

Our benchmark is the investor."

# Hartford Multifactor Index Methodologies

Hartford Risk-Optimized Multifactor Developed Markets (ex-US) Index LRODMX

Version 3.1 dated March 31, 2023

This document details the rules-based methodologies that govern Hartford Risk-Optimized Multifactor Indices currently in effect.

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# Overview Hartford Multifactor Indices

The Hartford Multifactor Index outlined in this document is designed to capture the performance potential of international equities by deliberately allocating toward risks and opportunities more likely to enhance return potential. The indices are constructed via an integrated process that seeks to improve diversification across countries and currencies (where applicable), sectors, and/or companies while seeking to capture the potential performance benefits of certain common factors, such as value, momentum, and quality.

The rules-based, proprietary methodology employs a multi-layered risk-controlled approach that seeks to de-concentrate country, sector, and/or size risks relative to capitalization-weighted universes while selecting companies exhibiting favorable risk premia factors.

While the index methodologies for each of Hartford Funds' multifactor products follow substantially similar approaches, each was designed to address the risks and opportunities inherent to each asset class or equity region. Thus, there are important distinctions between different index strategies.

The Index's Provider (Lattice Strategies LLC ("Lattice Strategies" or "Lattice"), a wholly owned subsidiary of Hartford Funds Management Company, LLC ("HFMC")) is responsible for the methodology and selection of each index component. The index is calculated and distributed by Solactive AG. The Indices are calculated as price and total return indices.

#### **Eligible Securities**

Eligible securities for this index are derived from universes composed of companies within the following general parameters:

Hartford Risk-Optimized Multifactor Index	Eligible Universe
Developed Markets (ex-US) Index	Includes companies that represent economic coverage up to 85% of the market capitalization of 22 countries within developed Europe, Australasia, North America (ex-US) and Japan

See Appendix for itemized list of country eligibility for each index

### **Overview of Index Construction Methodology**

Hartford Multifactor Indices deploy an integrated process that seeks to deliberately allocate risk and maximize exposure to multiple factors.

- Risk-First Portfolio Construction Establishes risk parameters of each index by setting countryand sector-level diversification objectives. This initial step expands the opportunity set and tends to drive capital allocation deeper into the eligible universe. The Developed Markets (ex-US) Index targets up to a 20% reduction in volatility over a complete market cycle as part of the index design.<sup>1</sup>
- **Multifactor Security Selection** Selects companies with a favorable combination of factors such as value, momentum, and quality. The methodologies seek companies exhibiting multiple favorable factors a design feature intended to enhance return potential and reduce risk.

<sup>&</sup>lt;sup>1</sup> The intended result of this target is to seek up to a 15% reduction in volatility over a complete market cycle, although the optimizer is set at 20% in order to achieve this intended target.

# Hartford Risk-Optimized Multifactor Developed Markets (ex-US) Index (LRODMX)

#### **Index Overview**

Hartford Risk-Optimized Multifactor Developed Markets (ex-US) Index (LRODMX or the "Index") seeks to address risks and opportunities within developed market stocks located outside the United States by selecting equity securities exhibiting a favorable combination of factors, including value, momentum, and quality while reducing volatility by up to 20% over a complete market cycle.<sup>2</sup>

The rules-based, proprietary methodology employs a multi-layered risk-controlled approach that seeks to de-concentrate individual country and currency risks and reduce volatility while selecting companies exhibiting favorable risk premia factors. The methodology seeks to further address active risks versus the capitalization-weighted universe by managing size, country, and liquidity risks.

#### **Composition of the Index**

### **A. Selection of Index Components**

The initial composition of the Index, as well as any on-going adjustment, is based on the following rules:

#### 1. Country Eligibility

The eligible universe of developed markets countries excludes the United States and follows generally accepted institutional definitions of developed market classifications. Country eligibility and inclusion are determined annually, based on the following criteria:

- A. Market size (Market capitalization (market cap) as % of GDP, Country Total Market Cap, Market cap as % of World Market Cap)
- B. Size of Economy (Gross Domestic Product (GDP), Country GDP as % of World GDP)
- C. Level of development (GDP per capita)
- D. The country's restrictions on foreign capital investment
- E. Institutional feedback from the international investment community regarding economic development levels and market accessibility

See Appendix for a complete list of eligible countries as of the latest Index reconstitution

#### 2. Equity Universe

The next step is to select the stocks which meet the criteria for inclusion in the universe. Unlike the country selection process, stock selection rules are applied semi-annually at each rebalance period. All stocks included in the Index must pass the following screening criteria:

- A. The company must be domiciled in one of the countries included in the index. Country of domicile classifications are assigned by applying at least one of the following criteria (in order of priority):
  - Country of incorporation
  - Country of primary exchange listing
- B. Master Limited Partnerships (MLPs) are excluded
- C. The stock is in the top 85% of the developed market equity universe's market capitalization
- D. The average daily trading volume (ADTV) over the last 6 months exceeds 1.5MM USD

<sup>&</sup>lt;sup>2</sup> The intended result of this target is to seek up to a 15% reduction in volatility over a complete market cycle, although the optimizer is set at 20% in order to achieve this intended target.

#### 3. Establishing the Index Constituents

Upon determination of the companies to be included in the universe, an optimization process is applied to determine which companies are held and how they are weighted. The objectives and constraints of the process are discussed below.

#### <u>Strategy Risk Controls</u>

The Index includes multi-layered risk controls, including:

- 1. Active country allocation limitations vary by the weight of each country in the initial capitalization-weighted universe as follows:
  - i. Maximum Country Weights Relative to Universe
    - 1. Country weight in universe greater than 15%: -1%
    - 2. Country weight in universe 10% to 15%: +5%
    - 3. Country weight in universe 5% to 10%: +3%
    - 4. Country weight in universe less than 5%: +2%
  - ii. Minimum Country Weights Relative to Universe
    - 1. Country weight in universe greater than 15%: -5%
    - 2. Country weight in universe 10% to 15%: -5%
    - 3. Country weight in universe 5% to 10%: -3%
    - 4. Country weight in universe less than 5%: -2%
- 2. Active sector allocation limitations are set at ±2% from each sector's representation in an initial capitalization-weighted universe
- 3. Size and liquidity caps: Max position sizes are applied within the size categories and are based on the lesser of 0.75% or 1x ADTV.
- 4. Minimum effective number of equities must be at least 300
- 5. Seek up to 15% reduction in volatility over a complete market cycle (based on historical standard deviation of a capitalization-weighted universe)
- Large cap stocks (defined as stocks with market cap over \$10B USD) must not be less than 50% of the total Index; smaller companies (defined as companies <\$2B) must be ≤20% of the total Index

#### <u>Factor Enhancement</u>

The stock selection process seeks to identify and allocate capital to stocks with attractive factor characteristics. In this analysis, factors covering the traditional dimensions of value, momentum and quality are utilized. Stocks are selected with an aim to enhance the overall factor characteristics of the index while also meeting the strategy risk controls outlined above.

#### **Creating Aggregated Factor Scores**

Once the Valuation, Momentum and Quality scores have been calculated, combined factor scores are assigned and based on the following weighting: Value 50%, Momentum 30% and Quality 20%. Combined scores for financial and real estate sector companies are assigned weightings of 65% Value and 35% Momentum.

Through an optimization process, the strategy selects from eligible companies with the highest combined factor scores while also seeking positive portfolio-level exposure to multiple factors relative to the initial capitalization-weighted universe. Considered factors in this step are defined below:

#### **Hartford Value Factor**

The Hartford Value Factor Mix equally weights multiple valuation metrics to arrive at an aggregated valuation metric. Valuation metrics include: Earnings Yield, EBITDA/Enterprise Value (EV), Operating Cash Flow/EV, Revenue/EV, Dividend Yield, and Book Value (used only in financials and real estate as a replacement to EBITDA/EV)

#### **Hartford Momentum Factor**

The Hartford Momentum Factor Mix equally weights multiple price momentum metrics to arrive at an aggregated momentum metric. Momentum metrics include: Last 12 ex-1 monthly returns and Last 6 ex-1 monthly returns.

#### **Hartford Quality Factor**

Gross profitability/total assets is used to measure quality in the index. Where the factor is not available (i.e. for financial and real estate companies), quality is excluded from the factor mix.

 The principle of "neutralization" is applied in the calculation of factor scores. Neutralization is meant to help remove biases between companies and securities of different classifications. In particular, the neutralization employed seeks to jointly mitigate biases by geographic (e.g. country, region) exposure and economic (e.g. sector, industry) exposures.

#### **B.** Determining the Final Risk-Optimized Index

With the above inputs in place, the Index is constructed using a proprietary optimization process. The optimization uses the initial starting universe of eligible securities as the baseline and the optimization objectives and constraints determine the composition of the Index during each reconstitution and rebalance period. The process layer determines a suitable combination of stocks that allows for the greatest expression of index objectives, including factor expression, diversification goals and volatility targets.

#### 1. Turnover Reduction

The optimization process seeks to mitigate unnecessary and counterproductive turnover while maintaining index attributes and other risk controls.

#### C. Reconstitution and Rebalancing

The composition of the Index is reconstituted and reweighted on the second Wednesday in March and on the second Wednesday in September. The composition of the Index is reviewed on each Selection Day and the necessary adjustments are announced. The Inception Date of the Index is December 31, 2013.

(See Appendix for definitions of terms)

# Appendix: Index Publishing And Calculation General Information

# Hartford Multifactor Index Tickers and ISINs

Index Name	Total Return		Price Return	
	Ticker	ISIN	Ticker	ISIN
Hartford Risk-Optimized Multifactor Developed Markets (ex-US) Index	LRODMX	DE000SLA68B9	LRODMP	DEOOOSLA68A1

### Distribution

The Indices are published via the price marketing services of Boerse Stuttgart AG and are distributed to all affiliated vendors. Each vendor decides on an individual basis as to whether the vendor will distribute/display each Hartford Risk-Optimized Multifactor Index via the vendor's information systems.

# Prices and calculation frequency

The price of the Indices are calculated on each Business Day based on the prices on the respective Exchanges on which the Index Components are listed. The most recent prices of all Index Components are used. Prices of Index Components not listed in the Index Currency are translated using spot rates (London 4pm) as quoted by Thomson Reuters. Should there be no current price available on Reuters, the most recent price or the Trading Price on Reuters for the preceding Trading Day is used in the calculation.

The Indices are calculated every U.S. Business Day from 12:00am to 10:50pm, CET. The Index price is calculated continuously in 15-second intervals during these hours. In the event that data cannot be provided to Reuters or to the pricing services of Boerse Stuttgart AG, the Index cannot be distributed.

Any incorrect calculation is adjusted on a retrospective basis.

Lattice Strategies engages with and pays a fee to Solactive AG for index calculation and distribution services. Lattice Strategies is responsible for the methodology and selection of the index components. The Indices are calculated as price and total return indices in USD.

# **Decision-making bodies**

A committee, composed of members as determined by Lattice Strategies LLC, is responsible for decisions regarding the application of any amendments to the rules (in this document referred to as the "Committee" or the "Index Committee"). The Committee shall decide if any Extraordinary Events should occur and on the implementation of any necessary adjustments.

Members of the Committee can recommend changes to the index methodology rules and submit them to the Committee for approval at any time. Refinements to methodology will be communicated in advance of pre-established rebalance and reconstitution periods via updates to the methodology document and noted in the Index Notices section of the Appendix.

### Publication

All specifications and information relevant for calculating the Index are available via the following link: <u>https://www.solactive.com/documents/equity-index-methodology/</u>

# Licensing

Licenses to use the Indices as the underlying value for derivative instruments are issued to stock exchanges, banks, financial services providers and investment houses by Lattice Strategies LLC.

# **Extraordinary adjustment**

If a company included in any of the Indices is removed from an Index between two Adjustment Days due to an Extraordinary Event, or is otherwise deemed by the index committee to have experienced an Extraordinary Event that impacts its qualification for inclusion in the Index as determined by the Methodology, if necessary, the index committee shall designate a successor company or otherwise determine a course of action to bring the impacted company position back into alignment with the Methodology. The new Index composition would be communicated to Solactive AG once determination is made by the index committee, and any such change would be published by Solactive AG as soon as practicable thereafter, normally after the close of the US markets on the following business day. To the extent any such index committee determination is made within 45 days of the next Adjustment Day, the index committee may elect to wait until such next Adjustment Day to make the adjustment to the Index.

# **Appendix: Definitions**

#### **Definitions**

**Adjustment Days** – An adjustment date is the date on which financial adjustments will be made to a contract or transaction as agreed by all the parties involved in the transaction.

**Book Value** – The book value of an asset is the value at which the asset is carried on a balance sheet and calculated by taking the cost of an asset minus the accumulated depreciation.

**Debt-to-GDP** – Debt-to-Gross Domestic Product (GDP) is the ratio of a country's public debt to its gross domestic product and can be interpreted as the number of years needed to pay back debt if GDP is dedicated entirely to debt repayment.

**Dividend Yield** – Dividend Yield is the weighted average dividend yield of the companies in the index (including cash). The number is not intended to demonstrate income earned or distributions made by a portfolio.

**Earnings Yield** – The net income (before extraordinary items and discontinued operations) for the most recent four-quarter period divided by the current total public equity value of the company.

**EBITDA/Enterprise Value (EV)** – EBITDA is an acronym for Earnings Before Interest Taxes Depreciation and Amortization. EBITDA/EV is a metric that is used as a valuation tool to allow investors to compare the value of a company, debt included, to the company's cash earnings less noncash expenses.

**Extraordinary Event** – Includes, but is not limited to, a corporate takeover, merger, spin-off, special dividend, or delisting, which may alter the manner in which the company's securities are valued and/or traded.

**Free Float Market Capitalization** – Free float market capitalization is another method of calculating market capitalization that requires taking the equity's price and multiplying it by the number of shares readily available in the market.

**Gross Domestic Product (GDP)** – Gross domestic product is the monetary value of all finished goods and services produced within a country's borders in a specific time and is used as a broad measurement of a nation's overall economic activity.

**Gross Profitability** – Gross profitability is the profit a company makes after deducting the costs associated with making and selling its products, or the costs associated with providing its services.

**Gross Profits/Total Assets** – Gross profit/total assets is a profitability measure that allows investors to compare the gross profits of a company to the company's total assets.

**Index Component** – Security within an Index

**Index Calculator** – Agent responsible for calculating the value of each index (Solactive AG or any other appropriately appointed successor in this function.)

Index Currency – The US dollar.

Index Provider – Lattice Strategies LLC.

**Market Cap** – Market cap or market capitalization refers to the total dollar market value of a company's outstanding shares and is calculated by multiplying a company's shares outstanding by the current market price of one share.

**Market Disruption Event** – Market disruption events are situations where markets cease to function in a regular manner, typically characterized by rapid and large market declines.

**Operating Cash Flow/EV** – Operating Cash Flow/EV is the ratio of estimated cash generation to the entire economic value of a company. Cash production is calculated by taking the net income (before extraordinary items and discontinued operations) plus amortization and depreciation plus preferred dividends.

**Rebalance** – Rebalance is the process of realigning the weightings of a portfolio of assets by periodically buying or selling assets in a portfolio to maintain an original desired level of asset allocation.

**Reconstitution** – Reconstitution is the re-setting of an index that involves adding and removing companies as well as re-ranking existing companies so that the composition of the index reflects the application of systematic rules.

**Revenue/EV** – Revenue/EV is a measure of the value of a company that compares a company's enterprise to value to its revenue and is an indicator that investors use to determine whether a company is priced well.

**Spot Rate** – The price quoted for immediate settlement on a commodity, a security or a currency.

**Standard Deviation** – Standard Deviation is a statistical measure of the extent to which returns of an asset vary from its average return over a certain period..

# Appendix: Country Eligibility by Index (as of March 2023)

# Risk-Optimized Multifactor Developed Markets (ex-US) Index

Australia Austria Belgium Canada Denmark Finland

France Germany Hong Kong Ireland Israel Italy Japan Netherlands New Zealand Norway Portugal

Singapore Spain Sweden Switzerland United Kingdom

# **Appendix: Index Notices**

The Index Committee is responsible for all decisions regarding the Index methodologies<sup>3</sup> (the "Methodologies" or "Rules") and their application to the Hartford Multifactor Indices. As part of its mandate, the Index Committee regularly reviews the tools and techniques employed by the team responsible for applying the methodology toward the calculation of security weights (i.e. achieving objectives stated in the methodology).

From time to time, the tools, program, and procedures employed in applying the index methodologies may be refined and enhanced.

Data Sources used in the development of Hartford Multifactor Indices include:

S&P Capital IQ/Compustat FactSet Research Systems Inc. Bloomberg L.P. International Monetary Fund (Country Eligibility) Organisation for Economic Co-Operation and Development

<sup>&</sup>lt;sup>3</sup> Index methodology refers to a pre-defined set of rules that cannot be altered except under extraordinary market, political or macroeconomic conditions. These rules detail market and security coverage, index construction approach and ongoing index maintenance.

### Disclosures

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