

American Metal Market

Hot-Rolled Coil Index

Methodology and Price Specifications

American Metal Market

American Metal Market (AMM) is part of the Metal Bulletin Group, a leading global provider of information and prices for the nonferrous metal, steel and scrap markets, which has been producing price assessments and indexes for over a century.

AMM's price reporters are required to abide by a code of conduct and clear pricing procedures during their market reporting and pricing activities. *AMM* is completely independent and has no vested commercial interest in any of the markets it prices, including no interest in the level or direction of the indexes it publishes.

The aim of this document is to provide a clear overview of *AMM's* methodology and specifications to produce the *AMM* US hot-rolled coil index.

If you have any questions, please contact *AMM's* Steel Editor Thorsten Schier (tschier@amm.com)

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Methodology rationale

AMM's rationale to adopt and develop the price discovery process and methodology to produce the hot-rolled coil index is to provide a fair, consistent and transparent representation of the US hot-rolled coil market for the trading period they measure.

AMM publishes the hot-rolled coil index on a weekly basis every Thursday, unless that falls on a public holiday, in which case the index is published on the following working day.

Prices are valid for new spot orders placed from a producing mill in the timeframe from the publication of the prior index. Any material that is delivered as part of a long-term contract is excluded from the calculation process.

Specifications and reference units

AMM has defined clear specifications that detail the material's characteristics or quality, location, delivery and payment terms and the minimum volume accepted. These specifications have been determined in consultation with market participants and following industry convention. Currency and volume units are in line with recognized hot-rolled coil market trading conventions.

AMM's Reporters ensure that the information they receive matches the following specifications:

Hot-rolled coil

Price	US dollars per hundredweight
Location	USA
Pricing Point	f.o.b. Midwest mill
Price Type	Index
Frequency	Weekly, Thursday
Minimum tonnage	50 tons
Gauge	0.09 inch - 0.38 inch thick x 48 - 72 inches wide
Quality	ASTM A1011 commercial sheet and corresponding grades
Packaging	Standard
Raw Material surcharges	Included

What happens if the material is downgraded on delivery?

The transaction is done on the expected delivery specifications, including grade and payment terms, and the price settled on this basis. If it turns out to be different, then that is an issue between the two parties who entered the contract, and the index is not revised retroactively.

Payment Terms

The basis of the payment terms is based on typical commercial practice in the hot-rolled coil market. Transactions that are conducted on different payment or credit terms will be adjusted back to the base specifications, taking into account discounts and standard commercial terms.

Index Calculation

The index methodology is a tonnage-weighted calculation of transactional data which are reported to *AMM* by market participants conducting trades on a delivered Midwest mill basis.

The index consists of three sub-indexes, one for the producers, one for the consumers and one for traders (distributors), based on information received from all sides of the market.

The three sub-indexes are each based on a tonnage-weighted average of normalized trade information received by *AMM* reporters. The three sub-indexes are then combined with equal weighting to ensure that the market is fairly represented across all participants. All the input data that may vary by more than 10% from the preliminary index figure will be excluded and the index recalculated.

The published index figure is the straight average of the three sub-Indices.

Why is the index calculation divided into producers, consumers and traders (distributors)?

The *AMM* methodology is designed specifically to balance out any bias in the market to create the most representative and objective price. The index is split into the three groups of producers, consumers and traders (distributors) to balance a number of factors, including tonnage bias, where more transactions are reported by one side or the other. In this case, if more tonnage is reported on one side, it will contribute to the accuracy of the sub-index, but it does not over influence the final index calculation. By splitting the calculation into three, we are able to ensure that all sides of the market will have an equal influence on the final index calculation.

Data quality and verification

Where transaction data submitted appears out of line or anomalous, participants may be asked to provide evidence of the transaction in the form of a signed contract. Participants will have the right to decline to provide this evidence and *AMM* will have the right to exclude prices that cannot be substantiated.

The number of trades available for use in the indexes does vary depending on the market conditions prevailing. The index calculation methodology does not set any minimum number, or threshold, of transactions to be gathered on which to base the index.

Data is submitted prevalently by phone and e-mail survey. All data received is kept confidential.

Data collection criteria

AMM aims to collect as much data from the greatest number of counterparties as possible each month in its attempt to represent the majority of the market.

The more data collected, the larger the proportion of the market that is represented and the more statistically significant the final figure will be. *AMM* is constantly looking to expand its contact list in order to provide the market with a reliable and representative index price.

All market participants who are conducting business on a delivered mill basis are permitted to contribute.

Producers, consumers and traders (distributors) are equally represented in the final index price in order to avoid bias.

However, different numbers of inputs may be entered from each side of the market into each of the three subindexes.

In the unlikely situation that a single market participant provides more than 50% of the transaction data, *AMM* will collect from other market participants and include in the calculation of the index other data including bids, offers, and sources' own assessment or indication of value.

Periods of low liquidity:

In the event that in a particular pricing session the dataset collected is not considered suitably robust (such as too few data points on the day) for the calculation of a particular index, *AMM* will implement the following fall back procedures (1-9) until a suitable number of data points is reached to calculate the Index:

1. Carry over transaction data from other sub-indices on the day.
2. Carry over assessment data from other sub-indices on the day.
3. Carry over transaction data from the previous day in the appropriate sub-index.
4. Carry over transaction data from the previous day from any sub-index.
5. Carry over assessment data from the previous day in the appropriate sub-index.
6. Carry over offer/bid data from the previous day in the appropriate sub-index.
7. Carry over assessment data from the previous day from any sub-index.
8. Carry over offer/bid data from the previous day from any sub-index.
9. If no price data can be collected then the index price will be carried over.

In the unlikely situation that more than half of the pricing data collected on a day is provided by a single source, *AMM* will use the fall back procedures 3-9 (see above) to ensure there is not dependency on a significant proportion of data being provided by a single entity.

What data does AMM request from market participants?

AMM requires that its market contacts report data in good faith and report information with full transparency. In order to create the most representative Index, *AMM* requests the following aspects of the transaction for inclusion in the calculation:

- Transaction price or average transaction price
- Material type (based on ASTM specifications)
- Origin
- Tonnage
- Delivery point
- Delivery period
- Payment terms
- Any other relevant data to pricing (e.g. distressed sale.)

Procedure to ensure consistency in the index calculation process

The US hot-rolled coil index is calculated by a first reporter, peer-reviewed by a second reporter, and always signed-off prior to publication by a senior member of the index team. The peer review process is in place to make sure that the pricing procedure and the methodology are correctly and consistently applied.

Index Publication

The index is published every Thursday at 5 p.m. EST from our New York office. All data must be received by 4 p.m. EST. Any data received after 4 p.m. will not be included in the index. In the event of the Thursday falling on a public holiday or weekend, the index will be published on the following working day.

Data can be supplied in a number of ways to maximize convenience. This can include by phone or email to the normal *AMM* contact or to editor@amm.com.

Appendix:

About AMM

American Metal Market (*AMM*), founded in 1882, over its long history has established itself as the unrivaled leader in metals news and pricing in North America.

AMM and sister publication *Metal Bulletin* are part of the *Euromoney Institutional Investor Plc* group, a £1-billion (\$1.6-billion) business publisher that is publicly listed on the London Stock Exchange.

With around 7,500 subscribers, *AMM* covers the full array of metals, although its particular strengths are in steel and ferrous scrap.

AMM disseminates its information through a daily electronic newspaper, its website amm.com and a monthly magazine. In all, more than 10,000 stories are published every year and more than 1,000 different prices are assessed regularly across a range of metals, grades and locations.

A Strong History in Pricing

AMM has built a reputation as a trusted source in pricing assessment. Its prices are used as benchmarks in contracts between buyers and sellers in a variety of markets.

Steel

For the past several decades, *AMM* has published prices for a variety of steel products across the supply chain. The majority of these prices cover amounts paid by consumers or distributors to the producing mills. The assessments consider actual transactions, although the calculation of the price depends to a great extent on the experience and expertise of *AMM's* editorial team.

These prices have become widely used by the industry in contracts and other pricing relationships. *AMM's* hot-rolled coil price assessment specifically goes back to the 1960's, and *AMM* has always been a leading benchmark in this field.

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