FREIGHTWAVES NATIONAL TRUCKLOAD INDEX DAILY (NTID) METHODOLOGY



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Index Description

The FreightWaves National Truckload Index (NTID) is designed to measure the performance of the daily Rate Per Mile of freight transactions in the United States. The NTID is calculated on a composite national aggregated level of the Rate Per Mile for fully enclosed, non-refrigerated, 48- and 53-foot trailers moved by Class 8 tractors based on eligible spot market transactions submitted by Data Providers. The NTID publication shall occur seven (7) days per week, with the exception of Holidays. The NTID is constructed using eligible transactions submitted by Data Providers during the 24-hour period ending at 11:59:59 PM Pacific Time on the Observation Date (the "Observation Date" is the date in which Data Providers provide Eligible Transactions for inclusion in the NTID).

Data Providers

The input data for the NTID is actual spot market transactions submitted by Data Providers by Rate Per Mile for full truckload, fully enclosed, non-refrigerated, 48- and 53-foot trailers moved by Class 8 tractors, originating and terminating in the United States. Data Providers are contractually committed to provide daily spot market freight transactions, which FreightWaves then anonymizes and aggregates, and which form the FreightWaves Trusted Rate Assessment Consortium (TRAC) that the NTID is based upon.

Transaction Eligibility

The transaction data used to calculate the NTID consists of spot market transactions between transportation providers and brokers. Each transaction is expressed as the Rate Per Mile and eligibility for inclusion is based on transactions that are executed with a Coverage Date within one calendar day of the date of submission and with an Execution Date within 14 calendar days of the Coverage Date (the "Eligible Transactions"). These transactions are negotiated on a day-to-day basis and not covered by any existing contractual agreements between transportation providers and brokers.

The NTID relies upon the availability and quality of the Eligible Transactions submitted by Data Providers. Accordingly the NTID is subject to the following:

• In order to ensure that the index is not affected by outliers in contributor data (either miscategorization or data entry errors), outliers are removed before averages or volumes are calculated for each contributor. Within a Data Provider's data, rates above and below the median are evaluated separately. Rates more than three (3) median absolute deviations above the median (MADs) (calculated using rates above the median) and rates more than three (3) MADs below the median (calculated using rates below the median) are considered outliers and removed from the Data Providers data for purposes of calculating the NTID.

The FreightWaves Index Methodology Committee will conduct routine reviews of data quality, create and maintain data quality assurance procedures, and take additional steps as it deems necessary to maintain

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receipt of high quality and timely data from the Data Providers. Such procedures and adjustments may result in modifications to the criteria used for Eligible Transactions.

Contributor Weighting

The NTID relies upon the completeness of the data contributed by Data Providers as it relates to calculating the NTID. To ensure the NTID is reflective of the markets, the following controls are also placed on the NTID:

- If Data Providers fail to meet the requirements to be included each day and that would lead to fewer than five (5) Data Providers, the previous day's Rate Per Mile and volume for each Data Provider that failed to meet the requirements will be carried forward and used for purposes of calculating the NTID. If no Data Providers provide data, the previous index value will be carried forward. In the event that a Data Providers' Eligible Data is carried forward, a disclosure will be made on the FreightWaves Index website under the Index section.
- No single Data Provider's transactions will make up more than 25% of the total weighted average of the NTID. If any Data Provider represents more than 25% of the total transaction volume, the weight of their volume will be set to 25% and all other Data Providers' weights will be adjusted upward equally up to a maximum of 25%.

Index Construction and Calculation

- The NTID is calculated using Eligible Transactions that have been submitted by the Data Providers in accordance with the Data Submitter Code.
- The NTID Value is the volume-weighted average of each contributor's Rate Per Mile for Eligible Transactions. Each contributor's volume weighting is constrained to no more than 25% of the overall volume.
- The NTID shall be based upon Eligible Transactions submitted by Data Providers during the 24-hour period ending at 11:59:59 PM Pacific Time on the Observation Date. NTID is calculated and published for seven (7) days of the week, with the exception of Holidays. The NTID shall publish on the date subsequent to the Observation Date, with exception to Holidays. If the NTID is scheduled to be published on a Holiday, the NTID will publish on the next non-Holiday date. Each year's Holidays will be published prior to the start of each respective year and can be found on the FreightWaves Index website.
- Significant delays in publishing the NTID value will be made public as soon as practical. All information with respect to delays will be posted on the FreightWaves Index website and distributed to the market.

Changes in Data Providers/Index Divisors

The NTID is intended to be representative of the national cost of transporting freight. The Index Methodology Committee endeavors to capture a broad set of transactions to ensure the NTID is measuring a representation of the actual nationwide market for spot freight costs. Over time, new Data Providers may contribute data or existing Data Providers may decide to cease contributing data. In the case of a withdrawal of a Data Provider whose data supports the NTID, the historical data provided will continue to be incorporated in the NTID history. Before incorporating new Data Provider(s) the

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FreightWaves Index Methodology Committee will analyze the NTID time series (history) with and without the additional transactions. If, in the Expert Judgment of the FreightWaves Index Methodology Committee, there is a material change in the NTID time series, the index divisor (the "Index Divisor") will be adjusted to maintain the continuity of the NTID time series.

Any additions of Eligible Transactions used for calculating the NTID that arise from new Data Providers will be made on a periodic basis and will be reflected in the NTID on a go-forward basis only. Any material changes to the NTID resulting from the addition or subtraction of Data Providers will be announced with changes effective fourteen (14) calendar days later.

At launch, the NTID will have an Index Divisor of 1.00 and will be re-valued, as necessary, according to the following formula:

[Index Divisor formula]

[Each days Index Value = daily weighted average transaction/Index Divisor]

Changes in Index Methodology

Even though the Index Methodology is formulaic, there may be situations that require modification of the methodology. Any changes in the Index Methodology are determined by the FreightWaves Index Methodology Committee (subject to the oversight of the FreightWaves Index Management Committee) as described in the FreightWaves Index Governance Structure document. Examples of possible changes in methodology of the NTID include, but are not limited to, the following:

- The creation of subindices to the NTID covering new market segments/lanes.
- Changes in the procedures governing data sources, the quality of data and universe of transactions.
- Modifications in weighting schemes or treatment of outliers related to data inputs.
- Timing of publication of the NTID.

Index Recalculation and Restatement

No time series (historical) recalculation of the NTID will be made in the case of a data error unless the error results in a change in the NTID value greater than 5%. Any time series (historical) recalculation greater than 12 months will not be made.

NTID Dissemination

Daily NTID values are available through the FreightWaves Index website, SONAR, FTP and independent data redistributors.

FreightWaves aims to publish the daily NTID values by 9:00 AM Eastern Time each day the NTID is calculated.

Adoption of Definitions

All definitions contained in the FreightWaves Index Key Definitions are adopted and incorporated herein. The FreightWaves Index Definitions is located on the FreightWaves Index website.