

**MSCI PRIVATE
CAPITAL HOLDINGS
INDEXES AND MSCI
DIRECT LENDING
LOAN INDEXES
METHODOLOGY**

Contents

1	Introduction.....	4
1.1	Objective	4
1.2	Indexes.....	5
1.3	Index Performance Measures.....	5
2	Index Composition	6
2.1	Inclusion Requirements.....	6
2.2	Change in Composition of Indexes.....	7
2.2.1	Adding Holdings.....	7
2.3	Removing Holdings	7
3	Data Collection and Validation	8
3.1	Data Collection.....	8
3.2	Data Cleaning and Validation.....	8
3.3	Source Selection	8
3.4	Scaling Valuation and Cash flows	9
3.5	Private Capital Holdings Index Data Requirements.....	9
4	Index Calculation Methodology	11
4.1	Data Preparation for Index Calculation.....	11
4.1.1	Interpolation of Valuations.....	11
4.1.2	Apportioning Cash Flows and Values.....	11
4.2	Modified Dietz.....	12
4.3	Index Values.....	12
4.4	Specific Data Treatment Practices and Assumptions.....	13
4.4.1	Lagged Valuation Reporting Treatment.....	13
4.4.2	Lagged Inclusion of New Constituents.....	13
4.4.3	Other Data Assumptions.....	13
4.4.4	Data Exclusions.....	14
4.4.5	MSCI Private Equity Holdings Indexes - eligibility criteria	14
4.4.6	MSCI Private Credit Holdings Indexes and MSCI Direct Lending Loan Indexes - eligibility criteria	14

4.4.7 MSCI Direct Lending Loan Indexes – eligibility criteria 15

4.5 Rules for Performance Reporting 15

4.5.1 Fund confidentiality rules 15

4.5.2 Index History Reporting 15

4.5.3 Currency Conversion 16

5 Appendix: Versioning Table 17

Contact Us 18

Notice and Disclaimer 19

1 Introduction

1.1 Objective

MSCI Private Capital Holdings Indexes aim to measure the gross-of-fees aggregate performance of the underlying holdings of closed-end Private Equity (PE) funds (“MSCI Private Equity Holdings Indexes”) and closed-end Private Credit (PC) funds (“MSCI Private Credit Holdings Indexes” and “MSCI Direct Lending Loan Indexes”). The MSCI Private Credit Holdings Indexes, the MSCI Private Equity Holdings Indexes and the MSCI Direct Lending Loan Indexes are together, the “Indexes” and each is an “Index”.

Index constituents consist of investments made by private capital funds in portfolio companies. In the case of Private Credit funds, if the Index consists of holdings that are exclusively debt facilities, by naming convention the index is within the “MSCI Direct Lending Loan Indexes” family, otherwise, if other types of holdings are allowed (like equity) the index belongs to the “MSCI Private Credit Holdings Indexes” family. The MSCI Private Credit Holdings Indexes and the MSCI Private Equity Holdings Indexes are together, the “MSCI Private Capital Holdings Indexes”.

The Indexes are subject to the same data processing and return calculation methodology outlined in this document, with any differences to index eligibility criteria specified in this document (Sections 4.4.5, 4.4.6, and 4.4.7) and in the associated index catalogues¹.

The Indexes are constructed using a bottom-up approach based on the complete history of holding-level data, including valuations and cash flows. The holding-level valuation and cash flow data used in index construction are sourced from General Partners (GPs) and obtained through MSCI’s Limited Partner (LP) client relationships. Holding eligibility and associated attributes are determined primarily using GP-reported data and, when available and deemed appropriate, may be supplemented with publicly available information.

To represent the performance of a market, market segment, or investment strategy, the Indexes are weighted using the reported fair value of the underlying holdings. These valuations are considered alongside invested capital and proceeds for each holding, reflecting the capital deployed by private capital funds into portfolio companies and the distributions received from them. Private capital holdings are typically not traded in liquid markets, therefore a market value is not observable, and the Fair Value assigned by fund managers is subject to the choice and application of the valuation methodologies, assumptions and judgement applied by fund managers and/or third-party valuers.

MSCI employs the Modified Dietz methodology to calculate quarterly returns for the Indexes. Details of this calculation are provided in Section 4 of this methodology document. The Indexes are governed

¹ Index Catalogues: [Private Equity Holdings Index Catalogue](https://burgiss.docsend.com/view/nezwv4uftuhzt43j) (“<https://burgiss.docsend.com/view/nezwv4uftuhzt43j>”), [Private Credit Holdings and Direct Lending Loan Index Catalogue](https://burgiss.docsend.com/view/qddkgv4m74svisyh) (“<https://burgiss.docsend.com/view/qddkgv4m74svisyh>”)

by a set of methodology documents (the “Methodology Set”) that collectively define the rules and processes governing each Index. The methodology set for the Indexes includes:

- MSCI Private Capital Fund Classification Standard
- MSCI Private Capital Index Policies
- MSCI Private Capital Holdings Indexes Methodology (this document)

1.2 Indexes

The Indexes measure gross-of-fees performance by calculating and aggregating the returns of underlying holdings, based on valuations and cash flows as reported by GPs to MSCI’s LP clients that invest in the fund vehicles. In contrast, MSCI Private Capital Closed-End Fund Indexes measure performance at the fund level, based on contributions, distributions, and Net Asset Values reported by the funds, all of which reflect the impact of fees and expenses. Taken together, these complementary index families provide a comprehensive view of private capital market performance — both at the holding level on a gross basis and at the fund level on a net basis.

Considerations specific to MSCI Private Equity Indexes are outlined in Section 4.4.5 “MSCI MSCI Private Equity Holdings Indexes - – eligibility criteria”, considerations specific to MSCI Private Credit Holdings Indexes and MSCI Direct Lending Loan Indexes are specified in Section 4.4.6 MSCI Private Credit Holdings Indexes and MSCI Direct Lending Loan Indexes – eligibility criteria” and considerations specific to MSCI Direct Lending Loan Indexes” are set out in Section 4.4.7 “MSCI Direct Lending Loan Indexes – eligibility criteria”.

1.3 Index Performance Measures

The Indexes use the Modified-Dietz calculation to calculate total return of private capital fund holdings within closed-end funds. These are calculated on a quarterly basis and compounded over longer periods.

2 Index Composition

The Indexes comprise of holdings of closed-end private capital funds. This data is sourced from MSCI's large and diverse client base, creating a robust dataset that provides a detailed view of fund investments. Because the information is collected through MSCI's LP clients, the MSCI sourcing model helps mitigate survivorship bias and ensures a representative picture of the market over time.

2.1 Inclusion Requirements

For a holding to be eligible for inclusion in the Indexes, it must satisfy all the following conditions:

1. **Entity Type:** The holding must represent an investment in a company held within a private capital (private equity or private credit) fund. Holdings can be investments across a company's capital stack such as equity or debt. MSCI Private Credit Holdings Indexes can also include securitized exposure underpinned by corporate debt.
2. **Fund Eligibility:** The holding must be held by a closed-end private capital fund that meets the fund eligibility requirements in Section 2.1.1 of MSCI Private Capital Closed-End Fund Indexes Methodology.
3. **Data Completeness:** The holding must have complete valuation and cash flow information since inception.
 - a. To determine whether holdings have adequate cash flow data, the aggregate holding-level cash flows collected for the fund are validated against the total holding cash flows reported by the fund's General Partners (GPs) in financial statements.
 - b. As a result of this validation process, all company holdings from an eligible fund are included in the index once the fund is deemed to have full history of holding level cash flows.
4. **Current Valuation Requirement:** The holding must have a valuation reported by the fund as of the end of the index quarter.
5. **Recent Valuation Requirement:** The holding must have a valuation reported by the fund for at least one of the three quarters immediately preceding the index publication quarter.

For additional eligibility criteria for different Indexes please see Sections 4.4.5, 4.4.6 and 4.4.7.

2.2 Change in Composition of Indexes

2.2.1 Adding Holdings

The composition of the Indexes changes as new holdings are added when:

1. Funds make new investments in portfolio companies or loans.
2. Holding-level data for additional funds becomes available through new clients whose investment programs include private capital funds. These holdings, along with historical data, are added to the Index, subject to meeting the requirements outlined in Sections 2.1, 4.4.5, 4.4.6 and 4.4.7.

Funds that previously did not meet the holding-level data requirements may begin contributing holding to the indexes once the required data becomes available and passes data validation procedures. Holdings from these funds, including historical data, are added, subject to meeting the requirements as outlined in Sections 2.1, 4.4.5, 4.4.6 and 4.4.7. Index composition is reviewed each quarter for additions.

2.3 Removing Holdings

Given the investment lifecycle of holdings within private capital funds, holdings cease to contribute to indexes once investments are fully realized or written off. In some cases, MSCI may lose access to the only source through which holdings data is collected. In the case where a fund stops being an eligible closed-end fund, the associated holdings from the fund are also removed from both current and historical periods. Index composition is reviewed each quarter for potential exclusion of holdings.

MSCI may exclude certain constituents from Indexes, either partially or fully, based on additional checks for data quality and completeness.

3 Data Collection and Validation

3.1 Data Collection

To provide institutional clients with greater transparency into their investments, MSCI compiles look-through data on cash flow activity, valuations and attributes of underlying holdings in private capital funds. This information originates from financial statements issued by General Partners (GPs) and obtained through MSCI's Limited Partner (LP) client relationships, ensuring a robust and representative dataset of holdings. The data are systematically captured and normalized to a consistent format, with rigorous quality checks applied throughout the process to maintain accuracy and reliability.

When appropriate, MSCI may supplement holding-level attribute data with information obtained from public sources.

3.2 Data Cleaning and Validation

After the underlying holding data are collected and standardized, MSCI refines this information to prepare it for use in the Indexes. MSCI applies a rigorous process to clean and validate the dataset, ensuring consistency and accuracy.

3.3 Source Selection

Unlike the fund indexes, where a majority of funds have multiple sources of fund-level valuation and cash flow data available, the holding-level data typically has a single source. However, in cases where multiple versions of holding-level valuation and cash flow data are available (i.e. multiple different sleeves of a fund are tracked), we carefully select the most representative source to represent the holdings. In such cases, the logic below is applied:

- For funds with a single source, the single source is selected as the representative source if it passes all data validations and procedures.
- For funds with multiple data sources, MSCI applies a structured scoring methodology to identify the source that provides the best cash flow information and is most representative of the master fund experience. This scoring process prioritizes funds with full cash flow history (as described in Section 2.1). Sources are further ranked based on holdings count, most recent reported valuation, and fund size.

3.4 Scaling Valuation and Cash flows

The representative source for a given fund will have its valuation and cash flow amounts scaled proportionally to represent the total committed capital of the fund. When known, the fund size will represent the Total Fund Size which is defined as the amount of total capital committed to a master fund, including the general partner (GP) commitment, affiliated limited partner commitments and the limited partner (LP) commitments. When the Total Fund Size is not available, LP Fund Size (LP Commitments) is considered as a default proxy.

For newly raised funds, the target fund size will be accepted on a temporary basis until the actual closing events occur.

3.5 Private Capital Holdings Index Data Requirements

The data required for the returns calculations of the MSCI Private Capital Holdings Indexes include holding-level contributions, distributions, and valuations. The table below describes the data field specifications for the Modified Dietz computations.

Data Category	Data Used for calculating index returns
Modified Dietz return methodology data	
Contributions	The amount of contributed capital that has been invested by fund into a holding.
Distributions	The amount of return of capital and distributions received by the fund from the sale of securities, cash dividends, operating income, and interest income. Distributions are gross of carried interest.
Valuation	The quarterly-reported Fair Value reported by the Fund, and based on the market value which a fund could reasonably expect to receive by selling the holdings in an arm's length transaction. Valuations are gross of carried interest.
Currency	Foreign Exchange Rates

In addition to the data required to calculate their performance, MSCI categorizes each holding and its associated fund and entity along a set of attributes. Examples of these categories of data are described below.

Data Category	Example of attribute
	Fund Attribute
Asset class	Equity/Buyout
Fund Size	USD 500 million
	Holding Attributes
Status	Held
	Entity Attribute
Sector (PACS)²	Health Care
Geography	Americas/North America/United States
Type	Company

² MSCI Private Asset Classification Standard ([PACS™](#)) is a global standardized taxonomy for private assets, including private companies, real estate, infrastructure, and other alternative assets. It leverages MSCI's proprietary methodology, extending the GICS structure for companies and using MSCI's GRACS taxonomy for real estate and infrastructure

4 Index Calculation Methodology

4.1 Data Preparation for Index Calculation

4.1.1 Interpolation of Valuations

In certain³ cases, funds may not report holding-level valuations on a quarterly basis (e.g., semi-annual or annual reporting funds) or a valuation is not disclosed in the report. To enable inclusion of such holdings in indexes, MSCI applies a linear interpolation methodology to estimate valuations for quarters in which no reported valuation is available.

The interpolation procedure allocates the change in valuation evenly across the intervening quarters between two reported valuation points, including the quarter of the latest reported valuation. In all cases, the interpolated valuation is derived by adjusting the corresponding quarterly cash flows.

Interpolation is performed only when valuations are reported for the quarters preceding and the quarter following the period of missing valuation. Holdings that lack reported valuations for four or more consecutive quarters are deemed to have insufficient valuation transparency and are excluded from the index for respective quarters; consequently, the interpolation procedure is not applied in such cases.

4.1.2 Apportioning Cash Flows and Values

For funds that have not historically reported cash flows on a quarterly basis (i.e. semi-annual or annual reporting funds), MSCI apportions the reported cash flows equally across the quarters for which cash flow data is not reported, including the most recent quarter with a reported valuation. However, where a holding lacks reported valuations for four or more consecutive quarters, it is excluded from the index for those periods (as per Section 4.1.1). In such cases, MSCI does not derive interim valuations or apportion cash flows for the missing quarters.

³ Interpolation is applied to a limited number of holdings, representing a small percentage of aggregate holding NAV.

4.2 Modified Dietz

The quarterly returns and index values for the MSCI Private Capital Holdings Indexes are calculated using the Modified Dietz method which are both defined below.

Modified Dietz methodology defines quarterly return (gross of fees) as:

$$\text{Quarterly Return}_{t_1-t_0} = \frac{\text{Valuation}_{t_1} - \text{Valuation}_{t_0} + \sum_{t=t_0}^{t_1} \text{Cash Flow}_{t_0 \rightarrow t_1}}{\text{Valuation}_{t_0} - \sum_{t=t_0}^{t_1} (W_t \times \text{Cash Flow}_{t_0 \rightarrow t_1})}$$

Where:

'Cash flow' represents any cash flow occurring during the quarter ending at t_1 , defined as:

$$\text{Cash flows}_{t_0 \rightarrow t_1} = \text{Distributions}_{t_0 \rightarrow t_1} - \text{Contributions}_{t_0 \rightarrow t_1}$$

' W_t ' is the weighting factor applied to cashflow and calculated as the number of days between the cash-flow date and quarter-end date, divided by the total number of days in quarter 't'. For quarterly Modified Dietz calculation, cash flows are assumed to occur at the mid-point of the quarter.

' Valuation_t ' is the holding's Fair Value at the end of quarter 't', as reported by the General Partner (GP). If a reported valuation is unavailable and the holding meets the requirement for interpolation, an interpolated valuation is used in the quarterly return calculation.

4.3 Index Values

Starting from a base value of 100, each successive index value is calculated by multiplying the preceding index value by (1+Quarterly Return):

$$\begin{aligned} \text{Index}_{t_0} &= 100 \\ \text{Index}_{t_1} &= \text{Index}_{t_0} \times (1 + \text{Quarterly Return}_t) \end{aligned}$$

Where:

' $\text{Quarterly Return}_t$ ' is the return for the quarter $t_0 \rightarrow t_1$.

4.4 Specific Data Treatment Practices and Assumptions

The private capital industry is subject to various reporting lags which are driven by delays in GPs providing financial statements, valuation updates and other critical information to their LPs. In addition, MSCI needs time to process the holding-level data and perform validation procedures, including verification of data completeness, eligibility assessment, among other checks, before a fund is included in the indexes. The Indexes reflect the best information known to MSCI at each point in time.

4.4.1 Lagged Valuation Reporting Treatment

There are special considerations for valuations and the calculation of quarterly returns. The quarterly updates to the Indexes are timed when a majority of active funds have reported the most recent valuation for holdings. For unfrozen holdings indexes, approximately⁴ 70-80% of active holdings have their most recent reported valuation available at the time of index publication with the remaining valuations becoming available in the following publications.

The latest quarterly return for the Indexes is calculated using only those holdings that have a reported quarter-end valuation for the current period and holdings that also have either a reported or an interpolated valuation for the preceding quarter. Holdings without a reported valuation for the current quarter, or without sufficient valuation history to permit interpolation for the prior quarter, are excluded from the latest quarterly index calculation.

4.4.2 Lagged Inclusion of New Constituents

MSCI makes every effort to include holdings from newly raised funds during the next applicable index release. However, there are situations where critical information for holdings is not yet available, and/or there is data quality concern which can only be resolved through referencing the financial statements. In these types of situations, the holdings from newly raised funds will enter the Indexes only after all missing attributes and data validations have been successfully resolved.

4.4.3 Other Data Assumptions

- **Foreign Exchange (FX) Hedges:** FX hedges are generally excluded from the analysis, except in rare instances where the hedging exposure is embedded within the data provided to us.
- **Fund level debt:** Debt held at the fund level, including Subscription Lines of Credit (SLOC), has no impact on index calculations.
- **Fund leverage and fees:** Holding-level valuations and cashflows are gross of fund level leverage and fees.

⁴ Percentages are indicative and may vary by quarter.

- **Fund Holdings:** As we measure the entire investment made by a private capital fund, these investment holdings may include debt and other non-equity instruments for Private Equity funds, and conversely non-debt instruments for Private Credit funds. These investments are included in our calculations unless explicitly filtered based on the rules of each Index.

4.4.4 Data Exclusions

The following are not considered eligible holdings across all Indexes:

- Holdings for which reported valuation is not available for four or more consecutive quarters, are excluded from the Index for respective quarters.
- Holdings with negative valuation at either the beginning or end of the quarter, when a valid valuation cannot be derived using the interpolation procedure.
- Holdings for which the status of the fund's investment (e.g., held or realized) cannot be determined, are excluded with history.

4.4.5 MSCI Private Equity Holdings Indexes - eligibility criteria

For Private Equity funds holdings are excluded from the Indexes in the following instances:

- Holdings that represent investment in a private equity fund rather than direct company investments.
- Holdings that do not correspond to a 'Company' entity, including but not limited to:
 - balance sheet items like cash, debt liabilities,
 - other non-company investments (e.g., Financial instruments, Bitcoins, Infrastructure, Property).

4.4.6 MSCI Private Credit Holdings Indexes and MSCI Direct Lending Loan Indexes - eligibility criteria

For both MSCI Private Credit Holdings Indexes and MSCI Direct Lending Loan Indexes the following items are not considered eligible:

- Cash
- Fund liabilities (like subscription lines) and hedging instruments, unless paired with a specific investment (e.g., to convert cashflows to the fund's currency).

In private credit, holdings are an aggregation of one or more lending facilities (or other securities) from the same borrower. This is based on the level of granularity valuations and cashflows are reported. For both MSCI Private Credit Holdings Indexes and MSCI Direct Lending Loan Indexes, the cashflow and valuation data used for index calculations are reported and captured at the holding level, under the same data processing steps and using the same methodology outlined in this document.

4.4.7 MSCI Direct Lending Loan Indexes – eligibility criteria

MSCI Direct Lending Loan Indexes have additional eligibility filters based on lending facility-level attributes (for example only senior lending facilities are eligible to include in a senior lending index). For these indexes, all the lending facilities inside a holding need to satisfy the derived index inclusion criteria for the holding to be considered eligible for the derived index. When a holding stops satisfying each Index's eligibility criteria, it is removed from the Index, with an exit value equal to its valuation in the last eligible quarter. The Index eligibility criteria are developed on a case-by-case basis and can choose to use lagged or averaged values of holding attributes to avoid excessive Index churn and avoid selection bias by removing holdings based on early indicators of credit stress.

4.5 Rules for Performance Reporting

4.5.1 Fund confidentiality rules

To protect the confidentiality of the fund and holdings data, MSCI applies strict confidentiality rules which require a minimum number of constituents to permit reporting of an Index. For any aggregate to be reported, the following conditions must be met as of the quarter-end:

- At least 20 distinct holdings must contribute to the pooled results; and
- At least 5 distinct funds must be represented.

4.5.2 Index History Reporting

The Indexes are unfrozen, and historical returns are restated with each index publication to reflect the best information available at the time. This process incorporates any updates to the underlying data and any changes to the index constituents. Refer to the [Index Catalog](#)⁵ for a complete list of Indexes.

⁵ Private Equity Holdings Index Catalog: <https://burgiss.docsend.com/view/nezwv4uftuhzt43j> and Private Credit Holdings and Direct Lending Loan Index Catalog: <https://burgiss.docsend.com/view/qddkgv4m74svisyh>

4.5.3 Currency Conversion

The Indexes may include constituents which have a local currency other than the one in which the Index is denominated. Therefore, the calculation of the Indexes requires values to be converted to a common, pooling currency.

Exchange rate information is sourced from OANDA. To align with the timing of valuations and cash flows as outlined in Section 4.2 of this document, the exchange rate for valuation is converted using the spot rate at the date of valuation. Whereas cash flows are converted using the spot rate on the 15th day of the second month of each calendar quarter, representing the midpoint of the quarter. For example, for a calendar quarter ending in December, cash flows are converted using the spot rate as of November 15th from that quarter.

5 Appendix: Versioning Table

Version	Publication Date	Key Changes
V1.0	January 2026	First release of document.
V2.0	March 2026	Updated to include MSCI Private Credit Holdings Indexes and MSCI Direct Lending Loan Indexes, and renamed the document accordingly

Contact Us

About MSCI

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 50 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading research-enhanced solutions that clients use to gain insight into and improve transparency across the investment process.

To learn more, please visit www.msci.com.
msci.com/contact-us

AMERICA

United States	+ 1 888 588 4567 *
Canada	+ 1 416 687 6270
Brazil	+ 55 11 4040 7830
Mexico	+ 52 81 1253 4020

EUROPE, MIDDLE EAST & AFRICA

South Africa	+ 27 21 673 0103
Germany	+ 49 69 133 859 00
Switzerland	+ 41 22 817 9777
United Kingdom	+ 44 20 7618 2222
Italy	+ 39 02 5849 0415
France	+ 33 17 6769 810

EUROPE, MIDDLE EAST & AFRICA

China	+ 86 21 61326611
Hong Kong	+ 852 2844 9333
India	+ 91 22 6784 9160
Malaysia	1800818185 *
South Korea	+ 82 70 4769 4231
Singapore	+ 65 67011177
Australia	+ 612 9033 9333
Taiwan	008 0112 7513 *
Thailand	0018 0015 6207 7181 *
Japan	+ 81 3 4579 0333

* toll-free

Notice and Disclaimer

The data, data feeds, databases, reports, text, graphs, charts, images, videos, recordings, models, metrics, analytics, indexes, ratings, scores, cases, estimates, assessments, software, websites, products, services and other information and materials contained herein or delivered in connection with this notice (collectively, the "Information") are copyrighted, trade secrets (when not publicly available), trademarks and proprietary property of MSCI Inc. or its subsidiaries (collectively, "MSCI"), MSCI's licensors, direct or indirect suppliers and authorized sources, and/or any third party contributing to the Information (collectively, with MSCI, the "Information Providers"). All rights in the Information are reserved by MSCI and its Information Providers and user(s) shall not, nor assist others to, challenge or assert any rights in the Information.

Unless you contact MSCI and receive its prior written permission, you must NOT use the Information, directly or indirectly, in whole or in part (i) for commercial purposes, (ii) in a manner that competes with MSCI or impacts its ability to commercialize the Information or its services, (iii) to provide a service to a third party, (iv) to permit a third party to directly or indirectly access, use or resell the Information, (v) to redistribute or resell the Information in any form, (vi) to include the Information in any materials for public dissemination such as fund factsheets, market presentations, prospectuses, and investor information documents (e.g. KIID or KIDs), (vii) to create or as a component of any financial products, whether listed or traded over the counter or on a private placement basis or otherwise, (viii) to create any indexes, ratings or other data products, including in derivative works combined with other indexes or data or as a policy, product or performance benchmarks for active, passive or other financial products, (ix) to populate a database, or (x) to train, use as an input to, or otherwise in connection with any artificial intelligence, machine learning, large language models or similar technologies except as licensed and expressly authorized under MSCI's AI Contracting Supplement at <https://www.msci.com/legal/supplemental-terms-for-client-use-of-artificial-intelligence>.

The intellectual property rights of MSCI and its Information Providers may not be misappropriated or used in a competitive manner through the use of third-party data or financial products linked to the Information, including by using an MSCI index-linked future or option in a competing third-party index to provide an exposure to the underlying MSCI index or by using an MSCI index-linked ETF to create a financial product that provides an exposure to the underlying MSCI index without obtaining a license from MSCI.

The user or recipient of the Information assumes the entire risk of any use it may make, permit or cause to be made of the Information. NONE OF THE INFORMATION PROVIDERS MAKES ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF), AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EACH INFORMATION PROVIDER EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES (INCLUDING ANY IMPLIED WARRANTIES OF ORIGINALITY, ACCURACY, TIMELINESS, SUITABILITY, NON-INFRINGEMENT, COMPLETENESS, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) WITH RESPECT TO ANY OF THE INFORMATION. Without limiting any of the foregoing and to the maximum extent permitted by applicable law, in no event shall MSCI or any other Information Provider have any liability arising out of or relating to any of the Information, including for any direct, indirect, special, punitive, consequential (including lost profits) or any other damages, even if notified of the possibility of such damages. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited.

The Information, including index construction, ratings, historical data, or analysis, is not a prediction or guarantee of future performance, and must not be relied upon as such. Past performance is not indicative of future results. The Information may contain back tested data. Back-tested performance based on back-tested data is not actual performance but is hypothetical. There are frequently material differences between back tested performance results and actual results subsequently achieved by any investment strategy. The Information may include "Signals," defined as quantitative attributes or the product of methods or formulas that describe or are derived from calculations using historical data. Signals are inherently backward-looking because of their use of historical data, and they are inherently inaccurate, not intended to predict the future and must not be relied upon as such. The relevance, correlations and accuracy of Signals frequently change materially over time.

The Information may include data relating to indicative prices, evaluated pricing or other information based on estimates or evaluations (collectively, "Evaluations") that are not current and do not reflect real-time traded prices. No evaluation method, including those used by the Information Providers, may consistently generate evaluations or estimates that correspond to actual "traded" prices of any relevant securities or other assets. Evaluations are subject to change at any time without notice and without any duty to update or inform you, may not reflect prices at which actual transactions or collateral calls may occur or have occurred. The market price of securities, financial instruments, and other assets can be determined only if and when executed in the market. There may be no, or may not have been any, secondary trading market for the relevant securities, financial instruments or other assets. Private capital, equity, credit and other assets and their prices may be assessed infrequently, may not be priced on a secondary market, and shall not be relied upon as an explicit or implicit valuation of a particular instrument. Any reliance on fair value estimates and non-market inputs introduces potential biases and subjectivity. Internal Rate of Return metrics are not fully representative without full disclosure of fund cash flows, assumptions, and time horizons.

The Information does not constitute, and must not be relied upon as, investment advice, credit ratings, or proxy advisory or voting services. None of the Information Providers, their products or services, are fiduciaries or make any recommendation, endorsement, or approval of any investment decision or asset allocation. Likewise, the Information does not represent an offer to sell, a solicitation to buy, or an endorsement of any security, financial product, instrument, investment vehicle, or trading strategy, whether or not linked to or in any way based on any MSCI index, rating, subcomponent, or other Information (collectively, "Linked Investments"). The Information should not be relied on and is not a substitute for the skill, judgment and experience of any user when making investment and other business decisions. MSCI is not responsible for any user's compliance with applicable laws and regulations. All Information is impersonal, not tailored to the needs of any person, entity or group of persons, not objectively verifiable in every respect, and may not be based on information that is important to any user.

It is not possible to invest in an index. Exposure to an asset class or trading strategy or other category represented by an index is only available through third party investable instruments (if any) based on that index. MSCI makes no assurance that any Linked Investments will accurately track index performance or provide positive investment returns. Index returns do not represent results of actual trading of investable assets/securities. MSCI maintains and calculates indexes but does not manage assets. The calculation of indexes and index returns may deviate from the stated methodology. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase securities underlying the index or Linked Investments. The imposition of these fees and charges would cause the performance of a Linked Investment to be different than the MSCI index performance.

Information provided by MSCI Solutions LLC and certain related entities ("MSCI Solutions"), including materials utilized in MSCI sustainability and climate products, have not been submitted to, nor received approval from any regulatory body. MSCI sustainability and climate offerings, research and data are produced by, and ratings are solely the opinion of MSCI Solutions. Other MSCI products and services may utilize information from MSCI Solutions, Barra LLC or other affiliates. More information can be found in the relevant methodologies on www.msci.com. MSCI Indexes are administered by MSCI Limited (UK) and MSCI Deutschland GmbH. No regulated use of any MSCI private real assets indexes in any jurisdiction is permitted without MSCI's express written authorization. The process for applying for MSCI's express written authorization can be found at: <https://www.msci.com/index-regulation>.

MSCI receives compensation in connection with licensing its indexes and other Information to third parties. MSCI Inc.'s revenue includes fees based on assets in Linked Investments. Information can be found in MSCI Inc.'s company filings on the Investor Relations section of msci.com. Issuers mentioned in MSCI Solutions materials or their affiliates may purchase research or other products or services from one or more MSCI affiliates, manage financial products such as mutual funds or ETFs rated by MSCI Solutions or its affiliates or are based on MSCI Indexes. Constituents of MSCI equity indexes are listed companies, which are included in or excluded from the indexes according to the application of the relevant index methodologies. Constituents in MSCI Inc. equity indexes may include MSCI Inc., clients of MSCI or suppliers to MSCI. MSCI Solutions has taken steps to mitigate potential conflicts of interest and safeguard the integrity and independence of its research and ratings.

MIFID2/MIFIR notice: MSCI Solutions does not distribute or act as an intermediary for financial instruments or structured deposits, nor does it deal on its own account, provide execution services for others or manage client accounts. No MSCI product or service supports, promotes or is intended to support or promote any such activity. MSCI Solutions is an independent provider of sustainability and climate data. All use of indicative prices for carbon credits must comply with any rules specified by MSCI. All transactions in carbon credits must be traded "over-the-counter" (i.e. not on a regulated market, trading venue or platform that performs a similar function to a trading venue) and result in physical delivery of the carbon credits.

You may not remove, alter, or obscure any attribution to MSCI or notices or disclaimers that apply to the Information. MSCI, Barra, RiskMetrics, and other MSCI brands and product names are the trademarks, service marks, or registered trademarks of MSCI or its subsidiaries in the United States and other jurisdictions. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P Dow Jones Indices. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and S&P Dow Jones Indices. Terms such as including, includes, for example, such as and similar terms used herein are without limitation.

MSCI and its Information Providers may use automated technologies and artificial intelligence to help generate content and output incorporated in the Information.

Privacy notice: For information about how MSCI collects and uses personal data, please refer to our Privacy Notice at: <https://www.msci.com/privacy-pledge>. For copyright infringement claims contact us at dmca@msci.com. This notice is governed by the laws of the State of New York without regard to conflict of laws principles.