



# **Invesco Global Economic Pulse EUR VT10 Index Methodology**

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## Index Overview

### Description

The Invesco Global Economic Pulse EUR VT10 Index (“the Index”) seeks to take advantage of changing global market environments with target volatility control. Using a disciplined approach to determine the current economic regime, the strategy increases exposure to factors that tend to be rewarded in that climate and decreases exposure to those that do not. The goal is to deliver better returns than generic stock market exposure.

### Index Universe

The Invesco Global Economic Pulse EUR VT10 Index is an Index of indexes comprised of the following:

- Russell 1000® Invesco ex FF ex Weapons ex Tobacco ex Controversies ESG Dynamic Multifactor Index (R1XLDMFT) - (“Equity”)
- FTSE Developed ex US Invesco ESG Dynamic Multifactor Index (DXUEDM) - (“Equity”)
- Euro short-term rate (ESTR) - (“Cash”)

The combination of the Russell 1000® Invesco ex FF ex Weapons ex Tobacco ex Controversies ESG Dynamic Multifactor Index (R1XLDMFT), and the FTSE Developed ex US Invesco ESG Dynamic Multifactor Index (DXUEDM), are collectively referred to as the “Equity Composite” component of the index.

### Security Selection

The index consists of all 3 components mentioned in the ‘Index Universe’ section above.

### Security Weighting

Equity index weightings are set for each individual Equity Composite Component Index to be proportional to their current regional market capitalizations (US Regional vs. Global Developed ex-US Regional) measured relative to the total market capitalization of the Global Developed Markets universe. Each individual Equity Composite Component Index weighting is reset to its corresponding Global Developed Markets Regional market-cap weight on the 3<sup>rd</sup> Friday of every calendar quarter end month (“reset date”).

The Index’s target allocation to Equity is estimated by taking the minimum value of either the index’s maximum permissible leverage level (150%), or the ratio of the Index Volatility target (10%) to the larger of the Equity Composite’s short-term (trailing 20-day) or long-term (trailing 60-day) realized returns volatility. Equity weight would not change by more than 20% daily.

### History

The Index was launched on December 4, 2023. History is available for the Index since its base date of December 31, 2015. The base value of the Index is 1000.

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## Index Details

### Return Adjustment

When calculating the *Price Return Level* (PR) of the Index as described in the Return Types and Tickers section (see page 7), the performance of the Index is adjusted downward by a daily estimated dividend-yield. The daily cash drag is incorporated into the final Cash and Equity Components composite index as follows:

$$TargetVolReturn_t = \left( \frac{CompositeIndex_t}{CompositeIndex_{t-1}} - 1 \right) * Ratio_{Actual,t} - (Ratio_{Actual,t} - 1) * DailyCashReturn_t$$

$$TargetVolIndex_t = TargetVolIndex_{t-1} * \left( (1 + TargetVolReturn_t) - Expected\ yield * \frac{t - (t - 1)}{360} \right)$$

Where:

Expected yield = 2.4%

## Updates

The Index is rebalanced daily.

### Index Rebalance

During the daily Index Rebalance, the Index Universe is selected, Index constituents are refreshed, and the new Index constituents are weighted according to the security weighting methodology described in the Index Overview section (see page 3).

### Index Key Dates

The key dates are as follows. The Index Review Team (see Governance on page 6) may change these dates for reasons including market holidays. Any such changes will be publicly announced with as much advance notice as possible under the circumstances. All events take place after the close.

Event	Day	Description
Reference Date	Each business day	Data is captured for Index construction
Effective Date	Each business day	Rebalanced Index weights are finalized

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## **Index Calculation and the Role of the Calculation Agent**

The calculation agent for the Index (“the Calculator”) is Invesco Indexing LLC. The Calculator evaluates the closing value of the Index, updates the Index each business day based on constituent selections and weightings and disseminates the values of the Index to major index data distribution partners (see Index Information and Data Dissemination on page 9).

### **Calculator Input Data Used and Hierarchy of Input Data**

The Index is calculated using closing prices or last transacted prices of underlying constituent securities from exchanges or exchange equivalents. Should this type of data be unavailable, the Index may be calculated using quotes or evaluated data or, in case when continued availability of transacted security prices from security exchanges is suspended, the Calculator reserves the right to exercise a judgement call, including carrying forward the latest available closing price.

### **Use of Discretion and/or Expert Judgement**

No discretion or expert judgement is exercised by Invesco Indexing LLC in the determination of daily index pricing. Rules-based index methodologies, which cover index construction, maintenance and calculation, provide that discretion is not used in the daily pricing of the indexes except in unusual cases not effectively addressed by the methodology, which could be exercised by the Calculator. These include, but may not be limited to:

- Corporate events not previously encountered,
- Structural changes to the underlying markets,
- Operational issues at security exchanges,
- Geo-political events,
- Technological problems / failures, or
- Natural disaster or other business continuity process-related event.

In such circumstances, the calculating agent will inform Invesco Indexing LLC of any discretion being used.

### **Potential Limitations of the Methodology and Benchmark Calculation**

The potential limitations of daily Index calculation include circumstances where the prices of constituent elements of the Index are not available, either because there are insufficient participants or because the exchange(s) / exchange equivalent(s) suffers an unexpected outage or closure or Invesco and/or the Calculator is denied permission to use such data for determining the Index. In such circumstances an announcement will be made to notify clients, including whether the Index will not be published or delayed in publication.

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## Corporate Events

FTSE Russell identifies and adjusts for corporate events in the FTSE Developed ex US Invesco ESG Dynamic Multifactor Index (DXUEDM) and the Russell 1000® Invesco ex FF ex Weapons ex Tobacco ex Controversies ESG Dynamic Multifactor Index (R1XLDMFT). For details on the corporate event policy for the FTSE Russell indexes please see its index methodology document at [www.ftserussell.com](http://www.ftserussell.com).

## Index Policy

All Index constituents are evaluated daily for data needed to calculate Index levels and returns. The Index follows the general Index policies of the Calculator as described below.

### Holiday Schedule

The Index is calculated daily, throughout the calendar year, when both equity component indexes are published.

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## Governance

The Index is managed by the Index Review Team (IRT). The IRT consists solely of members of Invesco Indexing. The IRT meets at least annually to review and revise Index methodology described in this document as appropriate. The IRT meets at least annually to review additions and deletions to the Index. All daily changes to the Index are subject to the approval of the IRT, and the IRT may make adjustments to the Index at its discretion when such changes are reasonable.

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## Index Methodology Update and Cessation Policy

Invesco Indexing periodically, at least annually, reviews each Index and its accompanying methodology, in addition to periodic rebalancing (if applicable), in an effort to ensure the Index continues to accurately represent that portion of the market it was originally intended to, and delivers the outcomes one would expect from the Index's exposures.

The procedures for the internal review of the methodologies, changes to the methodologies and procedures performed when the Index administered is ceasing publication are described in detail in the Changes to Benchmark Methodology and Cessation Policy.

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## Return Types and Tickers

The Calculator computes one return type for the Index on a daily basis: Price Return. The adjusted return reflects the contribution from Cash and Equity less estimated dividend yield (see Index Details on Page 4).

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Return Type	Ticker
Price Return	IIPUL10

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## Index Information and Data Dissemination

### Data Vendors

Daily Index levels for all return types are available from major quote vendors and at [www.InvescoIndexing.com](http://www.InvescoIndexing.com).

### FTP

Daily constituent data and Index level data are available via the Invesco Indexing secure FTP site for Index subscribers. Please contact Invesco Indexing customer service at [IndexSupport@invesco.com](mailto:IndexSupport@invesco.com) for more information.

### File Types

The Invesco Indexing secure FTP site for Index subscribers will distribute the standard overnight Index files from the Calculator. These include:

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File Description	File Extension
Index Levels	.xlsx
Constituent Weights	.xlsx

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The data on these files is provided directly by the Calculator, and no descriptive information contained in these files is used by Invesco Indexing at any stage of the Index creation process.

### Website

Index information is available on the Invesco Indexing website at [www.InvescoIndexing.com](http://www.InvescoIndexing.com).



## Definitions of Key Terms

Terms used in this document but not otherwise defined are defined in the following table. Definitions, that are marked with a ( \* ) are sourced from Regulation (EU) 2016/1011 (“EU Benchmark Regulation”) Article 3. Definitions, that are marked with a ( \*\* ) are sourced from IOSCO Principles for Financial Benchmarks<sup>1</sup>.

Term	Definition
<b>Administrator *</b>	‘Administrator’ means a natural or legal person that has control over the provision of a benchmark;
<b>Benchmark *</b>	‘Benchmark’ means any index by reference to which the amount payable under a financial instrument or a financial contract, or the value of a financial instrument, is determined, or an index that is used to measure the performance of an investment fund with the purpose of tracking the return of such index or of defining the asset allocation of a portfolio or of computing the performance fees;
<b>Calculation Agent **</b>	A legal entity with delegated responsibility for determining a Benchmark through the application of a formula or other method of calculating the information or expressions of opinions provided for that purpose, in accordance with the Methodology set out by the Administrator;
<b>Contribution of Input Data *</b>	‘Contribution of input data’ means providing any input data not readily available to an administrator, or to another person for the purposes of passing to an administrator, that is required in connection with the determination of a benchmark, and is provided for that purpose.
<b>Corporate Action</b>	A Corporate Action occurs when there is a change to a company’s capital structure. Unlike Corporate Events, Corporate Actions have a prescribed ex-date. The share price will be subject to an adjustment on the ex-date and Invesco Indexing and/or the calculating agent will adjust the index to counteract the effect that the price change would otherwise have on the index. Examples of corporate actions include rights or entitlement issues, consolidations, stock splits and capital repayments.
<b>Expert Judgment *</b>	‘Expert judgement’ means the exercise of discretion by an administrator or a contributor with respect to the use of data in determining a benchmark, including extrapolating values from prior or related transactions, adjusting values for factors that might influence the quality of data such as market events or impairment of a buyer or seller’s credit quality, and weighting firm bids or offers greater than a particular concluded transaction;
<b>Index*</b>	‘Index’ means any figure: (a) that is published or made available to the public; (b) that is regularly determined: (i) entirely or partially by the application of a formula or any other method of calculation, or by an assessment; and (ii) on the basis of the value of one or more underlying assets or prices, including estimated prices, actual or estimated interest rates, quotes and committed quotes, or other values or surveys;
<b>Input Data *</b>	‘Input data’ means the data in respect of the value of one or more underlying assets, or prices, including estimated prices, quotes, committed quotes or other values, used by an administrator to determine a benchmark;
<b>Material Change to Methodology</b>	In determining whether a change to an Index is material, the following factors shall be taken into account: <ul style="list-style-type: none"> <li>• Economic impact of the change;</li> <li>• Whether the change affects the original purpose of the Index.</li> </ul>
<b>Methodology **</b>	The written rules and procedures according to which information is collected and the Benchmark is determined;
<b>Rebalance</b>	The regular process (typically quarterly, semi-annually or annually) in which the eligibility and weights of constituent elements of indexes are reassessed;
<b>Subscriber **</b>	A person or entity that purchases Benchmark determination services from an Administrator;
<b>Transaction Data *</b>	‘Transaction data’ means observable prices, rates, indices or values representing transactions between unaffiliated counterparties in an active market subject to competitive supply and demand forces;

<sup>1</sup> <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf>

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