, do not represent actual past performance and are not indicative of any specific investment. The Content (including any of the output derived from any analytic tools or models) is not intended to predict actual results, which may differ substantially from those reflected. Past performance is not necessarily indicative of future results.

The IDI Governance Committee reserves the right to treat individual indices differently in accordance with the stated objectives in the relevant index methodologies. In addition, IDI reserves the right to re-evaluate and modify the removal price of any security, subject to market accessibility and availability of pricing. Please note that users of IDI's indices are solely responsible for ensuring such users' compliance with all applicable law (including, without limitation, sanctions laws and any other rules, regulations or prohibitions) in connection with such use (including, without limitation, trading, investment or other use).

Intercontinental Exchange, Inc., the ultimate parent company of ICE Indices, keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of Intercontinental Exchange, Inc. may have information that is not available to other business units. ICE Indices has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process. There is no obligation on ICE Indices to disclose information held by it in relation to any Index to other parties.

The various businesses of Intercontinental Exchange, Inc. provide a wide range of products and services to a diverse group of clients and, as such, Intercontinental Exchange, Inc. faces potential conflicts of interest in the ordinary course of its business. Intercontinental Exchange, Inc. may be acting in a number of capacities in connection with Investable Products or other transactions entered into in relation to ICE indices. Intercontinental Exchange, Inc., acting in such capacities in connection with such transactions, shall have only the duties and responsibilities expressly agreed to by it in its relevant capacity and shall not, by virtue of its acting in any other capacity, be deemed to have other duties or responsibilities or be deemed to hold a standard of care other than as expressly provided with respect to each such capacity. ICE Indices has established policies and procedures designed to identify and address conflicts of interest.

In addition, Intercontinental Exchange, Inc. provides a wide range of services to, or relating to, many organizations, including issuers of securities, investment advisers, broker-dealers, investment banks, other financial institutions and financial intermediaries, and accordingly may receive fees or other economic benefits from those organizations, including organizations whose securities may form part of any index or other calculation ICE Indices carries out.

ABOUT INTERCONTINENTAL EXCHANGE Intercontinental Exchange, Inc. (NYSE:ICE) operates a leading network of exchanges and clearing houses. ICE's exchanges and clearing houses, which include the New York Stock Exchange, serve global commodity and

financial futures and equities markets. The New York Stock Exchange is the world leader in capital raising and equities trading. ICE is a leading provider of data services across global markets. Trademarks of ICE and/or its affiliates include Intercontinental Exchange, ICE, ICE block design, NYSE, New York Stock Exchange, and ICE Data Services. Information regarding additional trademarks and intellectual property rights of Intercontinental Exchange, Inc. and/or its affiliates is located at https://www.intercontinentalexchange.com/terms-of-use BofA® is a registered trademark of Bank of America Corporation licensed by Bank of America Corporation and its affiliates ("BofA"), and may not be used without BofA's prior written approval. Other products, services or company names mentioned herein are the property of, and may be the service mark or trademark of, their respective owners.

ABOUT ICE DATA SERVICES ICE Data Services is part of Intercontinental Exchange (NYSE: ICE) and offers end-to-end solutions for information, analytics index services and connectivity, with a range of proprietary data and tools for global markets across fixed income, equities, commodities, FX and options.