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Guidelines for the Style Indices of the Vienna Stock Exchange

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1. Introduction

The indices of the Vienna Stock Exchange are designed as high-quality and transparent indices that serve as benchmark, investment vehicles for derivatives or structured products and as effective research instruments. Along with the Austrian Indices and those of the CEE region (Central and Eastern Europe) & CIS (GUS states), as well as Asia, the Vienna Stock Exchange has introduced numerous Theme and Style Indices over the past few years, that can be used as a base value for Finance Products (structured products and standardised derivates, that means futures and options).

The line up of the Theme and Style Indices of the Vienna Stock Exchange consists of the following indices:

Theme- & Style Indices		
Top Dividend Indices	**Dividend Point Indices**	**Distributing Indices**
ATX TD * ATX Top Dividend	**ATX DVP** ATX Dividend Points	**ATX DSTB** ATX Distributing
CECE TD * CECE Top Dividend	**CECE DVP** CECE Dividend Points	**ATX TD DSTB** ATX Top Dividend Distributing
Short Indices	**Leverage Indices**	**Fundamental Indices**
SATX Short ATX TR	**ATX LV2** ATX NTR Leverage x2	**ATX FND** ATX Fundamental
SCECE Short CECE TR	**CECE LV2** CECE NTR Leverage x2	**CECE FND** CECE Fundamental
SATX2 Short ATX TR x2	**ATX LV4** ATX NTR Leverage x4	
SCECE2 Short CECE TR x2	**CECE LV4** CECE NTR Leverage x4	**Sustainability Indices**
SRDX2 Short RDX TR x2	**ATX LV6** ATX NTR Leverage x6	**VÖNIX** Austrian Sustainability Index
SATX4 Short ATX TR x4	**ATX LV8** ATX NTR Leverage x8	**CECE SRI** CECE Socially Responsible Inv.
SATX6 Short ATX TR x6	**ATX LV10** ATX NTR Leverage x10	
SATX8 Short ATX TR x8		**Special Themes**
SATX10 Short ATX TR x10		**ATX GP** ATX Global Players
		ATX FMLY * ATX Family
		ATX PC8 * ATX Prime Capped 8
		EETX 10/40 * Eastern Europe Traded Index
		CECE INF CECE Infrastructure
		CECE RESH CECE Re-Shoring
		CECE CMDTY CECE Commodity Producers
		CECE CLEAN CECE Clean Energy

* Also available as Total Return and Net Total Return version.

2. General Basics of Calculation

For the Theme and Style Indices of Vienna Stock Exchange, depending on the related reference index[1], the rules for the Austrian Indices of wiener Börse AG or the Rules for the CEE & CIS Indices shall apply. This concerns mainly the subject's adjustment of corporate actions, periodical examinations, announcement and correction procedures and services.The procedures can be recalled in the particular Index Rules that are available on the Index Portal of the Vienna Stock Exchange - www.wienerborse.at/en/indices/.

The document on hand describes differing rules for Theme and Style Indices. Additional calculation factors - smoothing factors in sustainability indices or fundamental factors in fundamental indices – will be introduced as well.

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[1] A reference index is an index which serves as basis for a related Theme & Style Index. As an example, the ATX as reference index for the Short ATX can be mentioned.

3. Top Dividend Indices

3.1. Conception and Composition

Strategies of dividends have stood the test in times of sideward and downwards addressed equity markets and were able to outperform the total market, which can be determined on the base of reverse projections with help of performance comparisons. Also the volatility has been less over a longer period of time compared to the traditional indices.

In general, companies that pay dividends regularly have stable cash flows. This in turn facilitates them to distribute dividends to shareholders also in turbulent economic phases. Especially in those times business models outplay those of growing enterprises that in turn outperform the market in bullish phases.

The Vienna Stock Exchange would like to provide her customers with indices qualified for every market phase and calculates Top Dividend Indices on Austria, Central and Eastern Europe and Russia. The traditional parallel indices are the ATX Prime (ATPX) as well as the CECE Composite Index (CECE). The companies in those indices build the index universe for the particular Top Dividend Index. For the ATX Top Dividend it consists of 15 and for the CECE Top Dividend of 10 enterprises with the highest dividend return of the traditional parallel index.

The Vienna Stock Exchange calculates the ATX Top Dividend in the versions Price Index, Total Return Index and Net Total Return Index in EUR as well as the CECE Top Dividend in the versions Price Index, Total Return Index und Net Total Return Index in EUR as well as in USD.

The composition of the indices is basically carried out once a year in December and stays unmodified for the rest of the period. In case of extraordinary occasions such as financial difficulties of a company in the index, the Index Rules of the traditional parallel indices are used.

The foundation for the calculation of the dividend return is the dividend paid the year before divided by the share price at the day before the Ex-Dividend day. If there is no dividend paid by the date of examination in December, there can in exceptional case be used an indicative payment of dividend for the calculation of the dividend return, on the basis of information of data vendor such as Bloomberg or Reuters or other qualified sources. Generally, only those dividend payments will be considered for the calculation of the ratio dividend yield, which have been adjusted in the performance index version of the respective base index. Payouts which have triggered an adjustment of the price index version of the respective base index will not be considered.

In general only enterprises, which are also a member of the parallel index can be admitted to the particular Top Dividend Index. If an exclusion of the company of the traditional parallel index has happened in the month of June (normally no regrouping schedule) the particular index committee decides about the procedure in the Top Dividend Index.

3.2. Calculation Formula

3.2.1. Calculation Formula of a Price Index

$$Capitalization_t = \sum_{i=1}^{N}(P_{i,t} * Q_{i,t} * FF_{i,t} * RF_{i,t})$$

P_i, ...Price of ith Stock in EUR
Q_i.............................Number of Shares of ith stock
FF_i............................Free Float Factor of ith stock
RF_i............................Representation Factor of ith stock
N ....Number of Companies contained in the index
t...............................Time of Index Calculation

$$Index_t = Base\ Value * \left[\frac{Capitalization_t}{Base\ Capitalization}\right] * AF_t$$

$Index$ ....Value of the Index
AF ....Adjustment Factor of the Index
t ....Time of Index Calculation

3.2.2. Calculation Formula of a Total Return Index

$$Capitalization_t = \sum_{i=1}^{N}(P_{i,t} * Q_{i,t} * FF_{i,t} * RF_{i,t})$$

P_i, ...Price of ith Stock
Q_i.............................Number of Shares of ith stock
FF_i............................Free Float Factor of ith stock
RF_i............................Representation Factor of ith stock
N ....Number of Companies contained in the index
t...............................Time of Index Calculation

$$Index_t = Base\ Value * \left[\frac{Capitalization_t}{Base\ Capitalization}\right] * AF_t$$

$Index$ ....Value of the Index
AF ....Adjustment Factor of the Index
t ....Time of Index Calculation

In case of an index adjustment (f.e. capital increase, dividend payment etc.), a new adjustment factor has to be calculated.

$$Capitalization'_t = \sum_{i=1}^{N} [(P'_{i,t} - Div_{i,t}) * Q'_{i,t} * FF'_{i,t} * RF'_{i,t}]$$

P'i,............................Price of ith Stock after adjustment (except dividend adjustment)
Divi,...........................Dividend of ith Stock
Q'i............................Number of Shares of ith stock after adjustment
FF'i ....Free Float Factor of ith stock after adjustment
RF'i..........................Representation Factor of ith stock after adjustment
N ....Number of Companies contained in the index
t...............................Time of Index Calculation

$$AF'_t = AF_t * \left[\frac{Capitalization_t}{Capitalization'_t} \right]$$

AF ....Adjustment Factor of the Index before adjustment
AF'...........................Adjustment Factor of the Index after adjustment
N ....Number of Companies contained in the index
t...............................Time of Index Calculation (adjustment day)

For further details on the calculation of indices and index adjustments, please refer to the Guide of Calculation, which is available on our website www.wienerborse.at/en/indices/.

4. Dividend Point Indices

4.1. Conception and Composition

Divdend points of an index show the ordinary, gross cash dividends of index members of a certain base index, converted into index points by using the present calculation factors of this base index.

It is differentiated between the following distributions:

1. Ordinary, regular cash dividends
   All ordinary, regular gross cash dividends are used for calculation of dividend point indices.

2. Distributions in place of ordinary, regular gross cash dividends
   All distributions in place of ordinary, regular gross cash dividends (e.g. redemption of nominal value in case of capital decreases, etc.) are subject to the calculation of dividend point indices.

3. Extraordinary distributions
   All distributions that differ from ordinary, regular distributions and do not origin in the ordinary business activity of the concerned index member (i.e. revenues from a one-off sale of a stake in the company, etc.) are not considered for the calculation of dividend point indices.

4. Stock dividends
   Stock dividends will not be considered for the calculation of dividend point indices, as long as they are not distributed in place of ordinary, regular cash dividends. The new number of shares, together with a corresponding mark down will be reflected in the concerned base index effective on the ex-date. Should the stock dividend be distributed in place of an ordinary, regular cash dividend, it will be considered for the calculation of dividend point indices. The relevant price for the valuation of the stock dividend will be the closing price on the trading day before the ex-date.

The Vienna Stock Exchange calculates Dividend Point Indices on Austrian Traded Index (ATX) as well as onn CECE Composite Index in EUR (CECE EUR).

ATX Dividend Points (ATX DVP)
The ATX DVP is a synthetical base value, which allows investors to trade the dividend component of ATX directly via derivative instruments. The main aim of the index is to correctly represent the gross dividends paid by the index members during the dividend season of the year. Therefore, all ordinary, regular gross dividends, as well as every other payout of the ATX index members, which are effected in place of ordinary regular gross dividend payouts (stock dividends, nominal value paybacks, etc.) in between December and December, are converted into index points. The index level consists of the cumulation of one period's dividend points. The final settlement price is found out every year on the third Friday in December and the index level is reset to zero. The calculation and distribution of the index happens once every day.

CECE Dividend Points (CECE DVP)

The CECE DVP is a synthetical base value, which allows investors to trade the dividend component of CECE directly via derivative instruments. The main aim of the index is to correctly represent the gross dividends paid by the index members during the dividend season of a year. Therefore, all ordinary, regular gross dividends, as well as every other payout of the ATX index members, which are effected in place of ordinary regular gross dividend payouts (stock dividends, nominal value paybacks, etc.) in between December and December, are converted into index points. The index level consists of the cumulation of one period's dividend points. The final settlement price is found out every year on the third Friday in December and the index level is reset to zero subsequently. The calculation and distribution of the index happens once every day.

4.2. Calculation Formula

4.2.1. Formula of a Dividend Point Index

Calculation of the dividend capitalization:

$$DA_t = \sum_{i=1}^{N} Div_{i,t} * Q_{i,t} * FF_{i,t} * RF_{i,t}$$

DA_t	Dividend Capitalization
$Divi_i$	Dividend of ith Stock
Q_i	Number of Shares of ith stock
FF_i	Free Float Factor of ith stock
RF_i	Representation Factor of ith stock
N	Number of Companies contained in the index
t	Day of Index Calculation

The DA is calculated in the evening before the ex-date, after the close of the index calculation of the base index and after the implementation of any other corporate action that will be effective the next day. Thus, for the calculation of the dividend points, the new calculation factors, as well as the new adjustment factor or divisor will be used.

Calculation of the dividend point index:

$$DVP_t = DVP_{t-1} + Base\ Value \left[\frac{DA_t}{Base\ Capitalization} \right] * AF_t$$

DVP	Value of dividend point index
Base Value	Base Value of base index
DA_t	Dividend Capitalization
Base Capitalization	Base Capitalization of base index
AF	Adjustment Factor of base index
t	Day of Index Calculation

Alternative calculation of the dividend point index:

$$DVP_t = DVP_{t-1} + \left[\frac{DA_t}{D_t} \right]$$

DVP.........................Value of dividend point index
D ....Divisor of base index
t...............................Day of Index Calculation

For further details on the calculation of indices and index adjustments, please refer to the Guide of Calculation, which is available on our website www.wienerborse.at/en/indices/.

5. Fundamental Indices

By calculating fundamental indices, the Vienna Stock Exchange provides its customers with an innovative index concept. Differently to traditional indices, where the index members are weighted according to their (free-float adjusted) market capitalization, the weighting is based on financial ratios.

Hereby, it is guaranteed that companies with a high asset value are more highly weighted by trend compared with traditional indices.

The Fundamental Indices are calculated and disseminated on a real-time basis in EUR (ATX Fundamental, CECE Fundamental) and in USD (CECE Fundamental). They are designed as tradable indices and can be used as underlying for structured products and standardized derivatives (futures & options).

5.1. Conception and Composition

The composition of the Fundamental Index is the same as the composition of the parallel index – ATX and CECE.

The weighting is done in an alternative way. It is not based on free-float adjusted market capitalization, but on financial ratios: Return on Assets, Gross Dividend Yield and Price To Book Value Ratio.
The index weightings are reviewed in the ATX Fundamental in March and September, while in the CECE Fundamental this is done once a year in September.

The calculation factors are reviewed on a quarterly basis (March, June, September and December) by the Index Management. All changes in the parallel index are also relevant for the Fundamental Index.

The Fundamental Factors are determined in March and September based on the average prices of the last five exchange trading days of February, May, August and November, converted into EUR.

The Fundamental Factors in June and December will only be adjusted if the calculation factors free float factor and/or number of shares change. The Fundamental Factors will be determined in such a way that the index weightings (on the basis of the last available closing values) remain unchanged.
In case of changes to the index composition between the regular review of fundamental factors, the fundamental factors of all index members will only be determined if the weight of the highest weighted index member would change by mor than 5%.

Generally, all changes are done after trading has closed on the last trading day in ATX and CECE products in March, June, September and December.

5.1.1. Index calculation & Fundamental factor

The composition of the Fundamental Index is always equal to the composition of the parallel index. To reach the requested weighting according to the fundamental analysis based on the named financial ratios, the capitalisation of a company is adjusted with a calculated fundamental factor.

The calculation of the Fundamental Factors is based on the financial ratios Return on Assets, Gross Dividend Yield and Price to Book Value Ratio. The financial ratios are calculated based on releases of index constituents (annual, quarterly reports etc.) or are taken from news providers.

The financial ratios are related to the remaining ones of all index constituents and are combined afterwards. A mean value is calculated, from which the index weights are derived. A calculated Fundamental Factor guarantees that the index constituents get the predetermined index weight.

5.2. Calculation formula

$$Index_t = Base\,Value * \left[\frac{Capitalization_t}{Base\,Capitalization} \right] * AF_t$$

Index ....…………… Value of the Index
Base Value.…………… Base Value of the Index
Base Capitalization……. Base Capitalization of the Index
Capitalization$_t$………….. Capitalization of the Index at time t
AF$_t$...........…………….. Adjustment Factor of the Index at time t
t.………………………..... Time of calculation

$$Index_t = Base\,Value * \left[\frac{Capitalization_t}{Base\,Capitalization} \right] * AF_t$$

Index ....Value of the Index
AF ....Adjustment Factor of the Index
t ....Time of Index Calculation

For further details on the calculation of indices and index adjustments, please refer to the Guide of Calculation, which is available on our website www.wienerborse.at/en/indices/.

6. Short Indices

6.1. Conception and Composition

Composition and development of short indices are at any time bound to a reference index and thus reflect the development of this index, but in inverse direction. This effect can be boosted by applying a leverage mechanism.

In theory, to get the inverse development of a reference index, the index composition of this index is sold at the start of trading by opening up a so called "short position". The interest earnings accomplished through this short position, are calculated according to the benchmark rate €STR, and will be considered in the performance of the short index. Along with the interest payments for the short position, there are also gross dividend payments and financing costs considered in the index development. At the end of trading day the short position is closed. Short Indices hence enable to make profit out of downwards and sideward moving market phases.

The leverage factor of the index states the extent of the leverage and is, in the case of short indices, always negative. For a single short index the leverage factor is -1. For leveraged short indices the leverage factor has to be changed accordingly. In case of a short index x2 the applied leverage factor would be -2.

The daily calculation of the Short Indices starts five minutes after those of the reference indices. This should ensure that the majority of index constituents in the reference indices has received current prices at calculation start.

6.2. Calculation formula

$$Index_t = Index_{t-1} * \left(1 + LF * \left(\frac{Reference\ Index_t}{Reference\ Index_{t-1}} - 1 \right) + (1 - LF) * \left(\frac{€STR_t}{360} \right) * d \right)$$

Index .... Value of the Short Index
LF .... Leverage Factor (negative)
Reference Index… ... Value of the Reference Index
€STR .... Value of the benchmark rate €STR
t…………………… ... Time of Index Calculation (current calculation day)
t-1…………………... Last calculation day before t
d .... Number of days between time t and time t-1

€STR

€STR (Euro short-term rate) is the effective overnight benchmark rate for the euro. It reflects the wholesale euro unsecured overnight borrowing costs of euro area banks. The rate is published for each business day based on transactions conducted and settled on the previous day.

In the case of €STR becomes negative its value is set to zero in the calculation.

6.3. Intra-day adjustment

The aim of the intra-day adjustment is to prevent the index value from becoming negative during great market volatility, and thus reduce the risk of total loss.

The intra-day adjustment is triggered if, during the calculation time of the Short Index, a predefined percentage level in the reference index relating to its previous day's close is exceeded. Since the Short Index starts five minutes after its reference index, these first five minutes are not considered for the check of the barrier. The threshold for each leverage factor is defined in the table below. The following process starts:

■ The dissemination of the index values stops immediately.

■ Thereafter the index is calculated internally over a period of 30 minutes. During this period every new maximum value of the reference index triggers a new index value. Other values of the reference index are not taken into consideration for the calculation.

■ After the 30-minutes-period a reset is carried out by simulating the start of a new calculation day. Index calculation and dissemination resume based on the new reference value as calculated in the 30-minutes-period. For the resumed calculation no financing cost is applied. The value of d is set to zero.

■ If the 30-minutes-period exceeds the ending time of the index calculation, the period would be shortened appropriately to not change the ending time. At the end of the shortened period the last index value is disseminated and represents the index closing value for the respective day.

If the index value becomes equal or less than 0.01 during an intra-day adjustment the process outlined above will be stopped immediately. The value 0.01 will be disseminated as index closing value for the respective day. Subsequently, the index will be discontinued.

Leverage Factor	Threshold reference index
-2	+30%
-4	+15%
-6	+10%
-8	+7,5%
-10	+6%

6.4. Reverse Split

A reverse split of the index level of a short index is conducted, if its closing value falls below 10 index points. It is carried out by multiplying the index closing value with a factor of 1000. The reverse split is implemented within a time period of 10 trading days after the index close initially dropped below the mentioned threshold regardless whether the short index rises above the level of 10 points in the meantime. The index adjustment is announced by e-mail at least 2 trading days before it becomes effective.

6.5. Split

A split of the index level of a short index is conducted, if its closing value rises above 750,000 index points. It is carried out by dividing the index closing value by a factor of 1000. The split is implemented within a time period of 10 trading days after the index close initially exceeded the mentioned threshold regardless whether the short index falls below the level of 750,000 points in the meantime. The index adjustment is announced by e-mail at least 2 trading days before it becomes effective.

7. Leverage Indices

7.1. Conception and Composition

Leverage Indices are bound to the development of a reference index by representing its daily development with a fixed leverage. Negative or positive daily variations of the reference index therefore cause a leveraged performance of the Leverage Index. The Leverage Factor of the index states the extent of the leverage.
To accomplish a leveraged development of the index value it is necessary to raise additional capital and invest into the index portfolio. For the raise of the capital the financing costs are considered for calculation.

The daily calculation of the Leverage Indices starts five minutes after those of the reference indices. This should ensure that the majority of index constituents in the reference indices has received current prices at calculation start.

7.2. Calculation formula

$$Index_t = Index_{t-1} * \left(1 + LF * \left(\frac{Reference\ Index_t}{Reference\ Index_{t-1}} - 1\right) + (1 - LF) * \left(\frac{€STR_t + SPREAD_T}{360}\right) * d\right)$$

Index .... Value of the Leverage Index
LF .... Leverage Factor
Reference Index ……. Value of the Reference Index
€STR .... Value of the benchmark rate €STR
SPREAD .... Interest rate spread over the benchmark rate €STR
t …………………… ... Time of Index Calculation (current calculation day)
t-1 …………………... Last calculation day before t
T .... Time of last update to the interest rate spread (monthly)
d .... Number of days between time t and time t-1

€STR

€STR (Euro short-term rate) is the effective overnight benchmark rate for the euro. It reflects the wholesale euro unsecured overnight borrowing costs of euro area banks. The rate is published for each business day based on transactions conducted and settled on the previous day.

In the case of €STR becomes negative its value is set to zero in the calculation.

SPREAD

To finance the leveraged position long-dated capital has to be raised. SPREAD represents the financial costs arising from the raising of capital that goes beyond the benchmark rate €STR. It is determined as average over the spread values of the last 3 days previous to the third Friday of the respective month. They are calculated as follows:

$$SPREAD = Euribor_{12m} - EUR\ 1Y\ ON\ Swap\ Rate$$

Euribor$_{12m}$ ....value of 12 months-Euribor
EUR 1Y ON Swap Rate ....closing value of the Euro 1 Year Overnight Index Swap Rate

The SPREAD is determined and updated every third Friday of the month. The SPEAD is set to zero in the calculation if its value becomes negative.

7.3. Intra-day adjustment

The aim of the intra-day adjustment is to prevent the index value from becoming negative during great market volatility, and thus reduce the risk of total loss.

The intra-day adjustment is triggered if, during the calculation time of the Leverage index, a predefined percentage level in the reference index relating to its previous day's close is exceeded. Since the Leverage Index starts five minutes after its reference index, these first five minutes are not considered for the check of the barrier. The threshold for each leverage factor is defined in the table below. The following process starts:

- The dissemination of the index values stops immediately.
- Thereafter the index is calculated internally over a period of 30 minutes. During this period every new minimum value of the reference index triggers a new index value. Other values of the reference index are not taken into consideration for the calculation.
- After the 30-minutes-period a reset is carried out by simulating the start of a new calculation day. Index calculation and dissemination resume based on the new reference value as calculated in the 30-minutes-period. For the resumed calculation no financing cost is applied. The value of d is set to zero.
- If the 30-minutes-period exceeds the ending time of the index calculation, the period would be shortened appropriately to not change the ending time. At the end of the shortened period the last index value is disseminated and represents the index closing value for the respective day.

If the index value becomes equal or less than 0.01 during an intra-day adjustment the process outlined above will be stopped immediately. The value 0.01 will be disseminated as index closing value for the respective day. Subsequently, the index will be discontinued.

Leverage Factor	Threshold reference index
2	-30%
4	-15%
6	-10%
8	-7,5%
10	-6%

7.4. Reverse Split

A reverse split of the index level of a leverage index is conducted, if its closing value falls below 10 index points. It is carried out by multiplying the index closing value with a factor of 1000. The reverse split is implemented within a time period of 10 trading days after the index close initially dropped below the mentioned threshold regardless whether the index rises above the level of 10 points in the meantime. The index adjustment is announced by e-mail at least 2 trading days before it becomes effective.

7.5. Split

A split of the index level of a leverage index is conducted, if its closing value rises above 750,000 index points. It is carried out by dividing the index closing value by a factor of 1000. The split is implemented within a time period of 10 trading days after the index close initially exceeded the mentioned threshold regardless whether the index falls below the level of 750,000 points in the meantime. The index adjustment is announced by e-mail at least 2 trading days before it becomes effective

8. Distributing Indices

8.1. Conception and Composition

A distributing index is a variation of a reference price index which considers the return of net dividends paid by its index members. In contrast to a total return index the paid dividends are not reinvested back into the index, they are regarded as an additional part and deducted twice a year. Therefore the distributing concept uses a theoretical cash component to display the accumulated net dividends in the index. It reproduces the net dividend payments in a given six-month period by converting them into index points and yielding interest in accordance with the benchmark rate €STR. The distribution of the accumulated theoretical cash is reflected by resetting of the cash component to zero twice a year.

8.2. Calculation formula

$$Index_t = BaseValue * \left[\frac{Capitalization_t}{BaseCapitalization} \right] * AF_t + C_t$$

Index ....Value of the Distributing Index
Capitalization……. ...Capitalization of the Distributing Index
AF ....Adjustment Factor of the Distributing index
C ....Cash component
t……………………. ...Time of index calculation (current calculation day)

Calculation of the cash component:

$$C_t = C_{t-1} * \left[1 + \left(\frac{€STR_t}{360} \right) * d \right] + DP_t$$

€STR........................Value of the benchmark rate €STR
DP ....Dividend points (non-zero on ex-dividend dates)
t-1…………………....Last calculation day before t
d ....Number of days between time t and time t-1

The dividend points are unequal to zero in the event of a stock going ex-dividend on the calculation day. They are calculated in the evening of the previous day, after the close of the index calculation and after the implementation of any other corporate action that will be effective the next day. Thus, for the calculation of the dividend points, the new calculation factors, as well as the new adjustment factor or divisor will be used:

$$DP_t = BaseValue * \left[\frac{\sum_{j=1}^{M} Div_{j,t} * Q_{j,t} * FF_{j,t} * RF_{j,t}}{BaseCapitalization} \right] * AF_t$$

Div$_j$, ...Net dividend of jth stock with ex-dividend date equals t

Q_j ....Number of Shares of jth stock

FF_j ....Free Float Factor of jth stock

RF_j ....Representation Factor of jth stock

M ....Number of Companies with ex-dividend date equals t

€STR

€STR (Euro short-term rate) is the effective overnight benchmark rate for the euro. It reflects the wholesale euro unsecured overnight borrowing costs of euro area banks. The rate is published for each business day based on transactions conducted and settled on the previous day.
In the case €STR becomes negative its value is set to zero for the calculation.

For further details on the calculation of indices and index adjustments, please refer to the Guide of Calculation, which is available on our website www.wienerborse.at/en/indices/.

8.3. Theoretical cash component

The purpose of the theoretical cash component is to reproduce the return of net dividend payments by the index members in a given six-month period. Therefore the net dividends of the companies in the index are converted into index points and accumulated into the cash component. The effective date for the addition of the index points is the respective ex-dividend date. Daily interest in accordance with the benchmark rate €STR is taken into account for the theoretical cash. Two times a year the cash component is reset to zero to reflect the distribution of the accumulated dividends and the accrued interest. The technical reset is done in the evening after the market close on the second-last calculation day in June and December. In the morning of the day after the reset the level of the distributing index equals the level of its base index and the accumulation of dividend payments will restart for another 6 months.

Special dividends of stocks contained in the index are not taken into account for the theoretical cash component, since they are subject of an ordinary index adjustment. All kind of distributions that are outside the scope of the regular dividend policy and that the issuer refers to as "special", "bonus", "extraordinary" or by some similar term are classified as special dividends. Those types of return of capital (distribution of reserves by means of a capital decrease), repayment of capital, distributions from share premium accounts or other distributions made in place of regular dividend payments are not considered special dividends, irrespective of a reference by the issuer.

9. Sustainability Indices

Vienna Stock Exchange calculates 2 sustainability indices, one for the Austrian stock market and one for the Eastern European markets:

1. VÖNIX – VBV Österreichischer Nachhaltigkeitsindex
2. CECE SRI – CECE Socially Responsible Investment

This document defines the rules for the composition and conception of the sustainability indices calculated by Vienna Stock Exchange (hereinafter: "Sustainability Indices"). Details regarding the index calculation and the adjustment of corporate actions can be found in the Rules for the CEE & CIS Indices of the Vienna Stock Exchange on www.wienerborse.at/en/indices/.

Vienna Stock Exchange is responsible for the calculation and the dissemination of the indices as well as for the index management. The trademark CECE SRI is owned by Vienna Stock Exchange. The owners and partners of VÖNIX are VBV – Vorsorgekasse as well as RZB and Security KAG. In order to guarantee an objective sustainability evaluation, rfu – Reinhard Friesenbichler Unternehmensberatung has been chosen for the sustainability research.

The abbreviations "CECE SRI" and "VÖNIX" are protected by copyright law. The use of the indices and its abbreviations by financial service providers for financial products shall be permitted on the condition that a license agreement is entered into with Vienna Stock Exchange and the corresponding license fees are paid.

9.1. Concept und and Composition

The Sustainability Indices are capitalization-weighted price indices which are composed of the leading companies in reference to social and ecological quality. VÖNIX comprises companies traded on Vienna Stock Exchange, whereas CECE SRI includes companies traded on stock exchanges in the region of Central, Eastern and South-Eastern Europe.

Both indices may be used as an underlying for structured products and for standardized derivatives (futures and options). Dividend payouts on the shares and any other distributions similar to ordinary dividend payments are not taken into account.

9.1.1. Selection method

The selection of the index constituents is based on a multi-level procedure.

At first the base universe of potential index constituents is defined. All companies from the base universe are reviewed according to sustainability-related exclusion criteria and according to stakeholder and product criteria. The sustainability research process leads to a rating for each company. Only stocks of companies with the best ratings are included in the Sustainability Indices.

9.1.2 Smoothing Factor

A smoothing factor is applied in order to increase the weighting of lower capitalized stocks and to reduce the weighting of highly capitalized stocks. Its purpose is to diminish the influence of a company's size on the index composition and, at the same time, to guarantee suitability for investment. The smoothing factor is defined in a way so as to reduce the weighting of the larger 50% of shares vs. the smaller 50%, with respect to free float market capitalization, to one-quarter of the original ratio, but not below a ratio of 5:1 (in the case of uneven numbers of index shares, the middle share is excluded for the ratio correction). However, should the ratio resulting from the free float market capitalization be smaller or equal to 5:1 from the start, then this ratio is used and the smoothing factor is defined as 1. The smoothing factor is based on the average prices of the last five exchange trading days of February, May, August and November, converted into EUR.

If the weight of an index member exceeds the threshold of 15% for the VÖNIX and 25% for the CECE SRI respectively after the smoothing factor determination, its factor will be reduced until its weighting does not exceed the threshold anymore.

9.2. Calculation formula

A Price Index is calculated on the basis of the following formula:

$$Capitalization_t = \sum_{i=1}^{N} (P_{i,t} * Q_{i,t} * FF_{i,t} * RF_{i,t})$$

P_i, ... Price of ith Stock in EUR
Q_i .... Number of Shares of ith stock
FF_i .... Free Float Factor of ith stock
RF_i .... Representation Factor of ith stock
N .... Number of Companies contained in the index
t .... Time of Index Calculation

$$Index_t = Base\ Value * \left[\frac{Capitalization_t}{Base\ Capitalization} \right] * AF_t$$

Index .... Value of the Index
AF .... Adjustment Factor of the Index
t .... Time of Index Calculation

For further details on the calculation of indices and index adjustments, please refer to the Guide of Calculation, which is available on our website www.wienerborse.at/en/indices/.

9.3. Universe

The selection of the index members begins with the definition of the base universe.

The CECE SRI base universe is defined biannually at the end of September, beginning in 2019, by the Index Management of Vienna Stock Exchange. The base universe of the VÖNIX is defined annually in April by the VÖNIX index committee. Any corrections to the VÖNIX universe are completed by May.

9.3.1. CECE SRI Universe

The base universe includes the stocks of the CECE Extended index, the CECE Mid Cap index and the country indices SBI TOP, CROX, SRX, ROTX and BTX, which are calculated by Vienna Stock Exchange. Only tradable shares of companies listed on the Belgrade SE, Bucharest SE, Budapest SE, Ljubljana SE, Prague, Sofia SE, Warsaw SE or Zagreb SE, which have a primary listing in the respective markets, are included in the CECE SRI. Dual listings of stocks remain as a rule disregarded.

Basically the companies of the universe should not fall below a market capitalization of 100 mln EUR. Taking into account the actual market situation and the specifics of the local financial markets, the capitalization can be less than 100 mln EUR in the exceptional case.

9.3.2 VÖNIX Universe

The VÖNIX universe includes all Austrian shares in the prime market and standard market continuous of the Vienna Stock Exchange (except for shares whose delisting or switch in market segment/exchange is imminent for which the criteria of marketability and sustainability no longer apply).

Further the universe includes Austrian shares from the standard market auction of the Vienna Stock Exchange. These shares are pre-selected according to their marketability and sustainability potential. The measures used for deciding marketability are free float market capitalization and trading volume.

Shares of the Third Market are basically not part of the VÖNIX universe.

9.4. Exclusion Criteria

All of the shares in the universe are reviewed according to the following sustainability-related exclusion criteria:

9.4.1. Sustainability Exclusion Criteria

Armaments

- ABC weapons, systems and core components
- Conventional military weapons, systems and core components
- Specific military materials and services

Nuclear Energy

- Electricity from nuclear power plants
- Nuclear power plants and specific core components and services
- Nuclear fuels

Addictive Drugs

- Tobacco and tobacco products as well as specific substances
- Alcoholic beverages with over 20% by volume

Genetic Technology

- Ethically and socially problematic human genome technology
- Ethically and ecologically problematic genetic technology in agriculture and animal husbandry

Gambling

- Gambling and betting games
- Gambling and betting specific equipment and services

Violation of Human- and Labour rights

- Serious violation of basic human rights
- Serious violation of basic labour rights (particularly of the ILO core labour norms)

Unethical Business Practices

- Serious involvement in e.g. corruption, bribery, money laundering, accounting fraud, market manipulation, deception on consumers, tax fraud

Massive Environmental Impairment

- Serious environmental damage e.g. environmental faults, destruction of natural habitats, cruelty to animals

Other

- Other activities and practices with highly negative ethical, social and ecological effects and risks.

There are definitions for all exclusion criteria. These refer to type of activity (e.g. development, production, distribution, financing, etc.); differentiation from other activities not of relevance for exclusion (e.g. dual use products with military application possibilities) as well as to scope of tolerance for insignificant activities, such as maximum permissible percentage in total sales revenues of a company (between 0% for ABC weapons, and 10% for the distribution of alcoholic beverages).

Generally it is not possible to include companies that meet one or more of the exclusion criteria in the index. If several criteria are concerned, but each one is below the tolerance limit, the respective shares in the revenues are added pursuant to the cumulating rule, which may also result in the exclusion of the share.

9.5. Stakeholder & Product Criteria

A total of six stakeholder groups are analyzed at the following levels
- Fundamental principles and strategies
- Management systems and organization
- Product and services
- Programs, activities and results

9.5.1. Stakeholder Groups and Criteria

Employees

This stakeholder group includes, among others, the management, fixed employees, freelance workers, temporary employees, and interest group representatives, etc. Examples for concrete criteria are health and safety management, training and further education, work-life balance.

Society

This group includes, e.g., plant site municipality, neighbors, citizens' groups, media and the general public. Sustainability criteria include, among other things, corporate citizenship, social value of the products and human rights.

Customers

Apart from end users, this group includes traders, further processing firms and consumer protection organizations. Criteria are quality management, durability of products, service-orientation, customer satisfaction, etc.

Market partners

These include mainly suppliers, external service providers and cooperation partners. The sustainability analysis focuses, e.g., on the aspects of supply chain management, partnership and social responsibility selection criteria for suppliers.

Investors

In addition to shareholders, investors also include lenders of external capital such as banks and bondholders as well as rating agencies and capital market supervisory authorities. Criteria are corporate governance, creditworthiness, information policy, shareholder rights, etc.

Environment

Direct stakeholders of this group are animals, plants, eco-systems, water and land, etc., or indirect environmental NGOs, environmental authorities and the general public. Within the scope of the sustainability analysis, the following aspects are analyzed: Environmental management system, ecology of product resource consumption, emissions, recycling, etc.

9.6. Annual Review of Composition

The objective of the annual review and adjustments to the index composition of the Sustainability Indices is to provide tradable and reliable indices, consisting of stocks of the leading companies in reference to social and ecological quality.
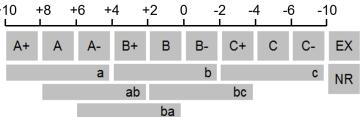
9.6.1. Analysis and Selection of Shares

Within the scope of the annual sustainability analysis for the VÖNIX respectively the biannual analysis for the CECE SRI, around 100 individual criteria are examined for each company and some 400 indicators being

collected and evaluated with the help of publicly available information on the company (annual reports, sustainability reports, websites, press releases, etc.), individual sources (questionnaire, direct contact) and others (media, experts, databases, etc.).

The evaluation model is based on a weighting system that aggregates the individual grades, differentiated by industry and sector and other structural data, to form an overall rating on a scale from +10 to -10 respectively on a nine steps scale from A+ ("innovative") to C- ("regressive"). If the data rate (% of relevant criteria that were appraisable) is too low for a detailed rating, an indicative rating on a gross scale may be deduced. This is shown by small characters (a, ab, …). If the data rate is absolutely insufficient, this leads to an NR ("No Rating").

+10	+8	+6	+4	+2	0	-2	-4	-6	-10
A+	A	A-	B+	B	B-	C+	C	C-	EX

Indicative Rating

The CECE SRI includes all companies reaching a score of at least +0,5 respectively a corresponding rating.

The VÖNIX includes all companies reaching a score of at least +1,5 respectively a corresponding rating.
The stock selection for the CECE SRI takes place in December, while for the VÖNIX the selection is done in June. The composition of both indices is basically valid for one year.
For the CECE SRI, beginning in 2020, a qualitative review of index members is carried out binannualy, verifying if the requirements for the membership are still met. A detailed analysis of existing index members as well as analysis of other companies from the index universe do not take place in these years.

A detailed description of the research methodology of rfu is available at www.rfu.at.

9.6.2. Implementation of Changes

The changes in the compositions of the CECE SRI resulting from the annual review are executed after trading closes on the third Friday in December. If this day is no trading day on one of the stock exchanges of Belgrade, Bucharest, Budapest, Ljubljana, Prague, Sofia, Warsaw or Zagreb, index adjustments are carried out on the day before the third Friday on which trading takes place on all of the above mentioned stock exchanges. The local holidays will only be considered, if at least one stock of the respective market is contained in the CECE SRI. Index changes take effect on the trading day following their operational implementation.

The changes to the VÖNIX composition resulting from the annual review of the index composition are carried out after the close of trading on the last trading day in ATX products in the month of June.

9.7. Extraordinary Composition

Extraordinary changes of the index composition can occur due to special events such as an IPO of a new company, a delisting of an index member or a sustainability related misdeed of an index member.

9.7.1. Inclusion of Shares

Adding newly listed shares or already listed shares to the index in the course of the year is possible if the shares qualify according to the criteria defined for the universe and the sustainability evaluation results in an adequate rating.

Decisions on the inclusion of a share in the CECE SRI in the course of a year are reached by the CECE SRI Index Committee. For the VÖNIX the Sustainability Research team decides on the inclusion of a share in the course of a year.

9.7.2. Exclusion of Shares

Shares are excluded from the index during the course of the year in the following cases:
- Delisting
- Reasons for exclusion relating to sustainability arise or become known
- Liquidity is no longer sufficient

The exclusion of a share in the first case is done on the day on which the listing ends or in the second or the third case, in the course of the quarterly adjustments after reasons for removal arise or become known. Decisions on the exclusion of a share from one of the Sustainability Indices in the course of a year are reached by the respective Index Committee.

9.8. Tasks and Responsibilities

9.8.1. Index Committee

The Index Committee is the central decision-making body for all adjustments and changes to the indices. The Index Committee deals with the examination and resolutions regarding the base universe, as well as with decisions regarding the calculation parameters of the indices and periodical and operational adjustments. Additionally, the Index Committee decides about changes to the Index Rules.

9.8.2. Sustainability Research

The Sustainability Research is responsible for the annual valuation of sustainability and selection of the shares for the Indices, as well as the ongoing sustainability monitoring of the index members and of the entire base universe with respect to possible extraordinary composition changes. Another duty of the Sustainability Research is the further development of sustainability criteria and valuation rules..

9.8.3. Index Management

The Index Management of Vienna Stock Exchange is responsible for the ongoing operations, controlling the index calculation and the passing on of index values via the data providers. Furthermore, the Index Management informs market participants about any adjustments of the composition of the index and/or calculation parameters and implements index adjustments.

10. CECE Clean Energy

10.1. Conception and composition

The target of the CECE Clean Energy ("CECE CLEAN") is to montr the development of companies from the region of entral- and Eastern europe, inkluding Austria, which prouce energy out of low carbon and low emission energy sources such as wind, solar, hydro or nuclear power. Proucers of energy which use carbon-rich sources such as coal ar exempt from inclusion into CECE CLEAN. Basically the Vienna Stock Exchange can desist from an inclusion in the exceptional case, such as in the event of unclear data.

For the calculation of "ESG" criteria for CECE CLEAN, only environmental criteria are taken into consideration. Social and govenrnace criteria are not reflected.

10.2. Calculation Formula

Calculation Formula of a Price Index

$$Capitalization_t = \sum_{i=1}^{N}(P_{i,t} * Q_{i,t} * FF_{i,t} * RF_{i,t})$$

P_i, ...Price of ith Stock in EUR

Q_i.............................Number of Shares of ith stock

FF_i...........................Free Float Factor of ith stock

RF_i...........................Representation Factor of ith stock

N ....Number of Companies contained in the index

t ....Time of Index Calculation

$$Index_t = Base\ Value * \left[\frac{Capitalization_t}{Base\ Capitalization}\right] * AF_t$$

Index ....Value of the Index

AF ....Adjustment Factor of the Index

t ....Time of Index Calculation

For further details on the calculation of indices and index adjustments, please refer to the Guide of Calculation, which is available on our website www.wienerborse.at/en/indices/.

11. ATX Global Players

11.1. Conception and composition

The target of the ATX Global Players (ATX GP) is to sum up all companies which have their business activities on a global scale which offer them the chance to benefit from global growth markets. The universe of the ATX Global Players is made of all companies listed in the Prime Market segment of the Vienna Stock Exchange. As a rule, the ATX GP may only include stocks of issuers whose registered office and operations are headquartered in Austria. The stocks of issuers with their registered office outside of Austria may nonetheless be included in the ATX GP if the company's operations headquarters are in Austria and the primary place of listing of the stocks is the Vienna Stock Exchange. The primary place of listing is measured by trading volume in monetary terms as compared to other stock exchanges. Based on current company reports, for every company of the market segment the turnovers generated outside of Europe will be calculated. If the determined value exceeds 20%, then the company is eligible for the ATX Global Players. The Vienna Stock Exchange can desist from an inclusion in the exceptional case, such as in the event of unclear data.

11.2. Calculation Formula

Calculation Formula of a Price Index

$$Capitalization_t = \sum_{i=1}^{N}(P_{i,t} * Q_{i,t} * FF_{i,t} * RF_{i,t})$$

P_i, ... Price of ith Stock in EUR
Q_i .... Number of Shares of ith stock
FF_i .... Free Float Factor of ith stock
RF_i .... Representation Factor of ith stock
N .... Number of Companies contained in the index
t .... Time of Index Calculation

$$Index_t = Base\ Value * \left[\frac{Capitalization_t}{Base\ Capitalization} \right] * AF_t$$

Index .... Value of the Index
AF .... Adjustment Factor of the Index
t .... Time of Index Calculation

For further details on the calculation of indices and index adjustments, please refer to the Guide of Calculation, which is available on our website www.wienerborse.at/en/indices/.

12. ATX Prime Capped 8

12.1. Conception and composition

The ATX Prime Capped 8 comprises all stocks included in the ATX Prime. Contrary to the ATX Prime the representation factors determined for the ATX shall not apply to the ATX Prime Capped 8. For the ATX Prime Capped 8 the representation factors are determined in such way so as to ensure that none of the index stocks is weighted by more than 8 %. The representation factor is set between 0.01 and 1.00 and rounded at two decimal points. The review of the representation factors follows the methodology applied to all other Austrian indices of the Vienna Stock Exchange. Unless otherwise specified, the specifications for the ATX Prime shall apply to the ATX Prime Capped 8 likewise.

The Vienna Stock Exchange calculates the ATX Prime Capped 8 in the versions Price Index, Total Return Index and Net Total Return Index in EUR.

12.2. Calculation Formula

12.2.1. Calculation Formula of a Price Index

$$Capitalization_t = \sum_{i=1}^{N}(P_{i,t} * Q_{i,t} * FF_{i,t} * RF_{i,t})$$

$P_{i,}$ ....Price of ith Stock in EUR
Q_i.............................Number of Shares of ith stock
FF_i ....Free Float Factor of ith stock
RF_i...........................Representation Factor of ith stock
N ....Number of Companies contained in the index
t ....Time of Index Calculation

$$Index_t = Base\ Value * \left[\frac{Capitalization_t}{Base\ Capitalization}\right] * AF_t$$

Index ....Value of the Index
AF ....Adjustment Factor of the Index
t ....Time of Index Calculation

12.2.2. Calculation Formula of a Total Return Index

$$Capitalization_t = \sum_{i=1}^{N}(P_{i,t} * Q_{i,t} * FF_{i,t} * RF_{i,t})$$

$P_{i,}$ ....Price of ith Stock
Q_i.............................Number of Shares of ith stock
FF_i ....Free Float Factor of ith stock

RF$_i$............................Representation Factor of ith stock
N ....Number of Companies contained in the index
t ....Time of Index Calculation

$$Index_t = Base\ Value * \left[\frac{Capitalization_t}{Base\ Capitalization} \right] * AF_t$$

Index ....Value of the Index
AF ....Adjustment Factor of the Index
t ....Time of Index Calculation

In case of an index adjustment (f.e. capital increase, dividend payment etc.), a new adjustment factor has to be calculated.

$$Capitalization'_t = \sum_{i=1}^{N} [(P'_{i,t} - Div_{i,t}) * Q'_{i,t} * FF'_{i,t} * RF'_{i,t}]$$

P'$_i$............................Price of ith Stock after adjustment (except dividend adjustment)
Div$_i$............................Dividend of ith Stock
Q'$_i$............................Number of Shares of ith stock after adjustment
FF'$_i$............................Free Float Factor of ith stock after adjustment
RF'$_i$............................Representation Factor of ith stock after adjustment
N ....Number of Companies contained in the index
t ....Time of Index Calculation

$$AF'_t = AF_t * \left[\frac{Capitalization_t}{Capitalization'_t} \right]$$

AF ....Adjustment Factor of the Index before adjustment
AF'............................Adjustment Factor of the Index after adjustment
N ....Number of Companies contained in the index
t ....Time of Index Calculation (adjustment day)

For further details on the calculation of indices and index adjustments, please refer to the Guide of Calculation, which is available on our website www.wienerborse.at/en/indices/.

13. ATX Family

13.1. Conception and composition

The ATX Family comprises all stocks included in the ATX Prime where the founding families, members of the board of directors or supervisory board members hold at least 25% but not more than 75% of the shares either directly or through a shareholding attributable to them. For the ATX Family the representation factors are determined in such way so as to ensure that none of the index stocks is weighted by more than 20 %. The representation factor is set between 0.01 and 1.00 and rounded at two decimal points. The review of the representation factors follows the methodology applied to all other Austrian indices of the Vienna Stock Exchange. Unless otherwise specified, the specifications for the Austrian indices of the Vienna Stock Exchange shall apply to the ATX Family likewise.

The Vienna Stock Exchange calculates the ATX Family in the versions Price Index, Total Return Index and Net Total Return Index in EUR.

13.2. Calculation Formula

13.2.1. Calculation Formula of a Price Index

$$Capitalization_t = \sum_{i=1}^{N} (P_{i,t} * Q_{i,t} * FF_{i,t} * RF_{i,t})$$

$P_i,$ ....Price of ith Stock in EUR
Q_i.............................Number of Shares of ith stock
FF_i ....Free Float Factor of ith stock
RF_i...........................Representation Factor of ith stock
N ....Number of Companies contained in the index
t...............................Time of Index Calculation

$$Index_t = Base\ Value * \left[\frac{Capitalization_t}{Base\ Capitalization} \right] * AF_t$$

Index ....Value of the Index
AF ....Adjustment Factor of the Index
t...............................Time of Index Calculation

13.2.2. Calculation Formula of a Total Return Index

$$Capitalization_t = \sum_{i=1}^{N} (P_{i,t} * Q_{i,t} * FF_{i,t} * RF_{i,t})$$

$P_i,$ ....Price of ith Stock
Q_i.............................Number of Shares of ith stock

FF$_i$ ....Free Float Factor of ith stock

RF$_i$ ....Representation Factor of ith stock

N ....Number of Companies contained in the index

t ....Time of Index Calculation

$$Index_t = Base\ Value * \left[\frac{Capitalization_t}{Base\ Capitalization} \right] * AF_t$$

Index ....Value of the Index

AF ....Adjustment Factor of the Index

t ....Time of Index Calculation

In case of an index adjustment (f.e. capital increase, dividend payment etc.), a new adjustment factor has to be calculated.

$$Capitalization'_t = \sum_{i=1}^{N} [(P'_{i,t} - Div_{i,t}) * Q'_{i,t} * FF'_{i,t} * RF'_{i,t}]$$

P'$_i$ ....Price of ith Stock after adjustment (except dividend adjustment)

Div$_i$ ....Dividend of ith Stock

Q'$_i$ ....Number of Shares of ith stock after adjustment

FF'$_i$ ....Free Float Factor of ith stock after adjustment

RF'$_i$ ....Representation Factor of ith stock after adjustment

N ....Number of Companies contained in the index

t ....Time of Index Calculation

$$AF'_t = AF_t * \left[\frac{Capitalization_t}{Capitalization'_t} \right]$$

AF ....Adjustment Factor of the Index before adjustment

AF' ....Adjustment Factor of the Index after adjustment

N ....Number of Companies contained in the index

t ....Time of Index Calculation (adjustment day)

For further details on the calculation of indices and index adjustments, please refer to the Guide of Calculation, which is available on our website www.wienerborse.at/en/indices/.

14. Contact Details

For any inquiries relating to the indices, index data and licensing, please contact us:

Index Management
phone: +43-1-53165-222
e-mail: indices@wienerborse.at

Licences
phone: +43-1-53165-169 or 198
e-mail: licences@wienerborse.at

Market Data Services
phone: +43-1-53165-288
e-mail: marketdataservices@wienerborse.at

Corporate Websites
www.wienerborse.at/en/indices/

For inquiries relating to the sustainability indices, please additionally contact:

Sustainability-Research
Mag. Reinhard Friesenbichler
rfu – Reinhard Friesenbichler Unternehmensberatung
phone: +43-1- 7969999-0
e-mail: office@rfu.at

Corporate Websites
www.rfu.at

Appendix A / Sector Classification

The Vienna Stock Exchange uses an own sector classification. The sector classification consists of two stages: eight sectors and 36 subsectors. In a first step, the index constituents are assigned to one of the eight sectors according to their main business. Within the sectors, every company is subsequently attributed to a subsector describing its activity more in detail.

Sectors

BI – Basic industries
All companies engaged in the extraction of raw materials or in the first stages of refining processes, as well as construction companies

IN – Industrial Goods & Services
This sector contains companies that provide support or products to other companies engaged in the production of goods or provision of services to commercial or end users.

CP – Consumer Products
The Consumer Products sector includes companies that provide final goods to end users.

CS – Consumer Services
The Consumer Services sector includes companies that provide services to end users.

HC – Health Care
This sector contains companies with a main focus on the production of pharmacy and biotechnological products, as well as on the provision of health care equipment and services.

UT – Utilities
The utilities sector contains companies engaged in the production, provision and distribution of electricity, heat, gas and water.

FI – Financials
This sector includes all companies that provide banking or insurance services, as well as real estate companies and diversified financial companies.

TT – Technology & Telecom
Companies that provide telecommunications, software & IT services and other technology-related services such as hardware and other equipment used in the technology sector

Sub-Sectors

BI - Basic Industries
BI1 – Oil & Gas: Extraction and refining of oil and gas
BI2 – Mining & Metals: Extraction and refining of metals and similar commodities
BI3 – Paper & Forestry: Production of timber and paper
BI4 – Chemicals: Extraction and production of chemical products
BI5 – Construction: Construction of buildings and roads, heavy construction
BI6 – Construction Materials: Production of construction materials, such as bricks, concrete, etc.

IN – Industrial Goods & Services

IN1 – Industrial Engineering & Machinery: Construction and design of heavy machines

IN2 – Transportation: Transportation of commodities and goods ashore, afloat, and by aircraft

IN3 – Electrical equipment: Producers of cables, batteries, boards and similar products

IN4 – Packaging: Production and execution of packaging

IN5 – Aerospace & Defense: Development and production of military and aeronautic technology

IN6 – Industrial Holding: Management of holdings in different companies from various sectors

IN7 – Other Industrial Goods: Production of goods not covered by the above mentioned sectors

IN8 – Other Industrial Services: Provision of services not covered by the above mentioned sectors

CP – Consumer Products

CP1 – Automobiles & Parts: Manufacturing of automobiles and related parts such as tires

CP2 – Food, Beverage & Tobacco: Production of groceries, all kinds of drinks and furs

CP3 – Household Products & Furniture: Production of goods used in private households

CP4 – Personal Products: Production of goods used for personal needs

CP5 – Leisure Products: Products and services used for leisure time activities

CS – Consumer Services

CS1 – Media: Publishing and broadcasting services and related products

CS2 – Leisure & Gambling: Provision of leisure, lottery and gaming activity

CS3 – Tourism & Travel: Organization of transport, housing and events related to holiday activities

CS4 – Retailing: Sale of goods to end-users

HC – Health Care

HC1 – Pharmaceuticals: Production of drugs and other kinds of medicine for either humans or animals

HC2 – Biotechnology: Development of fertilizers and genetic research

HC3 – Health Care Products & Services: Outpatient care, home care and products related to care

UT – Utilities

UT1 – Electric Utilities: Power or heat generating utilities, power distribution and power trading companies

UT2 – Gas & Water Utilities: Delivery and provision of gas and water to end-users and commercial users

UT3 – Multi Utilities: Utilities combining gas, water and electricity generation and distribution

FI – Financials

FI1 – Banking: Provision of banking services for commercial and non-commercial customers

FI2 – Insurance: Companies providing all kinds of insurance services

FI3 – Real Estate: Financing, operating and management of properties

FI4 – Diversified Financials: Companies combining the activities FI -1 to FI – 3

TT – Technology & Telecom

TT1 – Telecommunications: Provision of telecommunications services, either mobile or fixed line

TT2 – Software & IT Services: Development and programming of soft- and hardware solutions

TT3 – Technology, Hardware & Equipment: Production of any kind of computer hardware and server parts

Appendix B / Source of Securities

The Vienna Stock Exchange generally takes into consideration all shares listed on one of the stock exchanges below for its Theme and Style Indices. Due to certain local restrictions or requirements, however, equities listed in an eligible segment may be excluded from the index universe for an index in order to maintain its transparency and liquidity.

Country	Price Source	Segment	Closing Procedure	Close (CET)
Austria	Vienna Stock Exchange - Xetra®	Prime Market Standard Market	Closing Auction	17:34
Czech Republic	Prague Stock Exchange - Xetra®	Prime Market Standard Market	Closing Auction	16:27
Hungary	Budapest Stock Exchange	Equties Market	Closing Auction	17:10
Poland	Warsaw Stock Exchange	All Equity Segments	Closing Auction	17:05
Slovenia	Ljubljana Stock Exchange - Xetra®	Prime Market Standard Market	Closing Auction	13:00
Croatia	Zagreb Stock Exchange	All Equity Segments	Last Trade	16:30
Serbia	Belgrade Stock Exchange	Prime Market Standard Market	Last Trade	13:00
Bosnia-Herzegovina	Sarajevo & Banja Luka Stock Exchange	All Equity Segments	Last Trade	13:00
Bulgaria	Bulgarian Stock Exchange - Xetra®	Official Market Unofficial Market	Closing Auction	12:45
Romania	Bucharest Stock Exchange	Tier I, II, III	Last Trade	16:50
Turkey	Istanbul Stock Exchange	Prime Market	Closing Auction	16:40
Russia	Moscow Exchange (MOEX)	All Equity Segments	Closing Auction	16:45
Ukraine	PFTS	All Equity Segments	Last Trade	16:00
United Kingdom	London Stock Exchange	International Order Book[2]	Closing Auction	16:40
United Kingdom	London Stock Exchange	AIM[3]	Closing Auction	17:35
United Kingdom	London Stock Exchange	Main Market[3]	Closing Auction	17:35
Kazakhstan	Kazakhstan Stock Exchange	All Equity Segments	Last Trade	12:00

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[2] Only automatic and uncrossing trades are considered for index calculation.

Appendix C / Index Holidays

The indices of the Vienna Stock Exchange are calculated on all trading days of a year at the respective stock exchanges. For regional indices, certain conditions have to be fulfilled in order to assure that a significant part of the index capitalization is traded in case of a holiday in one or more markets. The table below lists all indices of the Vienna Stock Exchange, the markets considered for the respective index universe and the markets that have to be open for trading in order to have the index calculated.

A complete holiday schedule for the current year is available on the website www.wienerborse.at/en/indices/index-calculation/index-calculation-calendar/

Index	Considered Markets	Calculation Condition
CECE, CECE TR, CECE NTR, SCECE, CECE FND, CECE LV	CZ, HU, PL	CZ or HU or PL
CECE Socially Responsible Investment (CECE SRI)	CZ, HU, PL, RO, SI, HR, RS, BG	RO or HU or SI or CZ or PL or HR
SRDX, RDX TR, RDX NTR, RDX LV	UK [IOB]	UK [IOB]
ATX, ATX TR, ATX NTR, SATX, ATX FND, ATX LV, ATX TD, ATX DSTB, ATX GP, ATX PC8, ATX FMLY	AT	AT
VOENIX	AT	AT

Appendix D / Dissemination Period

All indices of the Vienna Stock Exchange are calculated as real-time indices. Dissemination periods are stated in the table below. The last update of all CEE & CIS indices which are denominated in other currencies than the local currency the close value will be triggered at 17:45 using the WM/Thomson Reuters rate from 17:00 CET.

Theme & Style Indices	Calculation Time CET
All Short & Leverage Indices (ATX, CECE, RDX)	9:05 to 17:45
ATX FND, ATX DSTB, ATX GP, ATX PC8, ATX FMLY, VÖNIX	9:00 to 17:45
CECE FND, CECE SRI, CECE Top Dividend	9:00 to 17:45
ATX DVP, CECE EUR DVP	Once a day on 9:00

Appendix E / Periodic Reviews

Periodic reviews of the calculation parameters free float factor, representation factor and number of shares are conducted on a quarterly basis in March, June, September and December.

With the exception of Mid-Cap, Sustainability and Top Dividend indices, index compositions are reviewed semi-annually in March and September.

The table below shows the review months. For CEE & CIS indices, Index Committee meetings always take place the first Thursday of a review month, and decisions taken are implemented after the close of trading on the third Friday of the same month. Their effective date is the following trading day.

X Review of calculation parameters and index composition
0 Review of calculation parameters

Index Group	March	June	September	December
Short Indices	X	0	X	0
Fundamental Indices	X	0	X	0
Dividend Point Indices	X	0	X	0
Distributing Indices	X	0	X	0
Sustainability Indices	0	0	0	X
Mid Cap Indices	0	0	X	0
Top Dividend Indices	0	0	0	X
ATX Prime Capped 8	X	0	X	0
ATX GP	0	0	X	0
ATX Family	0	0	X	0

Appendix F / Withholding Taxes

The table below shows national tax rates included in the gross dividends distributed by index constituents. In order to calculate the net dividend amount, these tax rates have to be deducted from the gross dividend.

Country	Code	Withholding Tax Rate
Bulgaria	BG	5%
Austria	AT	27.5%
United Kingdom	UK	15%
Croatia	HR	12%
Poland	PL	19%
Romania	RO	16%
Serbia	RS	20%
Slovenia	SI	15%
Czech Republic	CZ	15%
Turkey	TR	15%
Hungary	HU	0%

Last revised: December 2021

Appendix G / Historical Rulebookchanges

- March 2022
  - Determination of fundamental factors between the regular review dates only if a composition chage leads to a change in the weight of the highest weighted index member by more than 5%.

- January 2022
  - EONIA is replayed by €STR in all Short, Leverage and Distributing Indices

- September 2021
  - Change of Hungarian tax rate from 16% to 0%

- February 2021
  - Change of the calculation formula of Short and Leverage Indices
  - Change of the intra-day adjustment of Short and Leverage Indices

- December 2020
  - Changes in chapters 9.3. (Universe), 9.4.1. (Sustainability Exclusion Criteria), 9.6. (Annual Review of Composition) and 9.6.1. (Analysis and Selection of Shares)
  - Change of Czech tax rate from 35% to 15%

- March 2020
  - Discontinuation of the Leverage Indices ATX LV12 and ATX LV15
  - Discontinuation of the Short Indices SATX12 and SATX15

- May 2019
  - Introduction of new Short Indices (SATX12 and SATX15)

- April 2019
  - Introduction of new Leverage Indices (ATX LV12 and ATX LV15)

- August 2018
  - Renaming of CEERIUS (CEE Responsible Investment Universe) in CECE SRI (CECE Socially Responsible Investment)
  - Renaming of Short CECE in Short CECE TR, Double Short CECE in Short CECE TR x2, Short RDX in Short RDX TR and Double Short RDX in Short RDX TR x2

- May 2018
  - Introduction of new Short and Leverage Indices (SATX4, SATX6, SATX8, SATX10, ATX LV6, ATX LV8, ATX LV10)
  - Change of ch. 6.2. EONIA and ch. 6.3. Intra-day adjustment
  - New rule for splits of Short Indices (ch. 6.5.)
  - Change of ch. 7.2. EONIA, SPREAD and ch. 7.3. Intra-day adjustment
  - New rule for splits of Leverage Indices (ch. 7.5.)
  - Change of ch. 8.2. EONIA

- **February 2018**
  - Introduction of the ATX Family

- **September 2017**
  - Change of the reference index of ATX Top Dividend from ATX to ATX Prime and increase of the number of index constituents from 10 to 15

- **March 2017**
  - Determination of Fundamental Factors based on the 5-day average in the months February, May, August and November.
  - Review of CECE Fundamental in March and September

- **December 2016**
  - Change of ch. 9.3.2. VÖNIX Universe

- **September 2016**
  - Introduction of the ATX Prime Capped 8

- **March 2016**
  - New Rules for Reference Indices

- **September 2015**
  - Explanatory remark on ch. 10.1. „Conception and composition" of the ATX Global Players

- **March 2015**
  - Change of the review date of the Top Dividend Indices' compositions from September to December

- **June 2014**
  - Introduction of weighting limits for the Sustainability Indices

- **May 2013**
  - Introduction of the ATX Global Players

- **December 2012**
  - Introduction of Distributing Indices

- **November 2012**
  - Merging of single rule books of Style Indices into one Style-Indices-Rulebook

Appendix H / Commision Delegated Regulation (EU) 2020/1817

Explanation of how ESG Factors are reflected in the key elements of the benchmark methodology	
Name of the benchmark administrator: Wiener Börse AG	
Type of benchmark: Equity	
Name of the benchmarks or family of benchmarks: VÖNIX, CECE SRI	
Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors: Yes: ☒ No: ☐	
Factors on the level of the index family – only applicable for single benchmarks	
Factors of the benchmarks VÖNIX and CECE SRI	
Environmental Sectors: Controversial Sector Exposure, Brown Sector Exposure to companies involved in carbon-intensive activities, GHG intensity, UN Global Compact Violations or severe controversies	Selection and weighting are conducted by rfu research GmbH once a year. Exclusion criteria lead to the removal of a company from the index or the index universe All other criteria are considered in the graduate characteristic in an overall ranking from which the highest ranked companies are included in the index. The weighting of the single factors depends particularly on the following factors: Sector, geographical structure, customer segmentation, position in the value chain, company specific factors.
Social factors: Controversial weapons and tobacco involvement, social violations, Bribery and corruption controversies, Injury rate, fatal accidents, Gender pay gap, overall rating for social stakeholders	Selection and weighting are conducted by rfu research GmbH once a year. Exclusion criteria lead to the removal of a company from the index or the index universe All other criteria are considered in the graduate characteristic in an overall ranking from which the highest ranked companies are included in the index. The weighting of the single factors depends particularly on the following factors: Sector, geographical structure, customer segmentation, position in the value chain, company specific factors.

Governance factors: Board independence, Female board members, overall rating for Governance	Exclusion criteria lead to the removal of a company from the index or the index universe All other criteria are considered in the graduate characteristic in an overall ranking from which the highest ranked companies are included in the index. The weighting of the single factors depends particularly on the following factors: Sector, geographical structure, customer segmentation, position in the value chain, company specific factors.
Data and standards used	
Data input	Selection and weighting are conducted by rfu research GmbH once a year. The research is done according to a ISO9001 certified quality management system.
Verification and quality of data	A material part of the quantitative data is derived from legally binding publications from the related companies (particularly annual- and sustainability reports). Qualitative information and data from third party sources (media, NGOs, etc.) are checked for plausibility by rfu research.
Reference standards	The principles of the UN Global Compact are part of the criteriology.
Information updated on:	4.4.2024
Reason for update:	n.a.

Explanation of how ESG Factors are reflected in the key elements of the benchmark methodology	
Name of the benchmark administrator: Wiener Börse AG	
Type of benchmark: Equity	
Name of the benchmark or family of benchmarks: CECE CLEAN	
Berücksichtigt die Referenzwert-Methodik für den Referenzwert oder die Referenzwertfamilie ESG-Faktoren: Ja:☒ Nein:☐	
Factors on the level of the index family – only applicable for single benchmarks	
Factors of the benchmark CECE CLEAN	
Environmental factors: Nuclear energy	The index consists of companies which use sources of low carbon and low emission energy to produce electricity. Producers of nuclear energy are not accounted for the calculation of the environmental factor. Calculation based on the WBAG sector classification mapped to EU NACE classification as percentage of the underlying index portfolio.
Social factors: none	
Governance factors: None	
Data and standards used	
Data input	The analysis is done once a year by Wiener Börse AG.
Prüfung und Qualität der Daten	The type of energy production is assed once a year in the course of the quarterly index review in December.
Reference standards	none
Information updated on:	4.4.2024
Reason for update:	n.a.