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CEE & CIS Indices - Framework

December 2017

The German version of this document is binding.
The English translation serves for information purposes only.

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General

Wiener Börse AG (“WBAG”) has been computing and disseminating tradable indices in real time since 1 January 1991; these indices serve as underlyings for financial instruments (certificates, bonds, ETFs – Exchange Traded Funds, standardized futures and options). The indices are subject to the highest quality and transparency requirements, and compliance is guaranteed by the corresponding procedures and an efficient technical infrastructure. The ongoing calculation of the index may be described as a purely mathematical and technical process which is carried out and monitored with utmost care.

Organizational Structure of the Index Area

WBAG has principal responsibility for all aspects of data preparation, index calculation and index dissemination.

The operations include data preparation, the swift implementation of changes to underlying calculation mechanisms, the ongoing monitoring of the calculation of the index and index quality assurance. These tasks are carried out by the employees of Market & Product Development, Listing and Team Index Management (“Index Management”).

IT Production (“IT”) is responsible for the technical implementation of the index calculation. This includes the support and the maintenance of the technical calculation and dissemination systems.

Issuers & Market Data Services (“MDS”) is responsible for tasks relating to the dissemination of the index data via the website and specialized data vendors (such as Bloomberg, Thomson-Reuters, etc.) as well as for making available index-related information via the diverse access points such as FTP accounts and the special zones on the online index portal www.wienerborse.at/en/indices.

Market & Product Development, Listing, Team Licences is responsible for the national and international marketing of WBAG indices under license agreements with institutions such as banks, insurance companies and asset managers.

The framework regarding methodology and composition, calculation and display as well as for all adjustments of the indices is set out in “The Rules for the CEE & CIS Indices of the Vienna Stock Exchange (“Rules”). Amendments to the rules are adopted by the Index Committee.

The members of the Index Committee include representatives of the members of WBAG, representatives of the financial institutions that issue financial products on the indices, representatives of institutional investors, academic advisers and representatives of WBAG. The participation of these external members makes it possible share views on the CEE & CIS indices of WBAG with market participants. The Index Committee meets on a quarterly basis in March, June, September and December. Further details on the tasks and the work of the Index Committee are contained in the chapter “Index Committee”.

The CEE & CIS Working Committee monitors the work of the Index Management team to ensure the orderly execution of operational tasks; the CEE & CIS Working Committee meets once a week.

The members of the CEE & CIS Working Committee come from the various departments involved in the calculation of the index and in index sales; this guarantees the optimal exchange of information and effective control of workflows. Further details on the tasks and the work of the Working Committee are contained in the chapter "Working Committee".

Index Methodology

The index methodology is defined in the Rules.

The CEE & CIS Indices have been designed as market-tracking and transparent indices for the CEE & CIS Region. The CEE & CIS Indices contain stocks of the related market with the highest liquidity and free-float capitalization. Generally, the CEE & CIS Indices may contain only ordinary shares. In case a company has listed only preferred shares or preferred shares in addition to the ordinary shares and if these preferred shares account for the most liquid shares of the related stock market, the preferred shares can be included into the CEE & CIS Indices based on a written explanation of the CEE & CIS Index Committee. However, only one type of shares can be included in the indices.

The index methodology is defined in the Rules which are available for downloading from the index portal (www.wienerborse.at/en/indices) of WBAG at <https://www.wienerborse.at/en/indices/download-area/index-rules/>.

Technical Calculation

Input

WBAG has extensive review processes for the calculation and publication/dissemination of the CEE & CIS Indices. The input data are entered via the CEF, FIX or Thomson Reuters data lines. The prices generated by WBAG itself are sent by the trading system T7© via CEE Markets for the calculation of the index.

After the traded prices of the index stocks are entered into the index calculation infrastructure of WBAG and after undergoing several quality checks, they are used for calculating the index according to a predefined calculation formula. In this process only "new" prices, i.e., prices that differ from current price trigger an index update.

Index Calculation

Index calculation is done on the basis of indices and index groups defined in a database. The indices and the index groups are assigned to calculation formulae and calculation times on the basis of which the calculation of the index is carried out.

Data Output

The index values calculated are sent to the following systems via lines that are not connected to each other:

- Data Dissemination System

The Alliance Data Highway (ADH) is used to disseminate the index values calculated to data vendors. The data vendors make the data they receive available either in real time or with a time delay via their data terminals. Customers from all over the world use the data terminals to obtain the current index values and inform themselves of index movements.

- Databases of WBAG

The internal databases of WBAG are used primarily to feed the corporate websites of WBAG with information and to feed the internal data monitoring systems such as the Dynamic Data Exchange ("DDE").

Index Adjustments – Operational Process

When index adjustments are made, the master data of the stocks or indices are changed. All changes to the master data such as those required due to changes to the capital of an index company or due to new index calculation times are entered directly by the Index Management staff into the master database with the effective date of the stock or of the index itself.

It is possible to then adjust the indices on the last trading day prior to the effective date entered. As a rule, two staff members of Index Management are required for this task who implement the adjustment in line with the principle of dual control and who also sign off the adjustment documents. As of the effective date entered, the change to the index becomes effective for the current index calculation. This change is also forwarded to the internal databases of WBAG where it is available as historic data.

Index Calculation – Emergency Procedure

In exceptional cases, it may become necessary to directly intervene in the index calculation. This applies, in particular, when the current index calculation is not correct or cannot be executed correctly.

The Index Management team also has the possibility of stopping the calculation, restarting calculation or stopping the calculation all together for the current calculation day.

Index Dissemination

Overview

WBAG acts as Benchmark Administrator and also publishes all indices calculated by WBAG. WBAG employs professional and experienced employees for the publication of the Benchmark (hereinafter: “index dissemination”) and maintains a high performance and stable technical infrastructure. The MDS Department is responsible for the dissemination of the indices, and therefore, for the dissemination of the CEE & CIS Indices. The tasks of the MDS comprise, among other things, monitoring the dissemination of the CEE & CIS Indices as well as all areas relating to communication, technical support and customer advice to data vendors (e.g. Thomson Reuters, Bloomberg, etc.) in connection with WBAG data – including the CEE & CIS Indices.

Index Dissemination

The indices are disseminated in real time via data vendors and also – 15 minutes delayed - via the website of WBAG (www.wienerbourse.at/en/indices) based on the technical WBAG data transmission infrastructure, the ADH – Alliance Data High Way and is in line with international standards.

The ADH is a market data interface and the data feed for WBAG and includes all indices calculated and disseminated by WBAG. ADH works on the basis of the TIP protocol which has been established for data dissemination for many years and is in line with international standards.

Pre-publication and Post-publication Control

The monitoring of data flows (prior to their use in index calculation) is done by the Index Management and IT teams. Monitoring the dissemination of the CEE & CIS Indices after publication is done by MDS using monitoring tools and the ADH Feed Client. The availability of the CEE & CIS Indices data on the website is monitored and recorded by the website provider via a monitoring tool.

MDS Communication Policies

In the event of problems with the dissemination of the indices due to errors, interruptions or delays in data transmission, MDS notifies all data vendors with the help of the communications tool *Infoline*.

MDS additionally makes general e-mail contact addresses available (e.g. mds@wienerborse.at and datafeed@wienerborse.at for data vendors; support@wienerborse.at for website customers) which immediately forward enquiries to all employees of the MDS Department involved in the calculation and dissemination of the CEE & CIS Indices. Moreover, the MDS Department can be reached via the telephone hotline +43-1-53165-288 during the entire dissemination time.

As soon as the correct index calculation and dissemination is restored, MDS communicates this status to all data vendors and to the Index Management team who then also inform the licensees. Should the closing price of the CEE & CIS Indices be affected by a problem, the value is corrected by the Index Management team who then informs the vendors and licensees via the *Infoline* service. The data vendors update their databases on the basis of this information and the website provider corrects the value on the website.

Quality Management

The quality of an index is measured by its reliability. Reliability in this context means no incidence of problems – except in exceptional cases – in the index calculation or dissemination, and also the guarantee of highest quality for all data used for the calculation.

Monitoring the Ongoing Calculation of the Index

The Index Management team is responsible for monitoring ongoing index calculation, the maintenance of all input data required for the calculation and for the proper implementation of the Rules.

■ Monitoring Tool

The tool enables the Index Management team to monitor ongoing index calculation using internal and external sources. All indices are recalculated and compared, first, with internal prices used in the calculation infrastructure, and second, with external real time prices. The following aspects of the index calculation are reviewed:

- Dissemination of the indices
- Recalculation of the indices with the internally used prices
- Updating time when disseminated

Furthermore, the *Indexwatch* serves as simulation for the implementation of index adjustments. The index concerned is compared in the simulation with the result of the adjustment from the calculation infrastructure on the evening before the effective date.

A further monitoring task of *Indexwatch* is the display of upcoming dividend payment dates and index holidays.

■ Error Correction during Ongoing Index Calculation

If there are problems in the ongoing calculation of the index, the Index Management team is responsible for immediately informing all market participants via a special communication tool and resolving the problem as fast as possible. After the problem is solved, all market participants are notified. The options available for correcting errors during ongoing index calculation are described in the chapter “Index Calculation – Emergency Procedure”.

Review of the Monitoring Processes

The index calculation monitoring processes are reviewed regularly, and in cases of incidents, quickly and without delay. Once a year, the monitoring processes are reviewed by the Working Committee.

Control Framework

Apart from the quality criteria mentioned of tradability, representativeness and reliability of the indices, the criterion of transparency is especially important. WBAG ensures the importance of this criterion by establishing clear internal and external control structures as well as by defining clearly understandable rules and communicating in clear and unambiguous language through several channels (see below).

Rules for the CEE & CIS Indices

The Rules describe the framework conditions for index calculation. The Index Management team implements the content of the Rules in its daily work.

The most important points of the Rules cover the following areas:

- Selection criteria of the CEE & CIS indices
- Precise details on the index calculation
- Precise description of calculation factors
- Periodical reviews by the CEE & CIS Index Committee
- Treatment of changes to the capital of a company
- Decision-making bodies

The document is freely available online at www.wienerborse.at/en/indices in the currently valid version for downloading.

Apart from the Rules, Wiener Börse AG also provides Calculation Guidelines on www.wienerborse.at/en/indices that explain the formulae used for each of the indices in detail and the effects of changes to the share capital, and also illustrate the explanations by giving calculation examples.

Working Committee

The Working Committee includes members from all departments involved in index calculation. As regards problems, complaints or enquiries on the methodology, the Working Committee is also the first escalation instance and decides on the further procedure. At regular meetings, the Working Committee reviews the index methodology applied and if the CEE & CIS Indices definition is still appropriate. Moreover, it may request reports from the Index Management team on current problems and risks in the index. In the case of changes to the index methodology, the Working Committee monitors if the changes carried out do not pose a risk to the original purpose of the index and if the changes have been correctly implemented.

Index Committee

The Index Committee is made up of representatives of the management of WBAG as well as of external stakeholders. It meets on a quarterly basis in March, June, September and December. All decisions, which cannot be postponed and must be reached between the quarterly meetings of the Index Committee, may be taken by the Index Committee convened in the function of the Emergency Committee. The Rules impose the obligation on the members of the Index Committee to act objectively in the interest of investors and investor protection. Decisions are taken by the Index Committee after internal discussions by the voting members. The group of voting members is made up of one representative of the management board of WBAG and two representatives of financial institutions which have signed a general license for the indices of WBAG. The financial institutions with a general index license appoint two voting members from their group for the term of a half year. The group of non-voting members of the Index Committee is made up of the remaining members. The Index Committee is chaired by the management board of WBAG. The resolution is reached by a simple majority vote; in the event of a tie, the vote of the person chairing the meeting shall be the casting vote. Voting members do not have the right to delegate substitute members without the prior consent of the chairperson. The Index Committee has a quorum if two voting members are present.

Communication

WBAG uses the following communication channels to meet the transparency requirements to keep all stakeholders informed of important information.

■ E-Mail and Hotline

The Index Management team has a general e-mail address (indices@wienerbourse.at) to ensure that all enquiries are immediately forwarded to all employees involved in the calculation and dissemination of the CEE & CIS Indices. Additionally, the Index Management team can be reached at the telephone hotline +43-1-53165-222.

■ Infoline

Infoline is an e-mail-based customer communications tool through which all time-critical information on index calculation and market data dissemination (including index dissemination) is sent to the relevant customer groups (index customers and data vendors). Interested stakeholders are added to the distribution list on their request.

■ Index portal

The index portal www.wienerbourse.at/en/indices is one of the most important information channels on the indices of WBAG. The portal offers freely available information on index calculation, the current index composition with weightings and calculation parameters, index adjustment announcements, all rules and index guidelines, trading calendars, index fact sheets and index descriptions as well as information on the index committees.

■ **Publication of Committee Decisions**

Committee decisions are subject to secrecy obligations until they are published. The Index Management team publishes Committee decisions meetings as soon as possible after the end of the Committee meeting.

■ **Communication regarding Index adjustments**

Index adjustments are generally published two days before the date on which they take effect via Infoline, .csv Corporate Action Files and the index portal www.wienerborse.at/en/indices. These refer to adjustments made to CEE & CIS Indices between the regular quarterly review dates.

■ **Changes to the methodology**

Should changes to the methodology of a benchmark become necessary, the Working Committee prepares the documents needed to reach a decision and depending on the changes needed, it supplies market surveys to support the decision-making process. Afterwards, a decision is reached in coordination with the Index Committee on when and how such a change to the methodology of the CEE & CIS Indices is to become effective.

■ **Market Messages**

A market message is an Internet-based and e-mail-based information tool used to send messages on short notice. It is used in the case of acute problems with the index calculation and dissemination. The Index Management Team announces on short notice which index or which market is currently having problems with the calculation. This type of information is intended to help stakeholders adjust to the current situation and react in time. After a problem is solved, the warning is called off in the same manner.

■ **Market Queries**

In case of far-reaching changes of the index methodology like changes of the characteristics of an index, the selection process of index members or the treatment of corporate actions, the Index Committee Members can have Market Queries conducted by the Index Management Team. During a Market Query stakeholders affected by a possible change are invited to present their input, thoughts and concerns. The Index Committee Members define the time span of the Market Query.

An anonymous summary of the answers received will be communicated to the stakeholders via e-mail dissemination and the index portal www.indices.cc

Complaints Policy

The complaints policy of WBAG is defined and documented in the “Enquiry and Complaints Policy of Wiener Börse AG” made available for downloading on the website of WBAG at www.wienerborse.at/en/indices.

Whistleblower Mechanism

Breach of provisions of the Benchmark Regulation (VO 2016/1011) and related European (Delegated Acts and Technical Standards) and national implementation (“Referenzwerte-Vollzugsgesetz”) is subject to the

internal whistleblowing mechanism which is in place at Wiener Börse AG (according to § 9 Referenzwerte-Vollzugsgesetz).

Corrections

Corrections are ex-post changes to information already communicated such as index adjustments, announcements or closing prices that were not published correctly.

■ Correction of Index Announcements

In the case of errors identified, WBAG will correct every published index announcement as soon as possible. All licensees and data vendors are notified immediately per *Infoline* and via the index portal www.wienerborse.at/en/indices.

■ Correction of Closing Prices

Incorrect closing prices are corrected on the next trading day and communicated to licensees and vendors via *Infoline*.

■ Correction of Changes to the Capital of a Company

WBAG corrects all errors and false information in connection with changes to the capital of a company immediately after identifying the error and upon availability of the correct information within two trading days. The indices concerned are recalculated and the corresponding correction of the data is initiated.

In the case of an incorrect stock split, bonus issue or stock dividend, WBAG will carry out a retroactive correction within two trading days. The described mode of procedure is applied to all indices equally; all licensees and vendors are notified in time of upcoming changes and corrections.

■ Index Composition (.csv File)

Incorrect .csv files and .csv files which are not updated and available on www.wienerborse.at/en/indices

Discontinued Indices

An index cannot be discontinued without a resolution of the Index Committee. Generally, there are two types of reasons for discontinuing an index:

■ Force Majeure

The index is discontinued on the grounds of force majeure, because the calculation is temporarily or definitively no longer possible due to a natural disaster or similar event: WBAG publishes (messages to customers, press releases, information via websites) the last official index price and the last valid composition based on which the index user (issuer of financial products, traders, clearing agents, etc.) can settle the index products.

■ **Orderly Discontinuation of the Index**

The Index Committee decides if and when the index is to be discontinued in an orderly manner. The orderly discontinuation of an index takes into account the announcement periods regarding the license agreements (the longest period is 6 months) as well as the disclosure of information to a broad audience via a press release by WBAG. A written communication to the licensees is sent at the latest 6 months before the effective date the index is to be discontinued.

On the date of the discontinuation, WBAG publishes information on the last official price and the last valid composition of the index to be discontinued by publishing a press release, sending a message to customers and posting an announcement on the website.

Conflicts of Interest

WBAG is owned 53% by credit institutions and 47% by issuers (“Issuers”). Representatives of the owners from the credit institutions are (also) members of the Index Committee. Therefore, there are potential conflicts of interest between the credit institutions as owners of WBAG and as trading members and/or issuers of (structured) products on the CEE & CIS Indices. The following measures have been taken to prevent conflicts of interest:

- The calculation and composition of the CEE & CIS Indices is based on defined and transparent rules.
- Decisions of the Index Committee can only be reached with a majority of the votes cast.
- The members of the Index Committee are under the obligation to act objectively in the interest of investors and investor protection.
- The meetings of the Index Committee take place outside of trading hours so that the information from the consultations of the Index Committee cannot be used in trading.
- Decisions of the Index Committee that concern the CEE & CIS Indices are published without delay.

Issuers who are owners of WBAG are not represented on the Index Committee, and therefore, do not take part in consultations or in the decision-making process.

The following additional measures are taken to prevent conflicts of interest:

- At WBAG, the areas of competence and the assignment of tasks are clearly defined. The index adjustments are carried out by the Index Management team observing the principle of dual control.
- Employees of the Index Management team are under the obligation to comply with the “Compliance Code of Wiener Börse AG” and the “Principles for Employee Dealings”. Compliance is monitored by the Compliance Officer of WBAG.
- The telephone conversations of employees of the Index Management team are recorded.
- The remuneration of employees of the Index Management team is not tied to the development of the CEE & CIS Indices.