Trends in Price Structures and Risk Management

new tools to meet the needs of changing markets

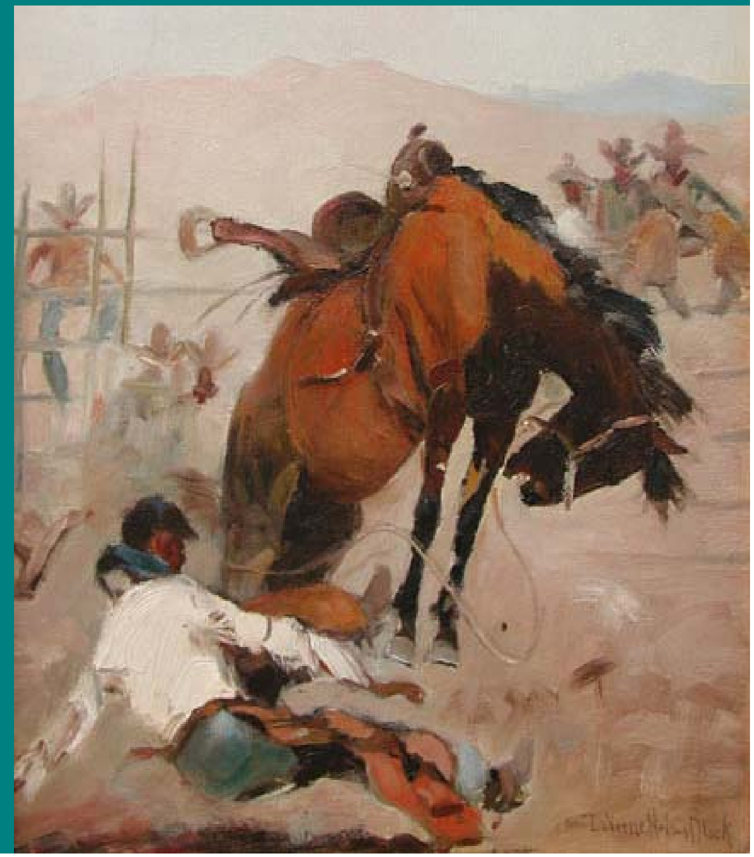
Topics

Raw material price volatility

- ✓ **Financial hedging**
- ✓ **Forward price curves**

World Steel Exchange

- ✓ **Scrap**



American Metal Market EVENTS

5TH STEEL SCRAP CONFERENCE

NOVEMBER 9-10, 2011 | HYATT REGENCY | CHICAGO, IL

November 10, 2011

Presented by:

Patrick A. McCormick

***Managing Partner** – WORLD **STEEL** DYNAMICS*

***President** – WORLD **STEEL EXCHANGE** MARKETING*

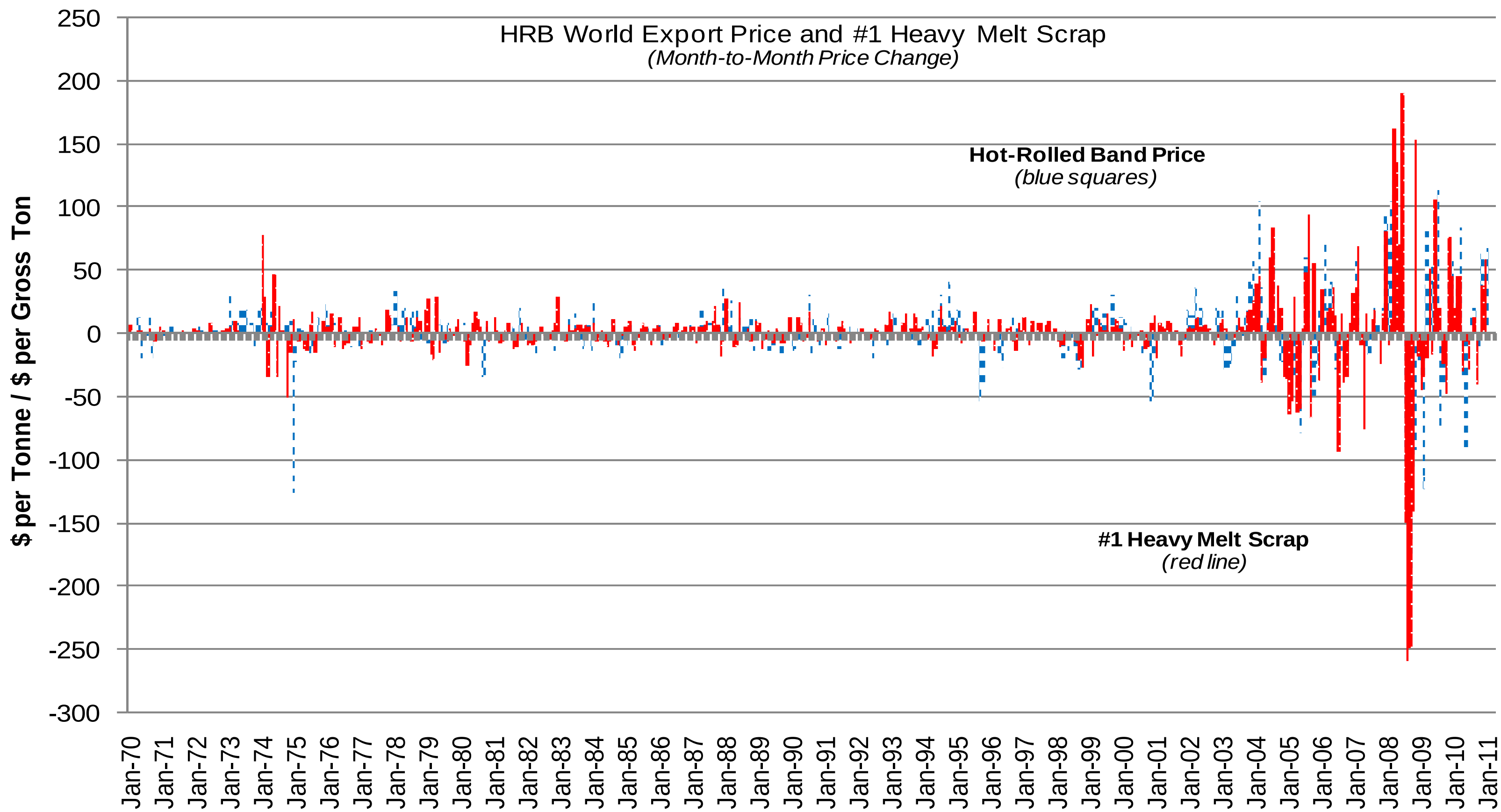
FOLIO NO. 23

WORLD STEEL EXCHANGE

WSEM
World Steel Exchange Marketing

Many players in the global steel industry now recognize that managing the risks associated with increasing price volatility is an essential need………just like sleep and water

Steel Buyer/Seller Cardiac Arrest



Source: PriceTrack , SteelBenchmarker™ and AMM

FOLIO NO. 22

SteelBenchmarker™

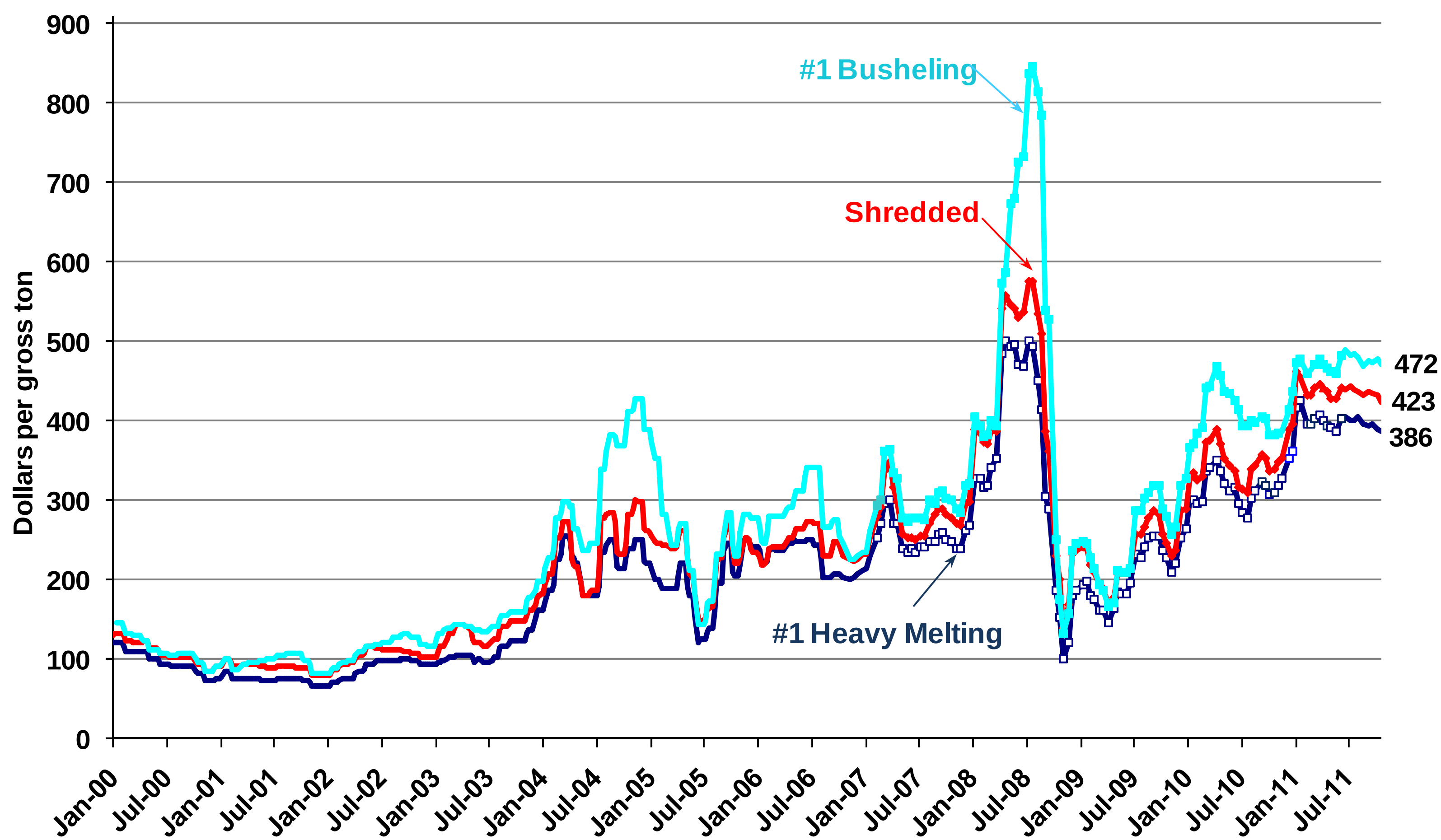
WSD Steel Stratagems

USA Scrap Price History

www.steelbenchmarker.com

USA, delivered to steel plant
(AMM scrap price data, Jan. 2000 - Jan. 2007; SteelBenchmarker data begins Feb. 2007)

October 26, 2011



SteelBenchmarker™

"Very high correlation (0.999) with RMDAS published USA composite scrap prices for #1 HM, Shredded & #1 Busheling"

- Easy internet access with a secure computerized roll-up process
- All qualified market participants can become a market price assessment provider at **www.steelbenchmarker.com**
- Collecting market price assessments from mills, end-users, traders, distributors, and scrappies
- WSD has deep experience in collecting market prices:
  - WSD PriceTracker series initiated in 1981
  - ***SteelBenchmarker***^{TM} carried on in April 2006 → **Free Access**
- Multi regional prices for HRB, CRC, Plate, and Rebar.
  - USA scrap prices for #1 HM, shredded, and #1 busheling added in February 2007

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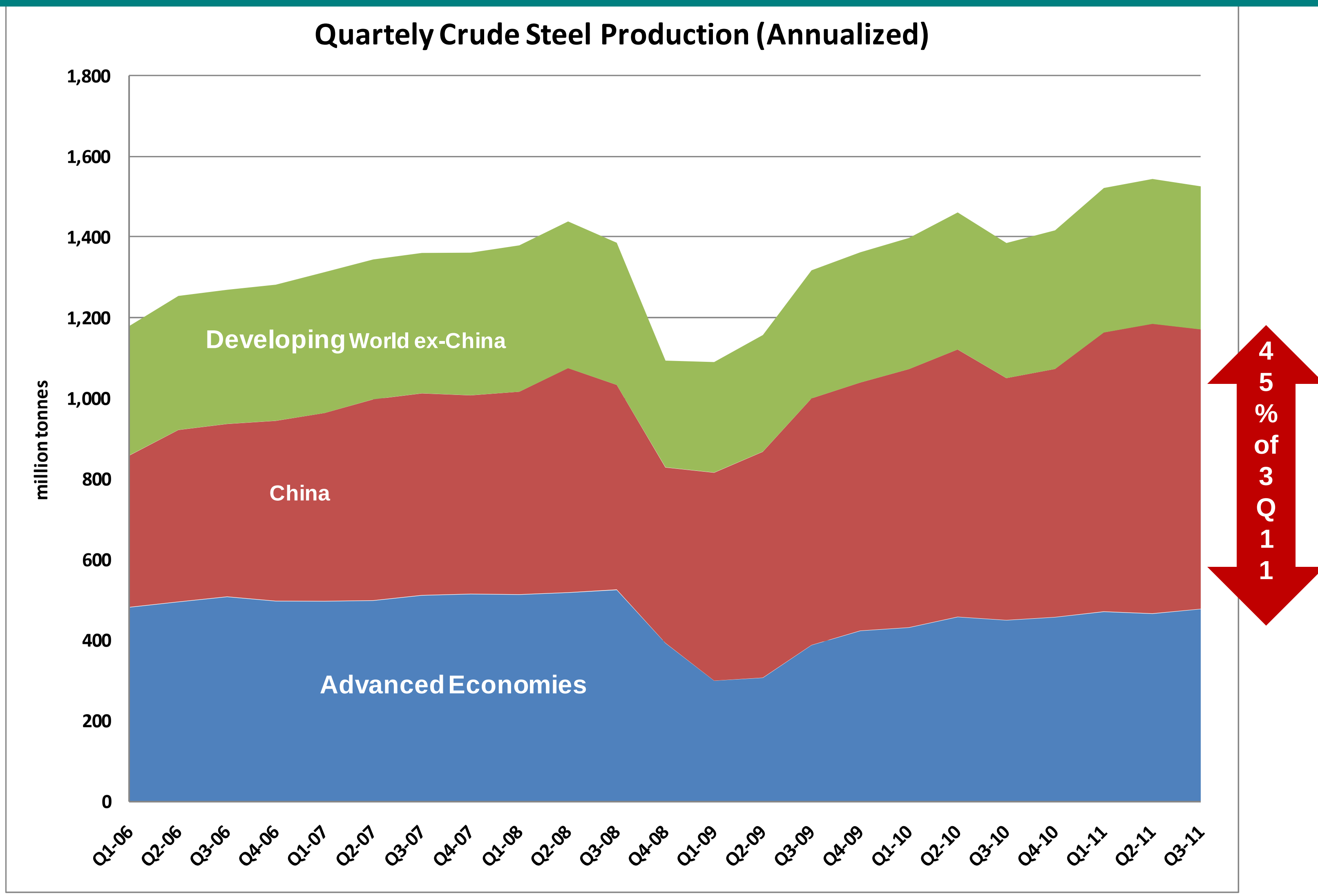
China’s 3Q11 steel production was 45.4% of the global total



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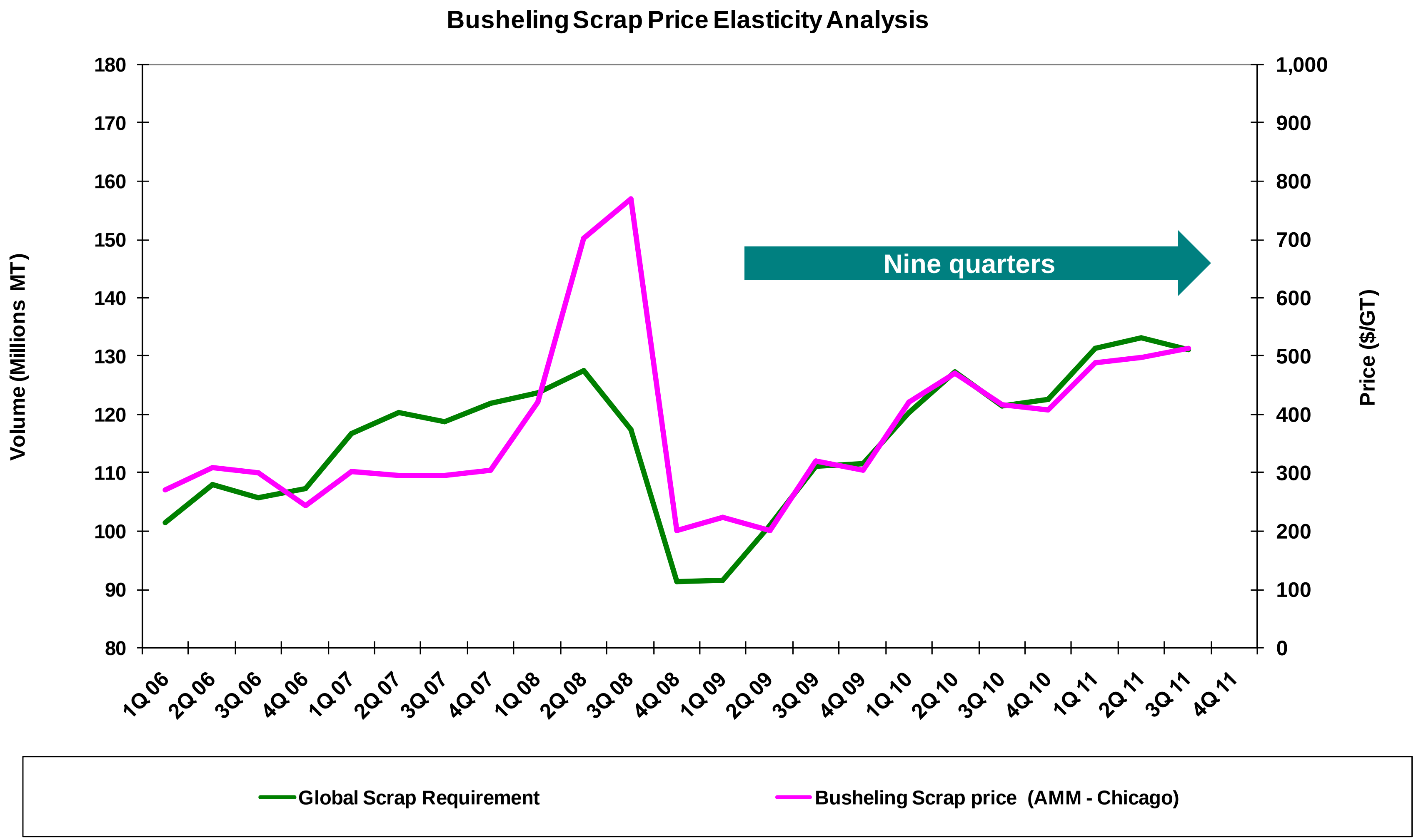
USA #1 busheling price changes over the past nine quarters are tracking well with global scrap demand changes



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WORLD STEEL EXCHANGE

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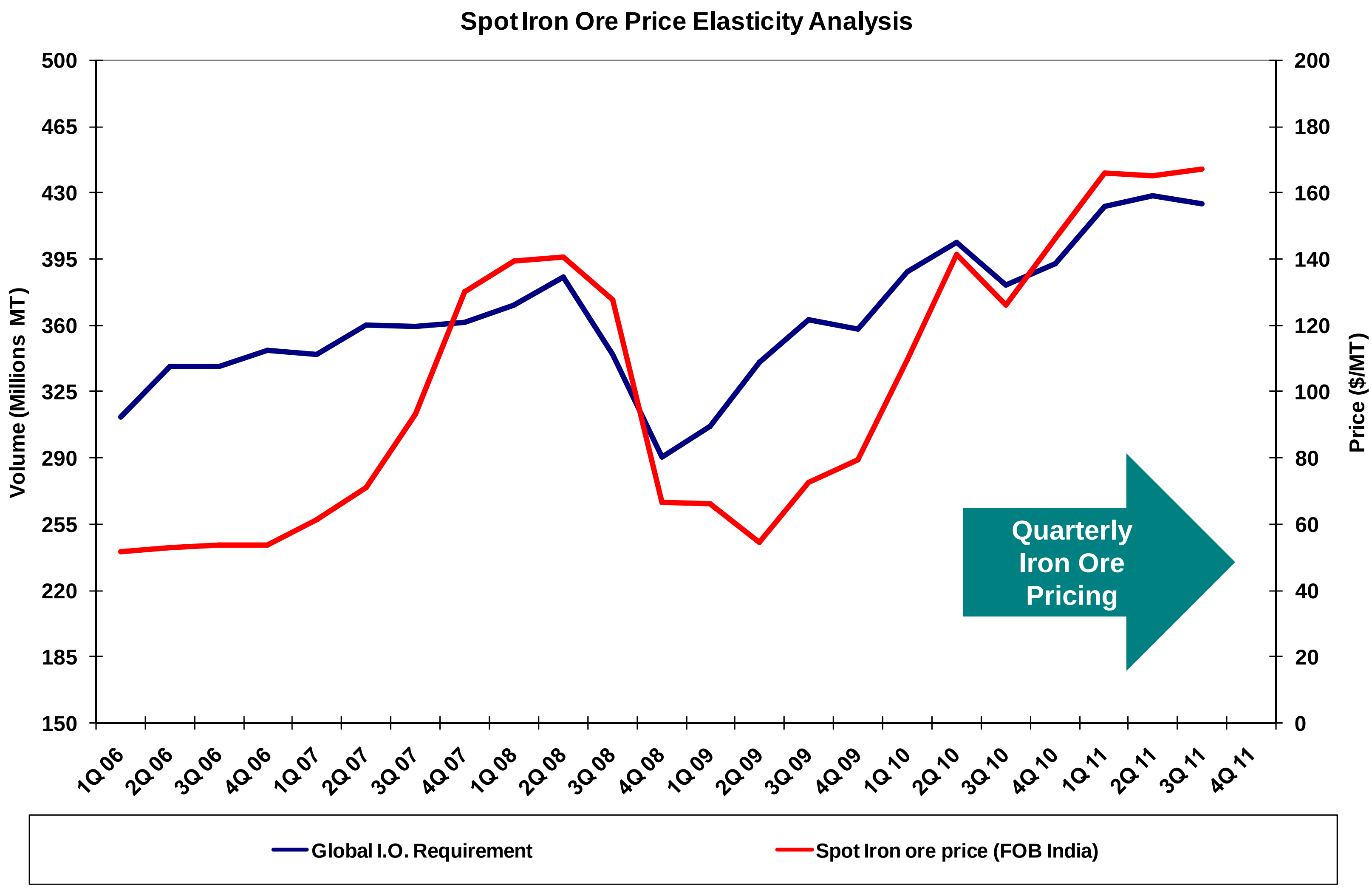
India spot iron ore prices also starting to track well with global iron ore demand in 2010



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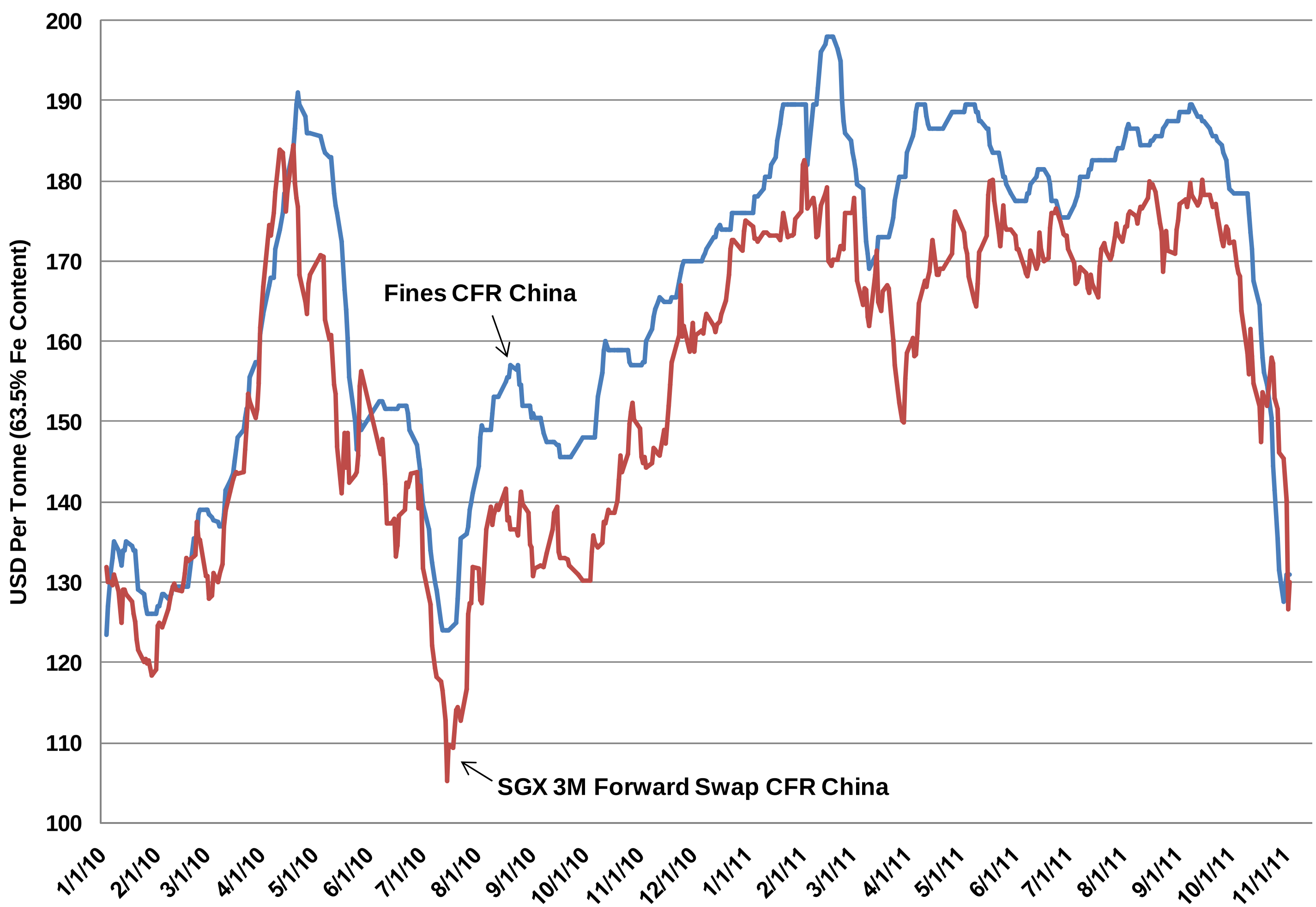
Spot iron ore prices plunge in October 2011

Daily Iron Ore Spot Price versus 3 Month Forward Swap Price



Source: *MetalBulletin and Singapore Exchange*

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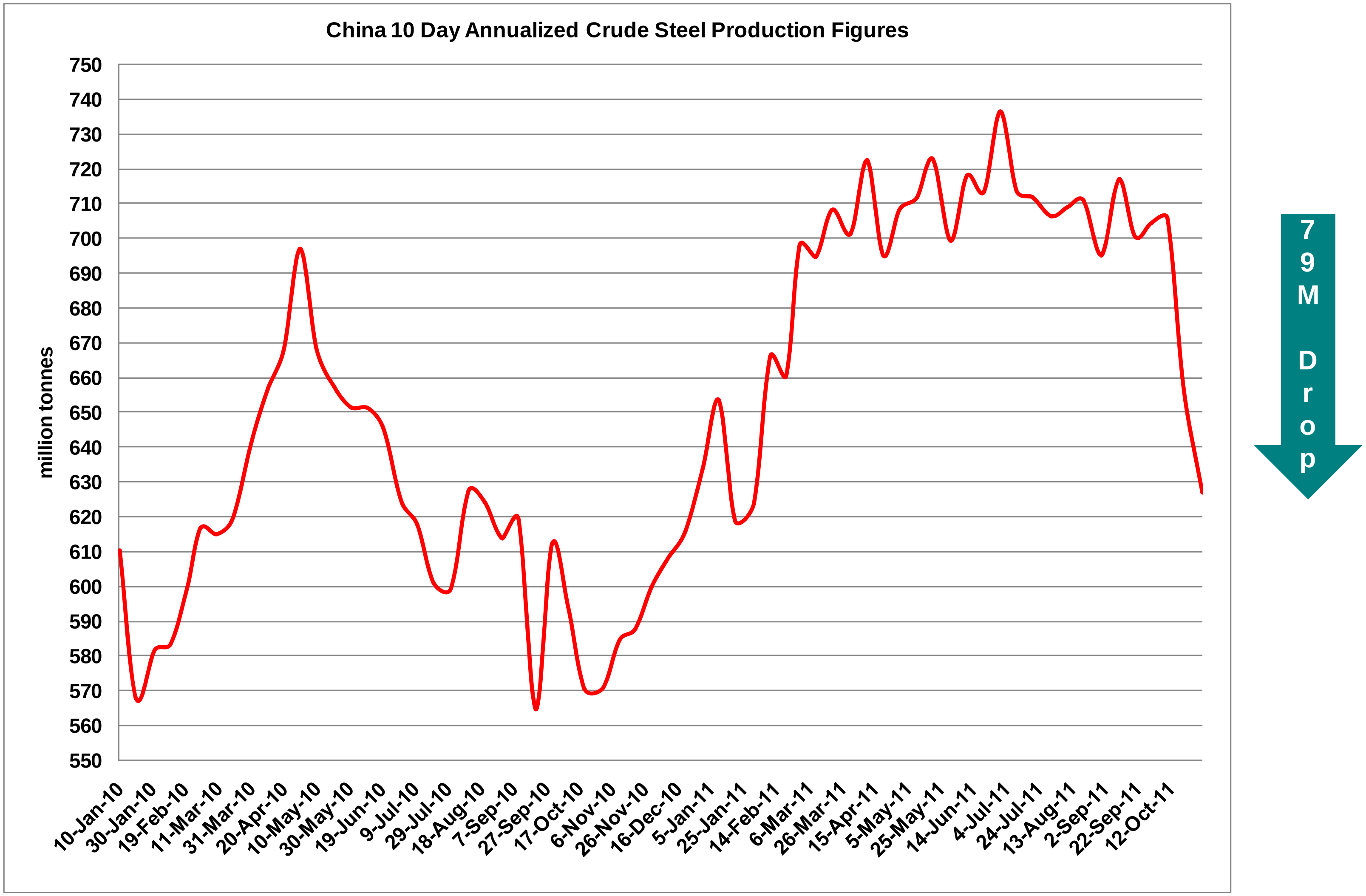
China's annualized steel production rate drops 79M tonnes in October 2011



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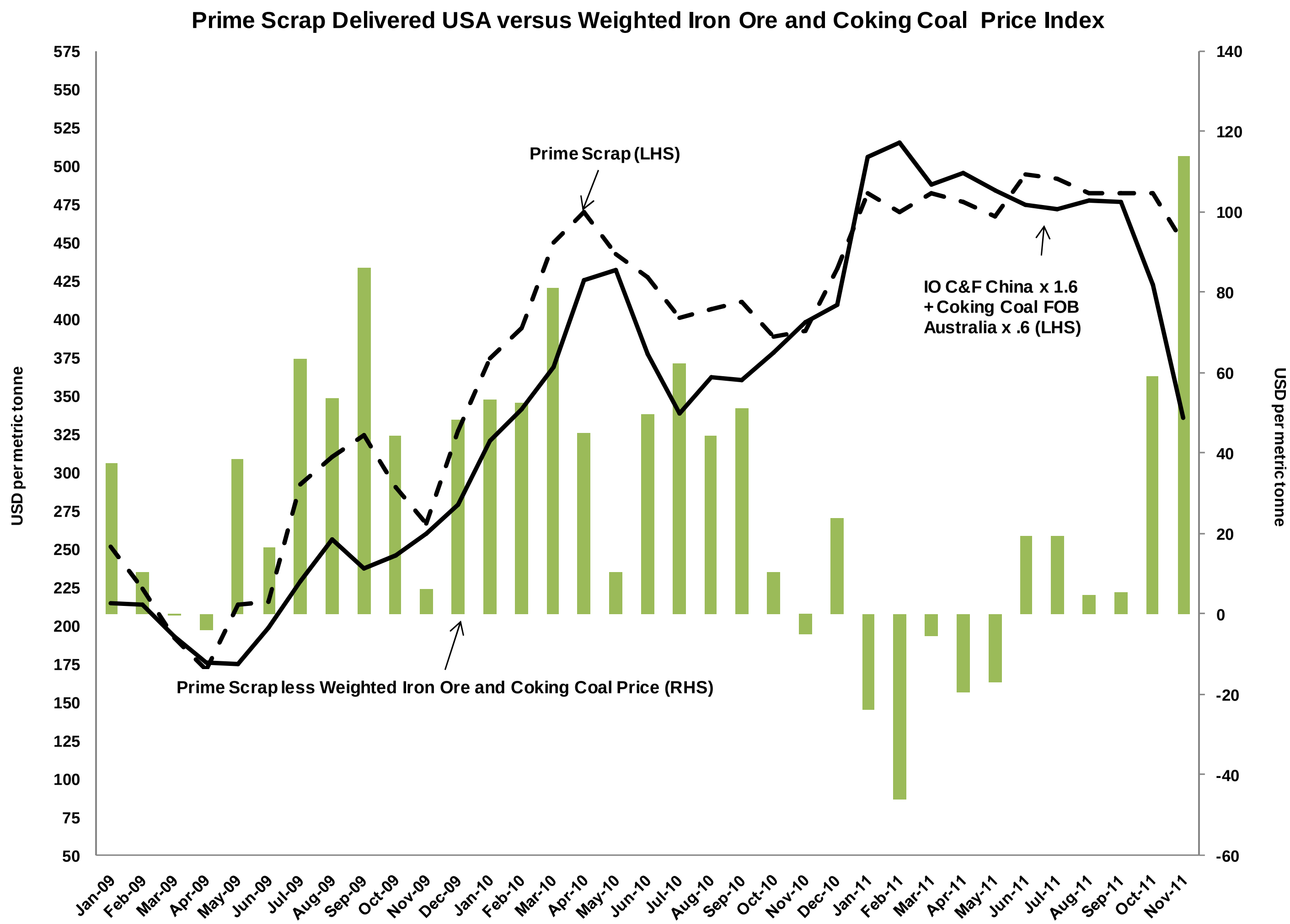
Huge iron ore price drop threatens steel scrap prices via lower pig iron raw material costs



When should you consider financially hedging price risk

The following quotes frame the hedging rationale from a steel industry player:

“ I choose to financially hedge when the risk from market price volatility is a large percentage of my profit margin!

“If the risk from market price volatility is a small percentage of my profit margin I am willing to take the risk!

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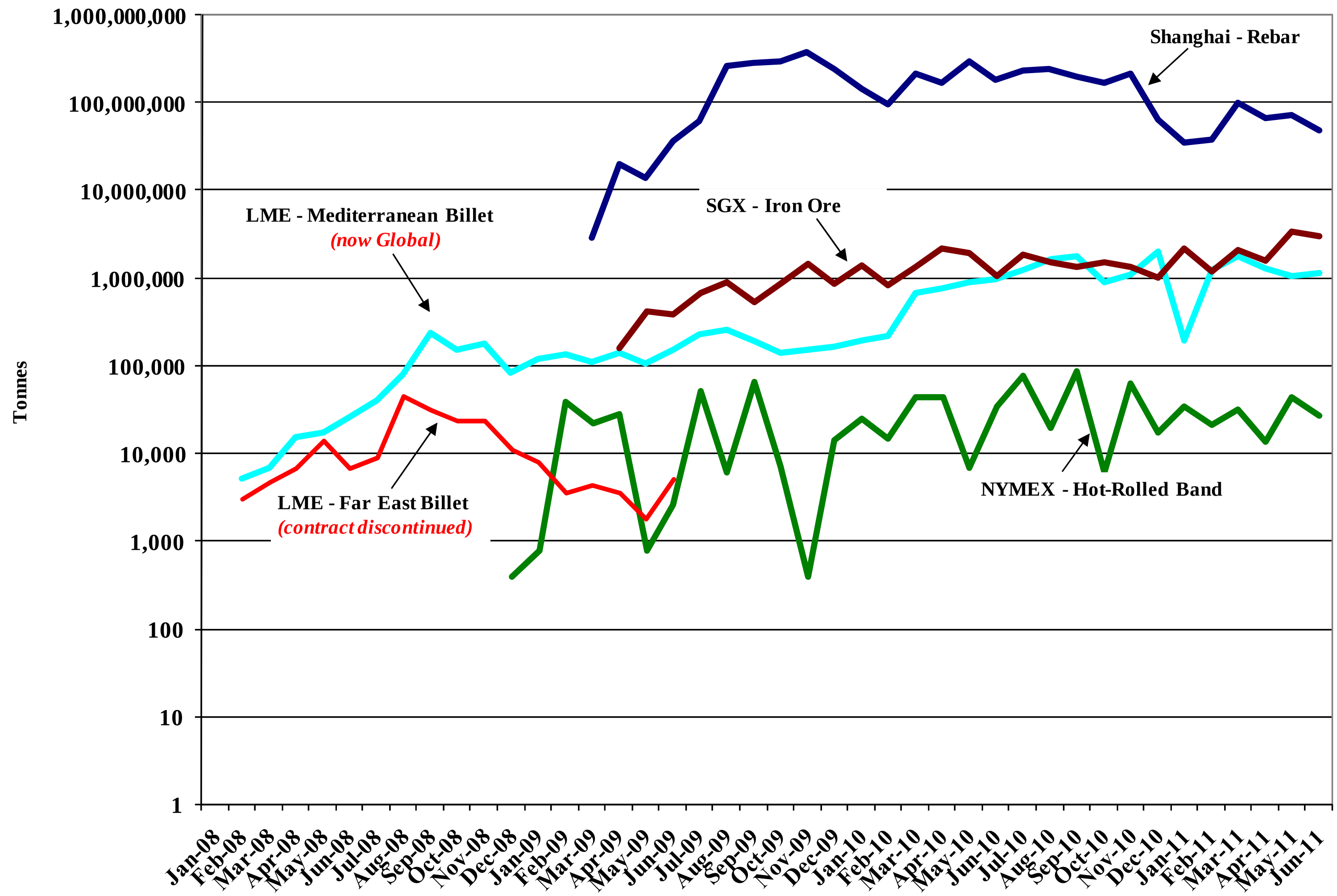
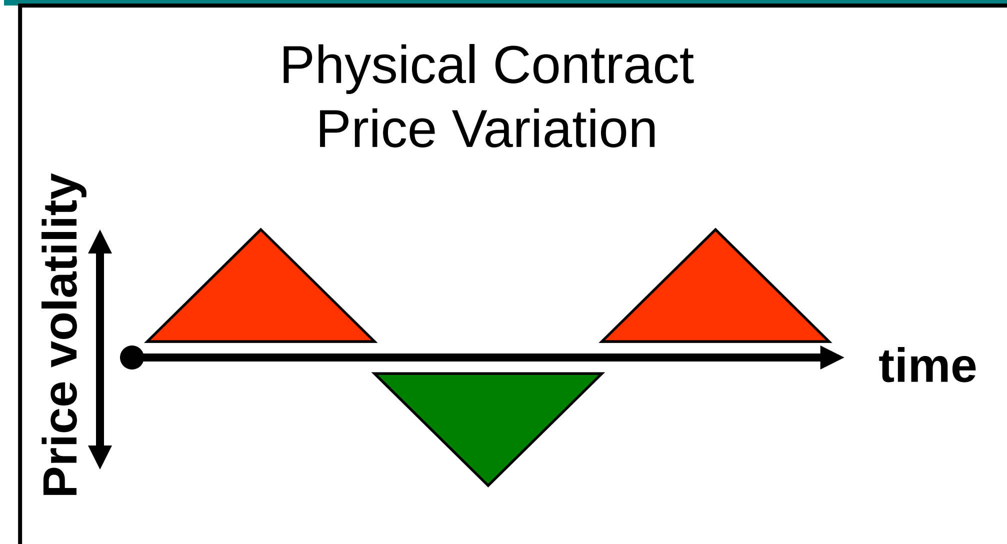
Steel industry futures/swap trading volumes are growing

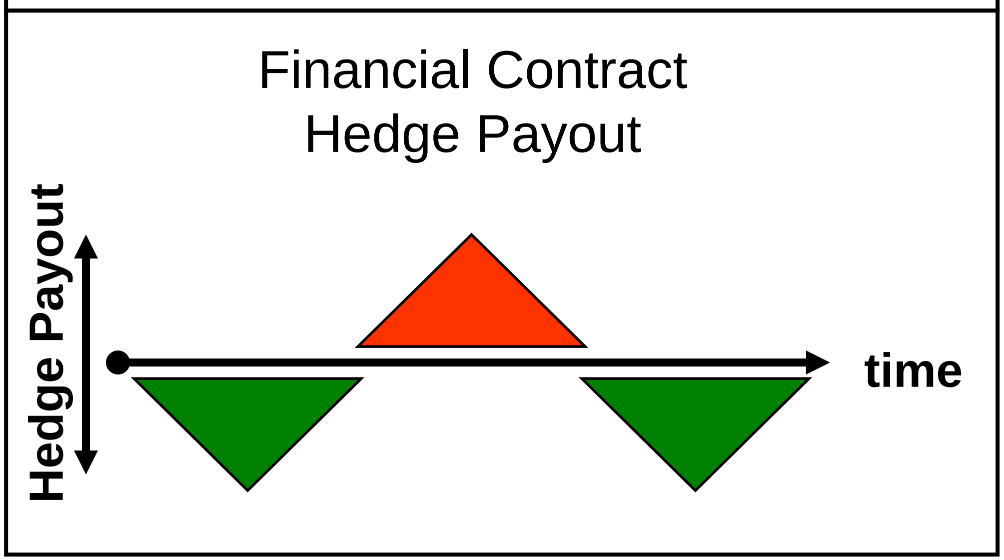


Financial hedging offers steel industry participants a unique value proposition

- ✓ Forward price curve from which to judge hedging opportunities
- ✓ Timing flexibility on forward price commitments
- ✓ Guaranteed contract performance
  - ✓ No North American exchange clearing house has ever defaulted

Financial hedging off-sets physical steel contract price risks





Physical Contract

Price volatility flows thru via changes in the price index

= Fixed Price

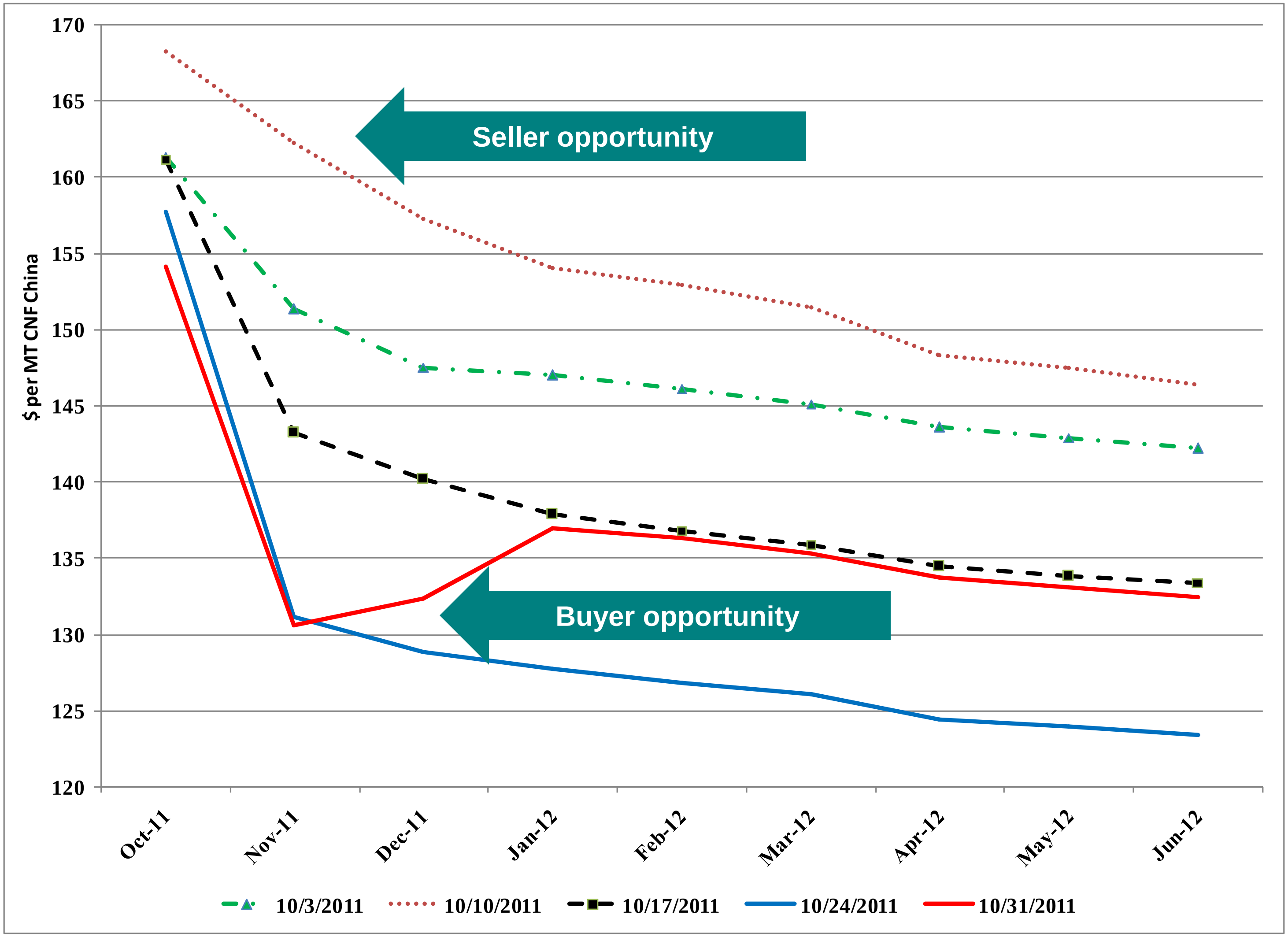
Financial Contract

Hedge payout is the reciprocal of the changes in the price index

WORLD STEEL EXCHANGE

WSEM World Steel Exchange Marketing

SGX cleared iron ore swap forward curve weekly snapshots



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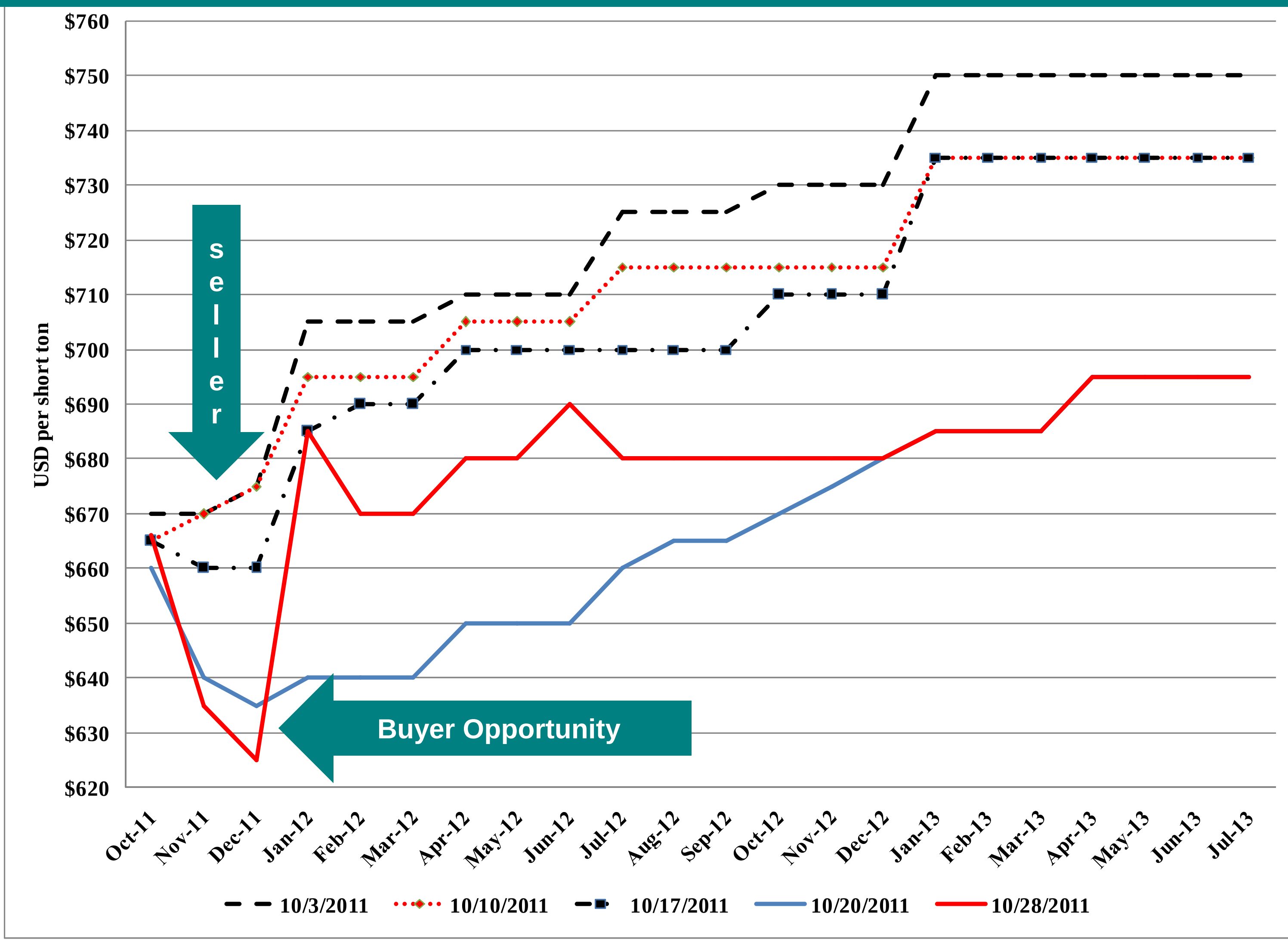
CME/NYMEX hot-rolled coil forward curve weekly snapshots



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Step 1 is understanding the price correlations of the financial tool

This is Very important when using financial derivatives to hedge

LME Billet Correlations to Other Product Indices

	SteelBenchmarker™			CME/CRU	SGX/TSI 62% China	(last day) LME
	#1 HMS	Shredded	Busheling	HRB	Iron Ore	Billet
9-May-11	391	427	461	760	170	555
13-Jun-11	403	442	483	722	171	572
11-Jul-11	401	443	483	680	171	591
8-Aug-11	406	436	481	695	176	622
12-Sep-11	395	437	476	675	178	584
10-Oct-11	396	440	477	635	158	543
6 Mo Correlation	0.734	0.159	0.499	0.023	0.785	1.000
22 Mo Correlation	0.899	0.898	0.810	0.595	0.818	1.000

World Steel Exchange Update

<u>A strong combination is underway</u>

- ✓ A partnership with a well established exchange to power World Steel Exchange trading is in the kitchen – *stay tuned*
- ✓ WSEM/WSD brings a seasoned group of steel industry professionals
  - ✓ *Relationships with many global steel industry players*
  - ✓ *Hands-on price risk management experience with steel industry clients*
  - ✓ *Experts in the gathering and processing of high quality steel price indices*
- ✓ The exchange brings well established trading technology, clearing, and connectivity to the trading community
- ✓ Direct involvement by the Steel Industry will be a game-changer in promoting World Steel Exchange trading activity
- ✓ Phase 1 product launch will include USA ferrous scrap contracts for: #1 heavy melt, shredded and #1 busheling

There is scrap industry support for scrap futures

- Increased price volatility has added to inventory price risk
- Some scrap processors have financial hedging experience
  - *Successful non-ferrous hedging experience tees up interest in hedging steel scrap*
- Some believe applying their hedging expertise to steel scrap can become a marketing advantage
  - *Able to provide fixed price quotations to customers*
- Steel scrap purchases from manufacturers are often already price indexed

Thank you for your kind attention

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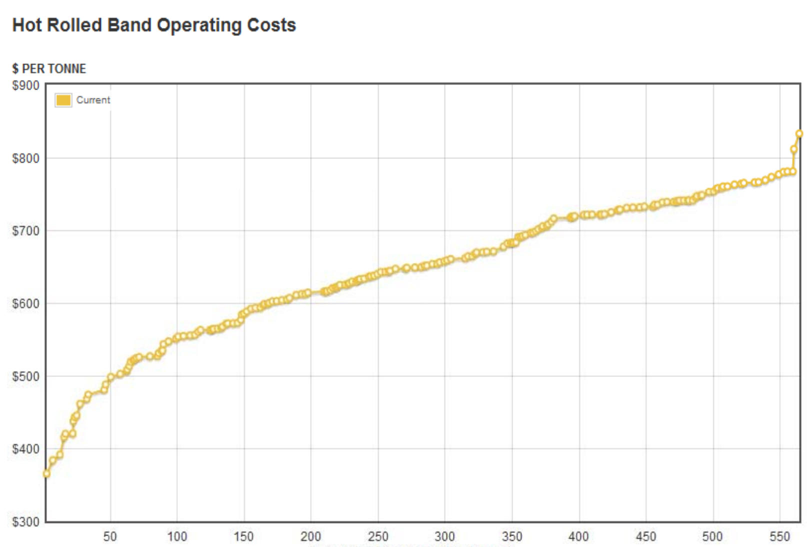
Global Steel Information System (GSIS)

Boosting Your Steel IQ

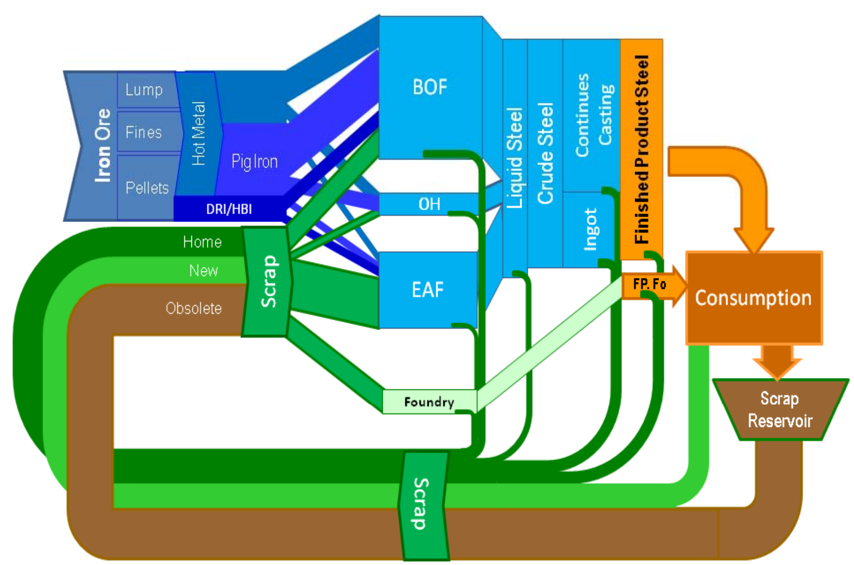
World Cost Curves:

- •Steel Sheet
- •Steel Billet/Rebar/Wire Rod
- •Steel Plate
- •Coking Coal*
- •Iron Ore
- •Pig Iron/DRI/HBI



Global Metallics Balance

- •Forecast to 2035
- •All major metallics:
  - •Iron Ore
  - •Steel Scrap
  - •Steel Scrap Substitutes
  - •Coking Coal & Coke



Global Metallics Outlook

Revelations from the GSIS

- A massive spike in the price of obsolete steel scrap could occur in the 2015-2016 time-frame.
  - Key Question: Will the global economy and steel demand growth remain positive in 2012 – i.e. can we clear the second "financial crisis hurdle?"
- China will drastically alter the global obsolete steel scrap supply/demand balance by 2025
  - And, as a result, will alter the landscape for the pricing and S/D of iron ore, coking coal, and other key steelmakers' raw materials
- Should the global economy and demand for steel products slow in 2012 the steel industry will have a flatter cost curve which further drives increased competition
  - Chinese demand growth will not be enough to sustain high prices of raw materials, leading to a flatter cost curve to produce pig iron globally

The Secret Behind Steel Scrap Pricing