Recent Developments in the U.S. and Global Ferrous Scrap Markets

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Institute of Scrap Recycling Industries, Inc.
The Institute of Scrap Recycling Industries, Inc. (ISRI) represents more than 1,600 member companies that process, broker & consume scrap metals, paper, plastics, glass, textiles, tires and rubber, and electronics.

With headquarters in Washington, D.C., the Institute provides education, advocacy, and compliance training, and promotes public awareness of the vital role recycling plays in the U.S. economy, global trade, the environment and sustainable development. For more information about ISRI, please visit www.isri.org.
Over 100 Years of Recycling Experience

Industry directly and indirectly employs more than 450,000 people in the United States and has been creating “green jobs” for decades.

Many ISRI members have been in business for three generations or more.
About the Global Ferrous Scrap Market

• The market for ferrous scrap is increasingly global.

• Scrap has become a key feedstock utilized in manufacturing new products worldwide and supplies a significant amount of global raw material needs.

• Ferrous scrap is a world-traded commodity that becomes less dependent on local supplies and markets every day.

• Scrap material moves to where demand directs it regardless of its original location.

Global Crude Steel Production and Scrap Use
(million metric tons)
Source: Bureau of International Recycling

World Crude Steel Production in 2010: 1.4 billion tons
World Ferrous Scrap Usage in 2010: 530 million tons (+15%)
Global Ferrous Scrap Trade Trends

Volume of Global Ferrous* Scrap Exports, 1990 - 2010 (Mt)

Source: UN Comtrade Database

*Includes stainless and alloy scrap

Global Ferrous Scrap Exports in 1990: 9.3 million mt
Global Ferrous Scrap Exports in 2010: 94.7 million mt
Top Ferrous Scrap Exporters

The United States is Global Leader in Ferrous Scrap Exports

Top 10 Exporters of Ferrous Scrap, 2010
(metric tonnes)
Source: UN Comtrade Data
About the U.S. Ferrous Scrap Recycling Industry

In the United States alone, **74 million metric tons** of ferrous scrap was processed by the scrap recycling industry last year.

In 2010, the U.S. ferrous scrap industry was valued at **$26.4 billion**.

Obsolete ferrous scrap is recovered from automobiles, steel structures, household appliances, railroad tracks, ships, farm equipment and other sources. In addition, prompt scrap, which is generated from industrial and manufacturing sources, accounts for approximately half of the ferrous scrap supply.

Both obsolete and prompt scrap are processed by the scrap recycling industry into commodity grade material that is used to produce more than 60% of total raw steel produced in the United States, predominantly at electric arc furnaces.

In addition, the United States exports ferrous scrap to approximately **90 countries worldwide**.

According to UN data, the United States is the **largest exporter of ferrous scrap in the world**, accounting for over 20% of global ferrous scrap loadings last year.
U.S. Ferrous Scrap Supply: Meeting Demand at Home and Abroad

Obsolete Ferrous Scrap Supply

A recent study commissioned by ISRI reports that the U.S. obsolete scrap inventory as of December 31, 2009 stood at 1.18 billion tons.

Estimated Regional Distribution of Inventory of U.S. Obsolete Ferrous Scrap, 2009:

- North Central, 31.4%
- South Central, 18.2%
- Mountain, 6.5%
- Pacific, 10.3%
- New England, 8.6%
- Middle Atlantic, 8.7%
- Southeast, 16.3%
Scrap Metal Market Dynamics: Prices Provide the Incentive

United States: Purchased Ferrous Scrap* and Avg. No. 1 HMS Prices, 2006-2010
(Source: US Geological Survey)

*Consumer shipments + exports - imports
Manufacturing and U.S. Scrap Prices

The ISRI Scrap Index and The U.S. IP Manufacturing Index 2007 - 2011
Recent Trends in Steel and Ferrous Scrap Pricing

No. 1 Bushelings and Hot Rolled Coil
2007 - 2011
(Short Tons)

U.S.$/Short Ton

- No. 1 Bushelings, Delivered to Mill, SEB, Scrap Price Bulletin
- HRCN, American Domestic FOB U.S. Midwest Mill, SEB

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Institute of Scrap Recycling Industries, Inc.
Consumption/Shipments of U.S. Ferrous Scrap, 2010

- U.S. Export Shipments: 28%
- U.S. Domestic Consumption: 72%
U.S. Ferrous Exports

U.S. Ferrous Scrap Exports in 2000: 5.3 million mt
U.S. Ferrous Scrap Exports in 2010: Nearly 20 million mt

U.S. Ferrous Scrap Exports by Value and Volume, 2000-2010

Metric tons

Dollars

$0

$1,000,000,000

$2,000,000,000

$3,000,000,000

$4,000,000,000

$5,000,000,000

$6,000,000,000

$7,000,000,000

$8,000,000,000

$9,000,000,000

$10,000,000,000

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010
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<tr>
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<th>2010</th>
<th>% Chg.</th>
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<tbody>
<tr>
<td>Cast Iron Scrap</td>
<td>516,747</td>
<td>-23%</td>
</tr>
<tr>
<td>Tinned Iron</td>
<td>81,838</td>
<td>-27%</td>
</tr>
<tr>
<td>No. 1 Bundles</td>
<td>325,874</td>
<td>5%</td>
</tr>
<tr>
<td>No. 2 Bundles</td>
<td>53,282</td>
<td>-3%</td>
</tr>
<tr>
<td>Borings, Shovelings, Turnings</td>
<td>61,643</td>
<td>-42%</td>
</tr>
<tr>
<td>Shavings, Chips, etc.</td>
<td>236,565</td>
<td>9%</td>
</tr>
<tr>
<td>No. 1 HMS</td>
<td>5,646,271</td>
<td>-3%</td>
</tr>
<tr>
<td>No. 2 HMS</td>
<td>1,024,206</td>
<td>14%</td>
</tr>
<tr>
<td>Cut Plate and Structural</td>
<td>824,711</td>
<td>-38%</td>
</tr>
<tr>
<td>Shredded Steel</td>
<td>7,438,729</td>
<td>-13%</td>
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| Other Ferrous Scrap | 2,444,515  | 25%    

**Overseas Demand for US Ferrous Scrap**

**US Ferrous Scrap Exports by Grade**
(Metric tons)
Top 10 Destinations for US Ferrous Scrap in 2010 (thousand mt):

1. Turkey (4,354)
2. China (3,126)
3. S. Korea (2,682)
4. Taiwan (2,368)
5. Canada (1,337)
6. India (951)
7. Malaysia (803)
8. Mexico (665)
9. Egypt (650)
10. Vietnam (614)
Demand Trends for U.S. Ferrous Scrap by Selected Regions

U.S. Ferrous Scrap Exports by Region/Economic Development, 2000 & 2010
(metric tons)

Source: U.S. Census Bureau/U.S. International Trade Commission
Recent Trends in Ferrous Scrap Consumption

Ferrous Scrap Consumption by Major Consumer, 2006-2010 (million mt)

Sources: BIR & USGS

- China
- EU
- USA
- Japan
- Russia
- Turkey
Chinese Market: Steel Output and Scrap Demand

Selected Chinese Steel Industry Figures, 2010 (million mt)

- Chinese Crude Steel Production: 626.7 million mt
- Chinese Ferrous Scrap Usage: 86.7 million mt
- Chinese Ferrous Scrap Imports: 5.8 million mt
Key Trends/Drivers:

• Rapidly changing/increasingly global market
• Regional Economic and Manufacturing Growth
• Production Process/ Technology
• Energy and Transportation Costs
• Infrastructure /Economic Development in China and Developing Economies
• Shifting Consumption Patterns
• U.S. presence and growth potential

Average Forecast GDP Growth 2012-2016 by Selected Regions
Source: IMF World Economic Database
Thank you!

For more information please visit:
www.isri.org

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