

**S&P Dow Jones  
Indices**

A Division of **S&P Global**

# **UBS Retiree Consumer Expenditure Index *Index Manual***



Nov 2024

# Table of Contents

1) Significant Index Administration Events	3
2) Index Overview	3
3) Index Data	4
4) Index Calculation	5
<b>4.1) Rebalancing Process</b>	<b>5</b>
<b>4.2) Index Level Calculation</b>	<b>5</b>
4.2.1) UBS Retiree Consumer Expenditure Index	5
4.2.2) UBS Retiree Consumer Expenditure 5% Blended Excess Return Index	6
4.2.3) Index Precision	8
<b>4.3) Index History</b>	<b>9</b>
<b>4.4) Rounding of Calculated Values</b>	<b>9</b>
<b>4.5) Calendar</b>	<b>9</b>
5) Governance and Regulatory Compliance	9
6) Risk Factors	10
7) Construction of this Index Manual	10
8) Disclaimer, licensing and trademark	10
<b>8.1) Disclaimers</b>	<b>10</b>
<b>8.2) WM/Reuters Disclaimer</b>	<b>11</b>
<b>8.3) Licensing and Trademark</b>	<b>11</b>
9) Further Information	11
A) ESG Disclosures	12
B) Glossary	13

# 1) Significant Index Administration Events

Table 1: Index Administration Events

Date	Index Administration Event
26-11-2024 (the "Index Commencement Date")	S&P Dow Jones Indices Limited [SPDJ] officially commences Index Administration and oversight for UBS Retiree Consumer Expenditure Index and UBS Retiree Consumer Expenditure 5% Blended Excess Return Index and UBS Retiree Consumer Expenditure Gross 5% Blended Gross Excess Return Index, prior to this date Credit Suisse International was the Benchmark Administrator

## 2) Index Overview

### (a) Index Objective

Each Index is a rule-based index that seeks to broadly mirror the overall consumer expenditure patterns of United States retirees within a certain age group. The Index holds seven tradable equity indices that are based on expenditure categories in the Consumer Expenditure Survey ("CEX"), which is published annually by the U.S. Department of Labor's Bureau of Labor Statistics [CE home : U.S. Bureau of Labor Statistics \(bls.gov\)](https://www.bls.gov). The Index's basket of indices is weighted based on the levels of expenditures set forth in the CEX data. The index is re-balanced as often as new annual CEX data is available to the public.

The Index relies on CEX tabulated data, as presented by age of reference person, and from the age group defined as "65 years and older," which the CEX has grouped into the following fourteen major categories of expenditure: Food; Alcoholic beverages; Housing; Apparel and services; Transportation; Healthcare; Entertainment; Personal care products and services; Reading; Education; Tobacco products and smoking supplies; Miscellaneous; Cash contributions; and Personal insurance and pensions. The Index calculates the percentage of total consumer expenditure represented within the age group by each of the categories. These percentages, in turn, are then applied to the Index's seven index components in order to weight them on the respective levels of expenditure reflected by the CEX categories.

### (b) Indices within the UBS Retiree Consumer Expenditure Index Family

Table 2: List of Indices

Index	Base Currency	Bloomberg Ticker	RefinitivCode	Index Base Date	Index Base Level	Index Launch Date
UBS Retiree Consumer Expenditure Index	USD	CSEARECI	.CSEARECI	03-Nov-2003	100	31-Jan-2015
UBS Retiree Consumer Expenditure 5% Blended Excess Return Index	USD	CSEARC5E	.CSEARC5E	04-Dec-2003	100	27-Feb-2015
UBS Retiree Consumer Expenditure Gross 5% Blended Gross Excess Return Index	USD	N/A	N/A	01-Feb-2019	162.6366	26-Nov-2024

### 3) Index Data

Set forth below is the Index's notional basket comprised of the following seven equity indices ("Equity Indices"), along with an indication of the CEX category represented by each Equity Index:

Table 3: Index Components

Index Component	CEX Category	SPDJI Code
S&P 500 Real Estate (Sector) Index Total Return	Housing	SPUSA-500-USDUF--T-US-L--60
S&P Transportation Select Industry Index Total Return	Transportation	SPSITNTR
S&P Food & Beverage Select Industry Index Total Return	Food	SPSIFBTR
S&P 500 Health Care (Sector) Index Total Return	Healthcare	SPUSA-500-USDUF--T-US-L--35
S&P 500 Consumer Discretionary (Sector) Index Total Return	Alcoholic Beverages, Entertainment, Personal care products and services, Reading, Education, Tobacco products and smoking supplies, Miscellaneous, and Cash contributions	SPUSA-500-USDUF--T-US-L--25
S&P 500 Apparel Retail (Sub-Industry) Index Total Return	Apparel and services	25504010TR
S&P Insurance Select Industry Index Total Return	Personal insurance & pensions	SPSIINST

\* SPTR5EST is S&P 500 Real Estate (Industry Group) Index Total Return. According to S&P Dow Jones Indices, effective Monday, September 19, 2016, Real Estate is being moved out from under the Financials Sector and being promoted to its own Sector under the code 60

## 4) Index Calculation

### 4.1) Rebalancing Process

The **Base Index** measures the performance of an allocation to equity indexes that reflect CEX categories of expenditures by United States retirees aged 65 and older. The Index weights long positions in the **Index Components** by reference to the percentage that each of fourteen CEX categories represents of the total expenditure of the age group classified as “65 years and older” and applying such percentage as a weight to the corresponding Equity Indices, as set forth in the [Table 3: Index Components](#) as of the Observation Date.

On each **Rebalance Date**, the Index will be rebalanced so that the positions in the Index will reflect weightings corresponding to the levels of expenditures in the relevant categories set forth in the most recently published annual Consumer Expenditure Survey. On such date, each position in an Index Component held at such time in the Index will be hypothetically settled at its Closing Level on the Rebalance Date, and new positions will be established reflecting the revised weightings of notional investments of the Index Components constituting the Index. If any scheduled Rebalance Date is a **Disrupted Day**, the Rebalance Date shall be the immediately following Index Business Day that is not a Disrupted Day.

If there is a restatement of the CEX data after the Observation Date, the Index levels will not be recalculated because of this restatement.

### 4.2) Index Level Calculation

#### 4.2.1) UBS Retiree Consumer Expenditure Index

The **Index Level** in respect of each **Index Business Day** $t$  shall equal:

$$Index_t = Index_r \times \left[ \sum_{m=1}^7 W_{mr} \times \frac{P_{mt}}{P_{mr}} \right]$$

where:

$Index_t$	The Index Level on Index Business Day $t$
$Index_r$	The Index Level on the most recent Rebalance Date $r$ immediately preceding Index Business Day $t$
$W_{mr}$	The weight of Index Component $m$ , as determined above on the most recent Rebalance Date $r$ immediately preceding Index Business Day $t$
$P_{mt}$	Closing Level of the Index Component $m$ on Index Business Day $t$
$P_{mr}$	The Closing Level of the Index Component $m$ , as determined above on the most recent Rebalance Date $r$ immediately preceding Index Business Day $t$

#### 4.2.2) UBS Retiree Consumer Expenditure 5% Blended Excess Return Index

The Index Level on each Index Business Day  $t$ , the Index Level shall be calculated according to the following formulae:

$$Index_t = Index_{t-1} \times \left[ 1 + P_{t-1} \times \left( \frac{S_t}{S_{t-1}} - 1 \right) - P_{t-1} \times \left( \frac{FA_t}{FA_{t-1}} - 1 \right) + \max[(1 - P_{t-1}), 0] \left( \frac{FI_t}{FI_{t-1}} - 1 \right) \right] - TC_{t-1} - Fee_t$$

where:

$t - 1$	The Index Business Day immediately preceding Index Business Day $t$
$Index_t$	The Index Level on Index Business Day $t$
$Index_{t-1}$	The Index Level on Index Business Day $t-1$
$P_{t-1}$	The <b>Participation</b> as of Index Business Day $t-1$
$S_t$	The published closing level of the Base Index on Index Business Day $t$
$S_{t-1}$	The published closing level of the Base Index on Index Business Day $t-1$
$FI_t$	The closing level of the <b>Reference Fixed Income Asset</b> on Index Business Day $t$
$FI_{t-1}$	The closing level of the Reference Fixed Income Asset on Index Business Day $t-1$
$FA_t$	The closing level of the <b>Funding Asset</b> on Index Business Day $t$
$FA_{t-1}$	The closing level of the Funding Asset on Index Business Day $t-1$
$TC_{t-1}$	The <b>Trading Cost</b> on Index Business Day $t-1$
$Fee_t$	The <b>Index Calculation Fee</b> on Index Business Day $t$

The Participation in respect of the **Blended Index** is a daily-calculated exposure to the Base Index. On each Index Business Day  $t$ , the Participation shall be calculated according to the following formula:

$$P = \min \left[ ParticipationCap, \max \left[ ParticipationFloor, \frac{VolatilityTarget}{RealVol_t} \right] \right]$$

$$RealVol_t = \sqrt{\frac{252}{Window} \sum_{i=1}^{Window} \left( \ln \left( \frac{S_{t-i}}{S_{t-i-1}} \right) \right)^2}$$

where:

<i>ParticipationCap</i>	150%
<i>ParticipationFloor</i>	0%
<i>VolatilityTarget</i>	5%
<i>RealVol<sub>t</sub></i>	The <b>Realized Volatility</b> on Index Business Day <i>t</i>
<i>Window</i>	The most recent twenty (20) consecutive Index Business Days
<i>S<sub>t-i</sub></i>	The published closing level of the Base Index on Index Business Day <i>t-i</i>
<i>S<sub>t-i-1</sub></i>	The published closing level of the Base Index on Index Business Day <i>t-i-1</i>

The assumed Funding Asset as of the Index Base Date is 1000. On any Index Business Day *t*, the value of the assumed Funding Asset will be calculated as follows:

$$FA_t = FA_{t-1} \times [1 + R_{t-1} \times DC_{t-1,t}]$$

where:

<i>t - 1</i>	The Index Business Day immediately preceding Index Business Day <i>t</i>
<i>FA<sub>t</sub></i>	The closing level of the Funding Asset as of Index Business Day <i>t-1</i>
<i>FA<sub>t-1</sub></i>	The closing level of the Funding Asset as of Index Business Day <i>t-1</i>
<i>R<sub>t-1</sub></i>	The closing level of the <b>Reference Rate</b> on Index Business Day <i>t-1</i> , or as of the immediately preceding day if such rate is not available on <i>t-1</i>
<i>DC<sub>t-1,t</sub></i>	The day count, calculated as the number of calendar days from and including Index Business Day <i>t-1</i> to and excluding Index Business Day <i>t</i> , divided by 365

The assumed Trading Cost as of the Index Base Date is 0. On any Index Business Day *t*, the Trading Cost will be calculated as follows:

$$TC_t = TCRate \times \left( Abs \left[ Index_t \times P_t - Index_{t-1} \times P_{t-1} \times \frac{S_t}{S_{t-1}} \right] + Abs \left[ Index_t \times \max[(1 - P_t), 0] - Index_{t-1} \times \max[(1 - P_{t-1}), 0] \times \frac{FI_t}{FI_{t-1}} \right] \right)$$

where:

$t - 1$	The Index Business Day immediately preceding Index Business Day $t$
$TCRate$	0.0002
$Index_t$	The Index Level on Index Business Day $t$
$Index_{t-1}$	The Index Level on Index Business Day $t-1$
$P_t$	The Participation as of Index Business Day $t$
$P_{t-1}$	The Participation as of Index Business Day $t-1$
$S_t$	The published closing level of the Base Index on Index Business Day $t$
$S_{t-1}$	The published closing level of the Base Index on Index Business Day $t-1$
$FI_t$	The closing level of the Reference Fixed Income Asset on Index Business Day $t$
$FI_{t-1}$	The closing level of the Reference Fixed Income Asset on Index Business Day $t-1$

The Index Calculation Fee as of the Index Base Date is 0. On an Index Business Day  $t$ , the value of the Index Calculation Fee will be calculated as follows:

$$Fee_t = Index_{t-1} \times FeeRate \times DC_{t-1,t}$$

where:

$t - 1$	The Index Business Day immediately preceding Index Business Day $t$
$Index_{t-1}$	The Index Level on Index Business Day $t-1$
$FeeRate$	0.005
$DC_{t-1,t}$	The day count, calculated as the number of calendar days from and including Index Business Day $t-1$ to and excluding Index Business Day $t$ , divided by 365

A gross version of the Indices, that excludes any costs / fees is also calculated.

#### 4.2.3) Index Precision

The Closing Level of each Index Component will be rounded to two (2) decimal places. The level of the Base Index for purposes of the calculations herein will be rounded to four (4) decimal places. The level of the Reference Fixed Income Asset referred to herein will be rounded to two (2) decimal places. The level of the Reference Rate referred to herein will be rounded to six (6) decimal places.

### 4.3) Index History

As limited historical performance data exists with respect to the Indices, any notional investment in the Indices may involve greater risk than a notional investment in indices or strategies with a proven track record. Each Index will be first calculated on or around the relevant Index Commencement Date. Any retrospective closing levels are simulated based on quantitative screening only. They must be considered hypothetical and illustrative only. The actual performance of the Indices may be materially different from the results presented in any simulated history relating to such Indices. Past performance should not be considered indicative of future performance.

### 4.4) Rounding of Calculated Values

Each Index Level published by the Index Administrator shall be rounded to 4 decimal places (with 0.00005 being rounded upwards). Any underlying index levels used in any Index Level calculation is also rounded to 4 decimal places (with 0.00005 being rounded upwards). However, no other data used or derived otherwise in the index determination process is rounded.

### 4.5) Calendar

The Index Level will be calculated on each Index Business Day and subsequently published by 07:00 pm New York Time on such Index Business Day.

On any day where the Index Level is not calculated (for example, on a Disrupted Day), no Index Level will be published in respect of such day, subject to the provisions set out in please refer to [Section 5\) — Governance and Regulatory Compliance](#).

## 5) Governance and Regulatory Compliance

S&P Dow Jones Indices Ltd. (SPDJI) is the Index Administrator of the Indices. Information on SPDJI's governance and compliance approach can be found [here](#). This document covers:

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

Further information about SPDJI Ltd. can be found on the [Index Administrator's website](#).

## 6) Risk Factors

S&P DJI operates as Index Administrator and is independent of the Index Owner. S&P DJI does not act as an investment adviser nor provides advice of any nature and therefore does not assume any fiduciary obligation to any investors buying, selling, entering into or holding products linked to the Index.

For any further information about risk factors, contact the **Index Owner**.

## 7) Construction of this Index Manual

The **Index Manual** is published by the Index Administrator. In the event of any inconsistency between the English language version of this Index Manual and that translated into any other language, this English version shall prevail.

## 8) Disclaimer, licensing and trademark

### 8.1) Disclaimers

No legal relationship (whether in contract, tort, or otherwise) exists between any Index Product Investors and the Index Administrator or the Index Owner and neither the Index Administrator nor the Index Owner owes any duties (whether in contract, tort, or otherwise) to any Index Product Investor. No claims, actions or legal proceedings may therefore be brought against the Index Administrator or the Index Owner in any manner whatsoever by an Index Product Investor or any other person. Neither the Index Administrator nor the Index Owner makes any representation, warranty or guarantee whatsoever, express or implied, either as to the results to be obtained as to the use of the Index or the figures or levels at which the Index stands at any particular day or otherwise. In addition, neither the Index Administrator nor the Index Owner gives any assurance regarding any modification or change in any Methodology used in calculating the Index and is under no obligation to continue the calculation, publication and dissemination of the Index. Neither the Index Administrator nor the Index Owner warrants or represents or guarantees to any person the accuracy or completeness of the Index and its computation or any information related thereto and makes no warranty or representation or guarantee of any kind whatsoever relating to the Index is given or may be implied. The process and basis of computation and compilation of the Index and the related formulae, constituent Benchmarks and factors may at any time be changed or altered by the Index Administrator. No responsibility or liability is accepted by either the Index Administrator or the Index Owner (whether for negligence or otherwise) in respect of the use of and/or reference to the Index by us or any other person in connection with securities, or for any inaccuracies, omissions, mistakes or errors in the computation of the Index (and neither the Index Administrator nor the Index Owner shall be obliged to advise any person or any Index Product Investor of any error therein) or for any economic or other loss which may be directly or indirectly sustained by any Index Product Investor or any other persons dealing with securities as a result. Any Index Product Investor or other person dealing with securities does so, therefore, in full knowledge of this disclaimer and can place no reliance whatsoever on the Index Administrator or the Index Owner. This document contains data derived as a result of back-testing of data and is provided by the Index Administrator or the Index Owner in good faith using its standard Methodology for information of this kind. The Methodology relies on proprietary models, empirical data, assumptions and such other information that the Index Administrator or the Index Owner believes to be accurate and reasonable. Neither the Index Administrator nor the Index Owner makes, however, any representation, warranty or guarantee as to the accuracy, completeness or appropriateness of such Methodology and neither the Index Administrator nor the Index Owner accepts any liability for the use of such information. Specifically, there is no assurance that other banks or brokers would derive the same results for the back-test period. Nothing in the disclaimers in this section shall exclude or limit liability to the extent such exclusion or

limitation is not permitted by law or regulations to which the Index Administrator or the Index Owner is subject.

### **8.2) WM/Reuters Disclaimer**

The WM/Reuters Closing Spot Rates and the WM/Reuters Closing Forward Rates are provided by "Refinitiv". Refinitiv shall not be liable for any errors or delays in providing or making available the data contained within this service or for any actions taken in reliance to it, except to the extent that it is directly caused by its or its employees' negligence.

### **8.3) Licensing and Trademark**

The mark and name of the Index is proprietary to UBS AG, London Branch, a division of UBS AG (or any successor thereto). The UBS Retiree Consumer Expenditure Index is the trademark of UBS AG, London Branch, a division of UBS AG (or any successor thereto) and has been licensed for use by UBS AG, London Branch, a division of UBS AG (or any successor thereto) in connection with the calculation of the Index Level.

## **9) Further Information**

For any general index enquiries, contact the Markit Index Administration support group at [support@ihsmarkit.com](mailto:support@ihsmarkit.com).

Ownership: The Index Owner is UBS AG, London Branch, a division of UBS AG (or any successor thereto).

# A) ESG Disclosures

EXPLANATION OF HOW ENVIRONMENTAL, SOCIAL & GOVERNANCE (ESG) FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY [1]		
1	<b>Name of the benchmark administrator.</b>	S&P Dow Jones Indices Ltd. (SPDJ)
2	<b>Underlying asset class of the ESG benchmark. [2]</b>	N/A
3	<b>Name of the S&amp;P Dow Jones Indices benchmark or family of benchmarks.</b>	
4	<b>Do any of the indices maintained by this methodology take into account ESG factors?</b>	No
Appendix latest update:		Nov 2024
Appendix first publication:		Nov 2024

[1] The information contained in this Appendix is intended to meet the requirements of the European Union Commission Delegated Regulation (EU) 2020/1817 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the minimum content of the explanation of how environmental, social and governance factors are reflected in the benchmark methodology and the retained EU law in the UK (The Benchmarks (amendment and Transitional Provision) (EU Exit) Regulations 2019).

[2] The 'underlying assets' are defined in European Union Commission Delegated Regulation (EU) 2020/1816 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the explanation in the benchmark statement of how environmental, social and governance factors are reflected in each benchmark provided and published.

## B) Glossary

Term	Definition
Base Currency	means the currency as described in <a href="#">Table 2: List of Indices</a> .
Base Index	UBS Retiree Consumer Expenditure Index.
Benchmark	has the meaning specified in the IOSCO Principles.
Blended Index	UBS Retiree Consumer Expenditure 5% Blended Excess Return Index.
Bloomberg Code	means the the relevant ticker code on Bloomberg as referenced in <a href="#">Table 2: List of Indices</a> .
Closing Level	in respect of each Index Component, its level as of the scheduled closing time of the regular trading session of the Exchange (or any earlier actual closing time, if such actual closing time of the regular trading session of the Exchange is earlier than the scheduled closing time).
Disrupted Day	is determined by the Index Administrator as a day that affects the Index, any or all of the Index Components or the methodology in respect of the Index, as a result of a disruption event or a force majeure event that occurs on one or more Scheduled Trading Days.
Funding Asset	a hypothetical asset calculated pursuant to <a href="#">Section 4.2.2) — UBS Retiree Consumer Expenditure 5% Blended Excess Return Index</a> .
Index	means an Index listed in <a href="#">Table 2: List of Indices</a> .
Index Administration	means all stages and processes (including processing information for the purpose of determining a Benchmark and dissemination of a Benchmark) involved in the production and dissemination of a Benchmark and the oversight on such processes, including those performed by parties other than the Index Administrator.
Index Administrator	means SPDJI or any successor thereto.
Index Base Date	is the date of the initial level of the index – as given in <a href="#">Table 2: List of Indices</a> .
Index Base Level	is the initial level of each index – outlined in <a href="#">Table 2: List of Indices of Section 2) — Index Overview</a> .
Index Business Day	means any day on which the following are scheduled to be open for trading during their regular trading sessions: <ul style="list-style-type: none"> <li>• New York Stock Exchange</li> </ul>
Index Calculation Fee	fee calculated pursuant to <a href="#">Section 4.2.2) — UBS Retiree Consumer Expenditure 5% Blended Excess Return Index</a> .
Index Commencement Date	means the date of the initial official Index Level distribution to market participants, outlined in <a href="#">Table 1: Index Administration Events</a> .
Index Component	and together “Index Components”, means each underlying instrument that comprises the Index, as amended replaced or substituted from time to time <a href="#">Table 3: Index Components</a> .
Index Currency	means the Base Currency in which the Index is denominated as described in <a href="#">Table 2: List of Indices</a> .
Index Level	means the level of the Index determined in accordance with <a href="#">Section 4.2.1) — UBS Retiree Consumer Expenditure Index</a> .
Index Manual	means this document, as amended, replaced or substituted, where necessary.

Term	Definition
Index Owner	means UBS AG, London Branch, a division of UBS AG (or any successor thereto).
Index Product Investors	means the persons or entities who own contracts or financial instruments that reference a Benchmark in the Index.
IOSCO Principles	means the IOSCO Principles for Financial Benchmarks, dated July 2013.
Methodology	has the meaning specified in the IOSCO Principles.
Observation Date	One Index Business Day prior to Rebalancing Date
Participation	is a daily-calculated exposure to the Base Index calculated pursuant to <a href="#">Section 4.2.2) — UBS Retiree Consumer Expenditure 5% Blended Excess Return Index</a> .
Realized Volatility	is realized volatility calculated pursuant to <a href="#">Section 4.2.2) — UBS Retiree Consumer Expenditure 5% Blended Excess Return Index</a> .
Rebalancing Date	November 1st of each year, or the first following Index Business Day, and if the CEX data becomes available on another date, the first Index Business Day on or after such other date.
Reference Fixed Income Asset	S&P 2 Year US Treasury Note Future Excess Return Index (SPUST2P).
Reference Rate	before July 3, 2023: US Dollar 3 Month LIBOR (USD3MFSR) + RRF on and after July 3, 2023: US Dollar Secured Overnight Financing Rate SOFR (USD3SOFR) + 0.26161% + RRF
Reference Rate fee (RRF)	0.40%
SPDJI Code	means the relevant identification code on SPDJI as referenced in <a href="#">Table 2: List of Indices</a> .
SPDJI Website	means the following website: <a href="http://www.markit.com/Product/UBSIndices">www.markit.com/Product/UBSIndices</a> .
Stakeholders	means Index Product Investors, relevant public sector entities and any other entity or person with a reasonable interest in the Index.
Trading Cost	a cost value calculated pursuant to <a href="#">Section 4.2.2) — UBS Retiree Consumer Expenditure 5% Blended Excess Return Index</a> .