

### Steel Industry Outlook Federal Reserve Bank of Chicago December 4, 2009

Robert J. DiCianni ArcelorMittal USA

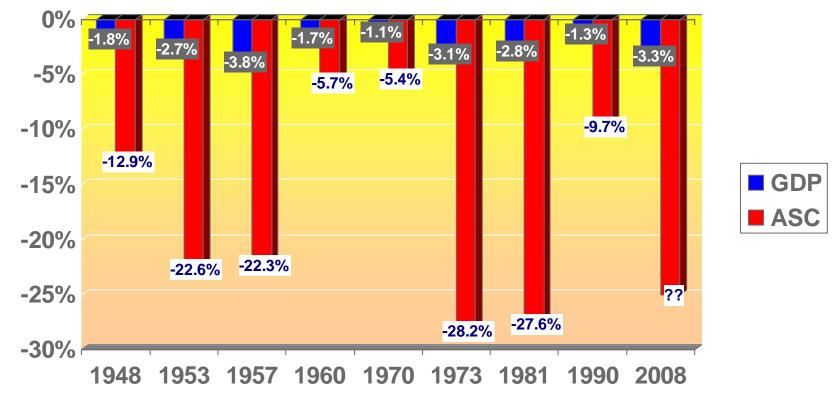


### Outline

- 2009 Steel Market
- 2010 U.S. Outlook
- Global Steel Outlook/Costs/Risks
- Summary



### Recessions Peak to Trough GDP Change vs Steel ASC Change

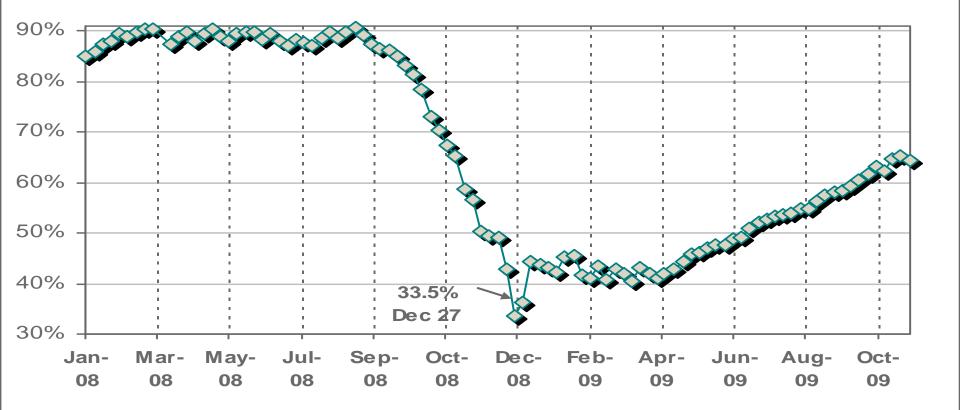


The peak was actually November 1973. Given that late year peak, this analysis shows the delta between 1974 and 1975

AISI data, AM analysis

## Weekly US Raw Steel Production Capacity Arcelor Mittal

thru November 21



**Source: American Iron & Steel Institute** 

### Raw Steel Production 2008 and 2009



- 1st Quarter 2008: 27.5m tons, 2.1m tons / wk
- 2nd Quarter 2008: 27.6m tons 2.1m tons / wk
- 3rd Quarter 2008: 27.2m tons 2.0m tons / wk
- 4th Quarter 2008: 18.5m tons 1.5m tons / wk
- 2008 total: RSP 100.8; ASC 107
- 1st Quarter 2009: 13.6m tons 1.03m tons / wk
- 2nd Quarter 2009: 13.8m tons 1.06 / wk
- 3rd Quarter 2009: 16.8m tons 1.3 / wk
- 4th Quarter 2009: 18.8m tons 1.4 / wk (est.)
- 2009 total: RSP 63; ASC 66 (est.)

Source: American Iron and Steel Institute data, AM USA analysis

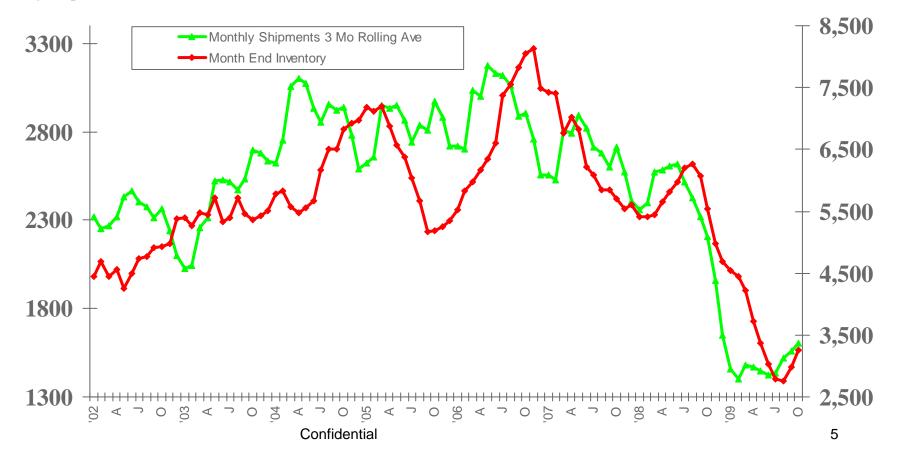


### U. S. Steel Service Center Total Shipments & Inventories Carbon Flat Rolled

Source: MSCI; Based on a representative sample of the U.S. Service Center Industry

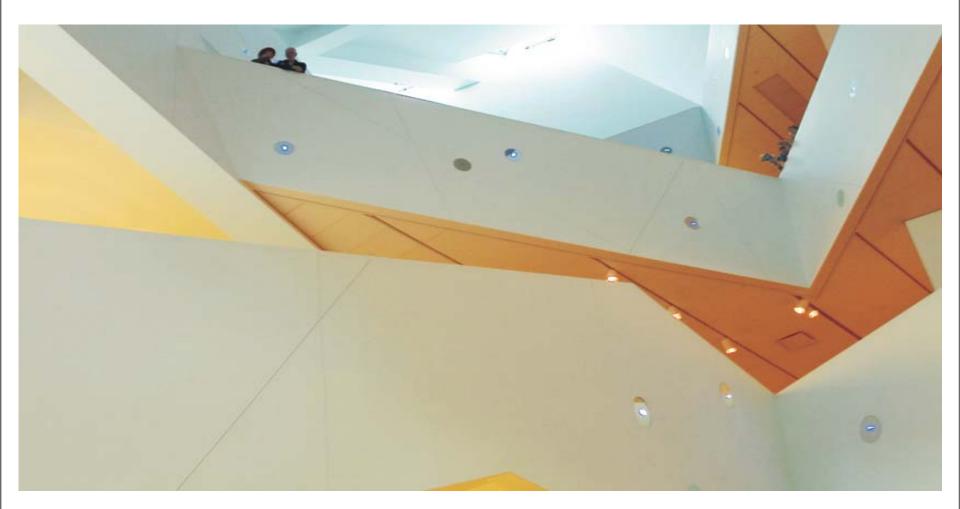
Monthly Shipments,000 Tons

Ending Inventory ,000 Tons





### 2010 Steel Outlook





2.1%

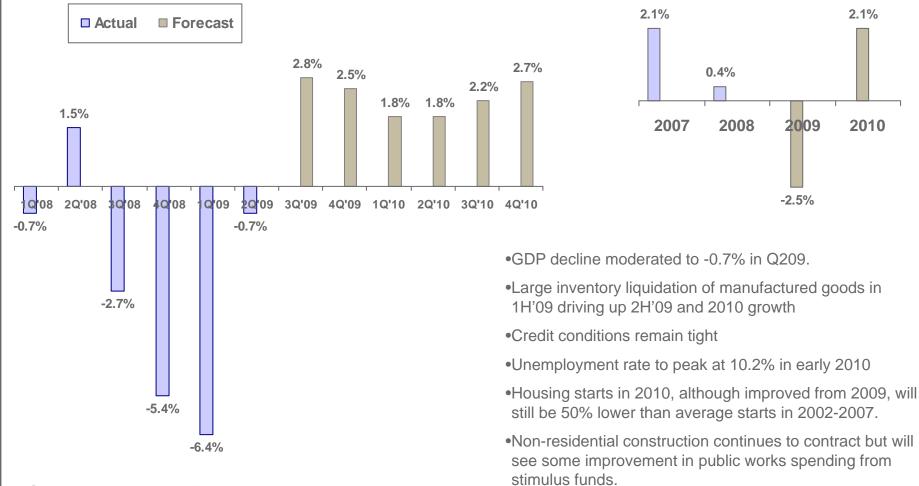
2010

2009

-2.5%

### **GDP Growth Forecast**

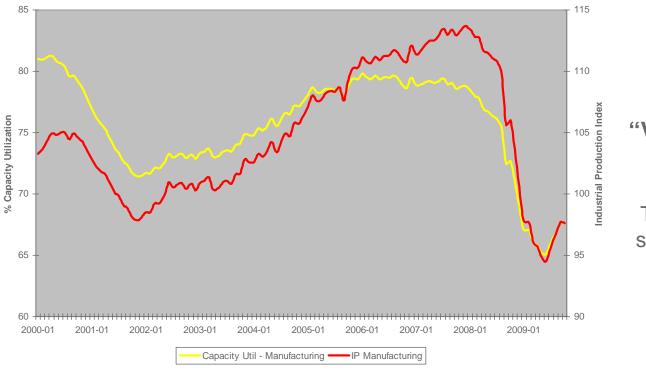
#### On the slow path to recovery...



Source: Global Insight, October 2009



# Industrial Production & Capacity Utilization Arcelor Mittal Manufacturing Component 2000 – October 2009



**'V" Shaped recovery?** 

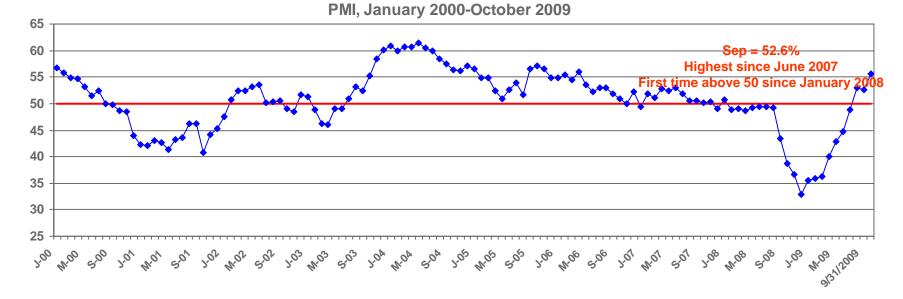
The consensus estimate sees this as very unlikely.

"The U.S. economy has fallen off a cliff" – Warren Buffett

Source: U.S. Federal Reserve Bank Statistical Release November, 2009

### ISM Manufacturing Purchasing Managers Index (PMI)







Production Index, Jan 2007- Oct 2009





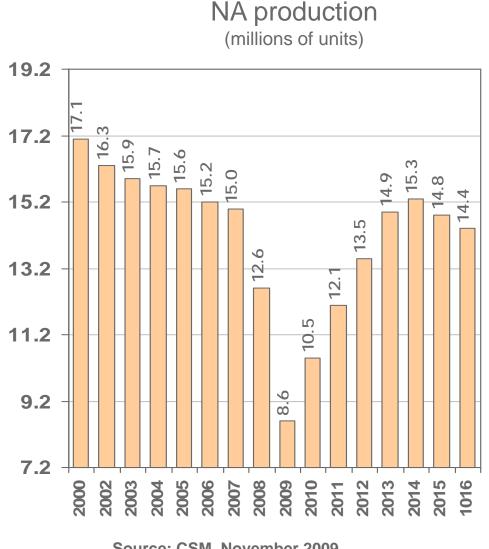
### **Steel Markets**





# **Automotive Production**

- 2009 forecast is the lowest production total since the early 1980's.
- 2009 capacity utilization rate is 51%. 2014 rate will be 81%.
- Detroit 3 account for 56% of production in 2009, down from 63% in 2007 & 58% in 2008. Detroit 3 will account for 53% in 2014.
- U.S imports dropped in 2008, 3.4 million, but gain in share, 26% vs 23% in 2007. Imports are forecast to stay near trend,





### Where will steel demand come from Auto Production

- 2009 auto production • will be the lowest production total since the early 1980's.
- 2009 capacity utilization rate is 51%.
- **Detroit 3 account for** 55% of production in 2009, down from 63% in 2007 & 58% in 2008.
- Auto production is beginning a gradual increase starting in the third quarter of 2009.

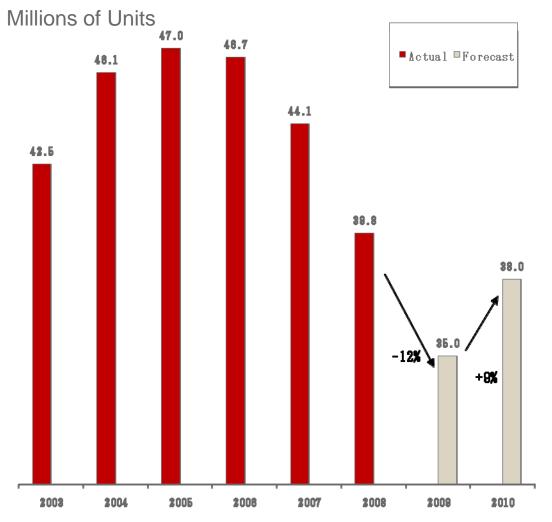
2.8 2.6 2.4 2.2 2 1.8 1.6 1.4 1.2 1 Q3Q3**Q1**  $\mathbf{Q1}$ 2009 2009 2010 2010

#### Millions of units per quarter

Source: CSM Worldwide

# **Appliance Market**

**USA Core Appliance Shipments\*** 



ArcelorMittal

Appliance sales have been hurt by the housing market but the replacement market kept appliance sales above the drop in housing starts. Rapid de-stocking by the industry occurred in January 2009.

Appliance shipments in 2009 are down 12% September YTD vs. the same period in 2008. As inventory liquidation occurred early in the year, we expect that shipments will improve slightly and that the year will end at -10% to -12%. Consumer rebates from Stimulus Plan for new Energy Star appliance purchases should spur appliance sales late this year or early 2010.

Appliance shipments will improve in 2010 from improvement in housing starts and the increasing replacement base.

Delayed appliance replacements from 2008-2010 provide excellent future market potential.

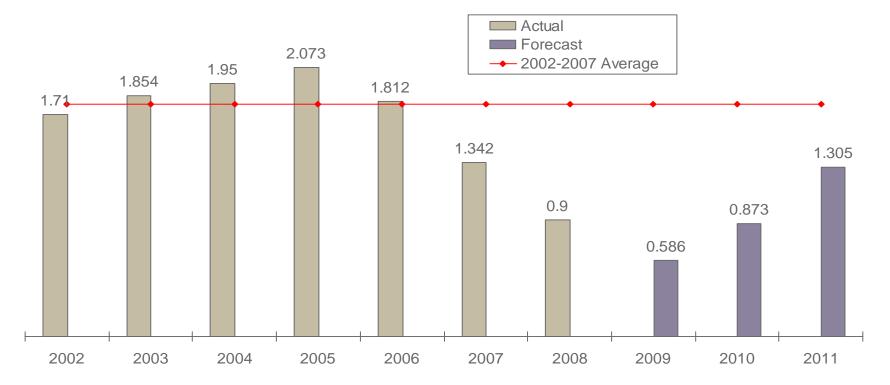
\*Core appliances = washers, dryers, refrigerators, ranges, dishwashers, and freezers



14

# **Housing Starts**

#### Millions of units



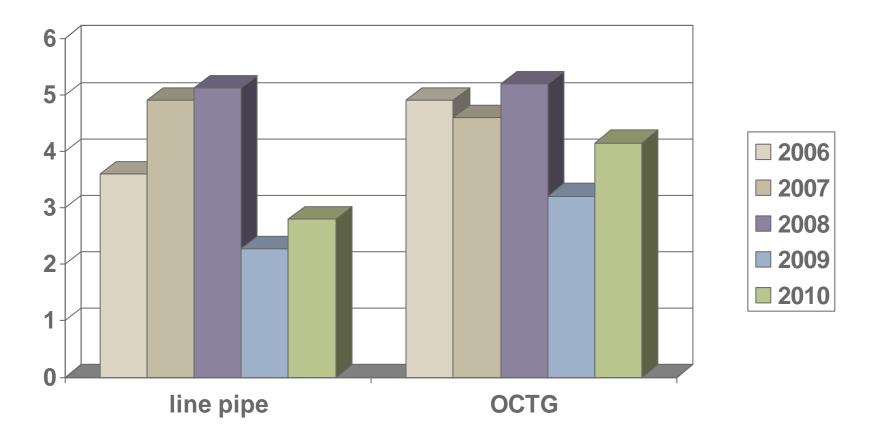
Source: Global Insight, Oct 2009

As the inventory of new homes has finally subsided, we begin to see recovery in housing starts from Q2'09 bottom. The annual rate of starts in Q4'10 forecast to be nearly double Q2'09 rate.

		Q2'09	Q3'09	Q4'09	Q1'10	Q2'10	Q3'10	Q4'10
Confidential	Starts (in millions, SAAR)	0.540	0.601	0.677	0.764	0.824	0.899	1.005



# USA Energy Market Steel Demand million of tons

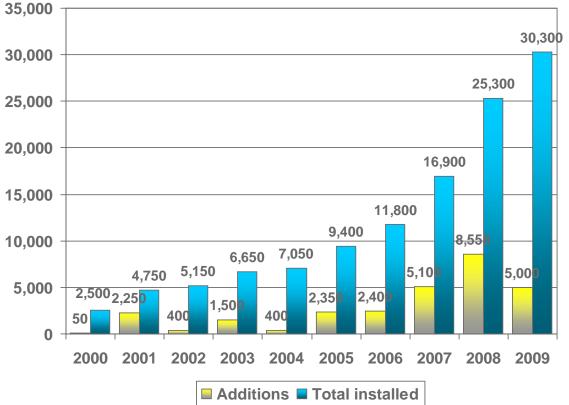


Source: History and forecast, Preston Pipe & Tube Report, November 2009



# Wind Energy Growth

Megawatts



Over 8,500 megawatts installed in 2008. Renewable energy incentives will drive wind, solar and bio-fuel manufacture.

Source: American Wind Energy Association

State government renewables target along with a reauthorization of wind generated electricity subsidies from the Federal Government will continue to drive wind energy projects. Financing and right of way for transmission have constrained 2009 additions.

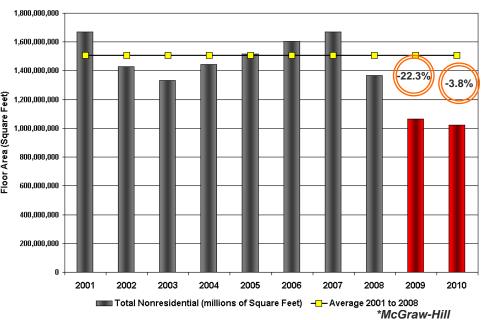
### **Non-Residential Construction**

#### Architecture Billings Index (ABI)



Source: AIA

#### Non-Residential Floor Area (Square Footage)



ArcelorMittal

Non-residential building construction will continue to be a challenge in 2010. Public works projects will show year-over-year increases.

### **Stimulus Bill Steel Consumption Potential**



- Highway Construction
  - Bridges Plate & Rebar 400,000 tons
  - Roads Rebar 800,000 tons
  - Crash Barriers 55,000 tons
- Electricity Grid
  - Pylons 250,000 tons
  - Steel Wire 100,000 tons
- Renewable / Clean Energy
  - Wind Towers plate and hot rolled 500,000 tons
  - Solar Installation sheets 190,000 tons
- Federal Infrastructure
  - Green Buildings various products 200,000 tons
- Clean Water
  - Steel Pipes (Standard Pipe) 300,000 tons
- Education Modernization various products 200,000 tons

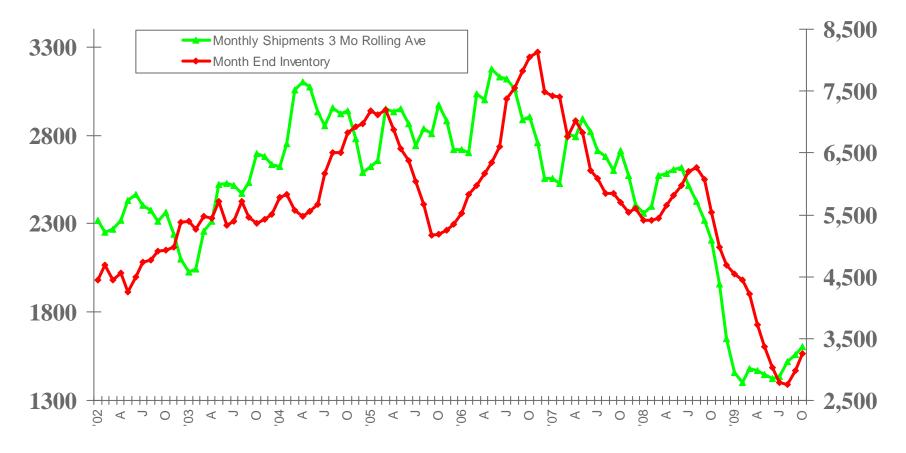


### U. S. Steel Service Center Total Shipments & Inventories Carbon Flat Rolled

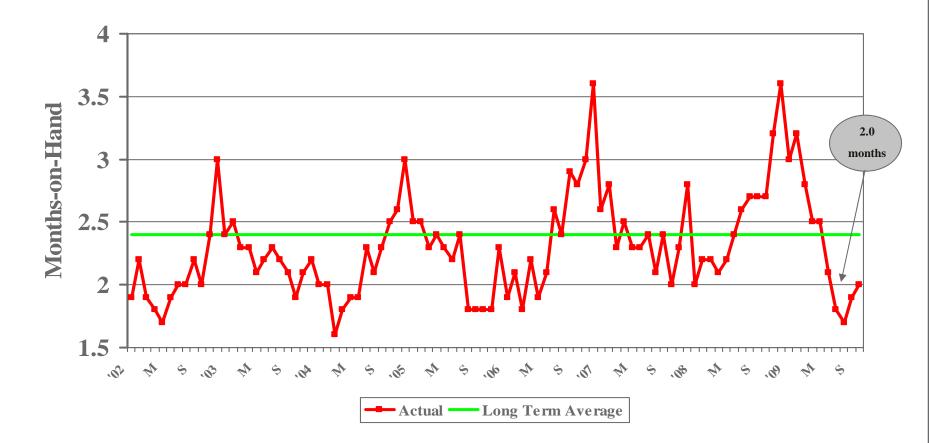
Based on a representative sample of the U.S. Service Center Industry

Monthly Shipments,000 Tons

Ending Inventory ,000 Tons

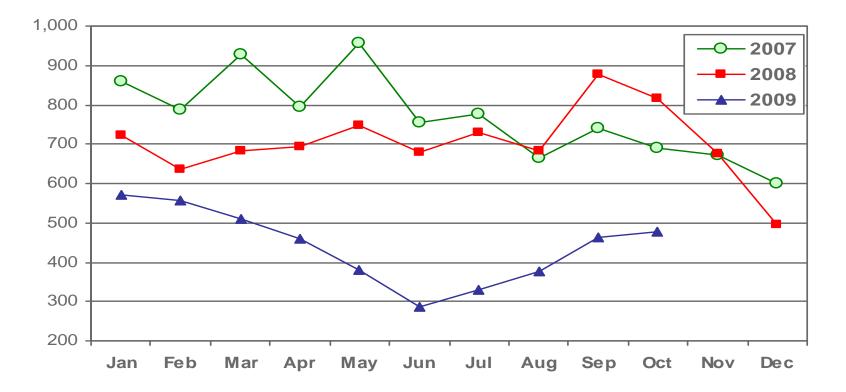








### Flat Roll Monthly Imports (,000) mt



Flat roll import licenses are up in October for 4th straight month.

Source: AISI and DOC data

## Steel demand change - 2010



Auto	
Residential Construction	
Non-residential Construction	
Machinery	
Agriculture	
Electric motors	
Infrastructure	
Renewable Energy	
Pipe & Tube*	

\* Pipe & tube demand will be improved by the capacity additions of a number of new spiral pipe mills in the USA as well as a drop in imported pipe.



### **Global Markets**

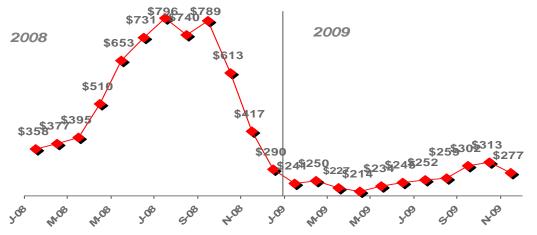
- 2008 Steel Consumption 1.3b tons
- 2009 Steel Consumption 1.2b tons (est)
- 2010 Steel Consumption 1.3b tons (est)
- China
  - Domestic demand has been strong
  - Production has outpace demand
  - Producers have cut production by 3% from August highs.
  - Inventory will take months to work off
  - Excess steel will continue to be exported
- Europe
  - Return to growth in Q3
  - Real demand muted by consumers, tight credit, strong euro
  - Q4 demand rate expected through first half of 2010
- CIS
  - domestic market situation is still-weak
  - seasonal slow-down in the construction market
  - sector is concerned about Chinese exports.
- Brazil
  - Industrial production rising
  - rising real demand will continue to improve
  - underpin the attractiveness of the Brazilian market for major exporters.



### Steelmaking input costs

#### Scrap: #1 Busheling-Chicago





#### Scrap has declined by \$75 in the past 2 months. December price increase expected.

• Source: AMM

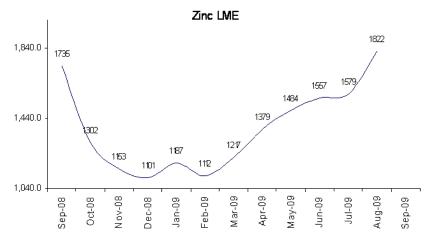
- Pig iron prices weaken with scrap market - producers are focusing on higher priced domestic market in Brazil.
- Source SBB

Pig Iron: Brazil\$/s.ton, Brazil export FOB Ponta da Madeira

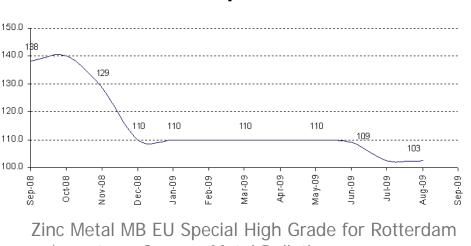
### **Evolution of Zinc Market Indicators**



#### Zinc monthly prices LME cash \$/T



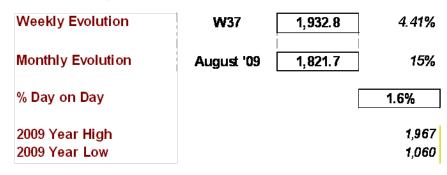
#### Source: Purchasing based on LME

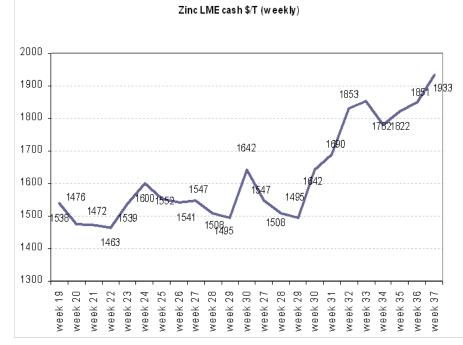


Zinc Monthly Premium \$/Mt

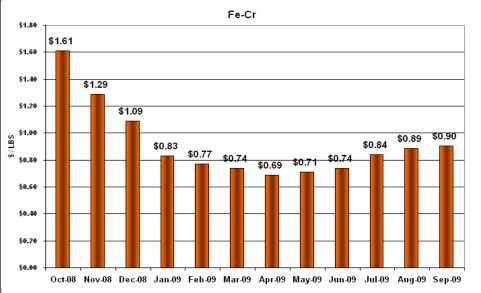
\$ per ton; Source: Metal Bulletin

#### Market Indicator Evolution: LME cash \$/T





### Steelmaking raw materials costs



LC Fe-Mn

\$1.12

Oct-08 Nov-08 Dec-08 Jan-09 Feb-09 Mar-09 Apr-09 May-09 Jun-09 Jul-09 Aug-09 Sep-09

\$1.04

\$0.98 \$0.98

\$1.35 \$1.35 \$1.31

\$2.50

\$2.00

\$1.50

\$1.00

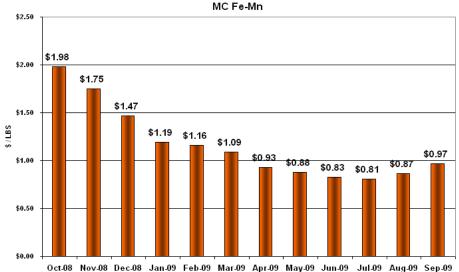
\$0.50

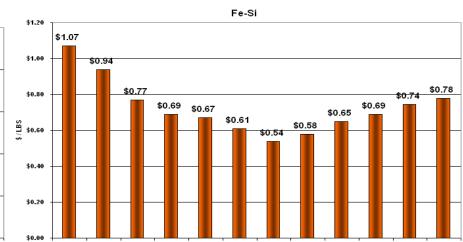
\$0.00

\$/LBS

\$2.05 \$2.05

\$1.67





Oct-08 Nov-08 Dec-08 Jan-09 Feb-09 Mar-09 Apr-09 May-09 Jun-09 Jul-09 Aug-09 Sep-09

Confidential

\$1.05 <sup>\$1.12</sup>

Source: Ryan's Notes







### **Risks**

- Credit markets stall
- Unemployment higher than anticipated
- Double Dip Recession
- Quickly increasing energy prices restrain growth
- Steel imports greater than expected
- Cap and trade
- Wars



### Summary

- Inventory liquidation in 1H 2009 greatly depressed manufacturing activity and steel consumption.
- A real demand bottom has now been seen. Steel demand in second of 2009 and the first half of 2010 will have to equal end use consumption.
- Slow GDP growth is now expected in NAFTA
- Global growth in steel consumption is now evident.
- Global steel production is increasing.



### Questions

