

# Methodology and specifications guide

## Steel, ferrous scrap, ferroalloys and noble alloys

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## INTRODUCTION

S&P Global Platts' methodologies are designed to produce price assessments that are representative of market value, and of the particular markets to which they relate. Methodology documents describe the specifications for various products reflected by Platts' assessments and indexes, the processes and standards Platts adheres to in collecting data, and the methods by which Platts arrives at final assessment values for publication. These guides are freely available on Platts' website for public review.

Platts discloses publicly the days of publication for its price assessments and indexes, and the times during each trading day in which Platts considers transactions in determining its assessments and index levels. This schedule of publication is available in Platts methodology guides. Where this schedule is disrupted by public holidays; a schedule of services/publications affected is available at the following link: <http://www.platts.com/HolidayHome>.

The dates of publication and the assessment periods are subject to change in the event of outside circumstances that affect Platts' ability to adhere to its normal publication schedule. Such circumstances include holidays, network outages, power failures, acts of terrorism and other situations that result in an interruption in Platts' operations at one or more of its worldwide offices. In the event that any such circumstance occurs, Platts will endeavor, whenever feasible, to communicate publicly any changes to its publication schedule and assessment periods, with as much advance notice as possible.

All Platts methodologies reflect Platts' commitment to maintaining best practices in price reporting.

Platts' methodologies have evolved to reflect changing market conditions through time, and will continue to evolve as markets change. A revision history, a cumulative summary of changes to this and future updates, is included at the end of the methodology.

### How this methodology statement is organized

This description of methodology for indexes and assessments is divided into seven major parts (I-VII) that parallel the entire process of producing price values for the specified market period.

- Part I describes what goes into Platts indexes and price values, including details on what data market participants are expected to submit, the process for submitting data and criteria for timeliness of market data submissions.
- Part II describes any security and confidentiality practices that Platts uses in handling and treating data.
- Part III is a detailed account of how Platts collects bids, offers, trades and other market data, and what Platts does with the data to formulate its indexes and assessments. It includes descriptions of the methods that Platts uses for reviewing data, and the methods used to convert raw data into indexes and assessments, including the procedures used to identify anomalous data. This section describes how and when judgment is applied in this process, the basis upon which transaction data may be excluded from a price assessment, and the relative importance assigned to each criterion used in forming the price assessment. This section describes the minimum amount of transaction data required for a particular price assessment to be published, and the criteria for determining which values are indexes, and which are assessments, based on reported transactions and other market information. Finally, this section describes how Platts addresses assessment periods where one or more reporting entities submit market data that constitute a significant proportion of the total data upon which the assessment is based.
- Part IV explains the process for verifying that published prices comply with Platts' standards.
- Part V lays out the verification and correction process for revising published prices and the criteria Platts uses to determine when it publishes a correction.

- Part VI explains how users of Platts assessments and indexes can contact Platts for clarification of data that has been published, or to register a complaint. It also describes how to find out more about Platts' complaint policies.
- Part VII is a list of detailed specifications for the trading locations for which Platts publishes indexes or assessments in this commodity. This section describes why specific units of measurement are used, and what conversion factors are used to move between units of measurement, where relevant.

## PART I: DATA QUALITY AND DATA ACQUISITION

Platts' objective is to ensure that the submission of transactional information and other data inputs that editors use as the basis for their price assessments is of the highest quality. Ensuring that data used in Platts assessments is of high quality is crucial to maintaining the integrity of Platts' various price assessment processes.

Platts encourages entities that submit any market data for consideration in its assessment processes to submit all market data that they have which may be relevant to the assessment being made. Platts' aim is to determine the full circumstances surrounding all reported transactional data, including details of quality, specifications, order sizes, dimensions, lead times and any locational and loading/delivery information. Platts uses that information to determine a typical and repeatable market level for the commodity being assessed.

### What to report

- Confirmed transactions
- Firm bids that are open to the marketplace as a whole, with standard terms
- Firm offers that are open to the marketplace as a whole, with standard terms

- Expressions of interest to trade with published bids and offers, with standard terms
- Indicative values, clearly described as such
- Reported transactional activity heard across the market, clearly described as such
- Other data that may be relevant to Platts assessments

### How to report

Platts accepts information provided for publication in real-time across a wide variety of media. The following reporting methods are accepted by Platts' metals editorial staff:

- Telephone
- Email
- Electronic/instant messages
- Fax

### MOC data publishing principles

Platts has progressively adopted its Market on Close (MOC) assessment process to assess the value of steel, ferrous scrap and ferroalloys in many markets. The MOC assessment process establishes core standards for how data is collected and published, how data is prioritized by value, and ultimately how data is analyzed in the course of completing Platts assessments.

Transparency underpins Platts data publishing processes in markets. Under Platts MOC guidelines for collecting and publishing data, Platts publishes market information including but not limited to firm bids and offers, expressions of interest to trade and confirmed trades that are received from market participants throughout the period being assessed.

Information may be published in real-time on Platts information service, Platts Metals Alert. Platts publishes information received so that it can be fully tested by the market at large. Information collected and published may include the identities of buyers and sellers, branded material, confirmed prices, volumes, location, and stated trading terms.

Platts' assessments are designed to reflect repeatable market value at the close of the assessment process. Platts tracks market price evolution during the entire day, and publishes a wide range of data relating to market value as it does so. All data that has been published through the day is analyzed during the assessment process. Toward the close of the day, Platts focuses its assessment process seeking to publish named firm bids and offers, expressions of interest to trade and confirmed trades, with all relevant details. Transparent data is prioritized in the assessment process, because it is available to the entire market for testing.

Platts applies a survey assessment methodology where market conditions do not support an MOC assessment environment. Platts collects a wide variety of transactional and market information through a survey of participants, which typically includes communicating with sources via phone, email, and instant messaging, among other communication methods. Although the survey assessment methodology is in many respects similar to the MOC assessment methodology there are key distinctions between the assessment approaches.

In such environments, Platts collects as much data as possible, including bids, offers, interest to trade, transactions that have been previously concluded, and indications of value from participants in the market. Platts seeks to collect, confirm and analyse as much information as possible in survey markets, and encourages market participants to provide all relevant information. Platts publishes credible information collected that meets our methodological standards, typically through real-time information services and with as much transparency as possible. This information is considered when determining and completing a final assessment.

All Platts market reporters are trained to analyse the data they receive and to question sources to establish the fullest set of information possible around price data. Reporters are trained to seek a wide variety of information to test reported transactional activity, including the specific price agreed, the counterparty to the trade, the point of origin and destination for delivery of the commodity, the size of the transaction, any physical quality commitments agreed as part of the trade, the terms and conditions of a trade and when a trade was agreed.

Survey and MOC environments are linked. Survey assessment environments are a common ground for future MOC assessment environments, and Platts regularly reviews its survey environments to determine which may be suited to an MOC approach. Similarly, MOC environments are underpinned by data collected by surveying sources throughout the day, to ensure that Platts is aware of market values as the MOC process begins, and so that Platts has data to review when considering information collected through MOC, particularly if an MOC environment yields little or no data on a given day.

For analysis of the data, Platts survey methodologies will typically give priority to data collected that is confirmed and published, and which is most relevant to closing values in the markets covered. Bids and offers published by Platts are considered to be firm until Platts is informed otherwise, or until the close of the assessment process for the day, whichever comes first. Platts will consider all firm bids and offers as open to the market at large and executable unless informed otherwise by the counterparty submitting the market information. If no communication is made to Platts to withdraw or change the parameters of the bid or offer, it is assumed that it is available to the marketplace. Platts seeks verification of any transaction originating from a bid or offer submitted for inclusion in the Platts MOC process.

Platts editorial guidelines governing its assessment process require it must consider only those transactions, bids or offers where market participants perform under typical contractual terms. Platts accepts that individual companies may have

trading limits with counterparties and that national legislation may prevent companies from dealing in materials of certain origins. Such counterparty issues are dealt with on a case-by-case basis. Platts tracks all circumstances surrounding trades reported during its MOC assessment process, and any issues regarding performance. Platts cannot make any guarantee in advance about how and whether market information received and published but not fully adhering to its defined methodology will be incorporated in its final assessments.

## PART II: SECURITY AND CONFIDENTIALITY

Data is stored in a secure network, in accordance with Platts' policies and procedures. Platts steel, ferrous scrap and ferroalloys assessments are produced in accordance with Platts' Market on Close assessment methodology. This means that all data for use in Platts assessments may be published by Platts editorial staff while assessing the value of the markets.

Platts does not have confidentiality agreements for information provided for use in its steel, ferrous scrap and ferroalloys assessments.

## PART III: CALCULATING INDEXES AND MAKING ASSESSMENTS

### MOC price assessment principles

As a publisher owned by S&P Global, Platts places independence and impartiality at the heart of its price assessments. Platts has no financial interest in the price of the products or commodities on which it reports. Platts' overall objective is to reflect the transactable value of the commodity assessed. Platts' indices and assessments are based on its own surveys of market participants completed by Platts market reporters each day. Platts assessments are based on as broad a cross-section of the market as possible, including distributors, traders, producers, end-users and brokers.

All transactional data is factored equally for use in a particular assessment, as long as such transactions are deemed repeatable and within the established specifications for each product. Transactions are not evaluated on a weighted basis.

Through the progressive adoption of the MOC assessment process, Platts seeks to establish and publish the value of steel and ferrous scrap in various locations that prevails at the close of the assessment process itself. Platts has aligned the timestamps reflected in its assessments with what typically is a period of high activity in the markets that Platts observes. Platts believes that aligning its price assessments to typical periods of greater market activity and liquidity provides a robust basis upon which to derive a reliable assessment of market value.

Platts steel and ferrous scrap price assessments are timestamped; the time and location are noted below unless otherwise stated in the specification in Part VII

**Asia:** Singapore/Shanghai 5:30 pm

**US:** Pittsburgh 3:30 pm

**Europe:** London 4:30 pm

Platts is progressively adopting MOC methodology in order to provide complete clarity over the precise point in time reflected in its market assessments. The time of commercial activity is an important attribute considered in all Platts price assessments. The time that a bid or offer is shown to the market -- or a transaction concluded -- is vitally important in understanding the market value of the respective commodity, in the same way that the quality of the steel, ferrous scrap and ferroalloys, where it will be delivered, and when it will be delivered are important factors. By clearly reflecting value at a defined point in time, Platts seeks to properly reflect outright and spread values.

MOC guidelines are designed to avoid distortion of the final price assessments by eliminating inputs that are not fully verifiable, and

by disregarding one-offs or unrepeatable transactions, or those that may distort the true market level. Transactions between related parties are, for instance, not considered in the assessment process.

Platts does not specify a minimum amount of transaction data, or a transaction data threshold, for the publication of its price assessments. Physical commodity markets vary in liquidity. Any particular market analyzed on its own will typically demonstrate rising and falling levels of transactional activity through time. Platts is committed to providing an assessment of value for every market that it covers, equally well in times of heightened or reduced liquidity.

Platts seeks to receive market information from as broad a cross section of the market as possible. If a very limited number of market-makers are active in the market, or if a limited number submit data that constitutes a significant proportion of the total data upon which the assessment is based, Platts will continue to seek fully transparent and verifiable data from the market at large and to apply Platts methodology principles of transparency, repeatability and time sensitivity. Platts considers data for assessment of any market where a single company provides more than half of all available information to be one where such a company provides a significant proportion of data. For consideration in the assessment process Platts will seek to verify that the value reflects broad market value.

### Normalization price adjustment techniques

Platts seeks to align the standard specifications for the steel, ferrous scrap and ferroalloys markets it assesses and the timestamps reflected in its assessments with standard industry practice. However, physical commodity markets are generally heterogeneous in nature – not only can time of transactional activity considered for inclusion in the price assessment process vary through the day, other key attributes often vary from the base standard reflected in Platts assessments for steel and ferrous scrap traded in the market.

The quality of steel, ferrous scrap and ferroalloys, delivery location, and other specific terms of trade may be varied in the

physical commodity markets assessed by Platts. This is one reason among many why data collected from these markets may not be simply averaged to produce a representative value.

Because of the complex nature of the physical markets, data typically must be aligned with standard definitions to allow for a fully representative final published assessment. Platts aligns data collected through an analysis of the physical steel, scrap and ferroalloys markets with its standard assessment specifications through a process called normalization.

Normalization is an essential price adjustment technique applied by Platts, to align reported market information to reflect the economic relationship between specific reported activity and the base standard reflected in Platts price assessments.

By surveying markets and observing the economic impact of variance from the base standard reflected in Platts assessments, Platts regularly normalizes disparate information from the diverse physical commodity markets back to the standard reflected in Platts price assessments. This is done by analyzing freight rates (for locational differences), quality differentials (for quality differences), the movements of all markets through time (for time differences) and other differentials associated with the size of trades and delivery terms.

Normalization for time may be done by analyzing movement in a related market observed through time, and that movement may provide a basis by which to align market value of an earlier reported bid, offer or transaction to market value at the MOC close. This alignment for time is essential to ensure that Platts price assessments reflect the prevailing value of a market at the close of the MOC process.

### Prioritizing data

Platts assessment process considers firm bids, firm offers and transactions that are transparent and open to any counterparty with the proper financial and operational resources. Bids, offers

or transactions that are not transparent may not be considered in the assessment process. The level of each bid or offer should stand firm in the marketplace long enough for any counterparty to hit the bid or lift the offer, otherwise the bid or offer may be deemed non-executable. Platts may not consider bids, offers or transactions that are the result of market gapping, i.e. changes that are in excess of normal market practice.

Transparency underpins Platts assessment process, just as it does Platts data publishing processes, in the steel/scrap markets. When determining a final market assessment, Platts gives the greatest priority to fully verifiable and transparent market information. A firm bid or offer that has been published by Platts in accord with its data publishing standards, and which still stands open to the marketplace at the close of the assessment process, will establish clear parameters for Platts final published assessments. Platts will typically assess market value somewhere between the best bid, and best offer, open to the market at the timestamp close. This ensures that Platts assessments reflect the transactable value of the commodities it is assessing at the close of the market.

Completed, transparent transactions that are fully published by Platts are important in helping establish where trading interest prevails in the market, and may help determine where, in a bid/offer spread, Platts may assess value for publication.

Firm bids and offers that are available to the entire market take precedence over trades that have been concluded earlier in the assessment process when establishing the value of the market, particularly if bids are available at the close above previously traded levels, or offers are available to the market below previously traded levels. Value is a function of time.

Similarly, firms bids and offers that are available to the entire market take precedence over transactional activity reported to Platts after the fact.

When no bid, offer or transaction data exists, Platts may consider other verifiable data reported and published through the day, including fully and partially confirmed trades, notional trading values and other market information as provided for publication. Under such circumstances, Platts may also be able to observe direct market activity or the effect of commonly traded commodities on illiquid markets via spread differentials and/or shipping economics.

Platts also analyzes the relationships between different products, and factors these relationships into assessments for markets where transactional data falls to low levels. Finally, Platts normalizes other available data that may be relevant to the assessment during periods when low amounts or no transactional data exists, including transactional data from related markets, in the manner described above.

Platts MOC guidelines are designed to avoid any distortion of the final price assessment and so inputs that are not verifiable tend to be eliminated and “one-off” or unrepeatable transaction data may be disregarded from the price assessment process.

Single transactions may be a reflection of market value. However, single transactions need to be measured against the broad span of similar transactions. Platts seeks to verify the repeatability of market value by determining the level achieved is repeatable in the wider market.

A variant on this action is price “gapping” -- when bids are made too high and offers are made too low through untested levels of price support or resistance. Platts may not publish such bids and offers during the MOC process. When transactions are concluded at levels that have not been fully tested by the market because price changes have been non incremental, Platts may determine that actual market value is somewhere between the last incremental bid and the transaction at the gapped level.

### Assessment calculations

Platts publishes its assessments reflecting the currencies and units of measurement in which the products typically trade.

In certain cases Platts converts its assessments to other currencies or units of measurement to allow for ease of comparison or analysis in regional markets. Such conversions are done using published exchange rates and conversion factors.

Platts reporters follow specific methodology when exercising editorial judgment during their assessment process. Platts editors apply judgment when determining (1) whether information is suitable for publication, (2) when normalizing data and (3) where to assess final value of market.

Judgment may be applied when analyzing transactional data to determine if it meets Platts standards for publication; judgment may also be applied when normalizing values to reflect differences in time, location, and other trading terms when comparing transactional data to the base standard reflected in Platts assessments.

All such judgment is subject to review by Platts editorial management for adherence to the standards published in Platts methodologies. The following section illustrates how these guidelines work when calculating indexes and making assessments.

To ensure the assessments are as robust as possible, Platts editorial systems are backed by a strong corporate structure that includes managerial and compliance oversight. To ensure reporters follow Platts methodological guidelines in a consistent manner, Platts ensures that reporters are trained and regularly assessed in their own and each other's markets.

Application of professional judgment guidelines promotes consistency and transparency in judgments and is systematically applied by Platts. Where professional judgment is exercised, all information available is critically analysed and synthesised. The various possibilities are critically analysed and fully evaluated to reach a judgment. Platts manages and maintains internal training guides for each of the different products assessed which aim to assist assessors and ensure Platts' price assessments are produced consistently. Platts' price

assessments are reviewed prior to publication and exercise of professional judgment is further discussed and verified during this process. Finally, consistent with the concept of proportionality, assessments that are referenced by derivatives contracts are supported by assessment rationale, including the application of judgment, which is published together with the price assessment offering full transparency to the market.

Reporters are trained to identify potentially anomalous data. We define anomalous data as any information, including transactions, which is inconsistent with or deviates from our methodology or standard market conventions

Platts focuses primarily on assessing the value of steel/scrap in the spot market. A spot price for a physical commodity is the value at which a standard, repeatable transaction for merchantable material takes place, or could take place in the open market at arms' length. Platts spot price assessments reflect the value at which transactions take place, or could take place, at the time stamped (close of the MOC process).

### Loading/Delivery Location

Platts defines base locations in its price assessments but these act as a pricing basis point, and differentials may be assessed off these when deals or bids/offers are reported on a different delivery port basis.

### Freight Differentials

Platts may take into account prevailing sea freight and/or logistics rate levels in establishing ex-works (EXW), FOB and/or CIF/CFR values. Where a market has become illiquid, Platts may determine the FOB value from the CIF value and vice versa. Where there is limited local demand but longer-range arbitrage opportunities emerge, the FOB value may rise relative to the CIF value and may at times be assessed at parity or even above the CIF value.

### Embedded Options

Platts overall objective is to reflect the transactable value of the commodity assessed. In cases where the apparent value of the commodity includes extra optionalities, the intrinsic value of the commodity may be masked.

In such cases, Platts may use its editorial judgement to factor out such extraneous elements from the value of the commodity, or it may decide not to use the bid, offer or transaction in its assessment process.

Optionalities that typically mask the value of the commodity include loading or delivery options held by the buyer or seller, volume option tolerances exercisable by the buyer or seller or quality specifications among others.

As an example, typical volume tolerance in steel transactions is plus or minus 5% of the stated order size. If a buyer or seller requests a wider optionality of say 10% or 20% of the stated order size, that would need to be factored into the assessment, depending on which party held the option.

In the above example, the price may be normalized down if the buyer held the larger-than-usual volume tolerance option and vice-versa if the seller held that option.

### General Terms & Conditions

Platts assessments reflect trades in the steel market concluded INCOTERMS.

Where companies express bids or offers, these are understood to be on INCOTERMS unless otherwise stated. Platts' use of terms such as FOB, CFR, CIF, ex-works and so on are based around definitions provided by the International Chamber of Commerce which publishes the INCOTERMS.

Definitions of such terminology are available through the

following web link: <http://www.iccwbo.org/incoterms/> Please note that the text of INCOTERMS in whole or in part is subject to ICC's copyright. Other related ICC publications, in printed or electronic form, are also subject to copyright.

### Credit/Payment Terms

Payment terms are as per standard commercial practice which is typically prompt payment for ex-mill material and within up to 60 days of delivery for imported material. Unless otherwise stated below.

Payment terms reflected are specified under each individual data code. Wherever greater credit is given this will be allowed for in the assessment process. Where a seller is prepared to discount the price for prompt payment, this will also be factored into the assessment.

Where transactions are reported with non-standard credit terms, Platts normalizes these based on prevailing commercial interest rates and typical credit payment terms in the industry at the time of the transaction.

## PART IV: PLATTS EDITORIAL STANDARDS

All Platts employees must adhere to the S&P Global Code of Business Ethics (COBE), which has to be signed annually. The

COBE reflects S&P Global's commitment to integrity, honesty and acting in good faith in all its dealings.

In addition, Platts requires that all employees attest annually that they do not have any personal relationships or personal financial interests that may influence or be perceived to influence or interfere with their ability to perform their jobs in an objective, impartial and effective manner.

Market reporters and editors are required to ensure adherence to published methodologies as well as internal standards that require accurate records are kept in order to document their work.

Platts has a Compliance function that is independent of the editorial group. Compliance is responsible for ensuring the quality and adherence to Platts' policies, standards, processes and procedures. The Compliance team conducts regular assessments of editorial operations, including checks for adherence to published methodologies.

S&P Global's internal auditor, an independent group that reports directly to the parent company's board of directors, reviews the Platts risk assessment programs.

## PART V: CORRECTIONS

Platts is committed to promptly correcting any material errors. When corrections are made, they are limited to corrections to data that was available when the index or assessment was calculated.

## PART VI: REQUESTS FOR CLARIFICATIONS OF DATA AND COMPLAINTS

Platts strives to provide critical information of the highest standards, to facilitate greater transparency and efficiency in physical commodity markets.

Platts customers raise questions about its methodologies and the approach taken in price assessments, proposed methodology changes and other editorial decisions in relation to Platts' price assessments. Platts strongly values these interactions and encourages dialogue concerning any questions a customer or market stakeholder may have.

However, Platts recognizes that occasionally customers may not be satisfied with responses received or the services provided by Platts and wish to escalate matters. Full information about how to contact Platts to request clarification around an assessment, or make a complaint, is available on the Platts website, at: <http://www.platts.com/ContactUs/Complaints>.



## PART VII: DEFINITIONS OF THE TRADING LOCATIONS FOR WHICH PLATTS PUBLISHES INDEXES OR ASSESSMENTS

The following Steel & Ferrous Scrap specifications guide contains the primary specifications and methodologies for Platts Steel & Ferrous Scrap assessments throughout the world/region. The various components of this guide are designed to give Platts subscribers as much information as possible about a wide range of methodology and specification issues.

This methodology is current at the time of publication. Platts may issue further updates and enhancements to this methodology and will announce these to subscribers through its usual publications of record. Such updates are included in the next version of the methodology. Platts editorial staff and managers will usually be ready to provide guidance when assessment issues require clarification.

### Carbon steel

#### FLAT

Assessment	CODE	Mavg	Wavg	QUALITY	QUANTITY	DIMENSIONS	LOCATION	TIMING	PAYMENT TERMS	UOM
<b>Hot-Rolled Coil</b>										
HRC Ex-Works Ruhr	STHRE00	TSMAR03		European Norm EN10025-2:2004. Grade S235JR	min. 100 mt	W 1200-1500mm, T 2.5-8mm	EXW Ruhr	4-8 weeks	Prompt Payment on delivery	Eur/mt
HRC CIF Antwerp	STHRA00	STHRA03		European Norm EN10025-2:2004. Grade S235JR	500-5000 mt	W 1200-1500mm, T 2-15mm	CIF Antwerp	6-12 weeks	At sight	Eur/mt
HRC FOB Black Sea	STHRB00	STHRB03	STHRB04	European Norm EN10025-2:2004. Grade S235JR	2000-3000 mt	W 1200-1500mm, T 2-15mm	FOB Black Sea	6-8 weeks	At sight	\$/mt
HRC CPT Moscow	AAXJI00	AAXJI03		Russian grade St3sp/St3ps	100 mt	W 1200-1300mm, T 2-4mm, Wt 5-8 mt/coil	CPT Moscow	3-5 weeks	Prompt payment on delivery from mill	Ruble/mt
HRC FOB China SAE1006	STHSA00	STHSA03		SAE1006	5000 mt	W 1,200-1,500mm, T 2mm	FOB Tianjin, China	4-8 weeks	At sight	\$/mt
HRC FOB China SS400	STHRZ02	STHRZ03		SS400	5000 mt	W 1,200-1,500mm, T 3mm	FOB Tianjin, China	4-8 weeks	At sight	\$/mt
HRC FOB China SAE1006 Premium	STHRY00	STHRY03		SAE1006, expressed as premium to SS400	5000 mt	W 1,200-1,500mm, T 2mm	FOB Tianjin, China	4-8 weeks	At sight	\$/mt
HRC Ex-Works S.EU	SB01152	TSMAR03		European Norm EN10025-2:2004. Grade S235JR	min. 100 mt	W 1200-1500mm, T 2.5-8mm	EXW South Europe	4-8 weeks	Prompt Payment on delivery	Eur/mt
HRC DDP West Midlands, UK	STHWM04	STHWM03		European Norm EN10025-2 Grade S275JR	100-1000mt	W 1000 -1830mm, T 3-12.5mm	DDP West Midlands, UK	2 -12 weeks	At sight	GBP/mt
HRC Europe Imp CIF S Euro Port Mthly	SB01143			European Norm EN10025-2:2004. Grade S235JR	min 500mt	W 1200-1500mm, T 2-15mm	CIF South Europe	6-12 weeks	At sight	Eur/mt
HRC Mid East Imp CFR Persian Gulf Port Mthly	SB01146			European Norm EN10025-2:2004. Grade S235JR	500mt	W 1200-1500mm, T 2-15mm	CFR Dubai	4-8 weeks	At sight	\$/mt
HRC Russia Black Sea Exp FOB Mthly	SB01151			European Norm EN10025-2:2004. Grade S235JR	2,000-3,000mt	W 1200-1500mm, T 2-15mm	FOB Russia Black Sea	6-8 weeks	At sight	\$/mt
HRC Turkey Dom Prod EXW Wkly	SB01154			European Norm EN10025-2:2004. Grade S235JR	min. 100mt	W 1200-1500mm, T 2-8mm	EXW Turkey	2-6 weeks	Prompt Payment on delivery	\$/mt
HRC Turkey Exp FOB Wkly	SB01155			European Norm EN10025-2:2004. Grade S235JR	500mt	W 1200-1500mm, T 2-15mm	FOB Turkey	8-10 weeks	At sight	\$/mt
HRC Turkey Imp CFR Turkish Port Mthly	SB01156			European Norm EN10025-2:2004. Grade S235JR	500mt	W 1200-1500mm, T 2-15mm	CFR Turkey	6-8 weeks	Prompt Payment on delivery	\$/mt
CbnStl HRC CIF Antwerp US\$/Mt	STHAM00	STHAM03		European Norm EN10025-2:2004. Grade S235JR	500-5000 mt	W 1200-1500mm, T 2-15mm	CIF Antwerp	6-12 weeks	At sight	\$/mt
HRC Argentina Dom Prod Dlvd Mthly	SB01137			IRAM-IAS U 500-04	1000-2000 mt	W 1080-1128 mm, T 3-7.93 mm	EXW Santa Fe, Argentina	6-12 weeks	Net 15-30 days after delivery	\$/mt
HRC Brazil Dom Prod Ex-Works Wkly	SB01138			ASTM A36	1000-2000 mt	W 1080-1128 mm, T 2-3 mm	EXW Southeast Brazil	3-6 weeks	Net 30 days after delivery	Real/mt
HRC Brazil Exp FOB Brazilian Port Mthly	SB01139			ASTM A 1011-06a Commercial Type B	1000-2000 mt	W 1200-1300 mm, T 2-4mm	FOB Brazilian ports	4-8 weeks	At sight	\$/mt
HRC Mexico Dom Prod Dlvd Mthly	SB01145			DIN EN 10111 DD 12 grade	1000-2000 mt	W 1080-1128 mm, T 5-7 mm	EXW Northeast Mexico	2-3 weeks	Net 30 days after delivery	\$/mt
HRC CIF USGC	STHRG00	STHRG03		ASTM A 1011-06a Commercial Type B	1000-2000 st	W 48-72 inches, T 0.083-0.37 inches	CIF basis Houston	3-8 weeks	Net 30 days after delivery	\$/st
HRC US EXW Indiana	STHRI00	STHRI03		ASTM A 1011-06a Commercial Type B	min. 100 st	W 48-72 inches, T 0.083-0.37 inches	EXW Indiana	3-8 weeks	Net 30 days after delivery	\$/st



**FLAT**

Assessment	CODE	Mavg	Wavg	QUALITY	QUANTITY	DIMENSIONS	LOCATION	TIMING	PAYMENT TERMS	UOM
HRC CFR Southeast Asia	SB01142			SS400	3000 mt min	Width 1,200-1,500mm; Thickness 3mm	CFR Ho Chi Minh City, Vietnam	8-12 weeks	At sight	\$/mt
TSI HRC [SAE] Asean Imports CFR Asean Port	TS01041	TSMB003		SAE1006, SPHC or SPHT-1 (or equivalent)	500 mt min	W 900-2,000mm; T up to 3mm	CFR Asean Port (Singapore)	7-9 weeks	At sight	\$/mt
HRC Ex-stock Shanghai VAT-inclusive	SB01260			Q235	50-500 mt	W 1,250mm, T 5.5mm	Ex-stock Shanghai	up to 1 week	Cash before delivery	Yuan/mt
HRC India Domestic Delivered Mumbai	TS01046	TSMBT03		IS2062 E250A (or equivalent)	100 - 1,000 mt	W 1,250-1,500mm; T 2.5-10mm	Delivered Mumbai	2-21 days	Cash on delivery	Rupees/mt

**Cold-Rolled Coil**

CRC Ex-Works Ruhr	STRRE00	STRRE03	STRRE04	European Norm EN10131:2006. Grade: DC01	min. 100 mt	W 1000-1250mm, T 0.7-2.5mm	EXW Ruhr	4-8 weeks	Prompt payment on delivery from mill	Eur/mt
CRC CIF Antwerp	STRRA00	STRRA03	STRRA04	European Norm EN10131:2006. Grade: DC01	500-5000 mt	W 1000-1250mm, T 0.7-3.0mm	CIF Antwerp	6-8 weeks	At sight	Eur/mt
CRC FOB Black Sea	STRRB00	STRRB03	STRRB04	European Norm EN10131:2006. Grade: DC01	500-5000 mt	W 1000-1250mm, T 0.7-3.0mm	FOB Black Sea	3-8 weeks	At sight	\$/mt
CRC US EXW Indiana	STRRI00	STRRI03	STRRI04	AISI grades C1005 to C1008	min 100 st	W 48-72 inches, T 0.0272-0.1000 inches	EXW Indiana	4-12 weeks	Net 30 days after delivery	\$/st
CRC CIF Houston	STRRG00	STRRG03	STRRG04	AISI grades C1005 to C1008	1000 st	W 48-72 inches, T 0.0272-0.1000 inches	CIF Houston	4-12 weeks	Net 30 days after delivery	\$/st
CRC Ex-works S. EU	SB01091			European Norm EN10131:2006. Grade: DC01	min. 100 mt	W 1000-1250mm, T 0.7-2.5mm	EXW South Europe	4-8 weeks	Prompt payment on delivery from mill	Eur/mt
CRC Europe Imp CIF S Euro Port Mthly	SB01085			European Norm EN10131:2006. Grade: DC01	min 500mt	W 1000-1250mm, T 3-4mm	CIF South Europe	6-12 weeks	At sight	Eur/mt
CRC Russia Black Sea Exp FOB Mthly	SB01090			European Norm EN10131:2006. Grade: DC01	min 500mt	W 1000-1250mm, T 0.7-3.0mm	FOB Russia Black Sea	6-8 weeks	At sight	\$/mt
CRC Turkey Dom Prod EXW Mthly	SB01092			European Norm EN10131:2006. Grade: DC01	min. 100 mt	W 1000-1250mm, T 3-4mm	EXW Turkey	2-6 weeks	Prompt payment on delivery from mill	\$/mt
CRC Turkey Imp CFR Turkish Port Mthly	SB01093			European Norm EN10131:2006. Grade: DC01	500mt	W 1000-1250mm, T 3-4mm	CIF Turkey	6-8 weeks	At sight	\$/mt
CRC CIF Antwerp US\$/Mt Dly	STRAM00	STRAM03	STRAM04	European Norm EN10131:2006. Grade: DC03	500-5000 mt	W 1000-1250mm, T 0.7-3.0mm	CIF Antwerp	6-8 weeks	At sight	\$/mt
CRC Argentina Dom Prod Dlvd Mthly	SB01079			IRAM-IAS U 500-05	1000 mt	W 1080-1128 mm, T 0.7-1.73 mm	EXW Santa Fe, Argentina	6-12 weeks	Net 15-30 days after delivery	\$/mt
CRC Brazil Dom Prod Ex-Works Mthly	SB01080			NBR 6658	1000-2000 mt	W 1000-1300 mm, T 0.8-1.5 mm	EXW Southeast Brazil	3-6 weeks	Net 30 days after delivery	Real/mt
CRC Brazil Exp FOB Brazilian Port Mthly	SB01081			NBR 6658	1000-3000 mt	W 1000-1300 mm, T 0.8-1.5 mm	FOB Brazilian ports	4-8 weeks	At sight	\$/mt
CRC Mexico Dom Prod Dlvd Mthly	SB01086			ASTM A606	1000-2000 mt	W 1000-1300 mm, T 1.0-3.0 mm	EXW Northeast Mexico	2-3 weeks	Net 30 days after delivery	\$/mt
CRC Ex-stock Shanghai VAT-inclusive Wkly	SB01082			SPCC	50-500 mt	W 1,250mm, T 1mm	Ex-stock Shanghai	up to 1 week	Cash before delivery	Yuan/mt
CRC China Exp FOB Shanghai Wkly	SB01083			SPCC	2,000 mtmin	W 1,250mm, T 1mm	FOB Shanghai	to 12 weeks	At sight	\$/mt
CRC E Asia Imp CFR Mthly	SB01084			JIS G 3141, SPCC annealed	1000 mt min	Width 900-1250mm; Thickness 1 mm base	CFR East Asia	8-12 weeks	At sight	\$/mt

**Coated**

HDG Europe Imp CIF S Euro Port Mthly	SB01121			Z275	500mt	Below 1mm Thickness	CIF South Europe	6-12 weeks	At sight	Eur/mt
HDG Mid East Imp CFR Persian Gulf Port Mthly	SB01122			Z275	500mt	Below 1mm Thickness	CFR Dubai	4-8 weeks	At sight	\$/mt
HDG N Europe Dom Prod EXW Ruhr	SB01125			DX51D or equivalent	min. 100mt		EXW Ruhr	4-8 weeks	Prompt payment on delivery from mill	Eur/mt

**FLAT**

Assessment	CODE	Mavg	Wavg	QUALITY	QUANTITY	DIMENSIONS	LOCATION	TIMING	PAYMENT TERMS	UOM
HDG S Europe Dom Prod EXW S.EU	SB01126			DX51D or equivalent	min. 100mt		EXW South Europe	4-8 weeks	Prompt payment on delivery from mill	Eur/mt
HDG Turkey Dom Prod EXW Mthly	SB01127			DX51D + Z70 or equivalent	min. 100mt	Below 1mm Thickness	EXW Turkey	2-6 weeks	Prompt payment on delivery from mill	\$/mt
HDG Brazil Dom Prod Ex-Works Mthly	SB01117			ASTM A653	1000-2000 mt	W 1000-1300 mm, T 0.4-2.0 mm	EXW Southeast Brazil	3-6 weeks	Net 30 days after delivery	Real/mt
HDG US EXW Indiana MW Wkly	SB01123			ASTM A 653 CS Type B (), G 90 normal spangle	min. 100 st	16 G minimum (0.06" minimum) Width: 48-72"	EXW Midwest	4-12 weeks	Net 30 days after delivery	\$/st
HDG N Amer Imp CFR Gulf Port Mthly	SB01124			ASTM A 653 CS Type B (), G 90 normal spangle		16 G minimum (0.06" minimum) Width: 48-72"	CFR Houston/Gulf Port			\$/st
HDG Ex-stock Shanghai VAT-inclusive Mthly	SB01118			DX51D or equivalent, with 80g/sqm of Zn	50-500 mt	W 1,250mm, T 1mm	Ex-stock Shanghai	up to 1 week	Cash before delivery	Yuan/mt
HDG China Exp FOB Shanghai Mthly	SB01119			DX51D or equivalent, with 120g/sqm of Zn	2,000 mt min	W 1,250mm, T 1mm	FOB Shanghai	to 12 weeks	At sight	\$/mt
Pre-Painted 9002 0.5MM Turkey Dom Prod Ex-Works Mthly	SB01188			9002	100mt	0.5mm Thickness	EXW Turkey	6-8 weeks	At sight	\$/mt
<b>Plate</b>										
Plate CIF Antwerp	STPRA00	STPRA03		EN10025 S235 JR	500-5000 mt	15-40mm up to 2500 width and 12000mm length	CIF Antwerp	8-16 weeks	At sight	Eur/mt
Plate EXW Ruhr	STPRE00	TSMAW03		EN10025 S235 JR	min. 100 mt	15-40mm up to 2500 width and 12000mm length	EXW Ruhr	8-12 weeks	Net 30 days after delivery	Eur/mt
Plate Delivered US Midwest	STPRI00	STPRI03	STPRI04	ASTM A36/A36M	min. 20 st	W to 96 inches, T 0.375-2 inches, L to 240 inches	Delivered US Midwest	4-12 weeks	Net 30 days after delivery	\$/st
HRP CIF US Gulf	STPRG00	STPRG03	STPRG04	ASTM A36/A36M	1000 st	W to 96 inches, T 0.375-2 inches, L to 240 inches	CIF Houston	4-12 weeks	Net 30 days after delivery	\$/st
Plate EXW S. EU	SB01185			EN10025 S235 JR	min. 100 mt	15-40mm up to 2500 width and 12000mm length	EXW South Europe	8-12 weeks	Net 30 days after delivery	Eur/mt
Plate CIS Exp FOB Mthly	SB01179			EN10025 S235 JR		15-40mm up to 2500 width and 12000mm length	FOB CIS	8-16 weeks	At sight	\$/mt
Plate Europe Imp CIF S Euro Port Mthly	SB01182			EN10025 S235 JR	500mt	15-40mm up to 2500 width and 12000mm length	CIF South Europe	6-12 weeks	At sight	Eur/mt
Plate Turkey Dom Prod Ex-Works Mthly	SB01186			EN10025 S235 JR	100mt	15-40mm up to 2500 width and 12000mm length	EXW Turkey	6-12 weeks	Prompt payment on delivery from mill	\$/mt
Plate A36 Brazil Dom Prod Ex-Works Mthly	SB01175			ASTM A36	1000 mt	w to 1128 mm, T 20.00-40.00 mm	EXW Southeast Brazil	3-6 weeks	Net 30 days after delivery	Real/mt
Plate CFR East Asia	TS01043	TSMBQ03		ASTM A36,Q235 or JIS SS400 or EN 235 JR	3,000 mt min	Width 1,200-2,500 mm; Thickness 12-25 mm.	CFR Dangjin, South Korea	8-12 weeks	At sight	\$/mt
Plate Ex-stock Shanghai VAT-inclusive Mthly	SB01178			Q235	max 500 mt	W 2,700-4,200mm, T 12-20mm	Ex-stock Shanghai	early prompt month	Cash before delivery	Yuan/mt
Plate Commercial Grd China Exp FOB Shanghai Mthly	SB01180			Q335	max 500 mt	W 2,700-4,200mm, T 12-20mm	FOB Shanghai	1-2 months	Cash	\$/mt

In 2017 Platts merged several TSI-branded indices with corresponding Platts-branded assessments. As a result of these mergers, several of Platts assessments started to be calculated as volume-weighted averages. The assessments that moved to become volume-weighted averages shared similar characteristics: they are largely priced using information on an ex-works (EXW) basis and are therefore land-transported goods originating in diverse geographic areas.

The calculation process follows the following steps: data points more than +/- 5% from the arithmetic average (mean) price of the total data set submitted are removed; the standard deviation of the remaining price data set is calculated; any remaining price data points more than +/- 1 standard deviation from the average (mean) price of the remaining data set are then also removed.

Data is weighted in the following order:

- Confirmed transactions
- Bids, offers and tradeable values

When calculating the volume-weighted index value, the percentage weighting assigned to the total submissions by any single Data Provider is capped in order to ensure that the average remains representative.

The above description is valid for all the price series described below as being calculated as a volume-weighted average.

## Flat

### Hot-Rolled Coil

**STHRE00 HRC ex-works Ruhr:** Prime Hot Rolled Steel Coils of new manufacture, chemical and mechanical tolerances are based on European Norm EN10025-2:2004. Grade: S235JR or equivalent. Other specifications of HRC are normalized back to this grade using current market extras typically applied in the industry. This value is calculated as a volume-weighted average. It is duplicated in the code TS01015.

**SB01152 HRC EXW S.EU:** Prime Hot Rolled Steel Coils of new manufacture, chemical and mechanical tolerances are based on European Norm EN10025-2:2004. Grade: S235JR or equivalent. Other specifications of HRC are normalized back to this grade using current market extras typically applied in the industry. This value is calculated as a volume-weighted average. It is duplicated in the code TS01016.

**STHRA00 HRC CIF Antwerp:** Prime Hot Rolled Steel Coils of new manufacture, chemical and mechanical tolerances are based on European Norm EN10025-2:2004. Grade: S235JR, or equivalent. Other specifications of HRC are normalized back to this grade using current market extras typically applied in the industry.

**STHRB00 HRC FOB Black Sea:** Prime Hot Rolled Steel Coils of new manufacture, chemical and mechanical tolerances are based on European Norm EN10025-2:2004. Grade: S235JR, or equivalent. Other specifications of HRC are normalized back to this grade using current market extras typically applied in the industry.

**AAXJ100 HRC CPT MOSCOW:** Prime Hot Rolled Steel Coils of new manufacture, chemical and mechanical tolerances are based on Russian grade St3sp/St3ps. Other specifications are normalized back to this grade using current market extras typically applied in the industry.

**STHRI00 HRC EXW Indiana:** Chemical and dimensional tolerances are based on ASTM A 1011-06a Commercial Type B. Other specifications of HRC are normalized back to this grade based on prevailing market extras. Platts takes into consideration trades, bids and offers for orders exceeding 100 st on an EXW Indiana basis. Trade concluded in a Mid-West geographic range is considered in the calculation process. This value is calculated as a volume-weighted average. It is duplicated in the code TS01018.

**STHRG00 HRC CIF USGC:** Chemical and dimensional tolerances were based on ASTM A 1011-06a Commercial Type B. Other specifications of HRC are normalized back to this grade based on prevailing market extras.

**STHSA00 HRC FOB China SAE1006:** Prime Hot Rolled Steel Coils of new manufacture, chemical and mechanical tolerances are based on SAE1006 or equivalent specifications. The assessment reflects specifications normalized to SAE1006 or equivalent coil of 2mm thickness and 1,200-1,500 mm width. Platts will consider for assessment deals, bids and offers for cargoes of other qualities and sizes normalized to the clarified specifications. Normalization for quality and size is done based on current premiums and discounts applied by the market,

**STHRZ02 HRC FOB CHINESE PORT:** Prime Hot Rolled Steel Coils of new manufacture, chemical and mechanical tolerances are based on Export specifications normalized to Chinese GB/T912 grade Q235 or equivalent. Other specifications of HRC are normalized back to this grade using current market extras typically applied in the industry.

**STHRY00 HRC FOB China SAE1006 Premium:** This assessment reflects the premium that SAE1006 or equivalent coil 2 mm thick commands over SS400 coil of the specifications in STHRZ02. The premium is calculated from Platts assessments of SAE1006 coil (STHSA00) and SS400 coil (STHRZ02).

**SB01142 HRC CFR E ASIA:** Prime Hot Rolled Steel Coils of new manufacture, chemical and mechanical tolerances are based on SS400 or equivalent specifications. The assessment will reflect specifications normalized to SS400 or equivalent coil of 3 mm thickness and 1,200-1,500 mm width. The location specified is the port of Ho Chi Minh City, Vietnam, the main destination of cargoes traded in the spot market in Asia. Platts will consider for assessment deals, bids and offers for cargoes of other qualities and sizes, and delivered into other Northeast and Southeast Asian ports, normalized to the clarified specifications. Normalization for quality and size is done based on current premiums and discounts applied by the market, and that for location will utilize freight netback and net forward calculations. Information about known tariff and non-tariff barriers in the various jurisdictions will also be used in the normalization process.

**SYMBLXX HRC DDP West Midlands, UK:** Prime Hot Rolled Steel Coils of new manufacture, capturing imported and domestically produced materials as well as port stocks. Chemical and mechanical tolerances based on European Norm EN10025-2:2004. Grade: S275JR or equivalent. Other specifications of HRC are normalized back to this grade using current market extras typically applied in the industry. The assessment normalizes to 3 millimeter thick and up to 1.8 meter wide S275 hot rolled coil. Minimum order size is 100 mt, with a maximum 500 mt, and the delivery window is two to six weeks from the date of publication. Payment terms are normalized to net-40 days, with the assessment in GBP/mt. The weekly assessment is made on Fridays or closest business day (in the event of holidays), time stamped to 1630 London time.

For all other Assessments Specifications please refer to the Table above.

#### Cold-Rolled Coil

**STRRE00 CRC EXW Ruhr:** Prime Cold Rolled Steel coil of new manufacture, chemical and mechanical tolerances are based on European Norm EN10131:2006. Grade: DC01 or equivalent. Other specifications of CRC are normalised back to this grade using current market extras typically applied in the industry. This value is calculated as a volume-weighted average. It is duplicated in the code TS01002.

**SB01091 CRC EXW S. Europe:** Prime Cold Rolled Steel coil of new manufacture, chemical and mechanical tolerances are based on European Norm EN10131:2006. Grade: DC01 or equivalent. Other specifications of CRC are normalised back to this grade using current market extras typically applied in the industry. This weekly value is calculated as a volume-weighted average. It is duplicated in the code TS01003.

**STRRa00 CRC CIF ANTWERP:** Prime Cold Rolled Steel Coils of new manufacture, chemical and mechanical tolerances are based on European Norm EN10131:2006. Grade:DC01. Other specifications of CRC are normalized back to this grade using current market extras typically applied in the industry.

**STRRB00 CRC FOB Black Sea:** Prime Cold Rolled Steel Coils of new manufacture, chemical and mechanical tolerances are based on European Norm EN10131:2006. Grade:DC01, or equivalent, other specifications of CRC are normalized back to this grade using current market extras typically applied in the industry.

**STRRI00 CRC EXW Indiana:** Chemical and dimensional tolerances are based on AISI grades C1005 to C1008, the base-grade range of commercial-quality cold-rolled coil. Other commercial grades such as C1015 – C1030), drawing steel (DS) grades, structural steel (SS) grades such as ASTM A606, high-strength low alloy (HSLA) grades such as Gr45, Gr50, Gr55, Gr60 and Gr70, ASTM A606 grade and others are normalized to the base grade based on the prevailing market extras. Platts takes into consideration trades, bids and offers for orders exceeding 100 st on an EXW Indiana basis. Trade concluded in a Mid-West geographic range is considered in the calculation process. This value is calculated as a volume-weighted average. It is duplicated in the code TS01005.

**STRRG00 CRC CIF HOUSTON:** Chemical and dimensional tolerances are based on AISI grades C1005 to C1008, the base-grade range of commercial-quality cold-rolled coil. Other commercial grades such as C1015 – C1030), drawing steel (DS) grades, structural steel (SS) grades such as ASTM A606, high-strength low alloy (HSLA) grades such as Gr45, Gr50, Gr55, Gr60 and Gr70, ASTM A606 grade and others are normalized to the base grade based on the prevailing market extras.

For all other Assessments Specifications please refer to the Table above.

#### Hot-Dip Galvanized (HDG) Coil

**SB01125 HDG EXW Ruhr:** HDG coil of new manufacture, chemical and mechanical tolerances are based on the base grade DX51D, or equivalent. Other specifications of HDG are normalised back to this grade using current market extras typically applied in the industry. This weekly value is calculated as a volume-weighted average. It is duplicated in the code TS01007.

**SB01126 HDG EXW S. Europe:** HDG coil of new manufacture, chemical and mechanical tolerances are based on the base grade DX51D, or equivalent. Other specifications of HDG are normalised back to this grade using current market extras typically applied in the industry. This weekly value is calculated as a volume-weighted average. It is duplicated in the code TS01008.

**SB01123 HDG EXW Indiana:** HDG coil of new manufacture, chemical and mechanical tolerances are based on ASTM A 653 CS Type B (), G 90 normal spangle. Other specifications of HDG are normalised back to this grade using current market extras typically applied in the industry. This weekly value is calculated as a volume-weighted average. It is duplicated in the code TS01010.

#### Plate

**STPRE00 EXW Ruhr:** Prime Carbon steel plate of commercial quality equivalent to EN10025 S235 JR. All other grades to be normalized to this grade using current and prevailing market extras. This weekly value is calculated as a volume-weighted average. It is duplicated in the code TS01023.

**SB01185 EXW S. Europe:** Prime Carbon steel plate of commercial quality equivalent to EN10025 S235 JR. All other grades to be normalized to this grade using current and prevailing market extras. This weekly value is calculated as a volume-weighted average. It is duplicated in the code TS01024.

**STPRI00 Plate Delivered US Midwest:** Chemical and dimensional tolerances are based on ASTM A36/A36M, structural steel plate or equivalent. All other grades to be normalized to this grade using current and prevailing market extras. This daily value is calculated as a volume-weighted average.

**STPRG00 HRP CIF US Gulf:** Chemical and dimensional tolerances are based on ASTM A36/ A36M, structural steel plate or equivalent. All other grades to be normalized to this grade using current and prevailing market extras.

**AAXJH00 HR SHEET CPT Moscow:** Prime Hot Rolled Sheets of new manufacture, chemical and mechanical tolerances are based on Russian grade St3sp/St3ps. Other specifications are normalized back to this grade using current market extras typically applied in the industry.

For all other Assessments Specifications please refer to the Table above.

**LONG**

Assessment	CODE	Mavg	Wavg	QUALITY	QUANTITY	DIMENSIONS	LOCATION	TIMING	PAYMENT TERMS	UOM
<b>Bar, Beams &amp; Sections</b>										
WF Beams Medium N Amer Dom Prod Ex-Mill US MW Mthly	SB01240			ASTM A992/ASTM A572 Grade 50	100 st min	14-16 inch flange	EXW US Midwest	4-12 weeks	Net 30 days after delivery	\$/st
H-Beam CFR Southeast Asia	SB01114			EN10025 S275JR	1,000 mt min	4 inches – 24 inches (102 X 102 mm up to 610 X 305 mm) and in 12 m lengths	CFR Port Klang, Malaysia	8 to 12 weeks	At sight	\$/mt
Medium Sections Europe Dom Prod Dlvd Wkly	SB01160			S235 JR	100mt min	12 M Lengths (height 80X120mm)	DDP Europe	6-8 weeks	upon delivery	Eur/mt
Medium Sections Europe Imp CIF S Euro Port Mthly	SB01161			S235 JR	100mt min	12 M Lengths (height 80X120mm)	CIF South Europe		upon delivery	Eur/mt
Medium Sections Turkey Exp FOB Turkish Port Mthly	SB01162			S235 JR	100mt min	12 M Lengths (height 80X120mm)	EXW Turkey	6-8 weeks	upon delivery	TRY/mt
Eng Steel HR Round Bars C45 50-150MM Dia N Europe Dom Prod Dlvd Mthly	SB01102			C45	20-30 mt min	50-150mm diameter	DDP North Europe	8-12 weeks	30-60 days	Eur/mt
Merchant Bar Europe Dom Prod Dlvd Mthly	SB01166			S235 JR	100mt min	6 (Length) 50x5 mm	DDP Europe	6-8 weeks	upon delivery	Eur/mt
Merchant Bar Europe Imp CIF S Euro Port Mthly	SB01167			S235 JR	100mt min	6 (Length) 50x5 mm	CIF South Europe		upon delivery	Eur/mt
Merchant Bar Brazil SE Dom Prod Ex-Works Mthly	SB01163			Norm ABNT EB - 1512/1989, ASTM A36 grade	200-500 mt		EXW Southeast Brazil	2-3 weeks	Net 30 days after delivery	Real/mt
Merchant Bar N Amer Dom Prod Ex-Mill US MW Mthly	SB01168			ASTM grade: A36, Grade 50	100 st min	Based on a 2x2x1/4-inche angle; Length: 20 feet	EXW US Midwest	4-12 weeks	Net 30 days after delivery	\$/st
<b>Rebar</b>										
Rebar EXW North West Europe	STCBE00	STCBE03		B500B carbon content	min. 100 mt	D 12-16mm, L 12m	EXW North West Europe	4-8 weeks	Prompt payment on delivery from mill	Eur/mt
Rebar FOB Europe (Mediterranean)	AAXFB04	AAXFB03		B500C carbon content	500 mt	D 12-16mm	FOB Mediterranean Port	4-8 weeks	Prompt Payment on delivery	Eur/mt
Rebar FOB Turkey	STCBM00	STCBM03		B500C carbon content	2,000-3,000 mt	D 16-20mm, L 12m	FOB Turkey	2-8 weeks	At sight	\$/mt
Rebar CPT Moscow	AAXJG00	AAXJG03		Russian grade St3sp/St3ps and A500/A500C/A400 ductility	100 mt	T 12-16 mm, L 11,000 - 12,000mm	CPT Moscow	3-5 weeks	Prompt payment on delivery from mill	Ruble/mt
Rebar Ex-Works Southern US	STCBC00	STCBC03		ASTM A 615/ A615M	100 st min	L 20ft, D 0.625 inches	EXW US Southeast	4-12 weeks	Net 30 days after delivery	\$/st
Rebar Ex-Works Midwestern US	SB01202			ASTM A 615/ A615M	100 st min	L 20ft, D 0.625 inches	EXW US Midwest	4-12 weeks	Net 30 days after delivery	\$/st
Rebar CIF US	STCBG00	STCBG03		ASTM A 615/ A615M	1,000-2,000 st	L 20ft, D 0.750-1.41 inches	CIF basis Houston	4-12 weeks	Net 30 days after delivery	\$/st
Rebar FOB China	STCBZ02	STCBZ23		BS 4449: 2005 B500B	5,000 mt	D 16-20mm, L 12m	FOB Zhangjiagang, China	4-8 weeks	At sight	\$/mt
Rebar Black Sea Exp FOB Mthly	SB01193			A500(S), 35GS	60-100 mt	12mm	FOB Black Sea	6-8 weeks	At sight	\$/mt
Rebar Europe Imp CIF S Euro Port Mthly	SB01197			B500B carbon content	100 mt	D 16-20mm, L 12m	CIF Europe	6-8 weeks	At sight	Eur/mt
Rebar Mid East Dom Prod Ex-Works Mthly	SB01200			B500B carbon content	100mt	D 8-32mm, L12	EXW Egypt, KSA or UAE	3-5 weeks	At sight	\$/mt
Rebar Mid East Imp CFR Gulf States Port Mthly	SB01201			B500B carbon content	2,000 mt	D 10-40mm, L12	CFR Dubai	4-8 weeks	At sight	\$/mt
Rebar Turkey Dom Prod Ex-Stock Incl 18%Vat Wkly	SB01206			B500B carbon content	100mt min	D 10-40mm, L12	EXW Turkey	6-8 weeks	Prompt payment on delivery from mill	TRY/mt
Rebar 10MM Brazil SE Dom Prod Ex-Works Wkly	SB01190			NBR 7480	1000-2000 mt	D 6-12 mm, L 12 m	EXW Southeast, Brazil	4-6 weeks	Net 30 days after delivery	Real/mt

**LONG**

Assessment	CODE	Mavg	Wavg	QUALITY	QUANTITY	DIMENSIONS	LOCATION	TIMING	PAYMENT TERMS	UOM
Rebar Argentina Dom Prod Dlv'd Mthly	SB01192			IRAM-IAS-U-500-528, Type DNA-420	200-500 mt	D 6-10 mm, L 12 m	EXW Santa Fe, Argentina	3-6 weeks	Net 15-30 days after delivery	\$/mt
Rebar Mexico Dom Prod Dlv'd Mthly	SB01199			NMX-C-407 grade 42	500-1000 mt	D 9.5-15.9 mm, L 12 m	EXW Northeast, Mexico	2-4 weeks	Net 30 days after delivery	\$/mt
Rebar CFR Southeast Asia	SB01195			BS4449 Grade 500	5,000 mt min	diameter range of 16-32 mm and in 12 m lengths	CFR Singapore	8-12 weeks	At sight	\$/mt
Rebar Ex-stock Beijing VAT-inclusive	SB01198			HRB 400	5-500 mt	D 18-25mm, L 12m	Ex-stock Beijing	up to 1 week	Cash before delivery	Yuan/mt
Rebar EXW Jiangsu VAT-inclusive Wkly	SB01259			HRB 400	5-500 mt	D 18-25mm, L 9m	EXW Jiangsu	up to 1 week	Cash before delivery	Yuan/mt
<b>Wire Rod</b>										
Wire Rod Mesh Quality Black Sea Exp FOB Mthly	SB01243				500mt	D 5.5-6 mm	FOB Black Sea	6-8 weeks	At sight	\$/mt
Wire Rod Mesh Quality Europe Dom Prod Dlv'd Mthly	SB01246				100mt min	D 5.5-6 mm	DDP Europe	4-5 WEEKS	upon delivery	Eur/mt
Wire Rod Mesh Quality Europe Imp CIF S Euro Port Mthly	SB01247				100mt min	D 5.5-6 mm	CIF South Europe		upon delivery	Eur/mt
Wire Rod Mesh Quality Turkey Exp FOB Turkish Port Mthly	SB01251				500mt	D 5.5-16 mm	FOB Turkey		upon delivery	TRY/mt
Wire Rod Draw Quality 6.5MM Brazil SE Dom Prod Ex-Works Mthly	SB01241				200 mt min	D 6.5 mm	EXW Southeast Brazil	3-5 weeks	Net 30 days after delivery	Real/mt
Wire Rod Mesh Quality LatAm Exp FOB Latin Am Port Mthly	SB01248				200-1000 mt		FOB Brazilian ports	4-6 weeks	Net 30 days after delivery	\$/mt
Wire Rod Mesh Quality N Amer Dom Prod Ex-Mill US MW Wkly	SB01249				100 st min	D 0.219- 0.625 inches (7/32-5/8 inches)	EXW US Midwest	4-12 weeks	Net 30 days after delivery	\$/st
Wire Rod Mesh Quality China Exp FOB Shanghai Wkly	SB01261			SAE1008	3,000 mt min	D 6.5mm	FOB Shanghai	to 12 weeks	At sight	\$/mt
Wire Rod Ex-stock Shanghai VAT-inclusive Wkly	SB01262				5-500 mt	D 6.5mm	Ex-stock Shanghai	up to 1 week	upon delivery	Yuan/mt

**Rebar**

**STCBE00 REBAR EXW NWE:** Platts will normalize its assessment to B500B carbon content which is the specification that is the most widely recognised industry benchmark. Platts will normalize other specifications such as B500C if any price differential exists. This value is calculated as a volume-weighted average. It is duplicated in the code TS01026.

**AAXFB04 Rebar FOB Europe (Mediterranean):** Platts will normalize its assessment to B500C carbon content.

**STCBM00 REBAR FOB Turkey:** Platts will normalize its assessment to B500B/C carbon content which is the grade that is the most widely recognised industry benchmark. Type C indicates that the rebar is suitable for seismically active locations in Italy, Greece, Spain. Platts will normalize to grade B, but currently there appears to be no price differential between B and C grades.

**AAXJGOO REBAR CPT Moscow:** Prime Hot Rolled Sheets of new manufacture, chemical and mechanical tolerances are based on Russian grade St3sp/St3ps and A500/A500C/A400 ductility grade. Other specifications are normalised back to this grade using current market extras typically applied in the industry.

**STCBC00 REBAR EXW Southern US:** Chemical and dimensional tolerances are based on ASTM A 615 / A615M Other grades of rebar are normalized to this grade based on the prevailing market extras

**SB01202 REBAR EXW Midwestern US:** Chemical and dimensional tolerances are based on ASTM A 615 / A615M Other grades of rebar are normalized to this grade based on the prevailing market extras.

**STCBG00 REBAR CIF US:** Chemical and dimensional tolerances are based on ASTM A 615 / A615M. Other grades



of rebar are normalized to this grade based on the prevailing market extras

**STCBZ02 REBAR FOB Chinese Port:** Prime carbon steel reinforcing bars of new manufacture to BS 4449: 2005 B500B or equivalent specifications. All other export specifications

to be normalized back to this grade. This frequency of this assessment was increased to daily from September 1, 2015, from having been published weekly, Thursdays, previously.

For all other Assessments Specifications please refer to the Table above.

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## SEMI

Assessment	CODE	Mavg	Wavg	QUALITY	QUANTITY	DIMENSIONS	LOCATION	TIMING	PAYMENT TERMS	UOM
<b>Steel billet / Slab</b>										
Billet LatAm Exp FOB Latin Am Port Mthly	SB01037			A36/A36M	2,000-5,000 mt	125x125 mm square, lengths 11,700 mm	FOB Vitoria port	4-6 weeks	At sight	\$/mt
Slab FOB Brazil Weekly	SB01236			A36/A36M, SAE1006	20,000-50,000 mt	W 800-2100 mm, L 5000-12.500 mm, T 200-250 mm	FOB Brazil	4-8 weeks	At sight	\$/mt
Slab CFR Southeast Asia	SB01235			SAE1008, SAE1006	10,000 mt min	200-250 mm thickness by 1250-1550mm width and 6 to 10 m length	CFR Cigading, Indonesia	8-12 weeks	At sight	\$/mt
Slab Black Sea Exp FOB Weekly	SB01233			SAE 1006	20,000-50,000 mt	1000-1850mm X 200-250mm	FOB Black Sea	4-8 weeks	At sight	\$/mt
Billet CFR Southeast Asia	SB01035			3sp/ps, 5sp/ps, SD290, Q235	5,000 mt min	dimension 120/125/130mm square x 6m and 12m length	CFR Manila, Philippines	8-12 weeks	At sight	\$/mt
Billet FOB Black Sea	STBLB00	STBLB03	STBLB04	grade GOST 380-94, 5sp/ps	5,000-20,000 mt	125x125 mm square, lengths 11,700 mm	FOB Black Sea	2-6 weeks	At sight	\$/mt
Billet Turkey Exp FOB Mthly	SB01039			GOST38094		125x125mm square	FOB Turkey	2-6 weeks	At sight	\$/mt
Billet Turkey Imp CFR Turkish Port Mthly	SB01040			GOST38094		125x125mm square	CIF Turkey	2-6 weeks	At sight	\$/mt
Billet Ex-stock Tangshan VAT-inclusive	SB01032			Commercial Quality or CQ		150x150mm square	Ex-Stock Tangshan	Immediate	At sight	Yuan/mt
Square Bar FOB China Daily	STSBF00	STSBF03		Q275	10,000mt	150x150mm sectional dimensions, Length 12m	FOB Tianjin, China	4-8 weeks forward	At sight	\$/mt

## Semi

## Steel Billet/Slab

**STBLB00 Billet FOB Black Sea:** Steel billet specifications are to be normalized to a base standard of 125x125 mm square, lengths 11,700 mm, grade GOST 380-94, 5sp/ps.

**SB01032 Steel Square Billet Ex-Stock Tangshan:** This reflects the daily price for mild carbon steel square billet sized 150mm by 150mm offered by a selection of steel mills and traders in the city of Tangshan, Hebei Province for immediate collection/delivery. The price is in Yuan/mt, cash payment.

**STSBF00 Square Bar FOB China:** This reflects exports of bars conforming to Q275 (or equivalent) specification of 150 mm square sectional dimensions and 12 m length. Location basis is FOB Tianjin for cargo shipped 4-8 weeks after the transaction date with a base lot size of 10,000 mt. Other locations, qualities, lot sizes and equivalent products are normalized back to the assessment's base specifications.

For all other Assessments Specifications please refer to the Table above.

## PIPE AND TUBE

Assessment	CODE	Mavg	Wavg	QUALITY	QUANTITY	DIMENSIONS	LOCATION	TIMING	PAYMENT TERMS	UOM
WeldPipe S235 48MM Dia 2MM Wall Turkey Exp FOB Turkish Port Mthly	SB01255			S235		48MM Dia 2MM Wall	FOB Turkey		At sight	\$/mt
WeldTube S235 50-170MM Dia Europe Dom Prod Dlvd Mthly	SB01258			S235		50-170MM Dia	DDP Europe		upon delivery	Eur/mt
WeldPipe OCTG Cbn ERW J55 4 1/2-8 5/8Inch N Amer Dom Prod Ex-Mill US Mthly	SB01253			Carbon ERW J55	200 st	4 1/2- 8 5/8	EXW US mill			\$/st
WeldPipe OCTG Cbn ERW J55 4 1/2-8 5/8Inch N Amer Imp EDDP Gulf Port Mthly	SB01254			Carbon ERW J55	200 st	4 1/2- 8 5/8	Ex-Gulf dock, duty paid			\$/st
WeldPipe Standard 4Inch Black ERW N Amer Dom Prod Ex-Mill US MW Mthly	SB01256			Carbon ERW A53-B	200 st	4 1/2- 8 5/8	EXW US mill			\$/st
WeldPipe Standard 4Inch Black ERW N Amer Imp EDDP Gulf Port Mthly	SB01257			Carbon ERW A53-B	200 st	4 1/2- 8 5/8	Ex-Gulf dock, duty paid			\$/st
7 inch steel OCTG FOB Tianjin China \$/Mt	AAXNI00			API 5CT J55/K55	50-300 mt	OD 7"/177.8mm, T 8.05mm, L R3 (10.36-14.63m)	FOB Tianjin	8-12 weeks	At sight	\$/mt
7 inch steel OCTG FOB Tianjin China \$/Ft	AAXNK00			API 5CT J55/K56	50-300 mt	OD 7"/177.8mm, T 8.05mm, L R3 (10.36-14.63m)	FOB Tianjin	8-12 weeks	At sight	\$/ft

## Stainless steel

## FLAT

Assessment	CODE	Mavg	Wavg	QUANTITY	DIMENSIONS	LOCATION	TIMING	PAYMENT TERMS UOM	
CR304 2B 14 gauge transaction price inc. surcharge North America imports ex dock duty paid Gulf port Mthly	SB01057			Any	Sheet/strip	North America	Monthly	Not specified	cents/lb
CR316 2B 14 gauge transaction price inc. surcharge North America imports ex dock duty paid Gulf port Mthly	SB01066			Any	Sheet/strip	North America	Monthly	Not specified	cents/lb
CR430 2B 14 gauge transaction price inc. surcharge North America imports ex dock duty paid Gulf port Mthly	SB01073			Any	Sheet/strip	North America	Monthly	Not specified	cents/lb
CR304 2B 14 gauge transaction price inc. surcharge North America domestic production Ex-mill US Mthly	SB01056			Any	Sheet/strip	North America	Monthly	Not specified	cents/lb
CR304, 2B 14 base price North America Monthly	SB01055			Any	Sheet/strip	North America	Monthly	Not specified	cents/lb
Alloy Surchrng 304 Coil N Amer Dom Prod Ex-Mill US Mthly	SB01009			Any	Sheet/strip	North America	Monthly	Not specified	cents/lb
CR316 2B 14 gauge transaction price inc. surcharge North America domestic production Ex-mill US Monthly	SB01065			Any	Sheet/strip	North America	Monthly	Not specified	cents/lb
CR316 2B 14 gauge base price North America Monthly	SB01064			Any	Sheet/strip	North America	Monthly	Not specified	cents/lb
Alloy Surchrng 316 Coil N Amer Dom Prod Ex-Mill US Mthly	SB01012			Any	Sheet/strip	North America	Monthly	Not specified	cents/lb
CR430 2B 14 gauge transaction price inc. surcharge North America domestic production Ex-mill US Monthly	SB01072			Any	Sheet/strip	North America	Monthly	Not specified	cents/lb
CR430 2B 14 base price North America Monthly	SB01071			Any	Sheet/strip	North America	Monthly	Not specified	cents/lb
Alloy Surchrng 430 Coil N Amer Dom Prod Ex-Mill US Mthly	SB01016			Any	Sheet/strip	North America	Monthly	Not specified	cents/lb
HR304 Ex-warehouse Foshan VAT-inclusive Mthly	SB01136			min 50mt	Width 1219mm, Thickness 2mm	Ex-warehouse in Foshan	Not specified	Cash	Yuan/mt
Alloy Surchrng 304 Coil Europe Dom Prod Mthly	SB01008			Any	Sheet/strip	Europe	Monthly	Not specified	Eur/mt
Alloy Surchrng 316 Coil Europe Dom Prod Mthly	SB01011			Any	Sheet/strip	Europe	Monthly	Not specified	Eur/mt
Alloy Surchrng 430 Coil Europe Dom Prod Mthly	SB01015			Any	Sheet/strip	Europe	Monthly	Not specified	Eur/mt
CR304 2B 2MM Coil Base N Europe Dom Prod Dlvd Mthly	SB01059			about 10 mt-plus	>1,200mm wide, 2mm thick	North Europe	Current month	Not specified	Eur/mt
CR304 2B 2MM Coil Base S Europe Dom Prod Dlvd Mthly	SB01060			about 10 mt-plus	>1,200mm wide, 2mm thick	South Europe	Current month	Not specified	Eur/mt
CR304 2B 2MM Coil Trans N Europe Dom Prod Dlvd Mthly	SB01061			about 10 mt-plus	>1,200mm wide, 2mm thick	North Europe	Current month	Not specified	Eur/mt
CR304 2B 2MM Coil Trans S Europe Dom Prod Dlvd Mthly	SB01062			about 10 mt-plus	>1,200mm wide, 2mm thick	South Europe	Current month	Not specified	Eur/mt
CR316 2B 2MM Coil Base N Europe Dom Prod Dlvd Mthly	SB01067			about 10 mt-plus	>1,200mm wide, 2mm thick	North Europe	Current month	Not specified	Eur/mt
CR316 2B 2MM Coil Base S Europe Dom Prod Dlvd Mthly	SB01068			about 10 mt-plus	>1,200mm wide, 2mm thick	South Europe	Current month	Not specified	Eur/mt
CR316 2B 2MM Coil Trans N Europe Dom Prod Dlvd Mthly	SB01069			about 10 mt-plus	>1,200mm wide, 2mm thick	North Europe	Current month	Not specified	Eur/mt
CR316 2B 2MM Coil Trans S Europe Dom Prod Dlvd Mthly	SB01070			about 10 mt-plus	>1,200mm wide, 2mm thick	South Europe	Current month	Not specified	Eur/mt
CR430 BA 2MM Coil Base N Europe Dom Prod Dlvd Mthly	SB01075			about 10 mt-plus	>1,200mm wide, 2mm thick	North Europe	Current month	Not specified	Eur/mt
CR430 BA 2MM Coil Base S Europe Dom Prod Dlvd Mthly	SB01076			about 10 mt-plus	>1,200mm wide, 2mm thick	South Europe	Current month	Not specified	Eur/mt
CR430 BA 2MM Coil Trans N Europe Dom Prod Dlvd Mthly	SB01077			about 10 mt-plus	>1,200mm wide, 2mm thick	North Europe	Current month	Not specified	Eur/mt
CR430 BA 2MM Coil Trans S Europe Dom Prod Dlvd Mthly	SB01078			about 10 mt-plus	>1,200mm wide, 2mm thick	South Europe	Current month	Not specified	Eur/mt
CR304 Ex-warehouse Foshan VAT-inclusive Mthly	SB01058			min 50mt	1219mm wide, 2mm thick	Ex-warehouse in Foshan	Not specified	Cash	Yuan/mt
CR304 2B 2MM E Asia Imp CFR Wkly	SB01063			min 50mt	1219mm wide, 2mm thick	CFR Main East Asian and Southeast Asian ports including China, Hong Kong, Taiwan, South Korea, Malaysia, Singapore, Vietnam, Philippines and Thailand	Delivery in 1-2 months from date of transaction	Letter of credit; telegraphic transfer	\$/mt
CR430 Ex-warehouse Foshan VAT-inclusive Mthly	SB01074			min 50mt	1219mm wide, 2mm thick	Ex-warehouse in Foshan	Not specified	Cash	Yuan/mt

**LONG**

Assessment	CODE	Mavg	Wavg	QUANTITY	DIMENSIONS	LOCATION	TIMING	PAYMENT TERMS UOM	
Alloy Surchrng 304L Brt Bar Europe Dom Prod Mthly	SB01010			Any	Cold finished bar	Europe	Monthly	Not specified	Eur/mt
Alloy Surchrng 316L Brt Bar Europe Dom Prod Mthly	SB01013			Any	Cold finished bar	Europe	Monthly	Not specified	Eur/mt
Alloy Surchrng 420 Brt Bar Europe Dom Prod Mthly	SB01014			Any	Cold finished bar	Europe	Monthly	Not specified	Eur/mt
304L Brt Bar 25-80MM Dia Base Europe Dom Prod Dlvd Mthly	SB01002			Mill into stockist, tonnage unknown	25-80 mm	Europe	Current, and usually the next month	Not specified	Eur/mt
304L Brt Bar 25-80MM Dia Trans Europe Dom Prod Dlvd Mthly	SB01003			Mill into stockist, tonnage unknown	25-80 mm	Europe	Current, and usually the next month	Not specified	Eur/mt
430F Drawn Bar 8-25MM Dia Base Europe Dom Prod Dlvd Mthly	SB01005			Mill into stockist, tonnage unknown	8-25 mm	Europe	Current, and usually the next month	Not specified	Eur/mt
430F Drawn Bar 8-25MM Dia Trans Europe Dom Prod Dlvd Mthly	SB01006			Mill into stockist, tonnage unknown	8-25 mm	Europe	Current, and usually the next month	Not specified	Eur/mt

**SCRAP**

Assessment	CODE	Mavg	Wavg	QUANTITY	DIMENSIONS	LOCATION	TIMING	PAYMENT TERMS UOM	
18-8 Stainless Steel Scrap	AALDQ00	AALDS00	AALDS16	1,000 st min	NA	NA	NA	Not specified	\$/lt

For all stainless steel assessment specifications please refer to the table above.

## Raw materials

## FERROALLOYS

Assessment	CODE	Mavg	Wavg	Yavg	QUANTITY	DIMENSIONS	LOCATION	TIMING	PAYMENT TERMS	UOM
Silicomanganese 65:16 DDP NWE	AAITQ00	MMAZF03			Not specified	NA	DDP Northwest Europe	4 weeks	NA	Eur/mt
Silicomanganese 65% Mn in-warehouse US	MMAGR00	MMAGR03		MMAGR16	Four truckload minimum	2.5x0.5 inch lumps	All major US warehouse hubs	60 days from transaction date	Net 30 days	cents/lb Mn contained
Silicomanganese 65% CIF Japan	MMAJG00				min 100 mt	10-55 mm	main ports Japan	loading within 60 days of transaction	cash against documents	\$/mt Mn contained
Ferrosilicon 75% Std DDP NWE	AAIUR00	NA	NA		Not specified	NA	DDP Northwest Europe	4 weeks	NA	Eur/mt
Ferrosilicon 75% Si in-warehouse US	MMAFT00	MMAFT03		MMAF16	Four truckload minimum	2.5x0.5 inch lumps	All major US warehouse hubs	60 days from transaction date	Net 30 days	cents/lb Si contained
Ferrosilicon 75% CIF Japan	MMAJP00	NA	NA		100 mt min	10-100 mm	main ports Japan	loading within 60 days of transaction	cash against documents	\$/mt Si contained
Ferrosilicon 75% FOB China Wkly	MMAKB00	NA	NA		min 18-24mt	10-50mm lumps	FOB main Chinese ports	Within 30 days of date of transaction	Telegraphic transfer, cash against documents, irrevocable letter of credit drawn against approved bank at sight or equivalent	\$/mt
Ferromolybdenum CIF Jap Wkly	MMAFM00	NA	NA		min 18-24mt	Not specified	main ports Japan	loading within 60 days of transaction	cash against documents, LC at sight	\$/kg Mo contained
Ferromolybdenum Europe Daily	MMAFO00	MMAFO03		MMAF016	20 mt minimum	5-50 mm	i/w Rotterdam	NA	Net cash	\$/kg Mo contained
Ferromolybdenum FOB China Wkly	MMAFP00	NA	NA		100/250kg drums or 1mt bags	Not specified	FOB main Chinese ports	within 1 month after date of purchase agreement	cash against documents, LC at sight	\$/kg
Ferromolybdenum US Wkly	MMAFQ00	MMAFQ03		MMAFQ16	Single truckload - 40,000 lb (20 mt)	NA	Delivered, buyer's works	within 30 days	Net 30 days	\$/lb Mo contained
Molybdenum Daily Dealer Oxide \$/Lb	MMAQY00	MMAQY03	MMAGQ00	MMAYQ16	18-24 mt	NA	EXW Europe, CIF Japan, del US, del S Korea, CIF Nhava Sheva, in-warehouse Tianjin	3-30 days	NA	\$/lb Mo contained
Manganese Ore 44% CIF China \$/dmtu	AAWER00	AAWER03		AAWER16	min 5,000 mt or full hatch	5mm to 80mm	CIF Tianjin	2-8 weeks	Cash	\$/dmtu
Manganese Ore 37% CIF China \$/dmtu	AAXRX00	AAXRX03	NA	AAXRX16	min 5,000 mt or full hatch	5mm to 75 mm	CIF Tianjin	2-8 weeks	Cash	\$/dmtu
Electrolytic Manganese 99.7% Mn FOB China	MMAIX00		NA		250 kg drums	10mm x 150mm x 1.5mm	FOB main Chinese ports	30 days	Cash	\$/mt
Ferromanganese High-Carbon 76% Mn in-warehouse US	MMAFH00	MMAFH03		MMAFH16	Four truckload minimum	4 inch x 0.50 inch lumps	All major US warehouse hubs	Within 30 days	Net 30 days	\$/lt Mn contained
Ferromanganese Medium Carbon 85% Mn in-warehouse US	MMAFK00	MMAFK03		MMAFK16	Four truckload minimum	2.5 inch x 0.50 inch lumps	All major US warehouse hubs	Within 30 days	Net 30 days	cents/lb Mn contained
Charge Chrome 48-52% CIF China	CCXIC04	CCXIC03			Min 500mt	10-100mm lumps	CIF main Chinese ports	Delivered CIF China within 90 days from the date of transaction	Cash against documents or payment terms letter of credit At sight	cents/lb Cr contained
Charge Chrome 48-52% in-warehouse US	MMAEX00				One truckload minimum	2.5 x 1 inch lumps	All major US warehouse hubs	Within 30 days	Net 30 days	cents/lb Cr contained
Charge Chrome 52% DDP NWE	MMAIP00				200-500 mt	NA	DDP Northwest Europe	Within 4 weeks	Net 30 days	cents/lb Cr contained
Ferrochrome Low Carbon 0.15% in-warehouse US	MMANR00				One truckload minimum	2.5 x 0.5 inch lumps	All major US warehouse hubs	Within 30 days	Net 30 days	cents/lb Cr contained

## FERROALLOYS

Assessment	CODE	Mavg	Wavg	Yavg	QUANTITY	DIMENSIONS	LOCATION	TIMING	PAYMENT TERMS	UOM
High-carbon Ferrochrome 60-65% CIF Japan	MMAEW00		NA		min 100 mt	10-100 mm	main ports Japan	loading within 60 days of transaction	cash against documents	cents/lb Cr contained
High-carbon Ferrochrome 58-60% CIF China	SB01103		NA		min 500mt	10-150mm lumps	CIF main Chinese ports	Delivered CIF main Chinese ports within 60 days from date of transaction	Cash against documents or payment terms letter of credit At sight	cents/lb Cr contained
Ferrochrome 65% High-Carbon in-warehouse US	MMAFA00	MMAFA03		MMAFA16	Four truckload minimums	2.5 x 0.5 inch lumps	All major US warehouse hubs	Within 30 days	Net 30 days	cents/lb Cr contained
Ferrochrome Low Carbon 0.05% in-warehouse US	MMAFC00	MMAFC03		MMAFC16	One truckload minimum	2.5 x 0.5 inch lumps	All major US warehouse hubs	Within 30 days	Net 30 days	cents/lb Cr contained
Ferrochrome Low-Carbon 0.10% DDP NWE	MMAIL00				200-500 mt	NA	DDP Northwest Europe	Within 4 weeks	Net 30 days	cents/lb Cr contained
Ferrochrome Low Carbon 0.10% in-warehouse US	MMAIM00	MMAIM03		MMAIM16	One truckload minimum	2.5 x 0.5 inch lumps	All major US warehouse hubs	Within 30 days	Net 30 days	cents/lb Cr contained
Ferrochrome 65% 6-8% High-Carbon DDP NWE	MMAIQ00				200-500 mt	NA	DDP Northwest Europe	within 4 weeks	Net 30 days	cents/lb Cr contained
Ferrotungsten Wk	MMAHK00				Not specified	NA	delivered	Within 30 days	Net 30 days	\$/kg
US Ferrovandium 80% \$/Lb Wk	MMAFY00	MMAFY03		MMAFY16	One truckload minimum	NA	delivered	Within 30 days	Net 30 days	\$/lb V contained
Ferrovandium 80% Spot Europe Wkly Cl	MMAYY04	MMAYY04			Not specified	NA	EXW Europe	NA	NA	\$/kg V contained
Ferrotitanium 70%Ti delivered US Weekly	MMAJX00	MMAJX03		MMAJX16	One truckload minimum	lump form	delivered US	within 30 days Net-30 days		\$/lb Ti contained
Europe Ferrotitanium 70% Ti Weekly	MMAJW00				One truckload minimum	lump form	DDP Northwest Europe	within 30 days	Net-30 days	\$/kg Ti contained

### Bulk Ferroalloys

#### Manganese

**44% Manganese Ore CIF China:** Platts launched on January 3, 2012, a spot market price assessment of 44% manganese ore. The price was assessed daily until December 5, 2014, when it became a weekly assessment. The assessment reflects high-grade manganese ore lumps, normalized to a standard specification of 44% Mn contained content. All values deemed typical; specifications with Mn content ranging from 41% to 46% are to be normalized to a standard where Fe content is 6.00%, SiO<sub>2</sub> is 8.00%, Al<sub>2</sub>O<sub>3</sub> is 7.99%, P is 0.11%, moisture is 3.00% and sizing at 5 mm to 80 mm, 90% passing. Minimum cargoes of 5,000 mt or one full hatch. Normalized to payment cash at sight. Reflects the price at which a cargo could be traded on a CIF North China basis, Tianjin, at the close of the assessment period on the day of publishing. These

assessed values are based on confirmed spot cargo transactions, or the tradable price falling between firm cargo bids/offers, or in the absence of liquidity, where spot market transactions would have been concluded for the benchmark grade, based on information from producers, consumers, traders, shippers and other active market participants. Spot price bids/offers or trades basis FOB or CIF in other locations may be netted back to CIF North China using prevailing spot freight rates for dry bulk carriers on the day of assessment. For netback/netforward calculations, the appropriate vessel class freight costs are taken into consideration.

**37% Manganese Ore CIF China:** Platts launched on December 5, 2014, a spot market price assessment of 37% manganese ore. The assessment reflects manganese ore lumps, normalized to a standard specification of 37% Mn contained content. All values deemed typical; specifications with Mn content ranging from 35% to

39% are to be normalized to a standard where Fe content is 6.00%, SiO<sub>2</sub> 4-6%, Al<sub>2</sub>O<sub>3</sub> 0.5% P 0.04%, moisture is 1.00% and sizing at 5mm to 75mm, 90% passing. Timing of cargoes assessed are for delivery two to eight weeks from date of publication, minimum 5,000 mt or full hatch, Handysize/max class vessel. Container shipment is normalized to this standard using prevailing freight rates. Payment terms are deemed 100% payment at sight with all variations normalized to this standard. Reflects the price at which a cargo could be traded on a CIF North China basis, Tianjin, at the close of the assessment period on the day of publishing. These assessed values are based on confirmed spot cargo transactions, or the tradable price falling between firm cargo bids/offers, or in the absence of liquidity, where spot market transactions would have been concluded for the benchmark grade, based on information from producers, consumers, traders, shippers and other active market participants. Spot price bids/offers or trades basis FOB



or CIF in other locations may be netted back to CIF North China using prevailing spot freight rates for dry bulk carriers on the day of assessment. For netback/netforward calculations, the appropriate vessel class freight costs are taken into consideration.

**Electrolytic Manganese 99.7% Mn FOB China:** Weekly assessment of the repeatable, tradeable, spot price for 99.7-99.9% Mn flakes, size 10mm x 150mm x 1.5 mm, normalized to 99.7%; silicon 0.05%, sulfur 0.04%, carbon 0.04%, iron 0.03%, phosphorous 0.004%, lead 0.001%; Chinese-origin and imported material, free market, \$/mt, packaging in 250 kg drums, in Customs-sealed, 20 ft containers, export duty paid; shipment loading within 30 days from date of transaction, payment cash against documents, including original bill of lading. Reported CIF and CFR transactions normalized back to FOB China specification, using prevailing freight rates. Special packaging and payment terms normalized back to stated specification. Assessment made Fridays, or closest business day, from survey of producers, traders and consumers of electrolytic manganese metal flake.

#### Ferromanganese

**High-Carbon 76% Mn in-warehouse US:** Weekly assessment of the repeatable, tradeable, spot price for high-carbon ferromanganese 74-78% Mn, normalized to 76% Mn, carbon 7.5% max, silicon 1.2%, phosphorous 0.5%, sulfur 0.02%; lumps 0.5- x 4.00 inch; US-origin and imported material, \$/long ton Mn contained; in-bulk or 2,000-3,000 lb supersacks; duty-paid in-warehouse in key locations along the Mississippi, Chicago, Ohio and Columbia River systems and other key port warehousing locations, including Baltimore, Maryland, Long Beach, California and Portland, Oregon; delivery within 60 days from date of transaction, net-30 days payment terms from date of delivery. Transactions reported on a delivered basis normalized to an in-warehouse basis. Fines normalized to stated lump specifications. Special packaging and payment terms normalized to meet stated specifications. The specification is for a minimum of four truckload quantities and greater. The assessment will reflect pricing for minimum quantities of four truckloads and greater. Assessment made Wednesdays, or closest business day, from survey of producers, traders and end users in the carbon, stainless and

specialty steel sectors, closing at 4pm New York time.

**Medium Carbon 85% Mn in-warehouse US:** Weekly assessment of the repeatable, tradeable, spot price for medium-carbon ferromanganese 80-85% Mn, carbon 1.5% max, silicon 1.5% max, phosphorous 0.40% max, sulfur 0.2%; lumps size 0.50 x 2.5 inch; US-origin and imported material; cents/lb Mn contained; in-bulk or 2,000-3,000 lb supersacks; duty-paid in-warehouse in key locations along the Mississippi, Chicago, Ohio and Columbia River systems and other key port warehousing locations, including Baltimore, Maryland, Long Beach, California and Portland, Oregon; delivery within 60 days from date of transaction, net-30 days payment terms from date of delivery. Transactions reported on a delivered basis normalized to an in-warehouse basis. Fines normalized to stated lump specifications. Special packaging and payment terms normalized to meet stated specifications. The assessment is for minimum quantities of four truckloads and greater. Assessment made Wednesdays, or closest business day, from survey of producers, traders and end users in the carbon, stainless and specialty steel sectors, closing at 4pm New York time.

#### Silicomanganese

**65% Mn, in-warehouse US:** Weekly assessment of the repeatable, tradeable, spot price for 65-72% Mn, normalized to 65% Mn, silicon 16-18%, carbon 2% max, phosphorous 0.35% max, sulfur 0.04% max; lumps size 2.5x0.50 inch; in-bulk or 2,000-3,000 lb supersacks; US-origin and imported material; cents/lb Mn contained, duty-paid in-warehouse in key locations along the Mississippi, Chicago, Ohio and Columbia River systems and other key port warehousing locations, including Baltimore, Maryland, Long Beach, California, and Portland, Oregon; delivery within 60 days from date of transaction, net-30 days payment terms from date of delivery. Transactions reported on a delivered basis normalized to an in-warehouse basis. Fines normalized to stated lump specifications. Special packaging and payment terms normalized to meet stated specifications. The assessment will reflect pricing for minimum quantities of four truckloads and greater. Assessment made Wednesdays or closest business day from survey of producers, traders and

end users in the carbon, stainless and specialty steel sectors, closing at 4pm New York time.

**65:16 DDP NWE:** Weekly assessment for grades are normalized to a specification with P content 0.25% and C content 1.5%. The assessment is for volumes of 300-1,000 mt delivered, duty-paid Northwest Europe basis for delivery within four weeks. Assessment is in Eur/mt Mn contained and conducted on Thursdays (or the closest business day in the case of holidays) through a survey of producers, traders and steel mill buyers.

**Silicomanganese 65% CIF Japan (MMAJG00):** Weekly assessment of the repeatable, tradable, spot price for 65-70% Mn, normalized to 65% Mn; silicon 14-20%, carbon maximum 2-2.5%, phosphorous maximum 0.3%, sulfur maximum 0.02%, boron maximum 0.02%, lump size 10-55 mm, in bulk or super sacks, all origins. Price is assessed in \$/mt Mn contained, reflecting the narrow price range where the majority of business is occurring, basis CIF main Japanese ports of Yokohama, Nagoya and Osaka, loading within 60 days from the date of transaction, net 30-days payment terms from date of delivery. The assessment will reflect minimum quantities of 100 mt or greater. Assessment made Thursdays or closest business day from survey of producers, traders and end-users in the steel sector. Includes all origins meeting the specification. Started July 1, 1993.

#### Ferrosilicon

**75% Si, in-warehouse US:** Weekly assessment of the repeatable, tradeable, spot price for 73-79% Si, normalized to 75% Si, aluminum 0.5% min-1.5% max, calcium 1.5% max; carbon 0.10% max, lumps 2x0.50 inch, 2x1 inch, or 4x1 inch; US-origin and imported material; in cents/lb Si contained; in-bulk or 2,000-3,000 lb supersacks; duty-paid in-warehouse in key locations along the Mississippi, Chicago, Ohio and Columbia River systems and other key port warehousing locations, including Baltimore, Maryland, Long Beach, California, and Portland, Oregon; delivery within 60 days from date of transaction, net-30 days payment terms from date of delivery. Transactions reported on a delivered basis are normalized to an in-warehouse basis. Fines normalized to stated

lump specifications. The assessment is for a minimum of four truckload quantities and greater. Special packaging and payment terms normalized to meet stated specifications. Assessment made Wednesdays or closest business day from survey of producers, traders and end users in the carbon, stainless and specialty steel sectors, closing at 4pm New York time.

**75% Std DDP NWE:** Weekly assessment for 75% ferrosilicon; grades are normalized to a specification with Al content of 1.5%, S 0.02% and P 0.04%. The assessment is for volumes of 200-800 mt, delivered, duty-paid Northwest Europe basis for delivery within four weeks, net-30 days payment terms. Assessment is in Eur/mt Si contained and conducted on Thursdays (or the closest business day in the case of holidays) through a survey of producers, traders and steel mill buyers.

**Ferrosilicon 75% CIF Japan (MMAJP00):** Weekly assessment of the repeatable, tradable spot price ferrosilicon imported into Japan, with 75-79% silicon, normalized to 75% Si, maximum 2% aluminum, 0.02% sulfur, 0.2% carbon, 0.05% phosphorous, lumps 10-100 mm, packed in 1 mt big bags in seagoing 20-foot (18-24-mt) containers, CIF main port Japan. Assessed in dollars / mt, reflecting the narrow range where the majority of business is occurring. Payment cash against documents or LC at sight, loading less than 60 days after the date of transaction. Minimum volume 100 mt / transaction. Assessment made Thursdays or closest business day from survey of producers, traders and end-users in the steel and other metal sectors. The Platts assessment will only consider bids, offers or deals complying with the legal documentation and taxation requirements of the exporting country. Includes all origins meeting the specification. Started July 1, 1993.

**Ferrosilicon 75% FOB China (MMAKB00):** Weekly assessment of the repeatable, tradable, spot price for Chinese-origin ferrosilicon with 73-79% silicon, normalized to 75% Si; maximum 1.5% aluminum, maximum 0.02% sulfur, maximum 0.04% phosphorous, maximum 0.2% carbon; lumps 10-50 mm; FOB main Chinese sea ports, packed in 1 mt big bags loaded on oceangoing vessel or packed in seagoing 20-foot (18-24-mt) containers and customs sealed, export tariff-

paid, within 30 days of date of transaction. Assessment is made in dollars / mt reflecting the narrow range where the majority of business is occurring. Payment by telegraphic transfer, cash against documents, irrevocable letter of credit drawn against approved bank at sight or equivalent. Assessment quantities are 18 mt and greater. Assessment made Thursdays or closest business day from a survey of producers, traders and consumers.

#### Ferrochrome

**Charge Chrome 48-52% Cr, in-warehouse US:** Weekly assessment of the repeatable, tradeable, spot price for 48-52%Cr charge chrome, carbon 8% max, silicon 4% max, phosphorous 0.03% max, sulfur 0.04% max, lumps size 1 x 2.5 inch; US origin and imported material, free market, cents/lb Cr contained; in-bulk or 2,000-3,000 lb supersacks; duty-paid in-warehouse in key locations along the Mississippi, Chicago, Ohio and Columbia River systems and other key port warehousing locations, including Baltimore, Maryland, Long Beach, California.

**Charge Chrome 52% DDP NWE:** Weekly assessment for 48-52% grades normalized to a Si content of maximum 6-8% and P content 0.030%. The specification is for volumes of 200-500 mt, delivered, duty-paid Northwest Europe basis, for delivery within 4 weeks from date of transaction, net-30 days payment. Assessment is in \$/lb Cr contained and conducted on Thursdays (or the closest business day in the case of holidays) through a survey of producers, traders and steel mill buyers. Started July 8, 1992.

**Charge Chrome 48-52% CIF China:** Weekly assessment of the repeatable, tradeable spot price for charge chrome CIF main Chinese ports, with chrome content of 48-52%, normalized to a maximum 9% carbon, max 0.05% sulfur, max 0.04% phosphorus and max 6% silicon, lump size 10-100 mm, all origins. The assessment will reflect a typical order quantity of minimum 500 mt, delivered CIF China within 90 days from the date of transaction, cash against documents or payment terms letter of credit at sight, packed in 1 mt big bags, or in bulk, and/or in ocean-going, customs-sealed containers at point of export. Assessment made Fridays (or closest business day in the case

of holidays), from a survey of producers, traders and end users in the carbon, stainless and specialty steel sectors, reflecting the narrow low-high price range of the majority of spot deals, bids and offers on a cents/lb Cr contained basis.

**65% High-Carbon, in-warehouse US:** Weekly assessment of the repeatable, tradeable, spot price for 60-65% Cr, high-carbon ferrochrome, normalized to 65% Cr, 6-8% carbon, 2% max silicon, 0.03% max phosphorous, 0.04% max sulfur, lumps size 0.50 x 2.5 inch; US origin and imported material, free market, cents/lb Cr contained; in-bulk or 2,000-3,000 lb supersacks; duty-paid in-warehouse in key locations along the Mississippi, Chicago, Ohio and Columbia River systems and other key port warehousing locations, including Baltimore, Maryland, Long Beach, California and Portland, Oregon; delivery within 60 days from date of transaction; net-30 days payment terms from date of delivery. Transactions reported on a delivered basis normalized to an in-warehouse basis. Fines normalized to stated lump specifications. Special packaging and payment terms normalized to meet stated specifications. The assessment will reflect pricing for quantities of four truckloads and greater. Assessment made Wednesdays, or closest business day, from survey of producers, traders and end users in the carbon, stainless and specialty steel sectors, closing at 4pm New York time. Started December 15, 1971.

**65% 6-8% High Carbon DDP Northwest Europe:** Weekly assessment for 60-70% chrome, normalized to 65% Cr, with Si content of 1.5%; P content 0.030%. The specification is for volumes of 200-500 mt, delivered, duty-paid Northwest Europe, basis for delivery within four weeks from date of transaction, net-30 days payment terms. Assessment is in \$/lb Cr contained and conducted on Thursdays (or closest business day in the case of holidays) through a survey of producers, traders and steel mill buyers. Started July 8, 1992.

**High-carbon 60-65% CIF Japan:** Weekly assessment of the repeatable, tradeable spot price for 60-65% high-carbon ferrochrome, with silicon content of 2-4%, maximum 8% carbon, 0.02-0.05% phosphorous, 0.05% max sulfur, lump size 10-100

mm, all origins. The assessment will reflect a typical order quantity of a minimum 100 mt, loading from the port of origins for shipping to Japan within 60 days from the date of transaction, CIF main Japanese port basis, payment cash against documents, or payment terms letter of credit at sight. Packed in 1 mt big bags, or in bulk, and/or in ocean-going, customs-sealed containers at point of export. Assessment to be made Fridays (or closest business day in the case of holidays), from a survey of producers, traders and end users in the carbon, stainless and specialty steel sectors, reflecting the narrow low-high price range of the majority of spot deals, bids and offers on a cents/lb Cr contained basis.

**High-carbon 58-60% CIF China:** Weekly price assessment of the repeatable, tradeable spot price for 58-60% Cr high-carbon ferrochrome, with a maximum silicon content of 5%, maximum 8% carbon, 0.04% max phosphorous, 0.05% max sulfur, in lumps, lump size 10-150 mm, all origins. The assessment will reflect a typical order quantity of a minimum 500 mt, delivered CIF main Chinese ports within 60 days from date of transaction, payment terms cash against documents or payment terms letter of credit at sight, packed in 1 mt big bags, or in bulk, and/or in ocean-going, customs-sealed containers at point of export. Assessment made Fridays (or closest business day in the case of holidays), from a survey of producers, traders and end users in the carbon, stainless and specialty steel sectors, reflecting the narrow low-high price range of the majority of spot deals, bids and offers on a cents/lb Cr contained basis.

**Low Carbon 0.10% in-warehouse US:** Weekly assessment of the repeatable, tradeable, spot price for 0.10% carbon, 65-74% Cr, ferrochrome, normalized to 68% Cr, carbon 0.10% max, silicon 1% max, phosphorous 0.3% max, sulfur 0.02% max, lumps size 0.50 x 2.5 inch. The assessment covers US origin and imported material, free market, cents/lb Cr contained, in-bulk or 2,000-3,000 lb supersacks; duty-paid in-warehouse in key locations along the Mississippi, Chicago, Ohio and Columbia River systems and other key port warehousing locations, including Baltimore, Maryland; Long Beach, California and Portland, Oregon; delivery within 60 days from date of transaction, net-30 days payment

terms from date of delivery. Transactions reported on a delivered basis normalized to an in-warehouse basis. Fines normalized to stated lump specifications. Special packaging and payment terms normalized to meet stated specifications. The assessment will reflect pricing for full-truckload quantities and greater. Assessment made Wednesdays, or closest business day, from survey of producers, traders and end users in the carbon, stainless and specialty steel sectors, closing at 4pm New York time. Started September 1, 1992.

**Low-Carbon 0.10% DDP Northwest Europe:** Weekly assessment for 60-70% chrome, normalized to an assessed grade with a Si content of 0.05% and P content 0.05%. The specification is for volumes of 200-500 mt, delivered, duty-paid Northwest Europe basis for delivery within 4 weeks from date of transaction, net-30 days payment terms. Assessment is in \$/lbCr contained and conducted on Thursdays (or the closest business day in the case of holidays) through a survey of producers, traders and steel mill buyers. Started July 8, 1992.

**Low Carbon 0.15% in-warehouse US:** Weekly assessment of the repeatable, tradeable, spot price for 0.15% carbon, 68-74% Cr, ferrochrome, carbon 0.15% max, silicon 1% max, phosphorous 0.3% max, sulfur 0.02% max, lumps size 0.50 x 2.5 inch; US origin and imported material, free market; cents/lb Cr contained; in-bulk or 2,000-3,000 lb supersacks; duty-paid in-warehouse in key locations along the Mississippi, Chicago, Ohio and Columbia River systems and other key port warehousing locations, including Baltimore, Maryland, Long Beach, California and Portland, Oregon; delivery within 60 days from date of transaction, net-30 days payment terms from date of delivery. Transactions reported on a delivered basis normalized to an in-warehouse basis. Fines normalized to stated lump specifications. Special packaging and payment terms normalized to meet stated specifications. The assessment will reflect pricing for full truckload quantities and greater. Assessment made Wednesdays, or closest business day, from survey of producers, traders and end users in the carbon, stainless and specialty steel sectors, closing at 4pm New York time. Started October 4, 1995.

**Low Carbon 0.05% in-warehouse US:** Weekly assessment of the repeatable, tradeable, spot price for 0.05% carbon, 65-74% chrome, normalized to 68% Cr, carbon 0.05% max, silicon 1% max, phosphorous 0.3% max, sulfur 0.02% max; lumps 0.50 x 2.5 inch; US-origin and imported material, free market; cents/lb Cr contained; in-bulk or 2,000-3,000 lb supersacks; duty-paid in-warehouse in key locations along the Mississippi, Chicago, Ohio and Columbia River systems and other key port warehousing locations, including Baltimore, Maryland, Long Beach, California and Portland, Oregon; delivery within 60 days from date of transaction, net-30 days payment terms from date of delivery. Transactions reported on a delivered basis normalized to an in-warehouse basis. Fines normalized to stated lump specifications. Special packaging and payment terms normalized to meet stated specifications. The assessment will reflect pricing for full-truckload quantities and greater. Assessment made Wednesdays, or closest business day, from survey of producers, traders and end users in the carbon, stainless and specialty steel sectors, closing at 4pm New York time. Started January 3, 1973.

## Noble alloys

### Molybdenum

**Daily Dealer Oxide (MMAYQ00):** Platts launched a daily Molybdenum Oxide assessment on October 10, 2011. The assessment is for "repeatable" dealer to consumer, producer-to-consumer, producer-to-dealer and/or dealer-to-dealer spot sales, technical-grade moly oxide (roasted molybdenum concentrates), min 57% Mo, max 0.5% Cu, 0.05% lead, drummed material, order quantities 18-24 mt for delivery 3-30 days forward from the date of publication. Platts takes into account transactional information on the following bases: CIF Japan, in-warehouse European ports, delivered US, delivered duty-unpaid South Korean ports, CIF Nhava Sheva/Mumbai, India and in bonded warehouses in Tianjin. Reported sales of powdered material packed in big bags or cans, and of oxide briquettes, are normalized to an equivalent price for powdered material in drums. The daily assessment takes into account all transactions, bids and offers reported to Platts in the 24-hour period up to 4:30 pm London time each day, except on

the last business day of the calendar month, when the cut-off point for transactions to be included is 1:00 pm London time. The price is assessed as a range in US dollars / pound, reflecting the narrow price band where the majority of transactions took place or, in the absence of business, where most typical buyers and sellers would be likely to conclude a deal. The Daily Dealer Oxide price assessment is published in Platts' real-time service Platts Metals Alert (PMA) on page PMA398, in Platts Metals Daily and in the Platts Metals Week supplement. Weekly and monthly averages of the high, low and mean of the daily assessment ranges are published on PMA and in Platts Metals Daily on the last business day of the week and the month, respectively, after close of business US East Coast time. Platts publishes weekly volume figures to show total tonnage by region for concluded deals accounted for in the assessment. Before January 3, 2012, the assessment only reflected dealer-to-consumer sales, CIF Japan, in-warehouse European ports and delivered US.

**MW Dealer Oxide (MMAGQ00):** A weekly assessment for "repeatable" dealer-to-consumer, producer-to-consumer, producer-to-dealer and/or dealer-to-dealer spot sales, technical-grade moly oxide (roasted molybdenum concentrates), min 57% Mo, max 0.5% Cu, 0.05% lead, drummed material, order quantities 18-24 mt for delivery 3-30 days forward from the date of publication, CIF Japan, in-warehouse European ports, delivered US, delivered duty-unpaid South Korean ports and CIF Nhava Sheva/Mumbai, India. Price history begins in April 1971. Before January 3, 2012, the assessment only reflected dealer-to-consumer sales, CIF Japan, in-warehouse European ports and delivered US. Consolidated with the Daily Dealer Oxide assessment effective January 2, 2013, when the methodology changed to become the weekly average of the Daily Dealer Oxide assessment.

**MW Oxide Transaction:** A weekly assessment for "repeatable" dealer-to-consumer, producer-to-consumer, producer-to-dealer and/or dealer-to-dealer spot sales, technical-grade moly oxide (roasted molybdenum concentrates), min 57% Mo, max 0.5% Cu, 0.05% lead, drummed material, order quantities 18-24 mt for delivery 3-30 days forward from the date of publication, CIF Japan, in-warehouse European ports, delivered US, delivered

duty-unpaid South Korean ports and CIF Nhava Sheva/Mumbai, India. Molybdenum is assessed every week on Thursdays or closest prior business day. Discontinued July 2, 2012.

#### Ferromolybdenum

Prices based on moly content.

**US Free Market ferromoly:** weekly spot sales, 60% min Mo, 0.5% Cu, delivered, \$ / lb/Mo, minimum 2,400 lb lot.

**MW European 65% Ferromolybdenum (MMAF000):** Daily assessment of the repeatable, tradable spot physical price of ferromolybdenum with 65% minimum Mo contained, 0.50% Cu, 1.50 Si, 0.05 P, 0.10 S and 0.10 C, duty-paid, net-cash terms, in-warehouse Rotterdam. Sizing 5-50 mm, 90% passing, packed in 1 mt bags on pallets, 20 mt minimum volume. The assessment reflects the transactable value in a narrow price range, expressed in \$/kg, based on a survey of ferromolybdenum producers, traders and steel mill consumers. Assessed weekly prior to May 1, 2014, when it increased to daily.

**Ferromolybdenum 60% FOB China (MMAFP00):** Weekly assessment of the repeatable, tradable spot price ferromolybdenum exported from Chinese ports for 60-65% molybdenum contained, normalized to 60% molybdenum, maximum 0.1% carbon, maximum 1.5% silicon, maximum 0.06% phosphorous, maximum 0.1% sulfur, and maximum 0.5% copper; packed in drums 100 kg/250 kg) or bags (1 mt/bag), normalized to 1mt bags; FOB Chinese ports; payment cash against documents or LC at site. Deliveries to customers within one month after the date of purchase agreement. Standard volume is a container, or 20 mt. Assessed in dollars / kilogram, in a narrow price range reflecting the majority of business. Assessment made weekly on Thursdays or closest business day from a survey of producers, traders and consumers.

**Ferromolybdenum 60% CIF Japan (MMAFM00):** Weekly assessment of the repeatable, tradable spot price ferromolybdenum imported into Japan, with 60-65% molybdenum and normalized

to 60% molybdenum, maximum 0.1%At sight carbon, maximum 2.0% silicon, maximum 0.06% phosphorous, maximum 0.1% sulfur, and maximum 0.5% copper; packed in 1mt big bags, 25-kg paper boxes, steel drums or other packaging, normalized to 1 mt big bags; CIF main port Japan; payment cash against documents or LC at sight, loading less than 60 days after the date of transaction. Minimum volume 18 mt / transaction. Assessed in dollars / kilogram in a narrow price range that reflects the majority of business. Assessment made Thursdays or closest business day from survey of producers, traders and endusers in steel and other metal sectors.

#### Ferrovandium

**US Free Market Ferrovandium 80%:** Weekly spot assessment of ferrovandium normalized to 80% V content, \$/lb/V contained; 2% max Si, 2% max Al, delivered.

**US Free Market V2O5, (vanadium pentoxide):**Weekly spot assessment of 98% minimum, delivered, price / lb/V2O5.

**Europe- 80% V Ferrovandium:** weekly spot market assessment for ferrovandium normalized to 80% V, on an in-warehouse Europe basis. Based on a survey of producers, traders and consumers of ferrovandium. Assessed in Europe on Thursdays.

#### Ferrotitanium

**MW US 70% Ferrotitanium:** Weekly assessment of the spot market price for 70% Ti ferrotitanium, lump form, max. 5% Al, 2-3% V, 0.5% tin, duty paid, delivered, / lb of Ti contained.

**European 70% Ferrotitanium:** Weekly spot market assessment for European standard grade 70% Ti ferrotitanium, max. 5% Al, 2-3% V, 0.5% tin, max. 0.5% N, duty paid, delivered, assessed in \$ / kg Ti contained. Note: Prior to January 2000, the assessment was made in GBP / kg Ti contained.

#### Ferrotungsten

**MW US Free Market Ferrotungsten –** weekly spot market assessment of min 75% W, max 0.5% Cu, \$/lb W, delivered.

**FERROUS SCRAP**

Assessment	CODE	Mavg	Wavg	Yavg	QUANTITY	DIMENSIONS	LOCATION	TIMING	PAYMENT TERMS	UOM
HMS 1/2 75:25 FOB Rotterdam	FERDD00	FERDD03	FERDD04		min. 10,000 mt		FOB Rotterdam	N/A	At sight	\$/mt
A3 CFR Turkey	FEBSD00	FEBSD03	FEBSD04		max. 10,000 mt		CFR Turkey	1-4 weeks	At sight	\$/mt
HMS 1/2 80:20 CFR Turkey	TS01011	TSMK03			min. 10,000 mt		CFR Turkey	3-8 weeks	At sight	\$/mt
HMS 1/2 75:25 CFR Turkey	FERED00	FERED03			min. 10,000 mt		CFR Turkey	3-8 weeks	At sight	\$/mt
Shredded Scrap Delivered US Midwest	FEMWD00	FEMWD03	FEMWD04		min. 1,000 lt		Delivered US Midwest mill	0-30 days	Net 30 days after delivery	\$/lt
Shredded Scrap 10-day Average Dlvd US Midwest	TS11003				min. 1,000 lt	ISRI 210-212 inclusive	Delivered US Midwest mill	0-30 days	At sight	\$/lt
HMS 1/2 N Amer Dom Prod Dlvd Mill Wkly	SB01135				min. 1,000 lt		Delivered US Midwest mill	0-30 days	Net 30 days after delivery	\$/lt
Plate and Structural N Amer Dom Prod Dlvd Mill Wkly	SB01174				min. 1,000 lt		Delivered US Midwest mill	0-30 days	Net 30 days after delivery	\$/lt
#1 Busheling Scrap N Amer Dom Prod Dlvd Mill Wkly	SB01001				min. 1,000 lt		US Midwest mill	30 days	Net 30 days after delivery	\$/lt
Shredded FOB US East Coast	FEECD00	FEECD03	FEECD04		10,000-20,000 mt		FOB US East Coast	5-45 days	100% on delivery, LOC	\$/mt
HMS FOB US East Coast	FEECH00	FEECH03	FEECH04		10,000-20,000 mt		FOB US East Coast	5-45 days	100% on delivery, LOC	\$/mt
3B Shredded Scrap UK Dom Prod Dlvd Mill Wkly	SB01004				2,000 mt		Delivered mill	60 days	At sight	GBP/mt
4A New Steel Bales UK Dom Prod Dlvd Mill Wkly	SB01007				2,000 mt		Delivered mill	60 days	At sight	GBP/mt
Clean Steel Scrap Brazil SE Dom Prod Dlvd Mill Wkly	SB01046				500-2,000 mt		Delivered Southeast Brazil	2-4 weeks	At sight	
TSI HMS 1/2 80:20 Containerized CFR Taiwan Port Wkly	TS01037	TSMK03			min. 200 mt	ISRI 200-206 inclusive	CFR Taiwan	Loading 0-30 days	Cash/At sight	\$/mt
H2 Scrap Tokyo Steel Purchase Prc Dom Prod Dlvd Okayama Mthly	SB01109				10-20kg to maximum loading capacity/truck	thickness over 3mm, width below 700mm, length 1,200mm	Okayama works gate		Bank transfer 90 days from mid- or end-month	Yen/mt
H2 Scrap Tokyo Steel Purchase Prc Dom Prod Dlvd Utsunomiya Mthly	SB01110				10-20kg to maximum loading capacity/truck	thickness over 3mm, width below 700mm, length 1,200mm	Utsunomiya works gate		Bank transfer 90 days from mid- or end-month	Yen/mt
H2 Ferrous Scrap FOB Japan Scrap Weekly Assessment	AAXWB04	AAXWB03			5,000 mt	thickness: minimum 3mm to maximum less than 6mm, width and length maximum 500mm and 1,200mm respectively, and weight, maximum 1,000kg.	FOB Tokyo Bay	30-60 days	At sight	Yen/mt
HMS 1/2 80:20 CFR East Asia	SB01130	SBMAG03			30,000-35,000 mt	Heavy Melting Scrap, Grade I and II in mix 80:20. All other grades will be normalized back to this grade based on prevailing market extras.	CFR Dangjin, South Korea	8-12 weeks	At sight	\$/mt
HMS DDP Jiangsu steel mill VAT-inclusive Wkly	SB01129	SBMAF03				thickness over 6mm	DDP Zhangjiagang	Prompt		Yuan/mt
HMS 1/2 Brazil SE Dom Prod Dlvd Mill Wkly	SB01133				500-1,000 mt		Delivered Southeast Brazil	2-4 weeks	At sight	
Grade OA Plate and Structural UK Dom Prod Dlvd Mill Wkly	SB01170				2,000 mt		Delivered mill	60 days	At sight	GBP/mt



**FERROUS SCRAP**

Assessment	CODE	Mavg	Wavg	Yavg	QUANTITY	DIMENSIONS	LOCATION	TIMING	PAYMENT TERMS	UOM
Shredded Scrap Auto Tokyo Steel Purchase Prc Dom Prod Dlvd Okayama Mthly	SB01223				10-20kg to maximum loading capacity/truck		Okayama works gate		Bank transfer 90 days from mid- or end-month	
Shredded Scrap Auto Tokyo Steel Purchase Prc Dom Prod Dlvd Utsunomiya Mthly	SB01224				10-20kg to maximum loading capacity/truck		Utsunomiya works gate		Bank transfer 90 days from mid- or end-month	
Shredded Scrap USA Exp CFR E Asia Port Mthly	SB01230				25,000 mt		CFR East Asia	2-6 weeks	At sight	\$/mt
Shredded Scrap CFR Nhava Sheva	AAXRQ04	AAXRQ03			min. 200 mt	average density of 70 lb/square foot	CFR Nhava Sheva, India	2-8 weeks	At sight	\$/mt
Turnings Brazil SE Dom Prod Dlvd Mill Wkly	SB01238				500-1,000 mt		Delivered Southeast Brazil	2-4 weeks	At sight	
H2 Scrap Tokyo Steel Purchase Prc Dom Prod Dlvd Okayama Mthly \$/Ton	SBMAD03				10-20kg to maximum loading capacity/truck	Thickness over 3mm, width below 700mm, length 1,200mm	Okayama works gate		Bank transfer 90 days from mid- or end-month	
H2 Scrap Tokyo Steel Purchase Prc Dom Prod Dlvd Utsunomiya Mthly \$/Ton	SBMAE03				10-20kg to maximum loading capacity/truck	Thickness over 3mm, width below 700mm, length 1,200mm	Utsunomiya works gate		Bank transfer 90 days from mid- or end-month	
Shredded Scrap Auto Tokyo Steel Purchase Prc Dom Prod Dlvd Okayama Mthly \$/Ton	SBMAP03				10-20kg to maximum loading capacity/truck				Bank transfer 90 days from mid- or end-month	
Shredded Scrap Auto Tokyo Steel Purchase Prc Dom Prod Dlvd Utsunomiya Mthly \$/Ton	SBMAQ03				10-20kg to maximum loading capacity/truck				Bank transfer 90 days from mid- or end-month	
Shindachi Bara New Cut Unpressed Tokyo Steel Purchase Prc Dom Prod Dlvd Okayama Mthly	SB01221	SBMAN03			10-20kg to maximum loading capacity/truck	No thickness specified. Width below 700mm, length below 1,200mm			Bank transfer 90 days from mid- or end-month	
Shindachi Bara New Cut Unpressed Tokyo Steel Purchase Prc Dom Prod Dlvd Utsunomiya Mthly	SB01222	SBMA003			10-20kg to maximum loading capacity/truck	No thickness specified. Width below 700mm, length below 1,200mm			Bank transfer 90 days from mid- or end-month	

**Ferrous Scrap**

**TS01011 HMS 1/2 80:20 CFR Turkey:** Heavy Melting Scrap, Grade I and II in mix 80/20.

This assessment uses “premium” HMS 1/2 80:20 as its base specification. All other grades are normalized back to this grade based on prevailing market differentials.

Platts normalizes transactional data to a premium HMS 1&2 (80:20) standard. This normalization process is carried out using observed market trade differentials between HMS 1&2 blends from various supply regions, such as the US East Coast, Baltic ports or Benelux and UK terminals.

Other grades, such as shredded or bonus scrap, are normalized back to a premium HMS 1&2 (80:20) standard. Platts publishes the price series on a CFR Turkey basis, rather than CFR Iskenderun port, in light of the consistency in demand between the three large scrap-melting regions in Turkey; Platts reflects material for delivery three-eight weeks forward, and take into account cargoes whose tonnage exceeds 10,000 mt. These cargoes may be a mixture of grades. The assessment is published to the nearest \$0.25/mt.

**FERDD00 HMS 1/2 75:25 FOB Rotterdam:** Heavy Melting Scrap, Grade I and II in mix 70/30. All other grades are normalized back to this grade based on prevailing market extras. This value is calculated as a freight netback from the HMS 1&2 75:25 CFR Turkey (FERED00) assessment, using the Rotterdam-Aliaga

freight assessment (MSRAT00).

**FERBSD00 A3 CFR Turkey:** Heavy Melting Scrap according to GOST A3 2787-75 or equivalent. All other grades to be normalized back to this grade.

**FEMWD00 Shredded Delivered US Midwest:** Shredded steel scrap according to ISRI 211 classification or equivalent, specifying homogeneous and magnetically separated iron and steel scrap originating from automobiles, unprepared No. 1 and No. 2 steel, and miscellaneous baling and sheet scrap, with an average density of 70 lb/square foot. Other grades of steel scrap can be normalized to ISRI 211 where appropriate.

The US scrap market trades using a “buy-week” period that can take place towards the end of the month of delivery minus one (M-1) or at the start of the delivery month (M). These periods are in any case the times that tend to see the highest degree of trade activity.

As a consequence, Platts values the market every day in the last week of M-1 and the first week of M. The M-1 week is defined as the last week that begins (on a Monday) with a date in M-1; the M week is defined as the first week that starts (on a Monday) with a date in M.

Prices are then assessed weekly (on Fridays) in M until the last week begins, when daily publication would resume. This value is calculated as a volume-weighted average.

**FEECD00 Shredded FOB US East Coast:** Shredded scrap (homogeneous iron and steel scrap, magnetically separated, originating from automobiles, unprepared No. 1 and No. 2 steel, miscellaneous baling and sheet scrap. Average density 50-70 pounds / cubic feet) as specified by ISRI classification 210-

211. Other grades of steel scrap can be normalized back where appropriate based on prevailing market fundamentals.

**FEECH00 HMS FOB US East Coast:** Heavy Melting Scrap, ISRI 201 classification or equivalent, specifying wrought iron and/or steel scrap ¼ inch and over in thickness. Individual pieces not over 36 x 18 inches (charging box size) prepared in a manner to insure compact charging.

**AAXWB04 H2 FOB Japan:** Thickness: minimum 3mm to maximum less than 6mm, width and length maximum 500mm and 1,200mm respectively, and weight, maximum 1,000kg.

Shindachi grade scrap trades are normalized to H2 grade scrap.

**AAXRQ04 Shredded CFR Nhava Sheva:** Containerized shredded ferrous scrap price assessment for scrap complying with ISRI 211 classification or equivalent, specifying homogeneous and magnetically separated iron and steel scrap originating from automobiles, unprepared No. 1 and No. 2 steel, and miscellaneous baling and sheet

scrap, with an average density of 70 lb/square foot. Other grades of steel scrap can be normalized to ISRI 211 where appropriate. Weekly assessment made in \$ / mt, on a CFR Nhava Sheva, India basis, reflecting cargoes for delivery 2-8 weeks from date of publication, with minimum 200 mt shipment. Payment terms are deemed 100% payment at sight with all variations normalized to this standard.

**SB01130 HMS 80:20 CFR East Asia:** Heavy Melting Scrap, Grade I and II in mix 80:20. All other grades are normalized back to this grade based on prevailing market extras. Typical ‘deep sea’ seaborne bulk quantities of 30,000-35,000 mt. Lead time 8-12 weeks; Assessment done weekly, by the end of Wednesday.

For all other Assessments Specifications please refer to the Table above.

**TS01037 HMS 1/2 80:20 Containerized CFR Taiwan Port:** this assessment reflects deliveries into Taiwan ports. Information is collected until 5.30pm Singapore time each Friday.



## FERROUS SCRAP FORWARD CURVE

Assessment	CODE	Mavg	Wavg	Yavg	QUANTITY	DIMENSIONS	LOCATION	TIMING	PAYMENT TERMS	UOM
HMS 1/2 80:20 CFR Turkey Swap Current Month	ACTAB00				NA	NA	CFR Turkey	Month of prevailing assessment date	NA	\$/mt
HMS 1/2 80:20 CFR Turkey Swap Mo01	ACTAM01				NA	NA	CFR Turkey	First month after month of prevailing assessment date	NA	\$/mt
HMS 1/2 80:20 CFR Turkey Swap Mo02	ACTAM02				NA	NA	CFR Turkey	Second month after month of prevailing assessment date	NA	\$/mt
HMS 1/2 80:20 CFR Turkey Swap Mo03	ACTAM03				NA	NA	CFR Turkey	Third month after month of prevailing assessment date	NA	\$/mt

### Ferrous Scrap Paper Swaps

Platts publishes daily assessments for monthly HMS 1/2 80:20 CFR Turkey scrap swaps. These swaps are traded on a \$/mt basis or in intermonth spreads.

Swaps are derivatives which settle off the average value of the underlying physical benchmark price, Platts TSI HMS 1/2 80:20 CFR Turkey, as published on each day during the month of trade (e.g. November). Platts publishes swaps assessments for current month (M0), month one (M1), second month (M2) and third month (M3) strips. Monthly assessments are rolled on the first day of the month. For example, during October 2018 the M1 swap will be November 2018 and M2 will be December 2018. On November 1 the M1 swap will roll to December and M2 will roll to January. For the current month swap, the value is assessed as long as there is sufficient liquidity on the relevant strip to do so.

**Timing:** Swaps assessments reflect a market-on-close value at 16:30hrs London time. The assessments reflect the tradable level at this time. Swaps bids/offers and trades are reported in real-time throughout the day on Platts' electronic information service, Platts Metals Alert (PMA).

General reporting principles applicable to all derivatives markets: Platts only publishes and evaluates information from

sources considered credible and creditworthy. Bids/offers of paper swaps received by Platts after published timing cut-off guidelines are disregarded and not published.

#### Brief explanation of derivatives terminology:

**Swap:** Swaps or 'paper' are risk management tools which allow users to lock in values by transforming floating price risk to fixed or fixed to floating. Swaps are also used as a speculative tool.. Paper markets are very reactive and provide players with instant feedback of market conditions. Platts reflects the immediate changes in swaps market values as market hears on Platts Metals Alert page 700.

**Financial settlement:** Unlike physically-settled forward cargo trades, paper swaps are financially-settled derivative contracts. For example, the difference between buying an "April scrap cargo" and an "April scrap swap" is this: in the first case the buyer would take delivery of a cargo of the product, while in the second case the buyer would pay (or be paid) the difference between the swap price and the average of Platts TSI' scrap assessments in April.

**Month:** A calendar monthly swap is quoted for the full month calendar month, i.e. from the first to the last business working day in the month. Then the monthly swap assessment is rolled over.

**METALLICS**

Assessment	CODE	Mavg	Wavg	Yavg	QUANTITY	DIMENSIONS	LOCATION	TIMING	PAYMENT TERMS	UOM
<b>Pig iron</b>										
Pig Iron FOB Black Sea Export Price	SB01171				10,000-20,000 mt		FOB Mariupol	2-8 weeks	At sight	\$/mt
Pig Iron Brazil Exp FOB Southeastern ports Wkly	SB01172	SB01172			25,000-35,000 mt		FOB Southeastern ports (Brazil)	4-8 weeks	At sight	\$/mt
HBI Venezuela Exp FOB Venezuelan Ports Wkly	SB01116				10,000-30,000 mt	Dimensions: (90-140) x (48-58) x (32-34) mm. Properties: metallization 94%; Fe (Total) 88.3% - 94%; Fe (Metallic) 83% - 88.4%	FOB Puerto Ordaz	4-6 weeks	Cash before delivery	\$/mt
Pig Iron CIF New Orleans Wkly	MMPN004	MMPN003			30,000 mt	Maximum phosphorus content 0.12	CIF New Orleans	5-10 weeks	At sight	\$/mt

**Metallics**

**SB01171 Pig iron FOB Black sea export price:** Basic pig iron, GOST 805-95 standard, or PL-1 & PL-2 grades. Other grades are normalized back to this grade based on prevailing market extras.

For all other Assessments Specifications please refer to the Table above.

## Steel Mill Economics

Platts Steel Mill Economics consists of a series of indicative margin price spreads aimed at assisting modelling, cost, procurement and marketing trends, and arbitrage analysis.

The spreads are generated using Platts price assessments and TSI indices.

The suite of spreads captures the indicative costs of raw material inputs and finished products for blast furnace and electric arc furnace (scrap-based) steelmaking operations in Asia, Turkey and the US.

Typically, the spreads represent the differences between the prices of intermediate or downstream steel products and the prices of upstream raw materials needed to produce them.

The Steel Mill Economics price spreads are published daily or weekly as specified, with all of the series available as monthly and quarterly averages.

### Daily series

#### HRC ASEAN Spread (\$/mt):

TSI HRC Asean Imports\* CFR Asean Port \*HRC basis SAE1006 – (1.6\* TSI Iron Ore Fines 62% Fe China Imports CFR Tianjin Port + 0.6\* TSI Prem JM25 Coking Coal China Imports CFR Jingtang Port)

AOPFE00 = TS01041 – (1.6\* TS01021 + 0.6\* TS01044)

#### HRC China Export Spread (\$/mt):

HRC FOB China \$/mt – (1.6\* IODEX CFR CHINA 62% Fe \$/Dmt+0.6\* Prem Low Vol HCC CFR China

AOPKE00 = STHRZ02 – (1.6\* IOBZ00 + 0.6\* PLVHC00)

#### Rebar China Export Spread (\$/mt):

Rebar FOB China \$/M – (1.6\* IODEX CFR CHINA 62% Fe \$/Dmt+0.6\* Prem Low Vol HCC CFR China

AOPLE00 = STCBZ02 – (1.6\* IOBZ00 + 0.6\*PLVHC00)

#### Rebar Scrap Turkey Spread (\$/mt):

Steel Rebar FOB Turkey \$/mt – TSI HMS 1/2 80:20 Deep-sea Turkey Imports CFR Iskenderun Port

AOPGE00 = STCBM00 – TS01011

#### Rebar Black Sea Billet Spread (\$/mt):

Steel Rebar FOB Turkey \$/mt – Steel Billet FOB Black Sea \$/Mt

AOPHE00 = STCBM00 – STBLB00

### Weekly series

#### HRC Scrap US Spread (\$/st):

US HRC EXW Indiana \$/short ton (weekly average value) – (Platts TSI Shredded Scrap Delivered US Midwest \$/long ton/1.12)

AOPIE00 = TS01018 – (FEMWD00/1.12)

#### Rebar Scrap US Spread (\$/st):

Rebar EXW US SE \$/St (weekly average value) – (Platts TSI Shredded Scrap Delivered US Midwest long tons/1.12)

AORJE00 = STCBC00 – (FEMWD00/1.12)

The weekly series are dated each Friday.

## Platts MVS China Steel Mill Margins

Platts MVS China HRC Domestic Steel Mill Margin and Platts

MVS China Rebar Domestic Steel Mill Margin provide an indication of the spread of raw material and other costs against finished steel prices using MVS's proprietary modelling.

The daily spreads use Chinese domestic hot-rolled coil and reinforcing bar prices against a variety of input costs.

These include several different grades of metallurgical coal, Chinese domestic met coke, ferrous scrap, and various iron ore products including fines, concentrate, lump and pellets.

They use assumptions arrived at by market survey around operating costs and logistics, providing an indication of underlying mill margins.

The Platts MVS spreads represent the difference between ex-VAT prices of finished steel products with VAT-inclusive raw material prices.

The spreads are published using the daily USD/CNY exchange rate.

The spreads reflect those from a typical large northern China coastal steel mill.

Underlying steel mill operations and markets related to calculating the spreads are tracked by Platts Analytics on an ongoing basis, with changes to the model reviewed on a quarterly basis.

## The Platts Turkey ARC Steel Tracker

The Platts Turkey ARC Steel Tracker (Turkey ARC) has been designed to analyze price relationships of inputs and outputs to regional electric arc furnaces and rolling mills, and daily index and monetary values are given for each commodity and the market.

Turkey ARC uses relative proportional analysis, based on prices, to help track interrelated commodity price relationships compared to 30-day and 60-day moving averages.

This is an analysis tool based on the spreads between STCBM00: Turkey Rebar FOB; STBLB00: Black Sea Billet FOB (given an adjustment factor based on freight rates to allow for a net forward CFR Turkey billet value to be created); and (TS01011) TSI HMS 1/2 80:20 Deep-sea Turkey Imports CFR Iskenderun Port reference price,

TS01011 replaced use of FETKD00: Platts Turkey Ferrous Scrap HMS 80:20: CFR reference effective March 1, 2016.

Platts launched on December 1, 2014, a new series of daily data analysis identifying price trends and price direction in the Turkish rebar, billet and scrap markets.

From January 4, 2016, the Turkey ARC indexes are generated using a dynamic weighting system to better align with shorter term trends. Platts stopped using a longer term fixed weighting

as part of the calculation process for the individual index weightings for scrap, billet and rebar indexes.

The market direction metric indicates daily overall price movement in the steel industry's relevant supply chain. A composite index for the industry based on the total value of the three ARC commodity prices is published with a base value is of July 6, 2012, is available.

Back data through July 2012 for the ARC indices is available.

## REVISION HISTORY

**May 2018:** Updated to reflect change in China's VAT rate.

**April 2018:** Updated to reflect launch of daily HRC FOB China SAE1006 assessment (STHSA00) and the calculation of HRC FOB China SAE1006 Premium (STHRY00). Updated to reflect changes to FOB Black Sea slab assessment and FOB Venezuela HBI assessment.

**March 2018:** Updated to reflect changes to Turkish steel methodology and clarification of EMEA HDG EXW assessments.

**February 2018:** Updated to reflect launch of weekly US CIF NOLA pig iron assessment (MMPN004).

**January 2018:** Updated to reflect change in incoterm to US Plate price series (STPRI00).

**December 2017:** Updated to reflect launch of Turkey scrap swaps, CFR Taiwan scrap methodology change, amended typos. Updated to reflect changes to India HRC assessment.

**November 2017:** Updated to reflect changes to US Plate and Ferrous Scrap coverage. Updated to add TSI codes to methodology guide.

**October 2017:** Completed annual methodology review and clarified or updated where necessary. Updated to reflect alignment and elimination of duplications for various Asia Platts and TSI steel indices and assessments

**August 2017:** Updated to reflect methodology changes to the European flat-rolled steel assessments.

**July 2017:** Updated Platts MVS China Steel Mills Margins model.

**April 2017:** Removed DDP NW European HRC & CRC specs, as assessment discontinued.

**March 2017:** Added "in-warehouse Tianjin" as a basis point for the daily dealer molybdenum oxide (MMAYQ00) assessment.

**January 2017:** Discontinued Japanese charge chrome list price from NSSC.

**November 2016:** Changed basis of Rebar Shanghai domestic ex-stock assessment to ex-works Jiangsu. Clarifies specifications of HDG China domestic and FOB China assessments.

**October 2016:** Clarified specification for "HDG Turkey Dom Prod Ex-Works Mthly" assessment.

**September 2016:** Annual Review: Platts updated this guide to house style. All references to metric tons are now 'mt', short tons are 'st', Hundredweight are 'CWT', Euros are 'EUR', US dollars are '\$', and cents are 'cents'. On P.2, 'Platts' was updated to 'S&P Global Platts'. All references to 'steel and ferrous scrap' have been updated to 'steel, ferrous scrap and ferroalloys'. On p.21, the last sentence under the entry for '44% Manganese Ore CIF China' has been removed. On p.21, 'CIF North China basis, basis Tianjin' has been corrected to 'CIF North China basis, Tianjin'. 'LC at site' has been amended to 'LC at sight' throughout the document. On p.24, for 'High-carbon 6—65% CIF Japan', the minimum order has been corrected from 200mt to 100mt. On p.25, 'Europe- 80% V Ferrovanadium' has been amended to 'weekly spot market assessment'. Also on p.25, 'MW US Free Market Ferrotungsten' has been updated to 'weekly spot market assessment'. In relation to tables on pages 8-15, 18-21, 26-29, quantity, location, payment terms, and UOM have been standardized in line with house style and Incoterms. On p.9, 'HRC Brazil Dom Prod Ex-Works Mthly' has been amended to 'HRC Brazil Dom Prod Ex-Works Wkly'. On p.14, 'Rebar 10MM Brazil SE Dom Prod Ex-Works mthly' has been amended to 'Rebar 10MM Brazil SE Dom Prod Ex-Works Wkly'. On p. 26, 'Shredded DEL US East Coast Dockside' has been amended to 'Shredded FOB US East Coast'. On p.20 the quantity for Ferrosilicon 75% FOB China Wkly and Ferromolybdenum CIF Jap Wkly has been amended to

'min 18-24mt'. Also, on 20, the quantity for Manganese Ore 44% CIF China \$/dmtu and Manganese Ore 37% CIF China \$/dmtu has been amended to 'min 5,000 mt or full hatch'.

**September 2016:** Added Square Bar FOB China assessment details. Clarified HMS I/II 80:20 CFR Turkey ferrous scrap assessment process.

**July 2016:** Updated the assessment name in the table for Ferrosilicon CIF Japan to include 75% grade content. Updated the assessment name in the table for Silicomanganese CIF Japan to include 65% grade content. Removed the discontinued domestic China ferrochrome price (SB01104) from the table in the guide.

**July 2016:** Changed the specifications of northwest European ex-works steel rebar assessment (STCBE00) to 12-16mm from 16-20mm.

**May 2016:** Added Platts MVS China Steel Mill Margins with details.

**April 2016:** Updated Steel Mill Economics with new spreads launched April 1, 2016, and further details. Removes reference to taxes earlier specified on steel products from Brazil. Adds monthly scrap codes for H2 Ferrous Scrap FOB Japan Scrap Weekly Assessment and HMS 1/2 80:20 CFR East Asia.

**March 2016:** Amended this guide to add TSI Turkey Scrap import reference price added to Turkey ARC index, replacing Platts Turkey Scrap import assessment.

**January 2016:** Amended this guide to add details on Turkey ARC index weighting change. Added updated methodology and specifications for heavy melting scrap, CFR East Asia and H2 ferrous scrap, FOB Japan

**November 2015:** Amended this guide to remove duplicative HRC descriptions for HRC Ex-works Indiana and CIF US Gulf Coast,

and to remove a listing for an Ex-works Indiana hot-dipped galvanized price assessment that was never developed. Added missing specifications for the North American stainless steel series to include not just surcharges but also the corresponding transaction and base prices.

**November 2015:** Deleted assessments discontinued on October 30, 2015, for FOB China ferromanganese and silicomanganese. Deleted duplicative listing in the table of US Ferrovandium price assessment. Added missing Ferrotitanium descriptions to the table. Fixed typo under Steel Mill Economics Spreads, correcting symbol for China Flat Steel Spread (CFSS using TSI) weekly.

**October 2015:** Revised FOB Turkey rebar delivery timing and payment terms. Fixed typos on Black Sea slab and ferrovandium descriptions.

**September 2015:** Updates frequency and specifications of Rebar FOB China assessment and added SBB1032 Billet ex-Tangshan. Added a sentence to reference Assessment descriptions not listed in the text to refer to the tables.

**May 2015:** Changes frequency of Hot Rolled Coil FOB China assessment to daily and adds specifications of new HRC FOB China SAE1006 Premium assessment. Clarifies FOB China Wire Rod assessment to be reflective of Mesh Quality.

**February 2015:** This methodology guide was updated to include further description of Platts' processes and practices in survey assessment environments.

**February 2015:** Changed frequency of Wire Rod Mesh Quality N Amer Dom Prod Ex-Mill US MW from monthly to weekly.

**December 2014:** Platts added HRC DDP West Midlands, UK, under Carbon Steel, hot-rolled coil. Platts added 37% Manganese ore CIF China under raw materials. Platts added Indian containerized shredded scrap CFR Nhava Sheva, India, under Ferrous Scrap.

**December 2014:** Platts added methodology for Turkey ARC Steel Tracker under steel mill economics.

**July 2014:** Platts revamped all Metals Methodology and Specification guides, including its Steel & Ferrous Scrap guide, in July 2014. This revamp was completed to enhance the clarity and usefulness of all guides, and to introduce greater consistency of layout and structure across all published methodology guides. Methodologies for market coverage were not changed through this revamp, unless specifically noted in the methodology guide itself.