Federal Reserve Bank of Chicago
Economic Outlook Symposium
Steel Market Outlook
December 5, 2014

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ArcelorMittal USA
Agenda

• Economic Indicators
• Key Steel Markets and Forecast
• Steel consumption Trends
• Foreign Markets
• Raw materials
• Questions
U.S. economy reaches turning point and is poised to rebound in 2015

Annual GDP Growth

Unemployment Rate falls below 6% in 2015.

Consumer Spending growth picks up in 2015.

Sources: BLS, IHS Global Insight Nov 2014
Industrial production data shows strong recovery for steel-intensive goods.

Source: Federal Reserve/FRED

% change: 2007-2014
Manufacturing output maintains 3-4% growth rate.

>50% indicates growth in manufacturing

ISM Manufacturing Index: Jan 2011-Oct 2014

The PMI report and New Orders data support continued growth in manufacturing output in 2H 2014 and 2015.

New Orders of Capital Goods, Excluding Defense and Aircraft
Jan 2011-Sep 2014, seasonally adjusted

Sources: Census Bureau/FRED, ISM
Key Steel Markets
Housing market forecast to make stronger gains next year

Housing Starts and Building Permit
'000 units, SAAR

LT Average: 1.5m units

Source: Housing Starts & Building Permits/New Home Sales – U.S. Census Bureau, Global Insight, AMUSA Analysis
Residential & Non-residential Construction

Building Construction
Some Growth in Private Construction
Source: McGraw-Hill (Dodge)°

- The single family and nonresidential construction sectors experienced precipitous declines during the 2006-2009 time period. Economic conditions continue to support steady improvement but not robust recovery.
- Residential construction growth that began in 2012 should gain steady momentum in 2014 and 2015 prompted by demographics and affordability.
- The non-residential construction sector continues stable but modest growth in 2014 with variability based on submarket and geographic region. General agreement that the forecast has more upside potential than downside risk.
- Growth in the residential sector should continue to provide a catalyst for nonresidential growth in 2014.

* Non-building structures (e.g. infrastructure) not included
Billings at architecture firms slowed in October, down 1.5 points to 53.7. Despite the small dip, the ABI remains in positive territory and momentum will continue to develop in the nonresidential construction market.
Automotive production gears up to set up new record in 2015.

**U.S. Auto Sales (millions of units)**

- 2005: 17.0
- 2006: 16.5
- 2007: 16.1
- 2008: 13.2
- 2009: 10.4
- 2010: 11.6
- 2011: 12.7
- 2012: 14.4
- 2013: 15.6
- 2014: 16.3
- 2015: 16.8

US auto sales increase to 16.8M units in 2015, supported by continued economic gains.

The recovery in the US housing market is helping to drive sales of full size pickup trucks.

**North America Auto Production (millions of Units)**

- 2005: 15.6
- 2006: 15.2
- 2007: 15.0
- 2008: 12.6
- 2009: 8.5
- 2010: 11.8
- 2011: 13.1
- 2012: 15.4
- 2013: 16.1
- 2014: 16.8
- 2015: 17.2

Automotive production will reach new record of 17.2M units in 2015.

In 2015 68% of production will be in the USA, 13% in Canada, and 19% in Mexico. Of the USA, 32% of production will be in the South.

Source: AM USA Marketing
U.S. Auto Inventories

Light Vehicle Inventory - Units

Light Vehicle Inventory – Days Supply

Source: Wards Automotive
The industry has hit an inflection point where the fleet needs to grow. There is not enough capacity to meet demand and truck rates are rising fast.

- Government regulations in 2013 cut trucker productivity just as the economy was picking up momentum. This has created a constraint on capacity and as a result trucker profitability is now on a sustained path.
- Driver shortages continue and this also reduces capacity helping trucker profits.
- The current fleet is old at 9.9 years and the used vehicle market is seeing high prices.
- Truckers are back in the market and the pace of new orders is increasing. The 2015 forecast is conservative with a significant risk to the upside.
- The next EPA mandate will be in 2020. We can expect a few slower years before there is a strong buy forward in 2018 and 2019 to beat the government mandate.

The forecast is just now approaching the replacement level over the next few years. Growth will continue to be slow and steady.

Recovery in the housing market will support continued growth over the next few years as the heavy duty market tapers.
Energy Pipe and Tube Consumption

**US Welded OCTG Consumption**
- **millions of tons**

<table>
<thead>
<tr>
<th>Year</th>
<th>Domestic</th>
<th>Imports</th>
<th>Total OCTG</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td>2.4</td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td>3.1</td>
<td>3.1</td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td>3.7</td>
<td>3.7</td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td>3.9</td>
<td>3.9</td>
</tr>
<tr>
<td>2014F</td>
<td></td>
<td></td>
<td>4.1</td>
</tr>
<tr>
<td>2015F</td>
<td></td>
<td></td>
<td>4.3</td>
</tr>
</tbody>
</table>

**US Welded LP Consumption**
- **millions of tons**

<table>
<thead>
<tr>
<th>Year</th>
<th>Domestic</th>
<th>Imports</th>
<th>Total LP</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td>2.9</td>
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<tr>
<td>2011</td>
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<td>3.3</td>
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<td>2012</td>
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</tr>
<tr>
<td>2013</td>
<td></td>
<td>3.8</td>
<td>3.8</td>
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<tr>
<td>2014F</td>
<td></td>
<td></td>
<td>3.5</td>
</tr>
<tr>
<td>2015F</td>
<td></td>
<td></td>
<td>4.1</td>
</tr>
</tbody>
</table>

Sources: Preston Pipe & Tube, AMUSA Marketing forecast
Appliance shipments improve with housing market

US Shipments of “AHAM 6” Major Appliances (includes imports, excludes exports)

-9%
+5%

US appliance shipments will increase by 5% in 2015. New home construction will demand 1.3M more units next year as housing starts accelerate following disappointing 2014. Further upside for replacement market.

Despite 3 years of growth, 2015 shipments will remain 9% below the peak in 2005.

Source: AHAM, AMUSA Marketing analysis and forecast
USA Service Center Data:
**Carbon Flat Roll**
Shipments & Inventory

![Graph showing Service Center Monthly Shipments and Inventory from Jan-08 to Jan-14. The graph indicates the trend of shipments and inventory over the years.](Image)
USA Service Center Data:
Carbon Flat Roll
Months-on-Hand
USA Service Center Data: **Carbon Plate**

Months-on-Hand

![Graph showing months on hand from January 2008 to January 2014. The line remains close to 3.0 throughout the period, with some fluctuations.](image-url)
USA Service Center Data:
Carbon Pipe & Tube
Months-on-Hand
### Steel demand change 2014

<table>
<thead>
<tr>
<th>Industry</th>
<th>Trend</th>
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</thead>
<tbody>
<tr>
<td>Auto</td>
<td>↑</td>
</tr>
<tr>
<td>Residential Construction</td>
<td>↑</td>
</tr>
<tr>
<td>Non-residential Construction</td>
<td>↑</td>
</tr>
<tr>
<td>Machinery</td>
<td>↘</td>
</tr>
<tr>
<td>Agriculture</td>
<td>↑</td>
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<tr>
<td>Electric motors</td>
<td>↑</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>↘</td>
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<tr>
<td>Energy</td>
<td>↑</td>
</tr>
<tr>
<td>Steel Inventories</td>
<td>↘</td>
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</tbody>
</table>

Most major steel consuming markets will continue to recover over the next 18 months. However, the pace of recovery for the US economy is still relatively slow. Therefore, there is no expectation that we will see robust growth any time soon.

Source: AMUSA analysis
### USA Apparent Steel Consumption

<table>
<thead>
<tr>
<th>Year</th>
<th>Millions of short tons</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>106</td>
<td>1%</td>
</tr>
<tr>
<td>2014</td>
<td>112</td>
<td>5%</td>
</tr>
<tr>
<td>2015</td>
<td>115</td>
<td>2%</td>
</tr>
</tbody>
</table>
Steel Consumption Trends
Weekly US Raw Steel Production Capacity Utilization

Source: American Iron & Steel Institute
Long Products Slower to Recover
U.S. Domestic Shipments, Carbon & Alloy (C&A)

Long Products vs. Flat Roll Products Monthly Shipments
(2001-2014 Sep, numbers in million s.tons)

<table>
<thead>
<tr>
<th>Year</th>
<th>Long Products</th>
<th>Flat Products</th>
<th>Δ</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>30.83</td>
<td>66.24</td>
<td></td>
</tr>
<tr>
<td>2014f</td>
<td>26.74</td>
<td>63.16</td>
<td>-13%</td>
</tr>
</tbody>
</table>

Source: AISI Platts Data Analyzer
Note: 2014f numbers are based on annualized 2014 YTD (Sep)
HR leads domestic shipment growth, followed by HDG. Tin Mill products lag.

Flat Roll Domestic Shipment Index
2007=100

Source: AISI, AMUSA Analysis

2014 Total Flat Roll Index = 98

2014f = 2014 YTD May Annualized
USA Apparent Steel Consumption
million of short tons


Drop in ASC in select recessions
1953 – 22%
1957 – 22%
1973 – 23%
1981 – 27%
2009 – 41%

Source: AISI, AM Marketing
Flat Roll Imports surge in 2014 - October likely to be highest month of the year so far.

Import market share has averaged 19.6% YTD 2014 compared to 13.6% in 2013.

Note: includes all carbon flat roll products
Imports by Product Group (All Grades – Carbon, Stainless, Alloy)
2006-2014F

* 2014F is annualized based of YTD August 2014 actuals
Imports: By Product (2010-2014F) (Carbon Flat Rolled)

Millions of Tons

*Coated = HDG, EG, AOMC

Source: AISI
Imports: Top Countries 2014F
(Carbon Flat Rolled – Total Imports: 11.7m s.tons)

Source: AISI
Trade Cases and Other Issues

• ITC ruling against Korea for OCTG (Sept 2014)

• Termination of suspension agreements with Russia; starts Dec 2014;

• Wire rod from China; decision due December 2014

• Re-bar from Mexico and Turkey

• Rising in-land transportation costs, stemming from constrained rail and truck capacity, could help protect the US market, especially the Midwest from imports.
Global Steel Markets and Raw Materials
Europe

- ECB policy stimulus and a weaker € should support a gradual pickup in 2015.

- “Flash” manufacturing PMI is up to 50.7 in Oct’14.

- ECB “stress tests” aimed at ensuring Eurozone banks are adequately capitalized.

- A weaker Euro, low interest rates, asset purchases by the ECB, expanding export markets, and pent-up demand for durables should support a gradual recovery in 2015.

- Risks of stagnation and deflation are mounting as heightened geopolitical tensions are weighing down on confidence across the Eurozone,
China

• Persistent weakness in real estate and related heavy industry.

• Overall, aggregate steel stocks are actually in line with average levels recorded over previous years. Expect some restocking toward the end of the year and into Q1.

• 2014 exports increased by 73% y-o-y through Sept’14, as excess domestic output continued to force traders to look elsewhere

• Inventories of iron ore at the port are lower than at mid-year but are they still remain high.
Global steel demand growth slows in 2014-2015 but continues to set new records.

Global Apparent Steel Consumption
(Finished Steel Products) million metric tons

Source: World Steel Association, Oct 2014 short range outlook

Global ASC Growth Forecast by Region
2014 & 2015 (% Change Y/Y)

Source: World Steel Association, Oct 2014 short range outlook

* Central and South America
Steelmaking Raw Material Input Costs
2009-2014 Averages and October 2014

All charts in $ per metric ton except for Scrap

#1 Busheling Chicago Scrap AMM ($/gross ton)

Platts IODEX 62% CFR China

Metallurgical Coke SBB/Platts

Australian Hard Coking Coal CRU/SBB

* 2009-Jun2012 average = SBB, Jul2012 average-current = Platts
Summary

• Although cautiously optimistic we expect the US economy to be reasonably strong in 2015 with GDP growth of about 2.6%.

• Industrial Production and Manufacturing continue to show increasing strength.

• The auto and energy markets continue to be the star performers in the US economy. In 2015 both markets will continue to expand into record levels of production activity.

• However, most of the risks are to the downside. The biggest risk to the forecast is that foreign markets underperform. This is especially true for Europe and China. Both are expecting marginal improvement in 2015 but both are fragile and if they are weaker than expected it will create a drag on US growth.
Questions