

## World Steel Dynamics (WSD)

is a leading steel information service in Englewood Cliffs, N.J.



WORLD  
STEEL  
DYNAMICS

WSD's steel experience, steel database and availability of steel statistics are the principles for performing steel forecasts, studies and analysis for international clients. WSD seeks to understand how the "pricing power" of steel companies the world over will be impacted by changes in the steel industry's structure.

The views and opinions expressed in this article are solely those of World Steel Dynamics and not necessarily those of AIST.

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This report includes forward-looking statements that are based on current expectations about future events and are subject to uncertainties and factors relating to operations and the business environment, all of which are difficult to predict. Although WSD believes that the expectations reflected in its forward-looking statements are reasonable, they can be affected by inaccurate assumptions made or by known or unknown risks and uncertainties, including, among other things, changes in prices, shifts in demand, variations in supply, movements in international currency, developments in technology, actions by governments and/or other factors.

## Steel Scrap Prices Have Conflicting Driving Forces

Scrap prices have been relatively — not absolutely — stable during the fourth quarter of 2012 and most of the first quarter of 2013, including a US\$25 per gross ton increase in scrap prices in the beginning of March 2013. Might participants in the industry expect this condition to continue? WSD thinks the answer is "probably not," because the spot price of iron ore delivered to China may be headed down (Figure 1 on the next page).

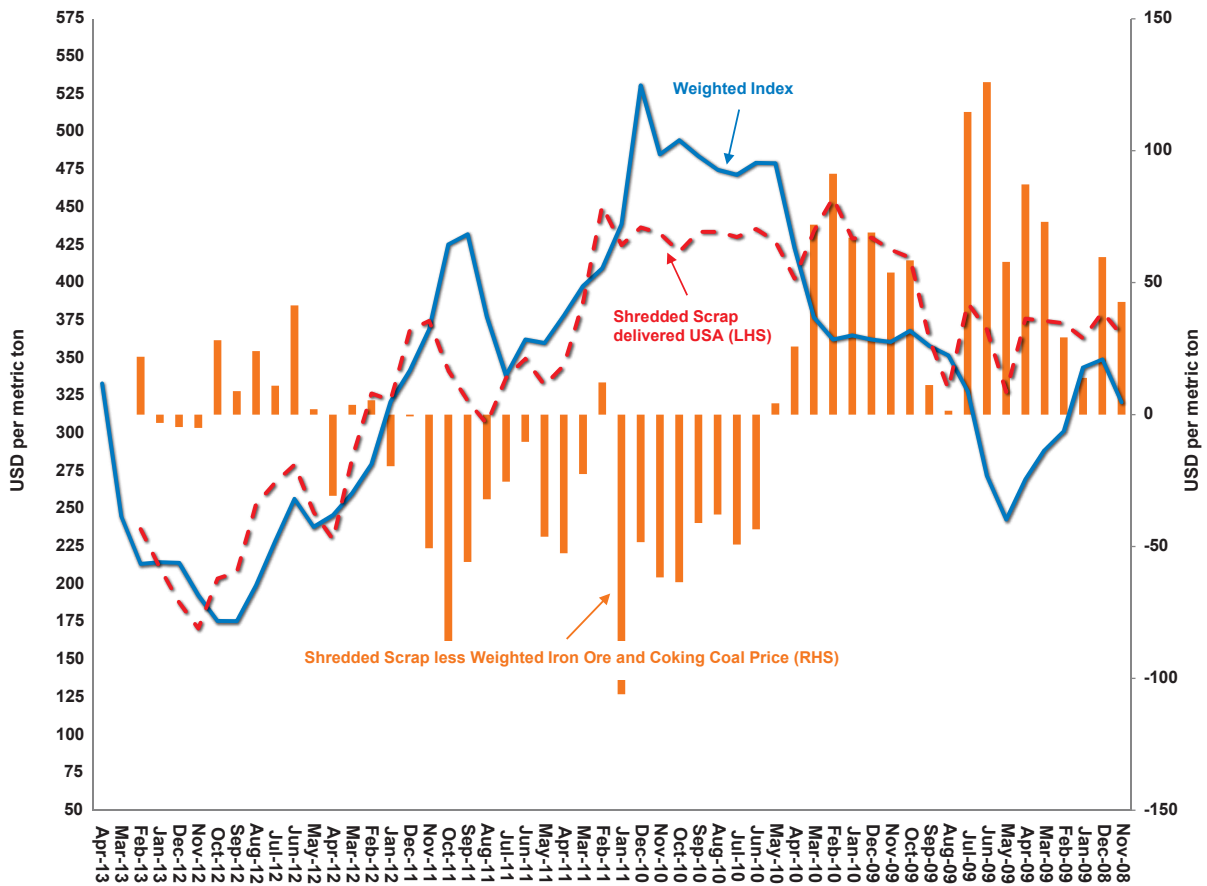
The price of scrap is impacted by a multitude of factors, including:

- The size of the global obsolete scrap reservoir, which is 10–40 years old.
- Freight rates that, when low, increase inter-regional scrap price competition.
- The generation of home and new scrap, which is a function of steel production.

- The price of pig iron.
- Exchange rates.
- Blast furnace production relative to steel production.
- The price of scrap (which impacts collection).
- Regional steel scrap trade shifts, such as the rise in Japanese scrap exports over the past year.

With global steel demand in 2013 forecast to remain about flat compared to 2012, scrap prices may be poised to decline. WSD believes that the spot iron ore price, which is currently elevated, may fall due to excess production in China and elsewhere. The spot price of iron ore, WSD thinks, out-rivals the scrap price as the most potent of all indicators. WSD says the "spot iron ore price is the new king" — its throne is on top of the scrap heap. ♦

Figure 1



Weighted index of iron ore and coking coal prices vs. shredded scrap prices.

### Did You Know?

#### Engineering Students Take on New Challenge in International Cold-Formed Steel Design Competition

The American Iron and Steel Institute (AISI) has joined the National Science Foundation (NSF), Cold-Formed Steel Engineers Institute (CFSEI) and the University of North Texas as a co-sponsor in the third International Student Competition on Cold-Formed Steel Design. The competition is open to all full-time students at either the undergraduate or graduate levels who are interested in cold-formed steel design or are eager to learn new technologies. The competition was launched in April and will conclude on 15 September 2013.

Step-by-step instructions and free software are provided so that any student, regardless of the major area of study, can complete and submit a cold-formed steel design.

The 2013 International Student Competition on Cold-Formed Steel Design is hosted by the University of North Texas and requires that students work on the problem individually, with no team solutions accepted. Participants can view the problem and contest rules at <http://cfscompetition.unt.edu>. Students will use an open source CUFSM to perform the elastic buckling analysis to determine critical elastic buckling loads. (CUFSM is software that employs the finite strip method to provide solutions for the cross-section stability of thin-walled, cold-formed steel members.)

Students will submit a completed information form, design essay and CUFSM results file by 15 September 2013. A panel of judges will review all entries and announce the winners in December 2013, with awards mailed in January 2014.

Monetary awards will be provided to the top three winners, and each of the top 10 winners will receive a one-year student membership in the CFSEI. The winning designs will be recognized and exhibited at selected professional conferences. For more information on the competition, please contact Cheng Yu, Ph.D., at [cheng.yu@unt.edu](mailto:cheng.yu@unt.edu) or +1.940.565.2022.