

Spotbarge Methodology for European Inland Tanker Index

Version 1.0 – January 1, 2024

Expiry date – January 1, 2025

Published by Spotbarge B.V.

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Preface

Spotbarga's methodology is carefully developed and supported by various processes and guidelines. While these supporting documents are referenced within the methodology itself, Spotbarga recognizes their significance and has chosen to document them separately in dedicated files.

By documenting these supporting processes and guidelines separately, Spotbarga ensures a higher level of detail and clarity in explaining the specific steps, calculations, and considerations involved in their methodology. This approach allows for easier accessibility and reference for both internal stakeholders and external users who seek a deeper understanding of Spotbarga's price assessment methodology.

Methodology examination & consultation process

The methodology consultation process is a structured and transparent approach used by Spotbarga to gather feedback and input from market participants and stakeholders on potential changes or updates to its methodology. This process allows Spotbarga to ensure that its methodologies accurately reflect market dynamics, maintain integrity, and meet the needs of its customers.

Guidelines for Market Participants

Guidelines for market participants are standards, instructions, and principles that provide guidance on how market participants or entities should conduct themselves in providing market data to Spotbarga. These guidelines aim to promote fairness, transparency, and ethical behavior among market participants, ensuring a level playing field and maintaining the integrity of the market.

Guidelines for Assessors

Guidelines for Assessors refer to a set of principles, rules, and instructions that provide guidance and standards for reporters responsible for conducting assessments for Spotbarga. These guidelines aim to ensure consistency, fairness, and accuracy in the assessment process and help assessors make informed and reliable judgments or evaluations.

Compliance Manual

The Spotbarga Compliance Manual covers several important areas and policies regarding the methodology, including:

1. Feedback and Complaints
2. Confidentiality Policy
3. Conflicts of Interest Policy
4. Data Policy
5. Escalation Policy
6. Gifts Policy
7. Record Retention Policy

These policies outline the guidelines and procedures for handling feedback and complaints, maintaining confidentiality, managing conflicts of interest, handling data, escalating issues, managing gifts, and retaining records. The Compliance Manual ensures that Spotbarga adheres to these policies and maintains a high level of compliance and ethical conduct in its operations.

IOSCO Standards

On October 5, 2012, the International Organization of Securities Commissions (IOSCO) released a comprehensive set of Principles for oil price reporting agencies (PRAs). These principles were subsequently endorsed by the G20 in November 2012. The IOSCO Standards encompass various aspects such as governance, control, integrity, and conflict management, specifically relating to the publication of commodity price assessments by PRAs.

The development of these best practice principles by IOSCO involved extensive efforts over a number of years. The aim was to establish a framework that could be applied to PRAs, with corresponding obligations for market participants involved in trading derivatives linked to these commodities. While initially focused on the oil markets, these principles were formulated in a manner that allows for their applicability to the broader commodities and freight market.

Spotbarga has developed and implemented comprehensive policies, processes, and control activities that align with the standards set by IOSCO. These measures have been put in place to ensure that Spotbarga operates in a manner that is reflecting IOSCO standards.

Training

Spotbarga has implemented a training program that encompasses all employees, including editorial staff, to ensure a thorough understanding of the company's compliance processes. The training is mandatory for all staff members.

The training program aims to foster a compliance-oriented culture within Spotbarga, encouraging employees to actively engage in compliance practices and uphold the highest standards of integrity. By promoting awareness and providing the necessary tools, Spotbarga empowers its staff to effectively contribute to the identification and mitigation of compliance-related matters.

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1. Methodology Introduction

1.1 Methodology rationale

Spotbarga is an essential real-time digital freight index for the European inland shipping industry, providing comprehensive pricing and market analysis for the spot market of clean petroleum and dirty petroleum products. Along with its reliable and timely price assessments, the index features insightful commentary and news updates on key market drivers, inland tanker movements, and industry developments, making it an indispensable resource for market participants seeking to stay ahead of the curve.

The assessments published in the Spotbarga Freight Index reflect typical freight rates fixed in the market. The assessed prices are based on prices from the open spot market. These assessments are derived from the prices at which inland barge freight have been fixed.

Spotbarga's methodology is based on a combination of a commonsense approach and informed analysis of all market data available. The users of the Spotbarga Freight Index involves market participants, who are a member and can enter quotes directly or are contacted either by telephone or electronically. These participants include charterers, oil company's brokers, and shipping companies.

Spotbarga follows a methodical and standardized approach to ensure that the assessments are objective and reliable.

By following this approach, Spotbarga ensures that its market index provide subscribers with accurate and reliable information that they can use to make informed decisions.

Spotbarga is committed to developing methodologies that accurately reflect how the market operates. The goal is to create dependable and authentic price assessments that serve as a representative barometer of European inland Freight routes, without any distortions. Therefore, industry conventions determine the specific, volume units, timing, locations, and other relevant particulars of the assessments.

Spotbarga provides market prices for European inland freight markets in accordance with the methodology. To capture market liquidity, Spotbarga employs a time period that has been determined to be the most suitable in consultation with the industry. To be included in the assessment process, deals must meet the minimum volume, delivery, timing, and specification requirements outlined in our methodology. In cases where markets are illiquid or in other circumstances deemed appropriate, Spotbarga employs a strict process to determine the range within which the barge could have been chartered, as outlined in our methodology.

The methodology will describe the trade areas, routes and a description of inland tanker which will define and set the criteria for the assessment.

2. Input Data

2.1 Market participants

Market participants play a crucial role in ensuring the accuracy, integrity, and reliability of the Spotbarga Freight Index. Besides the role of participants, they advise on items such as governance, systems and controls, and reviews.

The market participants have the primary responsibility of ensuring the accuracy, integrity, and reliability of the input data that they contribute to the Spotbarga Freight Index.

Further details regarding selection, criteria, identity & control procedures, reporting & validation, and internal control can be found in the Spotbarga Freight Index Guidance for Market Participants.

2.2 Selection of participants

Spotbarga welcomes information from all reliable sources on general market data, provided it is provided in good faith and considered to be accurate. However, in order to ensure the highest quality and integrity of our price assessments, only active market participants who have been verified by Spotbarga as viable businesses will be allowed to contribute price data to our assessments. These participants must also be verified as such by existing active industry participants. For additional information, please refer to the Spotbarga Freight Index Guidance for Market Participants.

2.3 Data standards

Spotbarga has a Freight Index Guidance for Market Participants in place, that outlines the type and quality of information we require from market participants for reporting purposes.

Spotbarga maintains a strict Freight Index Guidance for Market Participants that governs the type and quality of information we request from market participants for our assessments. This guidance ensures that we receive data only from participants who are recognized as active in the relevant market.

For additional information, please refer to the Spotbarga Freight Index Guidance for Market Participants.

2.4 Market data usage

Spotbarga employs the most reliable and representative methodological approach for the inland tanker market in Europe. In its methodologies, Spotbarga utilizes various types of market data, including but not limited to: transactions and other market information, timings, and other relevant data.

2.5 Exclusion of data

In accordance with the company's compliance policy, the Spotbarga Freight Index and reporters strive to identify and exclude any anomalous market information from the assessment process. This is accomplished through a daily process of gathering market transactions from multiple sources.

The Spotbarga Freight Index software has been developed to incorporate all the methodology price assessments and guidelines. This ensures that our index is unbiased and operates without human errors. The software automatically identifies and excludes any outliers that do not conform to our methodology, and the reporter is promptly notified to investigate the issue. This process ensures that our index is consistent, accurate and reliable, and provides an objective view of the inland barge market.

When assessing the European inland shipping markets, Spotbarga considers only transactions between non-affiliated parties. Bids or offers that are not firm, are not accepted and will be disregarded.

Spotbarga also excludes from its assessments any transactions that its reporters have reason to doubt are representative of typical market behavior.

Spotbarga keeps a record of any unusual market data and regularly reviews such data to see if there is a pattern or trend. If Spotbarga reporters observe any suspicious or inappropriate behavior from a market participant, they will escalate the matter through the Spotbarga Escalation Process for Compliance and Regulatory Issues. This process can be found in the Spotbarga Compliance Manual.

2.6 Market data validation

Spotbarga is committed to ensuring the accuracy and reliability of its market data. To this end, Spotbarga takes steps to confirm all transactions with the relevant parties. Whenever possible, Spotbarga cross-checks all market data received from both market participants such as charterer and shipping company. If one counterparty cannot or will not confirm the data, Spotbarga seeks corroboration from other market sources.

If Spotbarga has any doubts about an item of market data, it may request further evidence that a transaction has taken place, including documented evidence.

The use of software in the validation of data and persons/companies provides several benefits that contribute to ensuring the accuracy and reliability of the data used in the Spotbarga Freight Index.

In terms of person and company validation, the software can access various databases and information sources to verify the identities and credentials of persons and companies involved in the transactions reported. This process helps to eliminate any data reported by unauthorized parties or entities that do not meet the necessary regulatory requirements.

Furthermore, the software can perform automated checks on the relationships between the persons and companies involved in the transactions reported to ensure that they are at arm's length and not related parties or affiliates. This process helps to eliminate any potential conflicts of interest or other issues that could affect the accuracy of the index.

2.7 Validation of transaction data

Our software conducts various tests to transactional data to determine whether further scrutiny is necessary. Transactions that fail these tests will receive additional scrutiny. In terms of assessments, Spotbargo has implemented internal procedures that include escalating inquiries within the source's company and increasing the level of review within Spotbargo management. If it is determined that a transaction should be excluded from the price assessment process, the supervising editor will initiate approval and, if required, documentation procedures.

Primary outlier transactions which will be excluded:

- Transactions that are not conducted at arm's length, such as deals between related parties or affiliates.
- Transaction prices that significantly deviate from the mean of all transactions submitted for that day.
- Transaction prices that fall outside of the generally observed lows and highs during the trading day.
- Transactions that are suspected to be part of another transaction or are contingent on an unknown transaction.
- Single deal volumes that greatly exceed the typical transaction volume for that market.
- Transaction details that other market participants identify as potentially anomalous and that Spotbargo perceives as such.
- Transaction details that are reported differently by one counterparty than the other counterparty.
- Transactions that involve the same counterparties, price, and delivery dates are verified to ensure that they are distinct deals and not duplicates in Spotbargo records.

2.8 Freight Index validation

Spotbargo publishes volume-weighted averages in the Spotbargo Freight Index, known as "indexes" or "indices," of verified typical transactions over specified periods in some markets. These indexes are published real-time daily and provide an indicator of typical traded value for the market segment they represent. Spotbargo verifies the inputs to these indexes to ensure conformity to the specified methodology and eliminates statistical outliers.

It is important to note that an index is a mathematically derived average and may not always reflect the currently transactable price at the time of publication. Therefore, the deviation from the last transacted value at the close of business could be substantial, depending on the time period assessed.

3. Price assessment

3.1 Assessment guidelines

Assessment guidelines are crucial for maintaining the integrity and reliability of price assessments. When there is insufficient or no transaction information available, or when the use of transaction-based methodology is not feasible, Spotbarga must apply intelligent judgment based on a broad array of factual market information to make an assessment of market value.

3.2 Assessment process

Spotbarga utilizes a comprehensive survey process to inform its price assessments, which involves gathering information from a diverse range of market participants such as charterers, barge owners, and brokers. To obtain this data, Spotbarga reporters actively engage with the industry by proactively polling participants for market insights. All credible market sources, including front and back office personnel of market participants and brokers, are contacted and their data is accepted by Spotbarga. Mainly, market data is received through our electronic platform. Spotbarga also accepts market data through various means, such as telephone, instant messenger, email, or any other appropriate communication channel.

Spotbarga is continuously working to expand the pool of companies that provide market data across all markets. However, the number of entities that provide market data can vary significantly on a day-to-day basis, depending on the prevailing market conditions.

3.3 Publications and price data

Freight rates are published real-time during working days in the Spotbarga Freight Index as barge prices are reported. Our price data is also available independently from the text-based report. Upon request, index prices can feed into various databases with an API. Access to prices, reports, and news is also available on the Spotbarga Freight Index, utilizing various web-based tools. All Spotbarga prices are maintained in a historical database and can be accessed if needed. For further information, please contact the Spotbarga office.

3.4 Corrections to assessments

At times, Spotbarga may publish corrections to price assessments after the initial publication date. These corrections will only be made to rectify errors that arise from clerical mistakes, calculation errors, or a misapplication of our stated methodology. Spotbarga will not retroactively assess markets based on new information learned after the assessments are published. Our best effort is always made to assess markets based on the information we gather during the trading day assessed.

3.5 Assessment window

The daily real-time spot assessments are based on data collected throughout the working day until the relevant closing times. In Europe, the closing time is 1800 hours (CET), while in London, it is 1700 hours (London time). It is important to note that any information received after the respective closing times cannot be used for the assessment, and corrections cannot be made based on subsequently received information.

Most deals are conducted before 3pm CET time due to nomination rules requiring a valid nomination 48 hours before loading date. However, there are still many participants that conduct deals or validations after this time. As Spotbargo has a real-time index, we choose to close the index in line with regular business hours, even though some deals may still be conducted after the market closes. These deals will be considered for assessments of the next day.

This ensures that our pricing reports are based on the most accurate and up-to-date information available at the time of publication.

3.6 Assessed period

Spotbargo considers fixtures and enquiries for cargoes that are scheduled to load within two weeks after the date of publication. This aligns with industry standards where inland tanker bookings are typically made within a week or sometimes even earlier. Oil companies usually plan their supply needs one week ahead to ensure they have adequate tanker capacity. If there are delays or prompt freight fixtures, companies may request immediate bookings. During very busy periods, companies may book barges further in advance, but this is generally avoided as it increases the risk of delays.

3.7 Non-standard volumes

Spotbargo publishes a standard cargo size for each region, which is outlined in the specifications section of this methodology document. Market information for cargoes that adhere to these standards will be fully considered in the assessment process, provided that the information meets all other specifications and conditions outlined in this methodology. However, if Spotbargo receives market information on cargoes that fall outside of these published ranges, it will be adjusted and normalized with any standard-sized cargo information. In such cases, Spotbargo will analyze whether there is a market price premium or discount for the non-standard cargo and apply this to the assessment process. This approach ensures that all market information, whether standard or non-standard, is incorporated into the assessment process and that the resulting assessments are as accurate and reflective of market conditions as possible.

3.8 Low liquidity procedure

In situations where there is low liquidity for a particular route, Spotbargo may use data from the previous day or data from other similar/sub routes to calculate the index for the current day. Our software will use advanced algorithms to identify comparable routes and data of the previous day and adjust the data accordingly to reflect the current market conditions.

The procedure involves the following steps:

1. Identify the route with low liquidity and determine the extent of the problem.
2. Check if data from the previous day and data from other similar routes are available.
3. If data is available, use the data to calculate an adjusted index for the current day.
4. Apply the adjustment factor to the index for the comparable route to reflect the current market conditions for the low liquidity route.
5. Publish the adjusted index and provide an explanation for the adjustment in the methodology section of the report.

This procedure ensures that even in situations of low liquidity, our index accurately reflects the current market conditions and provides a reliable assessment for market participants.

3.9 Minimum data threshold

Spotbargo recognizes that sometimes markets may have low liquidity, which can make it challenging to obtain a significant amount of data for all index routes. Spotbargo does set a minimum data threshold for its assessment methodologies at two deals per route for a 100% average calculation.

However, when the minimum of direct bookings for an index route is not given. As explained before, our software will calculate a price for the given index route based on previous days, sub-routes, and other index routes. This is also validated data which we therefore can use.

3.10 Consistency in the assessment process

Spotbargo ensures consistency among its assessors by mandating them to adhere to our detailed methodology. Additionally, all Spotbargo reporters are required to complete standard training before taking on the role of a market reporter. To further guarantee consistency, every reporter's work as well as the digital platform undergoes spot checks.

The use of software in the calculation within the Spotbargo Freight Index provides several benefits that contribute to ensuring a high standard and consistency in the index.

Automating the index calculations eliminates potential human errors compared to a manual process. This also allows for the inclusion of more data points, providing a more accurate representation of the market.

Secondly, the software can apply various filters and tests to the data to identify any anomalous or irrelevant data points. This helps to ensure that only accurate and relevant data is included in the index, leading to greater consistency.

Finally, the use of software ensures the pricing data is collected and stored in a standardized way, which ensures data consistency and correctness.

3.11 Daily assessment commentary

Spotbarga ensures transparency and clarity by providing a concise description and supporting commentary for each assessment published, detailing the type of market data used in the assessment process. This allows market participants to understand how the assessment was formed and make informed decisions based on the information provided, namely:

- size and liquidity of the market being assessed (meaning the number and volume of transactions submitted),
- the range and average volume and range and average of price,
- and indicative percentages of each type of market data that have been considered in an assessment;

3.12 Transported products

The criteria for products transported by the inland tank barges for CPP (clean petroleum products) and DPP (dirty petroleum products) that are considered for assessment are:

Light products, Middle distillates, LCF and DPP are widely used within the industry and makes it clear for all readers of the methodology.

- Light products include but are not limited to: Gasoline / BOB / v-power / sok98 / euro / sok95 / naphtha / mogas components / heartcut / ccu -tops / Fccg /
- Middle distillates includes but are not limited to: Diesel B0 B7 / gasoil 1000 / gasoil dyed / gasoil undyed / LCO white.
- LCF includes but are not limited to: Fame / ethanol / biodiesel/ HVO/feedstocks, RME, TME, POME
- DPP includes but are not limited to RMG / RMK 700 / RMK 500 / Cutterstock / Visbreaker residue / IMF / LS IMF / Slurry / VGO / HS Fuel oil / VLSFO.

Excluded products are the product group chemicals, such as toluene, styrene, ortho-xylene.

3.13 Inland Tanker (barge)

An inland tanker barge is a type of vessel specifically designed for transporting liquid cargo on inland waterways such as rivers, canals, and lakes. Description of an inland tanker barge used in Spotbargo's assessments:

1. **Size and Structure:** An inland tanker barge is typically a large, flat-bottomed vessel with a rectangular or cylindrical shape. It can vary in size, but commonly ranges from 50 to 135 meters in length and has a width of around 11.4 meters. The barge is constructed with steel hulls to ensure stability and durability.
2. **Cargo Capacity:** Inland tanker barges are primarily designed to carry liquid cargoes such as petroleum products, chemicals and vegetable oils. The cargo capacity of an inland tanker barge can range from thousand to twelve thousand tons, depending on its size and design.
3. **Tank Compartments:** The interior of an inland tanker barge is divided into multiple tank compartments to accommodate different types of cargo and ensure safe transportation. These compartments are sealed and have separate pumping and storage systems, allowing for the segregation of different liquid cargoes.
4. **Double hull tanks** are required by regulatory authorities and industry standards.

3.14 Price changes

The change in prices from the previous period is indicated by a plus sign (+) in green for an increase, a minus sign (-) in red for a decrease, "n/c" (no change) if there was no change, or "p/d" (previous day) if it is the price of the previous day.

3.15 Units measurements

Spotbargo pricing reports quote prices in the currency and unit of measure relevant to the market. For most freight routes, prices are quoted in euros per metric tonne (€/MT). Only for the Basel quote it will be measured in Swiss Franc as well. Historical data may include assessments previously measured in European currencies that have since been superseded by the euro.

3.16 Conversions (weights and measures)

To facilitate ease of reference, prices are sometimes converted into other currencies and unit measures. Standard conversion rates and current exchange rates are used to derive these conversions from the quoted price assessments. The calculations for conversions involving weights and volumes are made within industry-accepted ranges, which differ depending on the product's specific gravity.

3.17 Market communication

Spotbargo obtains market information by actively communicating with a diverse range of market participants. These interactions occur through various mediums such as telephone, email, and instant messaging.

To ensure transparency and accuracy, all instant messages, email communication, and face-to-face conversations are carefully archived, while telephone conversations are logged and data-based.

To maintain security, Spotbarga only accepts instant messenger communication via The Ice from known and verified parties. Reporters are required to verify a market participant's identity before using IM communication.

Spotbarga requires its reporters to adhere to a Code of Conduct that mandates them to report any coercive or threatening communication from market participants, or any offers of inducements intended to influence an assessment. Spotbarga considers such improper communication as a serious matter and will escalate it to senior management of the company or companies involved, and if necessary, to relevant market authorities.

Spotbarga upholds the highest standards of propriety and professionalism from all market participants and considers all communications as reflective of the views of the individual's employer. In addition, Spotbarga is dedicated to delivering exceptional customer service and has established a formal feedback and complaints policy, which is available for review on our website. We encourage our subscribers and market participants to provide feedback and report any concerns they may have regarding our services or the behavior of our reporters. Our commitment to transparency and accountability is fundamental to maintaining the trust of our subscribers and the wider market.

3.18 Low/High

The Spotbarga price index provides real-time updates on both the daily low and high quotes. Users can easily track the lowest and highest prices on Spotbarga for a particular route.

3.19 Last quote

The price index offers users a detailed view of each route, displaying the most recent quote entered, called 'last quote'. This significantly enhances transparency, as users can easily access the latest actual quote for any given route and precisely when it was entered.

3.20 Email validation

Upon entering a quote into the system, the counterparty promptly receives an email containing comprehensive details of the submitted quote. Within this email, recipients have the option to either confirm or reject the quote. It's important to note that confirmation must occur within a two-hour window. Should this deadline pass without action, the email will expire, and only the market reporter retains the authority to approve or reject the quote.

4. Changes to methodology

To ensure transparency and collaboration with the industry, Spotbarga has formal procedures for proposing changes to its methodologies. These proposals usually arise from the ongoing process of internal and external reviews of the methodologies.

If a material change is proposed, Spotbarga will initiate a formal procedure for external consultation. The proposed change will be announced in the relevant Spotbarga report, which will include:

- A detailed explanation of the proposed change and its potential impact on the market and price assessments.
- A consultation period during which market participants can provide feedback and comments on the proposed change.
- Information on how to submit feedback and comments, and a deadline for submissions.
- An indication of the timeframe for implementation of the proposed change, taking into account the consultation period and any necessary adjustments to the methodology.

Spotbarga values the input of market participants in the development of its methodologies and strives to ensure that any changes are made in a transparent and collaborative manner.

Spotbarga acknowledges the importance of providing sufficient time for stakeholders to analyze and comment on proposed changes to its methodologies. However, it is essential to prevent unrepresentative or false prices from being published, markets from being disrupted, or market participants from being exposed to unnecessary risks. Therefore, Spotbarga will ensure that there is adequate opportunity for consultation and will engage with the industry to gain acceptance of proposed changes to methodology. However, it is not possible to guarantee universal acceptance. In such cases, Spotbarga will act in the best interests of the market and prioritize the continued integrity of its price assessments.

Proposed changes to the methodology or general questions regarding its effectiveness in fulfilling its purpose will be publicly announced and industry participants will be requested to provide comments. The minimum period for soliciting comments will be 28 days, unless a force majeure event such as a natural disaster, war, or bankruptcy of a trading exchange necessitates a shorter period.

After the consultation period, Spotbarga management will conduct an internal review and make a decision on the proposed methodology change. This decision will be communicated through an announcement published in the relevant Spotbarga report, along with a date for implementation.

Spotbarga consultation process

The process by which a methodology is reviewed externally including the procedures to gain market acceptance on important changes to the price assessment process. The Methodologies require draft changes, or general questions to ascertain how well the methodology is performing in fulfilling its purpose, to be made public and comment requested from industry participants, with a minimum one-month period, except where a force majeure event (e.g., natural disaster, war, bankruptcy of a trading exchange etc.) makes necessary a shorter period.

Furthermore, for a detailed process for changes, internal review, and external review we refer to the Spotbarga Methodology consultation process.

5. Compliance

5.1 Ethics and compliance

Spotbarga is committed to adhering to the highest standards of ethics and compliance in the publishing field. We maintain rigorous compliance procedures throughout our firm to ensure that we are seen as a preferred provider by our subscribers while also upholding our editorial integrity and independence. Our strict ethics policy applies to all staff members and can be accessed on our website at www.spotbarga.com.

At Spotbarga, we also have strict policies in place for central archiving of email and instant messenger communication, maintenance and archiving of notes, and archiving of spreadsheets and deal lists used in the price assessment process. We publish prices that accurately report and reflect prevailing levels for open-market arm's length transactions, as defined in the Spotbarga Global Compliance Policy.

5.2 Transparency

The use of software in the calculation of the Spotbarga freight index provides several benefits that contribute to ensuring a high standard and transparency in the index.

The software automates the collection and processing of data from various sources, which reduces the potential for errors that may arise due to manual data collection and entry. This process is transparent because it ensures that all data points are processed uniformly, and there is no opportunity for selective data collection or entry that could compromise transparency.

6. FARAGD freight rates

6.1 Index routes

The Spotbargo Freight Index for the CPP FARAGD area consists of eighteen index routes. The index prices for these routes will feed real-time on the spotbargo platform. These locations are where most of the activity takes place due to the presence of refineries or big storage hubs for oil products. All the index locations have at least two oil suppliers / customers.

Load	Discharge
Rotterdam	Antwerp
Rotterdam	Amsterdam
Rotterdam	Flushing
Rotterdam	Ghent
Antwerp	Amsterdam
Antwerp	Flushing
Antwerp	Ghent
Flushing	Amsterdam
Amsterdam	Ghent
Ghent	Flushing
Dordrecht	Amsterdam
Dordrecht	Rotterdam
Dordrecht	Antwerp
Dordrecht	Ghent
Dordrecht	Flushing
Ghent	Ghent
Flushing	Flushing
cross	cross

6.2 Outliers

Outliers in the dataset are identified based on a defined range, which is the 10% above or below the index price. When rates fall outside of this range, indicating non-standard rates that are either unusually high or low, they are filtered out from the dataset. Subsequently, the average rate is recalculated after excluding these outliers. It's important to note that this process is performed ongoingly, and as new average rates are established, new outliers may arise.

By implementing a standardized approach to handle outliers and including market commentary, Spotbargo ensures the integrity and accuracy of the reported rates while offering valuable insights to market participants. This allows them to make informed decisions and stay updated on the latest market developments

Trade names short names

ARA: Amsterdam / Rotterdam / Antwerp

FARAG: Flushing / Antwerp / Rotterdam / Amsterdam / Ghent

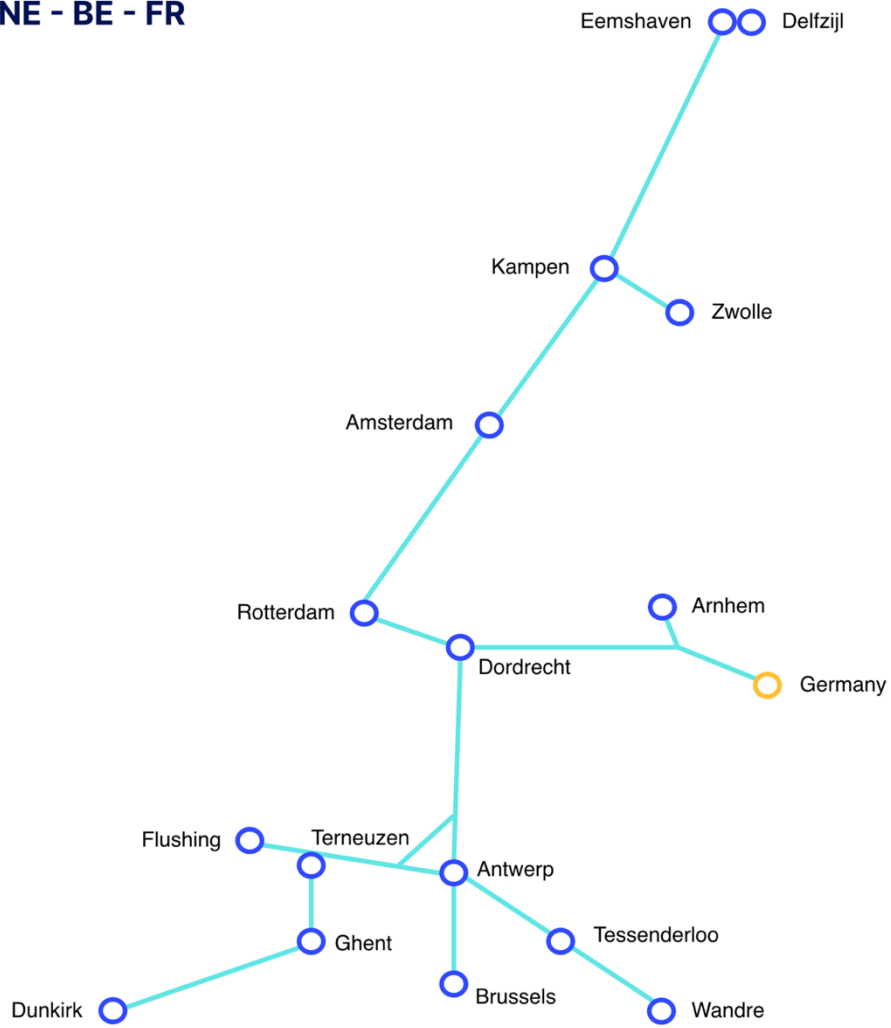
FARAGD: Flushing / Antwerp / Rotterdam / Amsterdam / Ghent / Dordrecht

6.3 Geographical regions

Spotbargo pricing methodology typically covers freight routes on a regional basis, ensuring that the primary drivers impacting the market in a specific area are thoroughly covered. Our freight index and reports are currently issued across Europe.

Within these broad areas, we commonly use quotations such as NWE mainland for Northwest Europe, which includes Northern France, Northern Germany, and Benelux.

**Tradelanes
NE - BE - FR**



7. Rhine freight rates

7.1 Index Routes

The Spotbargo Freight Index for the Rhine area consists of fifteen index routes. The index prices for these routes will feed real-time in the spotbargo platform. These locations are where most of the activity takes place due to the presence of refineries or big storage hubs for oil products. All the index locations have at least two oil suppliers / customers.

Lower-rhine All locations from Duisburg until Koblenz.

Upper-rhine All locations from Frankfurt until Basel

Trade Area	Include locations
ARA	Amsterdam / Rotterdam / Antwerp
Duisburg	Duisburg / Krefed-urdingen
Essen	Essen / Botrop / Gelschenkirschen
Cologne	Wesseling / Godorf / Lulsdorf
Koblenz	Koblenz / Andernach / Bendorf
Frankfurt	Frankfurt / Raunheim / Kelsterback / Floersheim
Karlsruhe	Karlsruhe / Mannheim / Ludwigshafen / Spyer
Strasbourg	Strasbourg / Kehl
Basel	Basel / Birsfelden / Riedisheim / Village-neuf / Mulhouse
Cologne	Basel / Birsfelden / Riedisheim / Village-neuf / Mulhouse
Karlsruhe	Basel / Birsfelden / Riedisheim / Village-neuf / Mulhouse
Cologne	Strasbourg / Kehl
Karlsruhe	Strasbourg / Kehl
Essen	Basel / Birsfelden / Riedisheim / Village-neuf / Mulhouse
Essen	Strasbourg / Kehl

7.2 Industry Terms and conditions

Spotbargo Rhine Freight Index (CPP Rhine), provides comprehensive information on the pricing of transportation services for cargo via the Rhine river.

Rates Specification

All the published rates include and or are based on the following:

- Rates include pilotage, harbor, and canal dues, which are factored into the pricing structure to account for the costs associated with navigating inland tankers through ports and canals.

- Rates include fuel costs, reflecting the expenses incurred for the transportation of goods, including the cost of fuel for inland tankers involved in the shipment process.
- Standard volume is based on 2000 metric tons or the water level loading capacity, providing a standardized reference for calculating pricing and ensuring consistency in volume measurement.
- The cargo category specified is clean petroleum products, indicating that the rates pertain to the transportation of refined and purified petroleum products that meet specific quality standards, as mentioned earlier in the methodology.
- TTB 2010 is applied, referring to the utilization of the Tanker Barge Voyage Charter Party 2010 the industry-standard agreement as the contractual framework for the transportation service.

In addition to providing freight rates, the Index by Spotbargo includes important information about the data used and any adjustments made. This ensures transparency and clarity in the publication. Specifically, the Index contains the following details:

7.3 Outlier Handling

If outliers, which are data points significantly deviating from the average or expected values, have been filtered out of the dataset, this information is disclosed. The platform and report specifies whether any outliers were removed and provides the relevant details, such as the freight rate per metric ton, standardized destination, and the reason for omitting the outlier. This allows market participants to understand the impact of such adjustments on the reported rates.

7.4 Outliers

Outliers in the dataset are identified based on a defined range, which is the 10% above or below the index price. When rates fall outside of this range, indicating non-standard rates that are either unusually high or low, they are filtered out from the dataset. Subsequently, the average rate is recalculated after excluding these outliers. It's important to note that this process is performed ongoingly, and as new average rates are established, new outliers may arise.

By implementing a standardized approach to handle outliers and including market commentary, Spotbargo ensures the integrity and accuracy of the reported rates while offering valuable insights to market participants. This allows them to make informed decisions and stay updated on the latest market developments

7.5 Map CPP Rhine Area

