NOREXECO Rulebook

Appendix 2

The Indices

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1   General provisions

The terms of this appendix will apply to Products Listed at NOREXECO. NOREXECO cooperates with the independent Finnish Benchmark Administrator (Index provider) Fastmarkets FOEX, Fastmarkets RISI and Shanghai Futures Exchange. In the event of any conflict between the Rulebook and the terms in this appendix, the Rulebook shall prevail.

2   Benchmark/indices from Fastmarkets FOEX

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

Fastmarkets 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. Fastmarkets FOEX owns the trademark rights to the PIX^{TM} indices.

2.1   Fastmarkets 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
- Fastmarkets 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
- Fastmarkets FOEX is engaged in developing the PIX index methodology and process to be compliant with IOSCO's Principles for Price Reporting Agencies

Index values have never been retroactively modified

2.2   Financial Products on Fastmarkets FOEX Price Indices

The price indices from Fastmarkets FOEX used by NOREXECO are;

1. PIX Pulp NBSK Europe USD/ MT
2. PIX Pulp BHKP Europe USD/ MT
3. PIX Pulp BHKP China net USD/MT
4. PIX Recovered paper OCC 1.04 EUR/MT

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

Index/publication Days for European based indices are Tuesdays. Index/publication days for the Asian based indices are Fridays. If an Index/publication 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.

2.3   Procedures for calculating PIX European Pulp Price Indices

Below is an extract of the full specification of the Fastmarkets FOEX European Pulp Price Indices. The full specification can be found at the Fastmarkets FOEX webpages.

1.1 Methodology Rationale
Fastmarkets FOEX produces independent, fair and representative price indices for global market pulp on a weekly basis. Fastmarkets FOEX's rationale is to adopt and develop the price discovery process and the methodology described in the present guide to produce indices that are a consistent and representative indicator of value of the market to which they relate for the trading period they measure, as well as for the change in prices from one week to the next.

The PIX European pulp benchmark indices are calculated and confirmed by FOEX based on confidential price information of actual, physical trades of pulp, collected on a weekly basis by telephone and email from companies trading in pulp. It represents the gross price agreed on contract business for pulp used for paper or paperboard production. 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 time period, or window, identified to assess a market (eg, daily, weekly, monthly) is determined by Fastmarkets FOEX after considering the number of data points that Fastmarkets FOEX can reasonably expect to collect on a consistent basis over the selected period to support the price assessment process.

1.2 Data collection criteria
Fastmarkets FOEX staff aim to canvass a broad sample of market participants specifically involved in the buying and selling of the pulp grade of interest, with a good representation of both sides of the market. Pulp producers, buyers, agents and trading houses, including buyers/sellers acting on behalf of another buyer/seller, qualify as price providers. If a trading house buys and sells on its own account, those prices are not accepted into the index calculation.

Price data is collected weekly from price providers, typically by email or by phone. Possibilities to use

other alternative ways will be followed-up whenever deemed useful.

Price data reported to Fastmarkets FOEX by noon Finnish time on Monday (or the last working day preceding publication day) will be included in the index calculations for the publishing on Tuesday (or exceptional working day). Fastmarkets FOEX has the discretionary right to decide whether to include price data received after noon on Monday into the index calculation that week.

Reported price data will be stored at Fastmarkets FOEX for a maximum of five full calendar years. Price providers designate a person and a deputy for the price reporting task. Each price provider shall report their prices each week or provide a note of how long the last reported price is valid, or report "no transactions" if a provider has no eligible transactions in a given week.

Price providers agree to report their prices according to the methodology described in this document and based on all transactions meeting the specifications and to consult with Fastmarkets FOEX if they have any doubts as to the validity of a price to be reported.

Fastmarkets FOEX encourages organizations to submit all their pricing data, especially all the concluded transactions. Fastmarkets FOEX welcomes organizations to submit transaction data from authorized back office functions.

Company-specific data received from the price providers is accessible only to personnel employed by Fastmarkets FOEX. Board Members do not have access to this data.

Fastmarkets FOEX' personnel dealing with the confidential price data or other sensitive information received from the price providers for the purpose of PIX index calculations, commit not to disclose the data received, nor the source, outside Fastmarkets FOEX.

Fastmarkets 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 set forth in this document.

1.3 What price data providers submit
Each week, data providers submit prices reflecting all eligible transactions, to the extent possible with reasonable efforts, taking into account possible practical challenges in the weekly administrative work to collect all required transactions.

"Transaction" is defined as either of the following:
1. Final agreement on price for delivery of a specific quantity of pulp during the current month and each delivery against that agreement during the same month.
2. Final agreement on the price of pulp that has already been shipped within the current month or the month preceding the reporting date.

In order to further improve the accuracy of the index movements and to secure as many price points as possible every week, price providers are encouraged to report both the price when it is agreed and the price of every delivery from seller to buyer or an invoice against that price agreement.

However, pulp already under buyer's ownership delivered from buyer's port warehouse to the mill, should not be considered as a market transaction and should not lead to price reporting.

An "eligible transaction" is a transaction that meets the specifications outlined in the section below marked "Price Specifications".

Providers have the option to submit prices in one of two ways:

1. Separate transaction prices: Providers submit prices reflecting all eligible transactions and additionally submit the share (either tonnage or %) of each of these transactions of the total volume of eligible transactions of that week.
2. Single weighted average price: Providers submit a single price reflecting the weighted average price of all eligible transactions over the previous week.

This weighted average can be calculated based on actual weekly volumes, average weekly volume calculated from the annual contract or from an annual estimate. The method should however be consistently used from week to week to the extent possible with reasonable efforts.

Prices reflected in the index are gross prices before customer-specific discounts or rebates. These discounts and rebates are typically 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.

Some agreements specify that the price for shipments in a given month are based on the previous month's market price. This usually means that the buyer and seller agree at the beginning of the month what the previous month's price was, then apply that price to shipments in the current month. For these agreements, the price is reported to FOEX in the week when the price is agreed. In the weeks following the month in question, if a data provider has agreed new prices for the month, it should report those new prices, provided they are from eligible transactions, and stop reporting the prices based on the previous month's market price. But if data provider has no new eligible prices for the month to report and deliveries from seller to buyer continue against the previous month's price, it can report those previous month's prices of deliveries from seller to buyer.

Transactions with prices fixed in advance for a longer period than one month do not count as eligible transactions and shall not be reported to the index.

If the pricing structure includes a cap and floor, the price shall be reported only as long as it remains between the cap and floor. After the price has hit either of the limits, the price within the cap and floor should not be reported.

1.4 Price specifications and reference units
Fastmarkets FOEX has clear specifications for all the price points that it covers. All the reference units, such as currency and volume, are in line with recognized pulp and paper markets trading conventions. Fastmarkets FOEX specifications detail the material's characteristics or quality, location, incoterm, payment terms and the minimum volume accepted. These specifications are determined in consultation with market participants and following industry convention. Fastmarkets staff ensure that the information they receive matches these specifications.

All Fastmarkets FOEX price specifications define the minimum lot size accepted.

1.5 Criteria to discard pricing data
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: One-off transactions whose price is typically at a level from which no further discounts, allowances or performance rebates are given.
• Integrated shipments: shipments between affiliated parties.
• Indexed-price transactions: transactions whose prices are, according to the supply contract, tied to PIX or any other pulp price index.

Index as fall-back mechanism: Some contracts stipulate that prices are negotiated between buyer and seller but that PIX or another index can be used to settle prices if the buyer and seller can't agree on a price. Transactions under these contracts are not considered indexed and thus shall be submitted to the index.

1.6 Data validation
Fastmarkets FOEX reviews the incoming price data in order to check its consistency with the reporting rules. If the price data looks questionable, Fastmarkets FOEX contacts the price provider.

1.7 Weighting of Data
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 (BSKP excl. fluff, BHKP).

Market pulp includes integrated exports but not company internal volumes within the country of production. Each price provider's weight is kept constant through the year, if no major changes occur in production capacity or purchasing volumes. Volumes are checked at the turn of the year for defining the weighting for the following year.

While input to the index is generally evenly split between buyers and sellers, the share can vary from week to week. To eliminate any volatility caused by a shift in the share of the buyer/seller data, Fastmarkets FOEX ensures that buyer and seller data each represent 50% of the index.

1.8 Aggregation of weighted average prices
If data providers submit a single weighted average price (see Section 1.3 above), that price point is included in the week's collected price points multiple times, according to the number of price points the data provider is allowed. For instance, if a seller of NBSKP is allowed 5 price points and submits a single weighted average price of $X in a given week, then $X is included 5 times in that week's collected price points.

1.9 Calculation procedure
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.

1.10 Validity time of price points
If a price provider does not report prices in a given week (e.g. a company may not have sales or purchases during that week) Fastmarkets FOEX may use the previous price points received, but only for one additional week.

2.4   Procedures for calculating the PIX BHKP China net index

The complete specification for the Fastmarkets FOEX PIX BHKP China net can be found on the PIX Methodologies & Policies page.

Methodology Rationale

Fastmarkets FOEX produces independent, fair and representative price indices for China pulp on a weekly basis. Fastmarkets FOEX's rationale is to adopt and develop the price discovery process and the methodology described in the present guide to produce indices that are a consistent and representative indicator of value of the market to which they relate for the trading period they measure, as well as for the change in prices from one week to the next.

The PIX China pulp net index is calculated and confirmed by Fastmarkets FOEX based on confidential price information of actual, physical trades of pulp, collected on a weekly basis by telephone and email from companies trading in pulp. It represents the net price agreed on contract business for pulp used for paper or paperboard production. 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 time period, or window, identified to assess a market (e.g., daily, weekly, monthly) is determined by Fastmarkets FOEX after considering the number of data points that Fastmarkets FOEX can reasonably expect to collect on a consistent basis over the selected period to support the price assessment process.

Data collection criteria

Fastmarkets FOEX staff aim to talk to a broad sample of market participants specifically involved in the buying and selling of the pulp grade of interest, with a good representation of both sides of the market. Pulp producers, buyers, agents and trading houses, including buyers/sellers acting on behalf of another buyer/seller, qualify as price providers. If a trading house buys and sells on its own account, those prices are not accepted into the index calculation.

Price data is collected weekly from price providers, typically by email or by phone. Possibilities to use other alternative ways will be followed-up whenever deemed useful.

Reported price data will be stored at Fastmarkets FOEX for a period of seven years.
Price providers designate a person and a deputy for the price reporting task. Each price provider shall report their prices each week or provide a note of how long the last reported price is valid, or report "no transactions" if a provider has no eligible transactions in a given week.

Price providers agree to report their prices according to the methodology described in this document and based on all transactions meeting the specifications and to consult with Fastmarkets FOEX if they have any doubts as to the validity of a price to be reported.

Fastmarkets FOEX encourages organizations to submit all their pricing data, especially all the concluded transactions. Fastmarkets FOEX welcomes organizations to submit transaction data from authorized back office functions.
Company-specific data received from the price providers is accessible only to personnel employed by Fastmarkets FOEX. Board Members do not have access to this data.

Fastmarkets FOEX personnel dealing with the confidential price data or other sensitive information received from the price providers for the purpose of PIX index calculations, commit not to disclose the data received, nor the source, outside Fastmarkets FOEX.

What price data providers submit

Each week, data providers submit prices reflecting all eligible transactions, to the extent possible with reasonable efforts, taking into account the practical problems in the weekly sales administrative work to collect all required transactions.

The price of actual transaction shall be reported when the order is confirmed or when the price is otherwise finally agreed. This applies for pulp which is e.g.: - at the port of loading (e.g. in North or South America or Europe) and - in transport and - in a warehouse at a Chinese port.

Contract prices reflect transactions between sellers and buyers who have a written contract or an ongoing unwritten relationship that involves regular transactions over time.

The indices reflect the average net price in USD per metric ton for regular contract-based business. Net price is the agreed price after regular monthly discounts, but before the quarterly or annual performance-based rebates (granted at the end of quarter or year). The discounts and rebates are typically agreed upon in long-term agreements. Any temporary discounts or rebates, which differ from long-term contract, should also be deducted. Price reporting company shall report the net prices in USD or RMB, based on transactions for each week.

If the company cannot regularly report the net USD prices, it is separately agreed on that the company reports the gross USD price and, in addition, the typical/average discount of all/major customers/suppliers at that time. Thereafter, the company reports the gross USD prices and Fastmarkets FOEX deducts the same typical/average discount from the gross prices and uses those calculated net USD prices in the index calculations.

When there is a meaningful change in the typical/average discount, the company agrees on to inform Fastmarkets FOEX and report the new discount amount and Fastmarkets FOEX will adjust its calculations accordingly.

Providers have the option to submit prices in one of the following ways:
- Separate transaction prices: Providers submit prices reflecting all eligible transactions and additionally submit the share (either tonnage or %) of each of these transactions of the total volume of eligible transactions of that week.
- Single weighted average price: Providers submit a single price reflecting the weighted average price of all eligible transactions over the previous week.

Citeria to discard pricing data

Transactions are against contract-based business or other recurring business, 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: One-off transactions whose price is typically at a level from which no further discounts, allowances or performance rebates are given.
- Integrated shipments: shipments between affiliated parties.
- Indexed-price transactions: transactions whose prices are, according to the supply contract, tied to PIX or any other pulp price index.

2.5   Procedures for calculating the PIX Recovered Paper Europe indices

Below is an extract of the full specification of the Fastmarkets FOEX Recovered Paper Europe Indices. The full specification can be found at the FOEX Recovered Paper Europe specification.

Price discovery process and methodology

1.1 Methodology Rationale

Fastmarkets FOEX produces independent, fair and representative price indices for European recovered paper on a weekly basis. Fastmarkets FOEX's rationale is to adopt and develop the price discovery process and the methodology described in the present guide to produce indices that are a consistent and representative indicator of value of the market to which they relate for the trading period they measure, as well as for the change in prices from one week to the next.

The PIX recovered paper benchmark indices are calculated and confirmed by Fastmarkets FOEX based on confidential price information of actual, physical trades of recovered paper, collected on a weekly basis by email from companies trading in recovered paper. It represents the net price agreed on contract business for recovered paper used for paper or paperboard production. The method of index calculation is fixed. The index has a large market coverage and a stable group of price providers.

The time period, or window, identified to assess a market (e.g., daily, weekly, monthly) is determined by Fastmarkets FOEX after considering the number of data points that Fastmarkets FOEX can reasonably expect to collect on a consistent basis over the selected period to support the price assessment process.

1.2 Data collection criteria

Fastmarkets FOEX staff aim to canvas a broad sample of market participants specifically involved in the buying and selling of the recovered paper grade of interest, with a good representation of both sides of the market. Recovered Paper generators, traders and consumers qualify as price providers.

Price data is collected weekly from price providers, typically by email. Possibilities to use other alternative ways will be followed-up whenever deemed useful.

Reported price data will be stored at Fastmarkets FOEX for a maximum of five full calendar years. Fastmarkets FOEX has the discretionary right to decide whether to include price data received after noon on the working day preceding publication in the index calculation that week.

Price providers designate a person and a deputy for the price reporting task. Each price provider shall report their prices each week or provide a note of how long the last reported price is valid, or report "no transactions" if a provider has no eligible transactions in a given week.

Price providers agree to report their prices according to the methodology described in this document and based on all transactions meeting the specifications and to consult with Fastmarkets FOEX if they have any doubts as to the validity of a price to be reported.

Fastmarkets FOEX encourages organizations to submit all their pricing data, especially all the concluded transactions. Fastmarkets FOEX welcomes organizations to submit transaction data from authorized back office functions.

Company-specific data received from the price providers is accessible only to personnel employed by Fastmarkets FOEX. Board Members do not have access to this data.

Fastmarkets FOEX' personnel dealing with the confidential price data or other sensitive information received from the price providers for the purpose of PIX index calculations, commit not to disclose the data received, nor the source, outside Fastmarkets FOEX.

Fastmarkets 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 set forth in this document.

1.3 What price data providers submit
Data providers submit prices reflecting all eligible transactions, to the extent possible with reasonable efforts, taking into account the practical tasks in the sales administrative work to collect all required transactions. "Transaction" is defined as follows:

1. Final agreement on price for delivery of a specific quantity of recovered paper during the current month. An "eligible transaction" is a transaction that meets the specifications outlined in the Price Specifications section below.

Providers have the option to submit prices in one of three ways:
       1. Average price per market (country)
       2. Transaction price per supplier/customer
       3. Single weighted average price: Providers submit a single price reflecting the weighted average price of all eligible transactions.

This weighted average can be calculated based on actual monthly volumes or from an annual estimate. The way each data submitter reports prices is mutually agreed with Fastmarkets FOEX before they become formal contributors to the PIX indices. The method should be consistently used to the extent possible with reasonable efforts.

Transactions with prices fixed in advance for a longer period than one year do not count as eligible transactions and shall not be reported to the index.

If the pricing structure includes a cap and floor, the price shall be reported only as long as it remains between the cap and floor. After the price has hit either of the limits, the price within the cap and floor should not be reported.

1.4 Price specifications and reference units
Fastmarkets FOEX has clear specifications for all the price points that it covers. All the reference units, such as currency and volume, are in line with recognized recovered paper markets trading conventions. Fastmarkets FOEX specifications detail the material's characteristics or quality, location, incoterm, payment terms and the minimum volume accepted. These specifications are determined in consultation with market participants and following industry convention. Fastmarkets FOEX staff ensure that the information they receive matches these specifications.

All Fastmarkets FOEX price specifications define the minimum lot size accepted.

1.5 Criteria to discard pricing data
Transactions are against contract-based business or other recurring business with similar pricing terms. Prices reflected only include those with a final agreement for the month, i.e. without a retroactive adjustment clause.

Specifically excluded are:
    1. Integrated sales: deliveries between affiliated parties.
    2. Indexed-price transactions: transactions whose prices are, according to the supply contract, tied to the PIX Recovered Paper Europe/Germany Price Index.

Some contracts stipulate that prices are negotiated between buyer and seller but that PIX or another index can be used to settle prices if the buyer and seller can't agree on a price. Transactions under these

contracts are not considered indexed and thus shall be submitted to the index.

1.6 Data validation
Fastmarkets FOEX reviews the incoming price data in order to check its consistency with the reporting rules. If there are any doubts or questions about the price data, Fastmarkets FOEX contacts the price provider.

1.7 Weighting of Data
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 recovered paper in each index grade (Mixed 1.02, OCC 1.04, ONP/OMG 1.11).

Each price provider's weight is kept constant through the year, if no major changes occur in production capacity or purchasing/sales volumes. Volumes are checked in January to define the weighting for that year.

While input to the index is generally evenly split between buyers and sellers, the share can vary from week to week. To eliminate any volatility caused by a shift in the share of the buyer/seller data, Fastmarkets FOEX ensures that buyer and seller data each represent 50% of the index.
The weighting scales for OCC 1.04, ONP/OMG 1.11 and Mixed 1.02 (separate scales for sellers and buyers for Europe and Germany), based on the total annual volumes of the previous calendar year are shown in Appendices 1 and 2.

1.8 Aggregation of weighted average prices
If data providers submit a single weighted average price (see Section 1.3 above), that price point is included in the week's collected price points multiple times, according to the number of price points the data provider is allowed. For instance, if a seller of OCC is allowed 5 price points and submits a single weighted average price of €X in a given week, then €X is included 5 times in that week's collected price points.

1.9 Calculation procedure
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.

1.10 Validity time of price points
If a price provider does not report prices in a given month (e.g. a company may not have sales or purchases during that month) Fastmarkets FOEX may use the previous price received, but only for one additional month. From week to week, the monthly price(s) reported will remain unchanged in the index calculation.

2.5   Price correction policy

Fastmarkets FOEX will not retroactively change the index value based on new information or additional submission of data received after a respective pricing session has closed.

Publication of price errors can occasionally happen for reasons that may include technical input errors or incorrect application of the methodology. To minimize the inconvenience to our subscribers, Fastmarkets

FOEX aims to investigate each error as soon as it becomes aware of it and to publish a correction promptly on our website through a pricing notice with an explanation of the reason for the correction. Fastmarkets FOEX will publish a correction of a price only where it has established undeniably that there has been an error. Fastmarkets FOEX price assessments are produced based on the best data available at the time of the assessment.

2.6   Fall-back procedure - Lack of price information to calculate PIX Indices

In the unlikely event that there are not enough eligible price points in a given week, and the lack of price points is threatening to distort the index development, Fastmarkets FOEX reserves the right to roll forward previous price data beyond the limits mentioned above. In such case, Fastmarkets FOEX will state that because there are an insufficient number of new price points, the previous week's index value will be republished.

2.7   Operation of the FOEX PIX Indices

NOREXECO has signed an agreement with Fastmarkets RISI, whom acts as the commercial representative for Fastmarkets FOEX, whereby Fastmarkets FOEX, among other things, is responsible for monitoring, supervising and maintenance of the Price Indices.

Fastmarkets Benchmark Administrator Oy is the administrator of the Fastmarkets FOEX and Fastmarkets RISI's benchmarks.

2.8   Procedures for calculating the NOREXECO Final Settlement Index (NFSI)

The monthly NFSI is calculated as the simple arithmetic mean with two decimals rounded of the weekly PIX prices for the weeks included in the calendar month. There is either four or five weekly PIX prices in a month, in general depending on number of Tuesdays in a calendar month.

2.9   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.

3 Benchmark/index from Fastmarket RISI

Fastmarkets RISI is a leading supplier of indices, assessments or benchmark for many commodities.

NOREXECO uses the assessment for Northern Bleached Softwood Kraft (NBSK) CIF China as the underlying commodity to the **NOREXECO NBSK CIF China financial futures contract** traded on NOREXECO.

Below is extracts from the Fastmarkets RISI specifications that can be found on RISI's web pages.

3.1 Price discovery process and methodology

Methodology Rationale

Fastmarkets RISI produces independent, fair and representative price assessments and indices for global market pulp on a monthly and twice-monthly basis. Fastmarkets RISI's rationale is to adopt and develop the price discovery process and the methodology described in the present guide to produce assessments that are a consistent and representative indicator of value of the market to which they relate for the trading period they measure.

During the price discovery process, the price reporter's goal is to discover at what representative level market participants have concluded business, made offers or received bids over a certain defined trading period – in this case weekly. Final assessments generally reflect prevailing market prices towards the end of the pricing window.

The time period, or window, identified to assess a market (e.g., daily, weekly, every two weeks, monthly) is determined by Fastmarkets RISI after considering the number of data points that Fastmarkets RISI can reasonably expect to collect on a consistent basis over the selected period to support the price assessment process.

Data collection criteria

Fastmarkets RISI reporters aim to talk to a broad sample of market participants specifically involved in the buying and selling of the pulp grade of interest, with a good representation of both sides of the market, including producers and consumers, as well as traders.

Data is collected from market participants directly involved in contract business primarily by telephone, but also by email, digital messaging or direct submission. All input data received is kept confidential and stored in a secure network.

Fastmarkets RISI's Data Submitter Policy provides guidelines to ensure the high level of data quality and integrity that we expect from contributing organizations providing pricing data. The policy can be found on Fastmarkets RISI's website or is available upon request.

Fastmarkets RISI encourages data sources to provide data on all their concluded transactions and welcomes provision of data from employees in back office functions. Fastmarkets RISI may sign Data Submitter Agreements (DSAs) with any data provider, if requested to do so.

Depending on market liquidity, Fastmarkets RISI reserves the right to also base its prices on bids, offers, deals heard and market participants' assessment or indication of prevailing values.

Price specifications and reference units

Fastmarkets RISI has clear specifications for all the price points that it covers. All the reference units, such as currency and volume, are in line with recognized pulp and paper markets trading conventions.

Fastmarkets RISI's specifications detail the material's characteristics or quality, location, incoterm, payment terms and the minimum volume accepted. These specifications are determined in consultation with market participants and following industry convention. Reporters ensure that the information they receive matches these specifications.

Guidelines on the use of judgement

To produce the price assessment, greater weighting is generally given to actual concluded transaction data; bids/offers are second in order of importance, followed by data sources' own assessment of the market when they have no business to report. However, other considerations might also intervene such as, the trustworthiness of a data source based on past data submissions, or their willingness to provide data on a consistent basis.

In the absence of sufficient transaction data, bids and offers or other actual price information, Fastmarkets RISI reserves the right to use other factors to determine the assessment. These include:

- market participants' trigger prices;
- market participants' reports of the change in prices from previously assessed periods;
- market fundamentals such as changes in inventory levels, shipments, operating rates and export volumes;
- relative values of similar commodities in the same region;
- relative values of the same commodity in different regions;
- changes in the value of the commodity's primary feedstock or primary derived product(s).

In very opaque markets, where little actual market data is available, price developments may at times not be immediately apparent. If Fastmarkets RISI price assessors detect this, their market assessments in the next reporting period would generally reflect the price change. This is in line with Fastmarkets RISI's policy of acting on new information as it becomes available.

Minimum data threshold

As commodity markets differ in liquidity level at different periods, the methodology does not set any minimum number, or threshold, of transactions to be gathered on which to base the assessment.

The weighting of any single data provider's data is limited so that it doesn't dominate the assessment. For key benchmark prices (e.g. NBSK CIF China), this cap is more formal: no single data provider's data will be weighted so that it contributes more than 25% of the final assessment. For other assessments the cap is set at 50%.

Criteria to discard pricing data

Data are excluded from the assessment in the following cases:

- The price of a transaction is indexed to published prices from Fastmarkets RISI or other sources.
- A transaction price is considered "indexed" when it is entirely determined according to a formula based on a published price assessment. However, even when parties have a long-term index-priced contract (i.e. stipulation that each month's price will be determined based on a published price assessment), they may sometimes supersede the contract terms by choosing to determine a

given month's price by negotiation. For instance, this can happen if parties negotiate and agree on the price for a given month before that month's Fastmarkets RISI price assessment has been published. In a case like this, even though the overall contract is indexed, the given month's price is not considered indexed and would thus be included in that month's price assessment.

- The transactions don't meet the assessment specifications.
- The transaction has special circumstances that, in the price assessor's judgment, render it unrepresentative of the broader market and/or not repeatable.
- The transaction is between affiliated companies.

Price correction policy

Publication of price errors can occasionally happen for reasons that may include technical input errors or incorrect application of the methodology. To minimize the inconvenience to our subscribers, Fastmarkets RISI aims to investigate each error as soon as it becomes aware of it and to publish a correction promptly on our website through a pricing notice with an explanation of the reason for the correction.

Fastmarkets RISI will publish a correction of a price only where it has established undeniably that there has been an error. Fastmarkets RISI price assessments are produced based on the best data available at the time of the assessment. It will not retroactively change a price based on new information or additional submission of data received after a respective pricing session has closed.

Occasionally, in very opaque markets, price developments may not become apparent for some time. If this happens, Fastmarkets RISI reserves the right to adjust a price series upwards or downwards to bring it back in-line with market values. Such cases should not be considered corrections but rather non-market price adjustments. A retroactive correction of the price history would not normally be made.

Fastmarkets RISI has a very structured process for such non-market adjustments, similar to that for changes to methodologies and specifications. They would only be implemented after industry consultation. Ample notice would be given of the proposed adjustment and stakeholders would have the chance to send their feedback.

3.2 NOREXECO Final Settlement Index for NBSK CIF China

The financial contracts traded on NOREXECO settles against the Final Settlement Index (NFSI) – the average of the weekly published assessments within the month. The NBSK CIF China assessments are published every Friday at 10 am Singapore time.

See section 2.8 and 2.9 above and Appendix 01 for further specification of the calculations of the NFSI.

4   NSFI - Benchmark/index based on the Final Delivery Settlement Price at Shanghai Futures Exchange

Shanghai Futures Exchange (SHFE) offers trading in monthly futures for domestic physically delivered NBSK pulp. SHFE is regulated by the China Securities Regulatory Commission (CSRC).

The NOREXECO Shanghai Pulp Futures is financially settled against the NOREXECO Shanghai Final Index (NSFI). The NSFI) is based on the monthly SHFE Final Delivery Settlement Price (FDSP) as

calculated and published by SHFE. The SHFE FDSP is calculated as the volume weighted average price of the trades concluded during the last five days the expiring contract was traded on SHFE. The SHFE FDSP is published at 4:30 pm CST (10:30 am CET) on the expiration day of the month contract. The expiration day is the 15th day of the month, but may be altered due to weekends and public holidays.

SHFE publish volumes, closing prices and volume weighted prices on their web-site. The SHFE Final Delivery Settlement Price is in RMB/MT and includes domestic VAT.

The NOREXECO Shanghai Final Index (NSFI) is based on the SHFE FDSP:

1. NOREXECO deducts the prevailing Chinese VAT on the expiration day from the SHFE FDSP.
2. NOREXECO calculates the USD/MT equivalent of the SHFE FDSP ex VAT based on the European Central Bank's USD/EUR and RMB/EUR rates as published on 16:00 CET on the expiration day of the SHFE month contract.
3. NOREXECO publishes the NOREXECO Shanghai Final Index at 17:00 CET on the expiration day.

NOREXECO shall register as the Benchmark Administrator of the NOREXECO Shanghai Final Index.