Confluence

ECPI EQUITY BENCHMARKS CALCULATION METHODOLOGY

February 2023
Version 2.0.6

ECPI Srl is a member of Confluence

confluence.com

TABLE OF CONTENTS

INTRODUCTION

The present document defines the rules for the calculation and management of the ECPI Equity Indices.

The Index Rules and Index Constituents are available:

- on ECPI's website, at www.ecpigroup.com as well as
- on the Confluence website at https://www.confluence.com/index-governance/ and/or
- can be requested at ecpi.indices@confuence.com.

ECPI SUSTAINABLE INDICES

The objective of ECPI Indices is that of providing the user with tradable indices that in their construction and management consider, in addition to traditional financial criteria, also non-financial dimensions.

All ECPI Indices are characterized by (i) either a rigorous exclusion of companies that operate in certain sectors in coherence with the ethical sensibility of the investor and/or by (ii) a positive selection of companies that demonstrate a solid ESG profile.

ECPI Indices may be used as the basis for various investment vehicles: they allow for an efficient implementation of socially responsible or sustainable mandates as well as index-tracking portfolios and exchange traded funds.

Socially Responsible and Sustainability criteria used to select the indices' constituents, offer a conduit for investors to jointly express their interest in sustainability and, thus, to collectively move the relevant issues up the corporate agenda.

StatPro, a Confluence Company, is the Index Administrator of the ECPI Equity Indices.

GUIDING PRINCIPLES

The ECPI Socially Responsible & ESG Equity Indices family is built and maintained according to the following principles:

- Market Representation
  The indices represent the reference markets and reflect the opportunities available to the investors. The main criteria used to ensure market representation are market capitalization and sector composition.

- Investible and Replicable
  The indices should be capable of being replicated by users; this objective is achieved by:
  - free float adjusting of constituent capitalization,
  - single index constituents capping if any company has a weight greater than X% (where X% is the maximum weight allowed in the index) and
  - selection of securities with reasonable size and liquidity.

- Disciplined Approach
  ECPI Indices are constructed and managed using a set of principles, rules and guidelines. This approach is followed to maintain the attributes of a benchmark, such as stability of the index, proper diversification across industries and securities and accurate respect of the socially responsible criteria.

- Transparency
  The indices are built and maintained using clear and transparent rules, available on public sources; moreover, the indices are published daily on the most important financial info providers worldwide (Bloomberg, Refinitiv and StatPro Revolution).

- Independence and Objectivity
  The indices are based on independent and objective content decisions. ECPI believes in an open dialogue with its clients, considering with objectivity their suggestions to enhance the indices' provision. Analyzing all the feedback received by its clients, ECPI takes the final decision to preserve the quality of the indices via the adoption of a rigorous mechanism of "Approval of Index Rules Revisions".

- Continuity and Indices' Turnover
  ECPI Indices are managed to ensure the continuity of the indices. Continuity refers to the consistent application of the index methodology. The indices are also managed with the aim of keeping the level of index turnover relatively low, while at the same time reflecting the evolution of the reference market.

- Sustainability
  Every security which composes the indices has to satisfy defined socially responsible investment criteria.
  All indices are construed based on a rigorous ESG methodology (ECPI ESG Screening Methodology and Rating). Companies not passing the ESG filter are excluded from the Universe of Eligible companies.
  The application of the ESG filter and thematic filters (when applicable) leads to an improvement of average ESG rating for the index compared to the average ESG rating of the initial investment universe (investment universe that would have been selected for a similar index not presenting non-financial characteristics) and to a significant reduction (at least 20%) in investable ESG universe relative to the initial investment universe.

CAPITALIZATION WEIGHTED INDICES - SINGLE COMPANY CAPPING 4%

DEFINITION

A capitalization-weighted (or "cap-weighted") index, also called a market-value-weighted index is a stock market index whose components are weighted according to the total market value of their outstanding shares.
A common version of capitalization weighting is the free-float weighting. With this method a float factor is assigned to each stock to account for the proportion of outstanding shares that are held by the general public, as opposed to "closely held" shares owned by the government, royalty, or company insiders. The number of shares used for calculation is the number of shares "floating", rather than outstanding.
Moreover, in order to prevent very large companies from exerting an overly large influence on the index as they grow bigger and bigger, the weight of each component will be based on its float-adjusted market capitalization, but is modified such that no stock has a weight over 4% of the whole index.

CALCULATION FREQUENCY

The Index is calculated and published daily, on a next day basis.
The only days the index is not calculated are on days when all exchanges where index's constituents are listed are officially closed.
If a calculation date is a Disrupted Day (see Appendix B) for some of the Index Constituents, the calculation Agent will calculate the closing price of the indices based on (1) the closing prices published by the exchange, or (2) if no closing price is available, the last regular trade reported for each stock before the exchange closed. In all cases, the prices will be from the primary exchange for each stock in the index. If an exchange fails to open due to unforeseen circumstances, the index will use the prior day's closing prices. If all exchanges fail to open, the calculation Agent may determine not to publish the index for that day.

PRICES

The Index end-of-day calculations use official closing prices from the relevant exchanges of the constituent stocks.
Such prices shall be converted into euro using the relevant 4pm GMT WM Reuters Currency cross rates, Mid rate.

The closing prices shall be converted into EURO using the formula:

$$P_{i.t} = \frac{P^0_{i,t}}{FX_{i,t}}$$

Where

- $P^0_{i,t}$ = official closing price for stock i as of day t
- $FX_{i,t}$ = 4pm GMT WM Reuters Currency cross rate with respect to EURO, Mid rate, for stock i as of day t. For the avoidance of doubt, this rate represents the number of units in the currency in which the relevant stock i is quoted or traded on the relevant Exchange which could be exchanged with one unit of euro
- $P_{i.t}$ = official closing price for stock i converted into EURO as of day t

PRICE INDEX

The overall approach to calculate capped market capitalization weighted indices is the same as in the pure market capitalization weighted indices; however, the constituents' market values are re-defined to be values that will meet the index capping rules.

To calculate a capped market capitalization index, the market capitalization for each stock used in the calculation of the index is redefined so that each index constituent has the appropriate weight in the index at each rebalancing date.

In addition to being the product of the stock price, the stock's shares outstanding, the stock's float factor (IWF) and the exchange rate, a new adjustment factor is also introduced in the market capitalization calculation to establish the appropriate weighting.

$$AdjustedStockMarketValue_i = P_i * Shares_i * IWF_i * FxRate_i * AWF_i$$

Where AWF_i is the adjustment factor of stock i assigned at each index rebalancing date, t, which adjusts the market capitalization for all index constituents to achieve the predefined weight, while maintaining the total market value of the overall index.

The AWF for each index constituent, i, on rebalancing date, t, is calculated by:

$$AWF_{i.t} = \frac{CW_{i,t}}{W_{i,t}}$$

where $W_{i,t}$ is the uncapped weight of stock i on rebalancing date t based on the float-adjusted market capitalization of all index constituents; and $CW_{i,t}$ (4%) is the capped weight of stock i on rebalancing date t.

DIVISOR ADJUSTMENTS

The divisor for a stock index will change when the index drops and adds component stocks and when certain corporate actions take place that alters the total market value of the index.
Because the index level before and after these events must be the same, the divisor must change. The formula for determining the new divisor is:

$$Divisor_t = Divisor_{t-1} * \frac{MV_t}{MV_{t-1}}$$

where:

- $Divisor_t$ is the divisor after the event
- $Divisor_{t-1}$ is the divisor before the event
- MV_t is index market value after the event
- MV_{t-1} is index market value before the event

Moreover, index divisor will change at the rebalancing, since prices and outstanding shares will have changed since the last rebalancing. So:

$$Divisor_{after\ rebalancing} = Divisor_{t-1} * \frac{Index\ Market\ Value_{after\ rebalancing}}{Index\ Market\ Value_{before\ rebalancing}}$$

where

$$Index\ Market\ Value = \sum_i P_i * Shares_i * IWF_i * FxRate_i * AWF_i$$

Index events, corporate actions and the necessary adjustments are discussed in more details in the following paragraph ADJUSTMENTS FOR CORPORATE ACTIONS.

TOTAL RETURN INDEX

The Total Return Index reflects both movements in stock prices and the reinvestment of dividend income: it represents the total return earned in a portfolio that tracks the underlying price index and reinvests dividend income in the overall index.

Total Dividend paid on a given day is calculated as follows:

$$TotalDailyDividend = \sum_i Dividend_i * Shares_i$$

where:

- $Dividend_i$ is the dividend per share paid for stock i
- $Shares_i$ are the index share of stock i

$TotalDailyDividend$ is converted to index points by dividing by the divisor of the underlying index:

$$IndexDividend = \frac{TotalDailyDividend}{Divisor}$$

The Daily Total Return of the index (DTR) is calculated as follows:

$$DTR_t = \frac{IndexLevel_t + IndexDividend_t}{IndexLevel_{t-1}} - 1$$

The DTR is used to update the total return index from one day to the next:

$$Total\ Return\ Index_t = Total\ Return\ Index_{t-1} * (1 + DTR_t)$$

NET TOTAL RETURN INDEX

Compared with a Total Return Index, a Net Total Return Index also takes into account for tax withheld from dividends. The calculation of the *TotalDailyDividend* is:

$$TotalDailyDividend = \sum_i Dividend_i * Shares_i * (1 - WithholdingRate_i)$$

Tax rates are reported in APPENDIX A: Dividend Withholding Taxes.

ADJUSTMENTS FOR CORPORATE ACTIONS

Corporate actions are treated by the index agent, S&P Dow Jones Indices, according to S&P Dow Jones Indices' Corporate Actions Policies & Practices Methodology.

The following is an extract of S&P Dow Jones Indices Index Mathematics Methodology for Cap Weighted Indices:

There are a large range of different corporate actions ranging from routine share issuances or buy backs to unusual events like spin-offs or mergers. These are listed on the table below with notes about the necessary changes and whether the divisor is adjusted.

With corporate actions where cash or other corporate assets are distributed to shareholders, the price of the stock will gap down on the ex-dividend day (the first day when a new shareholder is not eligible to receive the distribution.) The effect of the divisor adjustment is to prevent this price drop from causing a corresponding drop in the index.

CORPORATE ACTION	INDEX ADJUSTMENT	DIVISOR ADJUSTMENT
Company added/deleted	Net change in market value determines the divisor adjustment.	Yes
Change in shares outstanding	Any combination of secondary issuance, share repurchase or buy back – share counts revised to reflect change.	Yes
Rebalancing.	Prices and outstanding shares changes since the last rebalancing determines the divisor adjustment.	Yes
Stock split	Share count revised to reflect new count. Divisor adjustment is not required since the share count and price changes are offsetting.	No
Spin-off	If the spun-off company is not being added to the index, the divisor adjustment reflects the decline in index market value (i.e., the value of the spun-off unit).	Yes
Spin-off	Spun-off company added to the index, no company removed from the index.	No
Spin-off	Spun-off company added to the index, another company removed to keep number of names fixed. Divisor adjustment reflects deletion.	Yes
Change in IWF	Increasing (decreasing) the IWF increases (decreases) the total market value of the index. The divisor change reflects the change in market value caused by the change to an IWF.	Yes
Special Dividend	When a company pays a special dividend the share price is assumed to drop by the amount of the dividend; the divisor adjustment reflects this drop in index market value.	Yes
Rights offering	Each shareholder receives the right to buy a proportional number of additional shares at a set (often discounted) price. The calculation assumes that the offering is fully subscribed. Divisor adjustment reflects increase in market cap measured as the shares issued multiplied by the price paid.	Yes

*For more information on Corporate Actions, please refer to the S&P Dow Jones Indices / Equity Indices Policies & Practice document located under the Resources Center on the website **www.spdji.com***

INDEX REBALANCING

Quarterly, on the Selection Date[1] immediately preceding the relevant Effective Rebalance Date[2], index constituents are selected in accordance with the "Index Eligibility Criteria" as new constituents of the index in order to ensure market representation.

As a consequence, if a constituent company is downgraded between two consecutive review dates so that it doesn't satisfy the eligibility criteria anymore, it will be replaced on the immediately following rebalance date.

The rebalancing of the indices considers the financial and extra-financial evolution of the reference market. The evolution may be due to economic and financial developments – such as a change in the composition or structure of an industry (e.g. changes in the market capitalization and representation of a company) - as well as to changes in the sustainability profile of the constituents.

The rules for inserting and deleting securities at the periodic review are designed to provide stability in the selection of constituents of the indices, while ensuring the indices continue to be representative of the reference market.

Below, the reference calendar for the quarterly review.

If the review day falls on a holiday, the subsequent working day will be considered.

REVIEW TIMETABLE		
TIME REFERENCE	ACTION	WHEN
t_0	Selection Date of the new constituents	1st Friday of Dec, Mar, Jun, Sep
t_1	Communication of the new constituent	1st Friday of Dec, Mar, Jun, Sep
t_2	Capping Reference Date	3rd Monday of Dec, Mar, Jun, Sep
t_3	Proforma Period	4 days of Proforma, starting 3rd Monday of Dec, Mar, Jun, Sep
t_4	Effective Rebalance Date: the new index is effective	3rd Friday (closing) of Dec, Mar, Jun, Sep

[1] "Selection Date" means the first Friday of March, June, September and December.

[2] "Effective Rebalance Date" means the third Friday of March, June, September and December, provided that if such day is not a Scheduled Trading Day the Rebalance Date shall be the next Scheduled Trading Day.
In the event that the scheduled Rebalance Date is a Disrupted Day, the Rebalance Date for such rebalancing will be the next Scheduled Trading Day which is not a Disrupted Day.

EQUAL WEIGHTED INDICES

DEFINITION

An equal-weighted index is a stock market index – comprised of a group of publicly traded companies – that invests an equal amount of money in the stock of each company that makes up the index. Thus, the performance of each company's stock carries equal importance in determining the total value of the index.

CALCULATION FREQUENCY

The Index is calculated and published daily, on a next day basis.
The only days the index is not calculated are on days when all exchanges where index's constituents are listed are officially closed.
If a calculation date is a Disrupted Day (see Appendix B) for some of the Index Constituents, the calculation Agent will calculate the closing price of the indices based on (1) the closing prices published by the exchange, or (2) if no closing price is available, the last regular trade reported for each stock before the exchange closed. In all cases, the prices will be from the primary exchange for each stock in the index. If an exchange fails to open due to unforeseen circumstances, the index will use the prior day's closing prices. If all exchanges fail to open, the calculation Agent may determine not to publish the index for that day.

PRICES

The Index end-of-day calculations use official closing prices from the relevant exchanges of the constituent stocks.
Such prices shall be converted into euro using the relevant 4pm GMT WM Reuters Currency cross rates, Mid rate.

The closing prices shall be converted into EURO using the formula:

$$P_{i.t} = \frac{P^0_{i,t}}{FX_{i,t}}$$

Where

- $P^0_{i,t}$ = official closing price for stock i as of day t

- $FX_{i,t}$ = 4pm GMT WM Reuters Currency cross rate with respect to EURO, Mid rate, for stock i as of day t. For the avoidance of doubt, this rate represents the number of units in the currency in which the relevant stock i is quoted or traded on the relevant Exchange which could be exchanged with one unit of euro

- $P_{i.t}$ = official closing price for stock i converted into EURO as of day t

PRICE INDEX

The equally weighted index is calculated by means of the divisor methodology used in all S&P Dow Jones Indices equity indices.

The overall approach to calculate equal weighted indices is the same as in the cap-weighted indices; however, the constituents' market values are re-defined to be values that will achieve equal weighting at each rebalancing. Recall two basic formulae:

$$Index\ Level = \frac{Index\ Market\ Value}{Divisor}$$

$$Index\ Market\ Value = \sum_i P_i * Shares_i * IWF_i$$

To calculate an equal weighted index, the market capitalization for each stock used in the calculation of the index is redefined so that each index constituent has an equal weight in the index at each rebalancing date. In addition to being the product of the stock price, the stock's shares outstanding, and the stock's float factor (IWF), as written above – and the exchange rate when applicable – a new adjustment factor is also introduced in the market capitalization calculation to establish equal weighting.

$$AdjustedStockMarketValue_i = P_i * Shares_i * IWF_i * FxRate_i * AWF_i$$

where AWF_i is the adjustment factor of stock i assigned at each index rebalancing date, t, which makes all index constituents modified market capitalization equal (and, therefore, equal weight), while maintaining the total market value of the overall index. The AWF for each index constituent, i, on rebalancing date, t, is calculated by:

$$AWF_{i.t} = \frac{Z}{N * FloatAdjustedMarketValue_{i,t}}$$

where N is the number of stocks in the index and Z is an index specific constant set for the purpose of deriving the AWF and, therefore, each stock's share count used in the index calculation (often referred to as modified index shares).

The index divisor is defined based on the index level and market value.
The index level is not altered by index rebalancing. However, since prices and outstanding shares will have changed since the last rebalancing, the divisor will change at the rebalancing.

So:

$$Divisor_{after\ rebalancing} = \frac{Index\ Market\ Value_{after\ rebalancing}}{Index\ Market\ Value_{before\ rebalancing}}$$

$$Index\ Market\ Value = \sum_i P_i * Shares_i * IWF_i * FxRate_i * AWF_i$$

TOTAL RETURN AND NET RETURN INDICES

Each index will have a total return counterpart, which assumes dividends are reinvested in the index after the close on the ex-date S&P Dow Jones Indices calculates daily return series using both gross and net cash dividends reinvested.
Net return reinvested is reflective of the return to an investor where dividends are reinvested after the deduction of withholding tax. The tax rate applied is the rate to non-resident institutions that do not benefit from double taxation treaties.

For more information on the calculation of Total Return and Net Return Indices, refer to the previous chapter.

ADJUSTMENTS FOR CORPORATE ACTIONS

Corporate actions are treated by the index agent, S&P Dow Jones Indices, according to S&P Dow Jones Indices' Corporate Actions Policies & Practices Methodology.

The following is an extract of S&P Dow Jones Indices Index Mathematics Methodology for Equal Weighted Indices:

The tables on the following page show the necessary adjustments to the index and the divisor for managing an equal weighted index. One key issue is how to handle events when one stock is replaced by another. Given that stock prices move all the time, the index is only truly equally weighted at the rebalancing. Therefore, when stocks are added or deleted either the new stock must assume the actual weight of the old stock or the entire index must be rebalanced. Since index rebalancing generates trading costs for tracker funds, the design decision is usually made to have a new stock assume the weight of the stock being dropped until the next rebalancing.
However, this is not always the case and may vary by index family.

CORPORATE ACTION	INDEX ADJUSTMENT	DIVISOR ADJUSTMENT
Constituent change – even number of adds and drops	The company entering the index goes in at the weight of the company coming out. This weight is used to compute the adjusted weight factor of the added stock, using Equation 15. If a company is being removed at a price of 0.00, the replacement goes in at the weight of the deleted company at the close on the day before the effective date. If more than one company is being replaced in the index on a single date, the replacements would be in the order stated in the press release for the parent index change.	No
Constituent change – deletion only	The weights of all stocks in the index will change, due to the absolute change in the number of index constituents. Relative weights will stay the same.	Yes
Share changes between quarterly share adjustments	None. The adjustment factor is changed to keep the index weight the same.	No
Quarterly share changes	There is no direct adjustment.	No
Spin-off	The price is adjusted to the Price of the Parent Company minus (the Price of Spin-off company/Share Exchange Ratio). The adjustment factor changes to maintain the weight to be the same as the company had before the spin-off.	No
Rights Offering	The price is adjusted to the Price of the Parent Company minus (the Price of Rights Offering/Rights Ratio). The adjustment factor changes to maintain the weight to be the same as the company had before the rights offering.	No
Stock Split	Shares are multiplied by and the price is divided by the split factor.	No
Share Issuance or Share Repurchase	None.	No
Special Dividends	The price of the stock making the special dividend payment is reduced by the per share special dividend amount after the close of trading on the day before the ex-date.	A divisor adjustment is made to ensure the index level remains the same.

For more information on Corporate Actions, please refer to the S&P Dow Jones Indices / Equity Indices Policies & Practice document located under the Resources Center on the website ***www.spdji.com***

INDEX REBALANCING

Semi-Annually, on the Selection Date[3] immediately preceding the relevant Effective Rebalance Date[4], index constituents are selected in accordance with the "Index Eligibility Criteria" as new constituents of the index in order to ensure market representation.

As a consequence, if a constituent company is downgraded between two consecutive review dates so that it doesn't satisfy the eligibility criteria anymore, it will be replaced

[3] "Selection Date" means the first Friday of January and July.

[4] "Effective Rebalance Date" means the third Friday of January and July, provided that if such day is not a Scheduled Trading Day the Rebalance Date shall be the next Scheduled Trading Day.
In the event that the scheduled Rebalance Date is a Disrupted Day, the Rebalance Date for such rebalancing will be the next Scheduled Trading Day which is not a Disrupted Day.

on the immediately following rebalance date.

The rebalancing of the indices considers the financial and extra-financial evolution of the reference market. The evolution may be due to economic and financial developments – such as a change in the composition or structure of an industry (e.g. changes in the market capitalization and representation of a company) - as well as to changes in the sustainability profile of the constituents.

The rules for inserting and deleting securities at the periodic review are designed to provide stability in the selection of constituents of the indices, while ensuring the indices continue to be representative of the reference market.

Below, the reference calendar for the Semi-Annual review.

If the review day falls on a holiday, the subsequent working day will be considered.

REVIEW TIMETABLE		
TIME REFERENCE	ACTION	WHEN
T_0	Selection Date of the new constituents	1st Friday of Jan, Jul
T_1	Equal Weight Reference Date	3rd Monday of Jan, Jul
T_2	Proforma Period	4 days of Proforma, starting 3rd Monday of Jan, Jul
T_3	Effective Rebalance Date: the new index is effective	3rd Friday (closing) of Jan, Jul

CURRENCY HEDGED INDICES

DEFINITION

A currency hedged index is constructed by adding a layer of currency forward contracts to the underlying unhedged indexes. The Hedged Indexes are calculated as daily return indexes and hedged on a monthly basis. The Hedged Indexes are designed to represent returns for global investment strategies that involve hedging currency risk, but not the underlying constituent risk.

HEDGING ALGORITHM

The hedged index performance is calculated as the performance of the unhedged index in the base currency plus the hedge impact in the base currency, as derived from the forward positions.

The hedge impact (HI) is calculated according to the following formula:

$$HI(t) = NAF * \sum_{i=1}^{n} \left\{ Weight_{i,M-2} \times FXRate_{i,M-2} \times \left(\frac{1}{FF\ Rate_{i,M-1}} - \frac{1}{FF\ Rate_{i,odd-days_t}} \right) \right\}$$

Where:

- t = Index calculation date.
- NAF = $FFRate_{1-month_t}$ = 1 month forward rate at time t.
- M = First calendar day of the month.
- $HI(t)$ = Index Hedge Impact at time t.
- $Weight_{i,M-2}$ = Currency weight in the index 2 days before next month first day.
- $FXRate_{i,M-2}$ = Spot rate of the currency i two business days before the start of the current calendar month. This term determines the notional amount of the foreign currency to be sold corresponding to its weight in the index.
- $FFRate_{i,M-1}$ = 1-month Forward for the currency i one business day before the start of the current calendar month (or last business day of the previous calendar month).

- $FF\ Rate_{i,odd-days_t}$ = Interpolated odd-days forward rate of the currency i on day t.

The interpolated odd-days forward rate is calculated according to the following formula:

$$HI(t) = NAF\ * \sum_{i=1}^{n} \left\{ Weight_{i,M-2} \times FXRate_{i,M-2} \times \left(\frac{1}{FF\ Rate_{i,M-1}} - \frac{1}{FF\ Rate_{i,odd-days_t}} \right) \right\}$$

Where

- $FXRate_t$ = Spot rate at time t
- $FFRate_{1-month_t}$ = 1 month forward rate at time t
- $Odd - Days_t$ = Number of days until the last business day of the current month (not counting t)

The performance of the hedged index total return net is calculated as:

$$Hedged\ Index = \frac{I(TRNet)_t}{I(TRNet)_{M-1}} - 1 + HI(t)$$

VOLATILITY CONTROL INDICES

DEFINITION

The Volatility Control Index represents the returns of a portfolio with a dynamic allocation between:

- a risky component or the underlying index and
- a risk free component or a cash investment.

The cash investment component of the Index is defined by a money market rate: the EONIA. A 360-day year is assumed for the calculation of the cash investment's return.

When observed volatility increases, the index reduces its exposure to the underlying index and increases exposure towards the cash investment.

Conversely, as observed volatility decreases, the index reduces exposure to the cash investment and increases exposure to the underlying index.

Three factors are considered to manage the Index volatility:

- target volatility
- observed volatility
- participation ratio

GENERAL NOTATION

1. I : volatility control index (built as a rebalancing strategy between a risky component and a risk-free component)
2. S : risky component of I
3. Cal : calendar of I.It must coincide with the calendar of S
4. $Eonia$: interest rate associated to the performance of the risk-free component of I
5. Σ : target volatility of I
6. $\sigma_S(t_i)$: volatility estimation for the S component corresponding to date t_i
7. $W_{max} = 1$: maximum equity weight (1 corresponds to 100% equity allocation)

8. $\varepsilon = 0.05$: relative tolerance for target volatility bounds

TARGET VOLATILITY

The target volatility is set during the construction of the index at the level of 10%.
This volatility level is used as the Index target volatility throughout the life of the Index and to determine the Index allocation between the risky asset and the cash investment during index rebalancing to achieve this target volatility.

OBSERVED VOLATILITY

The observed volatility of the Index is calculated as follows:

1. Estimated daily volatility:

$$\tilde{\sigma}_S(t_j) = \sqrt{\frac{252}{N_\sigma} * \sum_{k=0}^{N_{\sigma-1}} \log^2 \frac{S(t_{j-L_\sigma-k})}{S(t_{j-L_\sigma-k-1})}}$$

where:

- $N_\sigma = 22$: number of log-returns for standard deviation estimation
- $L_\sigma = 0$: lag business days for volatility series

2. Average estimated daily volatility of last three business days:

$$\tilde{\sigma}_S(t_j) = \frac{1}{N_A} * \sum_{k=0}^{N_A-1} \tilde{\sigma}_S(t_{j-k})$$

where:

- $N_A = 3$: averaging factor

3. **Observed volatility,** the maximum average estimated daily volatility over the last twenty business days:

$$\sigma_S(t_i) = \max_{k=0}^{M-1} \bar{\sigma}_S(t_{i-L_M-k})$$

where:

- $M = 20$: number of observations for volatility estimation maximization
- $L_M = 1$: lag business days for maximum estimation

PARTICIPATION RATIO

The Index Participation Ratio, W, determines the allocation among the underlying index and the cash investment. It is defined as the percentage of the Index that is invested in the underlying risky component. A buffer is applied in order to rebalance the Index only if the change in the participation ratio is greater than the pre-determined level or buffer. The Participation Ratio is calculated on a daily basis using the following algorithm:

- At index inception, t_0, the participation ratio $W(t_0)$, is calculated as the lesser of the maximum participation ratio, W_{max}, and the ratio of the target volatility to observed volatility.
- Every day $(t_i,\ i > 0)$ the calculation of the observed volatility is updated and a target participation ratio, $W_{target}(t_i)$, is defined as the ratio of the target volatility and the observed volatility; in case observed volatility is equal to zero, the target participation ratio is equal to one.
- Realized participation ratio - $\widetilde{W}(t_i)$ - is the ratio of the underlying index contribution - $R(t_i)$ - and index level - $I(t_i)$ - as defined in INDEX CALCULATION. Its percentage deviation from target participation ratio - $\delta(t_i)$ - is calculated and:
    - If it is lower than the pre-determined level or buffer, $\varepsilon = 5\%$, then the new participation ratio is the realized participation ratio
    - If it is higher, then the new participation ratio is the lesser of the maximum allowable equity investment, and the target participation ratio.

By defining:

1. $W(t_0) = \min\left\{W_{max}, \frac{\Sigma}{\sigma_S(t_0)}\right\}$

2. $W_{target}(t_i) = \frac{\Sigma}{\sigma_S(t_i)}$ if $\sigma_S(t_i) > 0$, W_{max} otherwise

3. $\widetilde{W}(t_i) = R(t_i)/I(t_i)$

4. $\delta(t_i) = \text{abs}\left\{\frac{\widetilde{W}(t_i)}{W_{target}(t_i)} - 1\right\}$

$W(t_i)$ is updated according the following rule:

if $\delta(t_i) <= \varepsilon$ then $W(t_i) = \widetilde{W}(t_i)$

otherwise

$W(t_i) = \min\{W_{max}, W_{target}(t_i)\}$

CALCULATION ALGORITHM

The return of the Index consists of two components – the return of the underlying index and the return on the cash investment.

The index level equation is presented below:

For i =0 (index inception):

$I(t_0) = 100[EUR]$

and

$W(t_0) = \min\left\{W_{max}, \frac{\Sigma}{\sigma_S(t_0)}\right\}$

For $i \geq 1$, I is computed as follows:

$I(t_i) = R(t_i) + B(t_i)$

where:
the contribution of the underlying index is

$R(t_i) = I(t_{i-1}) * W(t_{i-1}) * \frac{S(t_i)}{S(t_{i-1})}$

and the contribution of the cash investment is

$B(t_i) = I(t_{i-1}) * \left(1 - W(t_{i-1})\right) * \left(1 + EONIA(t_{i-1})\frac{t_i - t_{i-1}}{360}\right)$

DECREMENT INDICES

DEFINITION

A decrement index applies an overlay to an existing equity index such that each year the index level is reduced by a certain percentage, with this reduction taken on an end of day basis.

NOTATION

- *Parent Index Value = Underlying Equity Index*
- *Fee =* percentage decrement overlay applied
- *N = The number of days in a year = 365*
- *ACT(t,t-1) = The actual calendar days between day t (exclusive) and day t-1 (inclusive)*

CALCULATION ALGORITHM

Calculation of the Synthetic Dividend Decrement (Child Index)

$$IndexValue_t = IndexValue_{t-1} \times \left(\frac{ParentIndexValue_t}{ParentIndexValue_{t-1}} - \frac{Fee}{N} \times ACT(t, t-1) \right)$$

COMPLIANCE STATEMENT

Retrospective Changes

The ECPI Index Methodology does not allow retrospective changes to previously published index values ("Backfilling"). Divisor corrections, index input changes due to late dividend announcements and other similar adjustments are not considered "backfilling".

Conflict of Interests

ECPI keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units ECPI may have information that is not available to other business units.

ECPI has established policies and procedures that prohibit constituents to its indices to be included in an index on the basis of payment volunteered from them.

Frequency of the Index Rules review

This Index Rules document is subject to periodic review to ensure that it remains representative of the relevant market it was created to evaluate and continues to meet the current and future requirements of index stakeholders.

Such a review will take place at a frequency determined by a number of factors outlined below, but will be undertaken at least annually.

Revisions to the Index Rules

Revisions to the Index Rules may originate as a result of recommendations from internal review, modifications to the regulatory regime, feedback from clients or in response to changes in the financial markets structure.

In the case of material alterations, for example, those with the potential to change the composition of an index, such as index eligibility criteria, frequency of index reconstitution or index construction rules, a wider consultation with relevant stakeholders may also be undertaken.

Approval of Index Rules revisions

The final approval of an Index Rules revision is made by The Index Governance Committee. Following the approval of a revision to the Index Rules, index users and other stakeholders are notified through the publication of a notice.
Such notices can be found on the Confluence website at:
https://www.confluence.com/index-governance/.

Any feedback received from stakeholders following the implementation of revised Index Rules may be considered by The Index Governance Committee as part of the ongoing management and development of future index rules and methodologies.

Potential limitations of the Index Rules methodology

Given the objective and robust methodology of the ECPI indices, any limitations are most likely to arise due to external factors. Such factors could include an inadequate availability of market data, poor quality data or an insufficient number of eligible constituents available for inclusion in the index. In the unlikely event that such periods of stress were prolonged, then it is probable that The Index Governance Committee would consider decommissioning the index or index series. This would be essential if the index was unable to continue to adequately measure the market or economic reality it was intended to evaluate.

EU BENCHMARK REGULATION DISCLOSURE

In adherence with EU sustainability-related disclosures regulation for benchmarks, ECPI provides explanations of how environmental, social and governance factors are reflected in each benchmark belonging to either the fixed income family or the equity family.

Regulation References

The published texts of the Delegated Acts can be found at the following links:

- Commission Delegated Regulation (EU) 2020/1816 of 17 July 2020 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

- Commission Delegated Regulation (EU) 2020/1817 of 17 July 2020 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards the minimum content of the explanation on how environmental, social and governance factors are reflected in the benchmark methodology

- Commission Delegated Regulation (EU) 2020/1818 of 17 July 2020 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council as regards minimum standards for EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks

Indices in scope

All ECPI indices aim to attain certain ESG Objectives, and therefore ECPI publishes ESG factors, including Environmental, Social and Governance Dimensions for all its Indices.

At the date this document goes public, ECPI does not offer any Index referrable to as "Climate Transition Benchmark" or "EU Paris-Aligned Benchmark".

Frequency of update and publication of ESG metrics

All ESG Metrics are calculated for each index on a monthly basis, immediately following the last business day of the month and are published within 5 business days following month end for each index in the relevant Index factsheet and published on the Company website (www.ecpigroup.com).

Data Sources

ESG metrics are calculated based on ECPI research methodology, and third-party data, including Trucost data, Refinitiv data and publicly available data sources.

Disclosed Data and definitions

ECPI publishes, as foreseen in Annex II to the EU Delegated Act, mandatory and voluntary ESG metrics based on the underlying assets of the index.

Equity Index family

Combined ESG Factors		
DISCLOSURES	**TYPE**	**FORMULA**
Weighted average ESG rating of the benchmark.	Voluntary	$\sum_i (\omega_i * ESG_i)$ ω_i = index weight for security i ESG_i = Overall ESG score of security i
Overall ESG rating of top ten benchmark constituents by weighting in the benchmark.	Voluntary	List of Top 10 Holding and securities' ESG ratings
Environmental Factors		
Weighted average environmental rating of the benchmark.	Voluntary	$\sum_i (\omega_i * ENV_i)$ ω_i = index weight for security i ENV_i = Environments pillar score of security i
Exposure of the benchmark portfolio to climate-related physical risks, measuring the effects of extreme weather events on companies' operations and production or on the different stages of the supply chain (based on issuer exposure)	Voluntary	$\sum_i (\omega_i * PhysicalRiskScore_i)$ ω_i = index weight for security i $PhysicalRiskScore_i$ = climate related physical risks for security i, expressed as a weighted average physical risk score with exposure to a moderate climate change scenario in the year 2030.

Degree of exposure of the portfolio to the sectors listed in Sections A to H and Section L of Annex I to Regulation (EC) No 1893/2006 of the European Parliament and of the Council as a percentage of the total weight in the portfolio (NACE Revision 2 Sector classification codes: A-H, L).	Compulsory	$\sum_i (\omega_i * HCIS\_Exposure_i)$ $\omega_i =$ index weight for security i $HCIS\_Exposure_i =$ 1, if issuer i belongs to a high climate impact sector listed in Sections A to H and Section L of Annex I to Regulation (EC) No 1893 − 2006 of the European Parliament and of the Council $HCIS\_Exposure_i =$ 0, otherwise
Greenhouse gas (GHG) intensity of the benchmark.	Compulsory	$\sum_i (\omega_i * CarbonIntensity_i)$ $\omega_i =$ index weight for security i $CarbonIntensity_i =$ Greenhouse gases divided by revenue for security i (tonnes CO2e/USD mn), calculated as emissions from direct operations of the company and those of its suppliers
Percentage of GHG emissions reported versus estimated.	Compulsory	$\sum_i (\omega_i * CarbonDisclosure_i)$ $\omega_i =$ index weight for security i $CarbonDisclosure_i =$ Percentage of GHG emissions reported for security i
Exposure of the benchmark portfolio to companies the activities of which fall under Divisions 05 to 09, 19 and 20 of Annex I to Regulation (EC) No 1893/2006. (NACE Revision 2 Sector division codes: 05-09, 19 and 20)	Compulsory	$\sum_i (\omega_i * BS\_Exposure_i)$ $\omega_i =$ index weight for security i $BS\_Exposure_i = 1$, if issuer i belongs to a brown sector falling under Divisions 05 to 09, 19 and 20 of Annex I to Regulation (EC) No 1893/2006 $BS\_Exposure_i = 0$, otherwise
Exposure of the benchmark portfolio to activities included in the environmental goods and services sector, as defined in Article 2, point (5) of Regulation (EU) No 691/2011 of the European Parliament and of the Council.	Compulsory	$\sum_i (\omega_i * EGSS\_Exposure_i)$ $\omega_i =$ index weight for security i $EGSS\_Exposure_i = 1$, if issuer i belongs to an environmental goods and services sector as defined in Article 2 point (5) of Regulation (EU) No 691 − 2011 of the European Parliament and of the Council. $EGSS\_Exposure_i = 0$, otherwise
Social Factors		
Weighted average social rating of the benchmark.	Voluntary	$\sum_i (\omega_i * SOC_i)$ $\omega_i =$ index weight for security i $SOC_i =$ Social pillar score of security i
International treaties and conventions, United Nations principles or, where applicable, national law used in order to determine what constitutes a 'controversial weapon'.	Compulsory	ECPI considers depleted uranium weapons and nuclear weapons, chemical, biological weapons, anti-personnel mines, cluster munitions to be controversial weapons. Exclusion rules follow the prohibitions defined in the following treaties and conventions: 1) Conventions and Treaties on Cluster Munitions (The Ottawa Treaty 1997, The Convention on Cluster Munitions 2008); 2) Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons (1975); Treaty on the Non-Proliferation of Nuclear Weapons (1968); The Chemical Weapons Convention (1997).

Weighted average percentage of benchmark constituents in the controversial weapons sector.	Compulsory	$\sum_i (\omega_i * CW\_Exposure_i)$ ω_i = index weight for security i $CW\_Exposure_i = 1$, if issuer i belongs to controversial weapons sector $CW\_Exposure_i = 0$, otherwise
Weighted average percentage of benchmark constituents in the tobacco sector.	Compulsory	$\sum_i (\omega_i * T\_Exposure_i)$ ω_i = index weight for security i $T\_Exposure_i = 1$, if issuer i belongs to tobacco sector $T\_Exposure_i = 0$, otherwise
Number of benchmark constituents subject to social violations, as referred to in international treaties and conventions, United Nations principles and, where applicable, national law.	Compulsory	$\sum_i HRLR\_Exposure_i$ $HRLR\_Exposure_i = 1$, if issuer i is subject to very severe controversies related to Human Rights and Labour Rights $HRLR\_Exposure_i = 0$, otherwise
Exposure of the benchmark portfolio to companies without due diligence policies on issues addressed by the fundamental International Labor Organization Conventions 1 to 8.	Compulsory	$\sum_i (\omega_i * ILO\_Exposure_i)$ ω_i = index weight for security i $ILO\_Exposure_i = 1$, if issuer i is not involvend in significant labour related controversy $ILO\_Exposure_i = 0, otherwise$
Weighted average gender pay gap.	Compulsory	$\sum_i (\omega_i * GenderPayGapPercentage_i)$ ω_i = index weight for security i $GenderPayGapPercentage_i =$ Gender Pay Gap of issuer i
Weighted average ratio of female to male board members.	Compulsory	$\sum_i \left(\omega_i * \frac{BoardFemaleRatio_i}{1 - BoardFemaleRatio_i}\right)$ $\omega_i = index\ weight\ for\ security\ i$ $BoardFemealeRatio_i = Percent.of\ female\ board\ members\ of\ issuer\ i$
Weighted average percentage of benchmark constituents with health & safety related controversies	Compulsory	$\sum_i (\omega_i * OHS\_Exposure_i)$ ω_i = index weight for security i $OHS\_Exposure_i = 1$, if issuer i is involvend in significant occupational health and safety related controversy $OHS\_Exposure_i = 0$, otherwise
Weighted average percentage of benchmark constituents with corruption/bribery related controversies	Compulsory	$\sum_i (\omega_i * C\&B\_Exposure_i)$ ω_i = index weight for security i $C\&B\_Exposure_i = 1$, if issuer i is involvend in significant corruption and bribery related controversy $C\&B\_Exposure_i = 0$, otherwise
Governance Factors		

Weighted average governance rating of the benchmark.	Voluntary	$\sum_i (\omega_i * GOV_i)$ $\omega_i =$ index weight for security i $GOV_i =$ Governance pillar score of security i
Weighted average percentage of board members who are independent.	Compulsory	$\sum_i (\omega_i * IndependentBoardRatio_i)$ $\omega_i =$ index weight for security i $IndependentBoardRatio_i =$ Percentage of independent board members of issuer i
Weighted average percentage of female board members.	Compulsory	$\sum_i (\omega_i * BoardFemaleRatio_i)$ $\omega_i =$ index weight for security i $BoardFemealeRatio_i =$ Percentage of female board members of issuer i

Calculation and display methodology

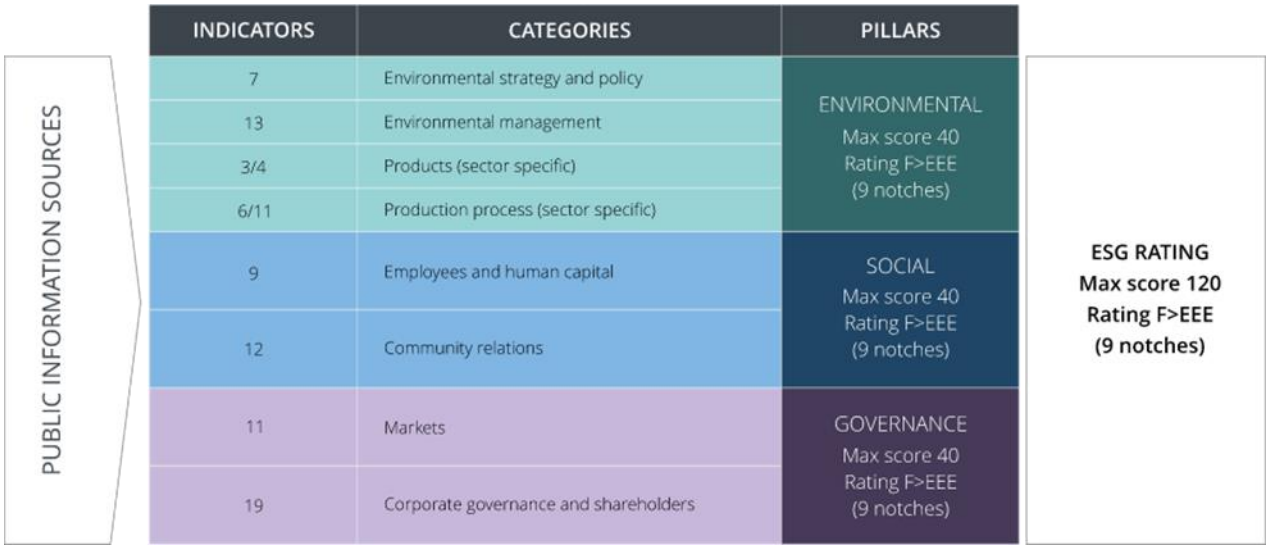
- **ESG RATING**: Weighted average ESG rating of the benchmark.
- **ENV RATING**: Weighted average environmental rating of the benchmark.
- **SOC RATING**: Weighted average social rating of the benchmark.
- **GOV RATING**: Weighted average governance rating of the benchmark.
- **TOP 10 POSITIONS**: Overall ESG rating of top ten benchmark constituents by weighting in the benchmark.
- **High Climate Impact Sector Exposure (%)**: Benchmark exposure to activities included in Sections A to H and Section L of Annex I to Regulation (EC) No 1893/2006.
- **GHG intensity (tonnes CO2e/USD mn)**: Greenhouse gas (GHG) intensity of the benchmark.
- **GHG reported vs estimated (%)**: Percentage of GHG emissions reported versus estimated.
- **Brown Sector Exposure (%)**: Benchmark exposure to activities included in Divisions 05 to 09, 19 and 20 of Annex I to Regulation (EC) No 1893/2006.
- **Green Sector Exposure (%)**: Benchmark exposure to activities included in the environmental goods and services sector, as defined in Article 2, point (5) of Regulation (EU) No 691/2011.
- **Climate-related physical risk score**: Exposure of the benchmark portfolio to climate-related physical risks, expressed as a weighted average physical risk score with exposure to a moderate climate change scenario in the year 2030. Scores are represented as values from 1 (lowest risk) to 100 (highest risk).
- **Controversial Weapons Exposure (%)**: Weighted average percentage of benchmark constituents in the controversial weapons sector.
- **Controversial Weapons definition** covers cluster munitions, landmines, nuclear and depleted uranium weapons, biological/chemical weapons.
- **Tobacco Exposure (%)**: Weighted average percentage of benchmark constituents in the tobacco sector.
- **Number of Social Violations**: Number of benchmark constituents subject to very severe controversies related to Human Rights and Labour Rights.
- **Adherence to ILO Principles**: Weighted average percentage of benchmark constituents with no significant labour related controversies.
- **Gender Pay Gap (%)**: Weighted average gender pay gap.
- **Female to Male Board Members**: Weighted average ratio of female to male board members
- **Work Related Accidents (%)**: Weighted average percentage of benchmark constituents with significant health & safety related controversies.
- **Corruption/Bribery (%)**: Weighted average percentage of benchmark constituents with significant corruption/bribery related controversies.
- **Independent Board Members (%)**: Weighted average percentage of board members who are independent.
- **Female Board Members (%)**: Weighted average percentage of female board members.

ECPI ESG SCREENING METHODOLOGY AND RATING

ECPI research process follows an objective, rigorous and disciplined proprietary methodology that translates qualitative data into quantitative indicators, assigning to each issuer an Environmental, Social and Governance (ESG) score and a rating.

ECPI uses a rule-based non-discretionary approach considering approximately 80 key performance indicators to evaluate an issuer's environmental, social and governance sustainability.

ECPI evaluates companies in the following areas



The traditional pillars of ESG scrutiny are the following:

"E"
Environmental strategy, policy and management system. Industry-specific environmental impact of production processes and products.

"S"
Social strategy and policy: assessing the quality of the company's relationships with its employees and local communities (labour and human rights, health & safety)

"G"
Relation with other stakeholders (customers, competitors, management, public agencies and regulators, shareholders, creditors, local government and international institutions), market positioning and competitor analysis. Governance structure: assessing both market and internal management issues, identifying the structure of the company's governing bodies, its main operating characteristics, as well as the political and regulatory/legal specifics of the firm's country of affiliation.

The analysis produces a score and a rating. A company's overall rating is the sum of the scores from each indicator; the higher the final score, the higher the final rating.

ECPI also monitors the involvement of companies in the following controversial activities:

- **Alcohol**: Production and/or promotion of alcoholic products and its use
- **Gambling**: Involvement in horse betting, betting centres, casinos, gambling machine manufacturing
- **Weapons and Violence**: Involvement in the spread of violence, such as manufacture of firearms for the consumer market, manufacture of landmines, major weapons contractors contributing to the spread of global militarism
- **Tobacco**: Manufacturing, processing, trading or distributing wholesale tobacco, and tobacco products
- **Pornography**: Production aimed exclusively at inducing sexual excitement or a prurient interest in sex e.g. the objectification of women as sexual objects
- **Nuclear energy**: Involvement in the production of nuclear energy, with relation to possible accidents and disasters, residual generation of plutonium and raw material used in nuclear armament production (proliferation)
- **Contraceptives**: In the pharmaceutical industry, production of contraceptives, medicines and equipment related to abortion or birth control methods
- **GMO – Genetically modified organism – food production**: Involvement in the research, development and production of biotechnologies and in the genetic modification and production of species, produce and other organisms

Exclusions are driven by the percentage contribution of the controversial activity to the total revenues of the issuer.

SYNTHETIC TABLE ON SECTOR CRITERIA FOR COMPANY EXCLUSION

SECTOR EXCLUSION CRITERIA	DESCRIPTION	RULE
Alcohol	The production and/or the promotion of alcoholic products and its use.	The company is "**Not Eligible**" if revenues originated from the sector are greater than 2% of total sales (threshold considered for "Distributors" is 5%)
Gambling	Horse betting, betting centres, gambling and casinos, gambling machine manufacturing.	The company is "**Not Eligible**" if revenues originated from the sector are greater than 2% of total sales
Military	The company manufactures or supplies goods and services to the consumer market or military sector and to the Ministry of Defense and its offices for the purpose of military objectives.	The company is "**Not Eligible**" if revenues originated from the sector are greater than 2% of total sales;
Nuclear & Biological Weapons, Cluster Bombs & Antipersonnel Landmines	The company manufactures nuclear and biological weapons, cluster bombs and antipersonnel landmines.	The company is "**Not Eligible**" regardless of the amount of revenues generated by the sale of these products.
Tobacco	The production and/or the promotion of tobacco products and its use.	The company is "**Not Eligible**" if revenues originated from the sector are greater than 2% of total sales (threshold considered for "Distributors" is 5%)
Pornography	In the media, telecom and entertainment industries, the production of pornographic material.	The company is "**Not Eligible**" regardless of percentage of revenues originated from the sector
Nuclear energy	The exclusion of companies operating in the nuclear energy sector is related to the lack of economic preparation to address problems in case of nuclear accident or disaster, the lack of resolution to address radioactivity issues, the awareness that nuclear energy production generates plutonium (the most important raw material used in nuclear armament production).	The company is "**Not Eligible**" if revenues originated from the sector are greater than 2% of total sales[5];
Contraceptives	In the pharmaceutical industry, companies producing contraceptives, medicines and equipment related to abortion or birth control methods.	The company is "**Not Eligible**" regardless of percentage of revenues originated from the sector
Biotechnology and Genetically Modified Organisms (GMOs)	In the food and agriculture industries, those companies actively involved in the research, development and production of biotechnologies, manipulation and genetic modification and production of species, produce and other organisms.	Regardless of the percentage of revenues originated from the sector, we mark "**Not Eligible**" if the Company uses GMO for food products

[5] Note: We do not signal utilities that buy energy produced from nuclear sources in order to distribute it. We neither signal companies that provide logistics services to nuclear power plant unless these services are clearly significant.

ECPI's proprietary rating scale ranges from "NE" to "EEE", along 10 notches.

RATING	LEVEL	DEFINITION	ECPI COMPANY RATING
EEE EEE-	Very good	The company shows an **innovative** long-term strategic attitude, **strong** operational management practices and **proactive** actions to tackle social and environmental needs.	**VERY GOOD** 
EE+ EE EE-	Good	The company shows a **clear** long-term strategic attitude, **sound** operational managment practices and **positive** actions to tackle social and environmental needs.	**GOOD** 
E+ E E-	Fair	The company shows a **basic** long-term strategic attitude, **standard** operational managment practices and/or **average** actions to tackle social and environmental needs.	**FAIR** 
F	Poor	The company shows a **poor** long-term strategic attitude, **weak** operational managment practices and/or **ineffective-negative** actions to tackle social and environmental needs.	**POOR** 
NE*	Controversial	The company is involved in **controversial sectors or activities.**	

* Only when applicable / on clients request

Other controversial activities (applied only to specific indices, see single index rules for details) monitored are:

- **Coal – Mining:** involvement in the extraction and management of thermal coal mines
- **Coal – Thermal:** companies in the Utilities industry involved in the production of energy from thermal coal
- **Animal Testing:** Involvement in scientific tests on animals for purposes of research when developing new products for the cosmetics and pharma & healthcare industries.
- **Stem Cells:** Involvement in the area of research that studies the properties of stem cells and their potential use in medicine (mainly in the pharmaceutical sector). Stem cells are either embryonic stem cells or adult stem cells. The stem cell controversy is the consideration of the ethics of research involving the development and use of human embryos.
- **Fracking:** Involvement in the unconventional extraction of shale oil and/or shale gas, also called hydraulic fracturing or fracking.
- **Oils sands:** Involvement in the unconventional extraction of tar/oil sands.

THE TEN PRINCIPLES OF THE UN GLOBAL COMPACT

The Ten Principles of the United Nations Global Compact are derived from: the Universal Declaration of Human
Rights, the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, the
Rio Declaration on Environment and Development, and the United Nations Convention Against Corruption.

Human Rights

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and

Principle 2: make sure that they are not complicit in human rights abuses.

Labour

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

Principle 4: the elimination of all forms of forced and compulsory labour;

Principle 5: the effective abolition of child labour; and

Principle 6: the elimination of discrimination in respect of employment and occupation.

Environment

Principle 7: Businesses should support a precautionary approach to environmental challenges;

Principle 8: undertake initiatives to promote greater environmental responsibility; and

Principle 9: encourage the development and diffusion of environmentally friendly technologies.

Anti-Corruption

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

APPENDIX A: DIVIDEND WITHHOLDING TAXES

COUNTRY NAME	TAXATION
Argentina	7%
Australia	30%
Austria	27.50%
Bahrain	0%
Bangladesh	20%
Belgium	30%
Bosnia	5%
Botswana	10%
Brazil	0%
Brazil (Interest on Capital)	15%
Bulgaria	5%
Cambodia	14%
Canada	25%
Chile	35%
China (Mainland Incorporated)	10%
China (Offshore Incorporated)	0%
Colombia	10%
Côte d'Ivoire	10%
Croatia	10%
Cyprus	0%
Czech Republic	35%
Denmark	27%
Ecuador	10%
Egypt	10%
Estonia	0%
Finland	30%
France	25%
Georgia	5%
Germany	26.375%
Ghana	8%
Greece	5%
Hong Kong	0%
Hungary	0%
Iceland	20%
India	20%
Indonesia	20%
Ireland	25%
Israel	25%
Italy	26%
Jamaica	33.33%
Japan	20.42%
Jordan	0%
Kazakhstan	15%
Kenya	15%
Kuwait	0%
Latvia	0%
Lebanon	10%
Lithuania	15%
Luxembourg	15%
Macedonia	10%
Malawi	15%
Malaysia	0%
Malaysia REITs	10%

COUNTRY NAME	TAXATION
Malta	0%
Mauritius	0%
Mexico	10%
Mexico REITs	30%
Montenegro	9%
Morocco	15%
Namibia	20%
Netherlands	15%
New Zealand	30%
Nigeria	10%
Norway	25%
Oman	0%
Pakistan	15%
Palestine	0%
Panama	10%
Peru	5%
Philippines	25%
Poland	19%
Portugal	25%
Qatar	0%
Romania	5%
Russia	15%
Rwanda	15%
Saudi Arabia	5%
Serbia	20%
Singapore	0%
Singapore REITs	10%
Slovakia	35%
Slovenia	15%
South Africa	20%
South Korea	22%
Spain	19%
Sri Lanka	0%
Sweden	30%
Switzerland	35%
Taiwan	21%
Tanzania	10%
Thailand	10%
Trinidad & Tobago	10%
Tunisia	10%
Turkey	10%
Turkey REITs	0%
Uganda	15%
U.K.	0%
U.K. REITs	20%
U.S.	30%
Ukraine	15%
United Arab Emirates	0%
Venezuela	34%
Vietnam	0%
Zambia	20%
Zimbabwe	10%

Data as of 31 March 2022

APPENDIX B: DEFINITIONS

Index Constituent or Constituent

Any security comprised in the index, provided that on any Reference Date and in the relevant Rebalance Period, Constituent shall include any stock which will be included in the index as of the next Rebalance Date at the end of such Rebalance Period.

Rebalance Period

It is the timeframe between Reference Date and Rebalance Date.

Exchange and Related Exchange

Each exchange on which any Index Constituent is, in the determination of ECPI, principally traded.

Scheduled Trading Day

Any day on which each Exchange and each Related Exchange are scheduled to be open for trading for their respective regular trading session.

Disrupted Day

Any Scheduled Trading Day on which: (i) a relevant Exchange or any Related Exchange fails to open for trading during its regular trading session; or (ii) a Market Disruption Event has occurred.

Market Disruption Event

The occurrence, in respect of the Index Constituent of:

- a Trading Disruption
- an Exchange Disruption
- an Early Closure

where the aggregate of all Index Constituents in respect of which a Trading Disruption, an Exchange Disruption or an Early Closure occurs, comprises 20 per cent or more of the aggregate number of all Index Constituents for which the Exchange and Related Exchange were scheduled to be open for trading for its regular trading session on such day.

Trading Disruption

Any suspension of or limitation imposed on trading by the Relevant Exchange or Related Exchange or otherwise and whether by reason of movements in price exceeding limits permitted by the Relevant Exchange and Related Exchange or otherwise.

Exchange Disruption

Any event that disrupts or impairs the ability of market participants in general to effect transaction in, or obtain market values for the Index Constituents.

Early Closure

The closure on any Exchange Business Day of the Relevant Exchange or any Related Exchange prior to its Scheduled Closing Time.

APPENDIX C – GLOBAL DEVELOPED MARKETS

GLOBAL DEVELOPED MARKETS
Australia
Austria
Belgium
Canada
Denmark
Finland
France
Germany
Greece
Hong Kong
Ireland
Israel
Italy
Japan
Luxembourg
Netherlands
New Zealand
Norway
Portugal
Singapore
Spain
Sweden
Switzerland
United Kingdom
United States

APPENDIX D – EMERGING MARKETS

EMERGING MARKETS
Brazil
Chile
China
Colombia
Czech Republic
Egypt
Hungary
India
Indonesia
Malaysia
Mexico
Morocco
Peru
Phillipines
Poland
Russia
South Africa
Taiwan
Thailand
Turkey

CONTACTS

Index Dept.
ecpi.indices@confluence.com

www.ecpigroup.com
Bloomberg: ECPS
Reuters: ECAPITAL