

American Metal Market

US Ferrous Scrap Export Index

Methodology and Price Specifications

American Metal Market

American Metal Market (AMM) is the leading independent supplier of market intelligence and pricing to the North American metals industries and publisher of widely-used reference prices for scrap.

AMM's US Ferrous Scrap Export Index are built upon the publication's extensive experience in reporting scrap prices in a wide range of grades and locations and utilizes an established and leading index methodology.

AmericanMetalMarket

The *AMM* US Ferrous Scrap Export Index have been developed to provide a fair, transparent and objective representation of the market.

AMM has been reporting on the U.S. scrap market for over 100 years and therefore has a unique level of experience and knowledge in providing benchmark prices to the industry.

The *AMM* Index methodology is a tonnage weighted calculation of transactions that have been normalized to our base specification using value-in-use curves as defined by the market.

The Index are based on actual transactions, which are reported to *AMM* by any market participant who is conducting trades on a FOB East Coast or FOB West Coast basis, and is not restricted to a panel or selected group.

The *AMM* Ferrous Scrap Export Index also utilize aggregate transaction data, where available, in order to maximize the proportion of the market represented in the final Index.

AMM is impartial and has no financial or other interest in the level or direction of the Index. *AMM* will not pay any market player to participate in the Index.

AMM US Ferrous Scrap Export Index Specifications

The details below are the base target specification. Material of other grades

will be normalized back to the base grade of HMS 1&2 (80:20 mix) to reflect the whole market and to increase the liquidity in the calculation.

The trades are normalized using the value-in-use of the different grades as defined by the market itself and are updated on a regular basis as the market movements dictate. In addition, where there is variation in other contract terms, such as a difference in pricing terms, these are adjusted back to the base specification.

In addition, trades will be normalized for freight based on port of loading. Trades will be adjusted for loading in regional ports other than the base ports of New York or Long Beach before normalization for grade. The freight normalization will be based on the relevant freight route, with data supplied by a leading global freight broker.

The number of grades quoted can be increased according to market requirements. The grades are based on ISRI specifications from 2012.

Index Calculation

Each Index consists of two sub-index, based on data received from sellers and buyers of scrap.

The sub-index are each based on a tonnage-weighted average of the normalized trade information, and the two index are combined with equal weighting to ensure that the market is fairly represented across all participants. Only the final Index is published.

Data Quality and Verification

All data points that vary by more than 4 percent from the calculated Index are excluded and the Index recalculated to a single iteration. Outliers can be investigated, and attempts to influence the Index unfairly will result in the data provider being warned or excluded.

In some cases, where prices appear 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 and *AMM* will have the right to exclude prices that cannot be substantiated.

The number of trades available for use in the Index does of course vary depending on the market conditions prevailing, but *AMM* seeks to utilize as many trades as possible.

Where insufficient transactions have taken place in the market, defined as less than 20 percent of the average weekly market volumes over the past 12 months, *AMM* reserves the right to include assessments, bids and offers from market participants in the Index calculation.

Material of all origin is included in the calculation with no sources specifically excluded. However, the origin may have an influence on the normalization coefficients used, if appropriate to the grade.

Data is submitted in a secure manner by phone and e-mail survey.

In its attempts to collect as much data from the market as possible, *AMM* will use the means that best suit the prevailing market environment. If specific transaction information is not available on an individual basis, *AMM* will accept aggregated purchasing or sales information as a single data point. This is provided the source indicates the average price received or paid for a total tonnage and assuming that all contract details are clear including payment terms and timings for normalization.

All correspondence is stored by *AMM*. The data collection and Index calculation process will be made available for audit by a recognized and accepted third-party auditor.

Index Publication

The Index are published on the Wednesday of every week from our New York office. All data must be received by 10 a.m. EST. Any data received after 10 a.m. EST on the day of publication will not be included in the Index calculation.

In the event of the Wednesday being a public holiday, the Index will be published on the following working day. While the Index will typically be published by *AMM*'s New York office, *AMM* and its parent organization maintain offices in a number of locations and can publish the Index from any of them as circumstances dictate.

AMM reserves the right to change the publication frequency according to market requirements.

Security of Data

AMM stores the collected data and calculation process on secure off-site servers that are backed-up on a daily basis. The data is not accessible to parties outside *AMM* or the group, and internally only to defined individuals within the Index and editorial teams. If required, the Index calculation process is auditable by a recognized and mutually acceptable third-party auditor according to legal requirements and under non-disclosure agreements.

Internal Compliance

AMM has established extensive training to ensure that the methodologies of data collection, Index calculation, publication and information storage are strictly adhered to. This includes internal auditing, close management oversight and regular updating of standards to reflect any changes in market practice.

Why is the Index Calculation Split into Buyers and Sellers?

The *AMM* methodology is designed specifically, and uniquely, to balance out any bias in the market to create the most representative and objective price. Each Index is split into the two groups, buyers and sellers, 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 market as it will always be 50 percent of the final Index calculation.

By splitting the calculation into two, influence from potential selective reporting of data is reduced. This is critical in a tonnage-weighted assessment which calculates the Index in a methodological and mathematical manner.

How does the Index Methodology Adjust for Different Levels of Concentration Between the Buyers and Sellers?

The sub-index are based on a tonnage-weighted calculation of actual transactions normalized for grade, payment terms, etc. The final Index is the non-weighted average of the two sub-index, allowing for equal representation from both sides of the market, and also counters market distortion or selective reporting of data. Only the final Index is published.

The different market concentrations then do not matter, as both sides of the market are treated individually, and then combined equally.

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.

Specifications for US Ferrous Scrap Export Index

HMS 1&2 (80:20) East Coast (f.o.b. New York)

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|----------------------|--|
| Price | US dollars per metric tonne |
| Specifications | HMS 1&2 (80/20 mix) compliant to ISRI specifications 200 – 206 |
| Material Destination | All destinations – Normalized to export from New York |
| Loading Window | Within 1 month |
| Material Origin | North America |
| Loading Port | New York – Other East Coast ports normalized |
| Trade Size | Minimum 5,000 tonnes |
| Delivery Method | Bulk Carrier |
| Payment Terms | Cash equivalent |
| Publication Date | Every Wednesday (or following day) |

HMS 1&2 (80:20) West Coast (f.o.b. Los Angeles)

| | |
|----------------------|--|
| Price | US dollars per metric tonne |
| Specifications | HMS 1&2 (80/20 mix) compliant to ISRI specifications 200 – 206 |
| Material Destination | All destinations – Normalized to export from New York |
| Loading Window | Within 1 month |
| Material Origin | North America |
| Loading Port | Long Beach – Other West Coast ports normalized |
| Trade Size | Minimum 5,000 tonnes |
| Delivery Method | Bulk Carrier |
| Payment Terms | Cash equivalent |
| Publication Date | Every Wednesday (or following day) |

Shredded Scrap East Coast (f.o.b. New York)

| | |
|----------------------|---|
| Price | US dollars per metric tonne |
| Specifications | Shredded scrap compliant to ISRI specifications 210-212 |
| Material Destination | All destinations – Normalized to export from New York |
| Loading Window | Within 1 month |
| Material Origin | North America |
| Loading Port | New York – Other East Coast ports normalized |
| Trade Size | Minimum 5,000 tonnes |
| Delivery Method | Bulk Carrier |
| Payment Terms | Cash equivalent |
| Publication Date | Every Wednesday (or following day) |

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