



NOREXECO Rulebook

Appendix 2

The Indices

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General provisions

The terms of this appendix will apply to Products Listed at NOREXECO. NOREXECO cooperates with the independent Finnish Index provider FOEX Indexes Ltd. (“FOEX”). In the event of any conflict between the Rulebook and the terms in this appendix, the Rulebook shall prevail.

Index Provider FOEX

FOEX is a company located in Helsinki, Finland and since April 2017 owned by Euromoney Institutional Investor PLC, a London Stock Exchange listed company

. FOEX publishes weekly and monthly audited pulp, paper, paperboard and wood-based bioenergy indices. Publication follows the Finnish calendar and time-zone is CET+1. FOEX owns the trademark rights to the PIX™ indices.

FOEX standards and key principles

The PIX indices are prepared and published pursuant to certain defined standards and key principles, among them:

- The PIX price indices are calculated from price data received from buyers and sellers of the commodity/product in question
- FOEX is an independent company with no ownership links to any forest product companies
- Buyers and sellers are evenly distributed as price donors
- High number of participants to each PIX index; no index is launched until statistically reliable
- FOEX is engaged in developing the PIX index methodology and process to be compliant with IOSCO’s Principles for Price Reporting Agencies
- The Index-system is audited (by Ernst & Young)
- A 4-member expert panel is available as advisors in case of disputes
- Index values have never been retroactively modified

FOEX has obtained an anti-trust clearance in Europe from EU/DG IV.**The clearance contains the following conditions:**

- FOEX is not allowed to do price forecasting
- Participation in the index formation process must be voluntary and free of charge
- Participants must be allowed to remain anonymous. FOEX never mentions names of those who participate or who do not participate
- Indices are published on the FOEX and NOREXECO web sites and also by international information providers

FOEX Expert Panel

In order to increase the reliability and value of the PIX indices system FOEX has appointed an Expert Panel. The main tasks to the panel are;

- To provide their view on the price information, should there be, for some reason, a period when sufficient price data from the market was not available
- To give their opinion on the validity of the index values, should there be an official legal complaint against the PIX system or any individual values
- To assist the FOEX personnel in the development of new indices
- To communicate to FOEX the opinions from the market on the validity and use of the indices

Financial Products on FOEX Indices

The indices used by NOREXECO are;

1. PIX Pulp NBSK USD/ MT
2. PIX Pulp BHKP USD/ MT

The indices are calculated by FOEX and published weekly in accordance with FOEX routines as in effect from time to time.

Index Days are Tuesdays. If an Index Day falls on a Finnish holiday, the Index Day is moved to the next Finnish business day.

The indices are published at 12:00 AM Finnish time, CET+1, on every Index Day.

Procedures for calculating PIX Pulp NBSK USD/ MT

This index has been the benchmark for Northern Bleached Softwood Kraft Pulp (NBSK) in Europe since June 1996. PIX tracks the price of prime quality NBSK in Europe, which is the largest market for pulp, by logging transactions between major players on the pulp market from Europe (buyers and sellers) and outside Europe (sellers delivering benchmark grades to Europe).

The PIX pulp benchmark index is calculated and confirmed by FOEX based on confidential price information of actual, physical trades of pulp, collected on a weekly basis from companies trading in pulp. It represents the gross price agreed on contract business for pulp used for paper or paperboard production.

The index currency is USD/metric ton, including also a conversion to EUR/metric ton. Prices reported to the index calculation in other currencies are converted to the index currency with the average ECB exchange rate of the previous week. The same rate is used for the conversion of the index values to EUR/metric ton.

Each week, pulp buyers, sellers and agents supply the price information of all eligible pulp transactions which meet the acceptance criteria set in the index specifications:

- The price relates to a minimum amount of 100 metric tons of prime quality, commodity grade Northern bleached softwood kraft (NBSK) pulp from North American, Nordic and Central European countries.
- Technical quality criteria are: standard dryness 90% air dry, standard strength characteristics, brightness ISO 88 or higher, baled.
- Transactions are against contract-based business or other recurring business with similar pricing and discounting terms, complying with the General Trade Rules for physical pulp business for paper or paperboard production purposes between companies regularly buying or selling pulp.
- Specifically excluded are spot transactions, integrated shipments between affiliated parties and contracted indexed-price transactions.
- Prices reflected in the index are gross prices before customer-specific discounts or rebates which typically are agreed upon in long-term agreements. Any additional temporary discounts or rebates which differ from the long-term agreements are to be deducted from the price reported.
- Prices reflected only include those with a final agreement for the month, i.e. without a retroactive adjustment clause.
- The price is a gross transaction price on standard delivery and payment terms between buyer and seller. However, prices with delivery terms ex works at the producing mill shall not be reported to the index.

Weighting between price providers is achieved by assigning more price points to larger buyers/sellers than to smaller ones. The number of price points assigned to each

provider is scaled by the annual volume of sales or purchases of market pulp in each main index grade.

The index value is the arithmetic average of the price points included. The highest and lowest 10 % of the number of price points are removed before calculating the PIX index values. This is done to eliminate clerical errors in the price reporting and to dampen any possible attempts to manipulate the PIX index value in one direction or the other.

Price providers agree to report their prices according to the methodology and based on all transactions meeting the specifications. Furthermore, price providers will consent to have their reported prices audited to ensure compliance with these index criteria. Annually, a number of randomly selected price data providers, shall be audited. FOEX commits to compile the price data, to calculate the index values and to publish the index values in accordance with the rules and specifications. The calculation procedure and follow-up of the methodology at FOEX will be audited at least once every 3 years.

The method of index calculation is fixed. The index has a large market coverage and a stable group of price providers from week to week. The rules for index calculation and the method have been approved by European financial regulatory bodies and by the European Commission DG IV (anti-trust). A group of well-known industry experts form an advisory panel, which can be used if an unforeseen problem renders normal price discovery process difficult.

In the event FOEX changes its method of index calculation, or makes any other changes affecting the indices used by NOREXECO, NOREXECO reserves the right to make corresponding changes to the Rulebook, including the Appendices.

Procedures for calculating PIX Pulp BHKP USD/MT

This index has been the benchmark for Bleached Hardwood Kraft Pulp (BHKP) in Europe since May 1998. PIX tracks the price of prime quality BHK Pulp (eucalyptus or birch) in Europe, which is the largest market for pulp, by logging transactions between major players on the pulp market from Europe (buyers and sellers) and outside Europe (sellers delivering benchmark grades to Europe).

The PIX pulp benchmark index is calculated and confirmed by FOEX based on confidential price information of actual, physical trades of pulp, collected on a weekly basis from companies trading in pulp. It represents the gross price agreed on contract business for pulp used for paper or paperboard production.

The index currency is USD/metric ton, including also a conversion to EUR/metric ton. Prices reported to the index calculation in other currencies are converted to the index currency with the average ECB exchange rate of the previous week. The same rate is used for the conversion of the index values to EUR/metric ton.

Each week, pulp buyers, sellers and agents supply the price information of all eligible pulp transactions which meet the acceptance criteria set in the index specifications:

- The price relates to a minimum amount of 200 metric tons of prime quality, commodity grade Bleached Hardwood Kraft (BHK) Pulp, eucalyptus or birch. Technical quality criteria are: standard dryness 90% air dry, standard strength characteristics, brightness ISO 88 or higher, baled.
- Transactions are against contract-based business or other recurring business with similar pricing and discounting terms, complying with the General Trade Rules for physical pulp business for paper or paperboard production purposes between companies regularly buying or selling pulp.
- Specifically excluded are spot transactions, integrated shipments between affiliated parties and contracted indexed-price transactions.
- Prices reflected in the index are gross prices before customer-specific discounts or rebates which typically are agreed upon in long-term agreements. Any additional temporary discounts or rebates which differ from the long-term agreements are to be deducted from the price reported.
- Prices reflected only include those with a final agreement for the month, i.e. without a retroactive adjustment clause.
- The price is a gross transaction price on standard delivery and payment terms between buyer and seller. However, prices with delivery terms ex works at the producing mill shall not be reported to the index.

Weighting between price providers is achieved by assigning more price points to larger buyers/sellers than to smaller ones. The number of price points assigned to each provider is scaled by the annual volume of sales or purchases of market pulp in each main index grade.

The index value is the arithmetic average of the price points included. The highest and lowest 10 % of the number of price points are removed before calculating the PIX index values. This is done to eliminate clerical errors in the price reporting and to dampen any possible attempts to manipulate the PIX index value in one direction or the other.

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advisory panel, which can be used if an unforeseen problem renders normal price discovery process difficult.

In the event FOEX changes its method of index calculation, or makes any other changes affecting the indices used by NOREXECO, NOREXECO reserves the right to make corresponding changes to the Rulebook, including the Appendices.

Lack of price information to calculate PIX Indices

In cases where no price information for a price used in the calculation of the PIX Indices used by NOREXECO is available, the following rules shall apply:

- a. If the lack of price information is expected to be short term, the price of the last available week will be used
- b. FOEX and the FOEX Expert Panel will provide NOREXECO with price information

Procedures for monitoring and changing the Indices

Operation of the Indices

NOREXECO has signed a strategic agreement with FOEX, whereby FOEX, among other things, is responsible for monitoring, supervising and changing the Indices.

Procedures for calculating the NOREXECO Final Settlement Index (NFSI)

Each Listed Product with a monthly duration at NOREXECO shall clearly indicate which weeks are included in the monthly Product, as further specified in Figure 2 in Appendix 1. The monthly NFSI will be calculated as the simple arithmetic mean with two decimals rounded of the weekly prices for the weeks included in the calendar month.

Corrections in the NFSI

In the event of errors in computing the NFSI are discovered, the latest NFSI may be corrected pursuant to the following rules:

NOREXECO may, in the event it is discovered that a final settlement was erroneous in a material manner because of an error in the calculation of the NFSI, decide that a correction shall be effectuated among the Trading Members involved. Such correction also requires the consent of the Clearing House.

No correction may be effectuated later than on the business day after the NFSI was published.