Challenges and Opportunities Facing Scrap Metal Recyclers

National Recycling Coalition
Recycling Market Developments in the 21st Century
July 31, 2018
Peachtree City, Georgia

Chip Koplin
Former President, ISRI Southeast Chapter
About ISRI: Voice of the Recycling Industry

1,300+ Member companies

4,000+ Recycling facilities worldwide

41 Countries

Ferrous & non-ferrous metals
Paper
Plastics
Tire & Rubber
Textiles
Electronics
• Heading into 2018, concerns about the rising tide of trade protectionism, U.S. transportation bottlenecks, and wider spreads between primary and secondary scrap prices were key concerns for U.S. scrap metal recyclers even as the major developed economies entered a period of **synchronized economic growth**, which tends to be positive for commodity and scrap demand.

• More recently, the escalating trade disputes and concerns about Chinese growth have been creating additional market uncertainty across the metals supply chain.

• For U.S. scrap recyclers, market conditions have varied considerably by commodity. Ferrous scrap market conditions have generally been more upbeat than for non-metallics due in part to the sector’s **improved overseas demand, rising domestic steel production, elevated business sentiment, and higher price levels across the ferrous supply chain**. The degree to which the different recycled commodities rely on overseas/Chinese demand is still a critical factor.
For U.S. Scrap Recyclers, Most U.S. Scrap is Consumed Domestically, but Export Markets Are Still Critical

- **U.S. Iron and Steel Scrap**
  - Export: 17%
  - Domestic: 83%

- **U.S. Aluminum Scrap Recovery**
  - Export: 30%
  - Domestic: 70%

- **U.S. Recovered Paper and Fiber**
  - Export: 41%
  - Domestic: 59%

- **U.S. Copper & Copper Alloy Scrap**
  - Export: 53%
  - Domestic: 47%
Year-to-Date Steel Production by Major Producer, Jan-Jun 2017 vs. Jan-Jun 2018 (1,000 metric tons)

Source: World Steel Association

U.S. steel production in 1H 2018 was up 2.9%, but production in China was up 6%
Trade Measures Restricting Steel Imports

Year-to-Date Total and Finished Steel Imports

<table>
<thead>
<tr>
<th>Steel Mill Product</th>
<th>June 2018</th>
<th>May 2018</th>
<th>% var Jun. vs May</th>
<th>(6 mo) YTD</th>
<th>(6 mo) YTD</th>
<th>% var '18 vs '17</th>
<th>2018 Ann.</th>
<th>2017</th>
<th>% var 2018 vs 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingot and Billets and Slabs</td>
<td>636,898</td>
<td>489,416</td>
<td>30.1%</td>
<td>3,846,670</td>
<td>4,607,241</td>
<td>-16.5%</td>
<td>7,697,339</td>
<td>8,519,484</td>
<td>-8.7%</td>
</tr>
<tr>
<td>Oil Country Goods</td>
<td>196,609</td>
<td>263,841</td>
<td>-24.7%</td>
<td>1,714,494</td>
<td>1,605,437</td>
<td>6.8%</td>
<td>3,429,896</td>
<td>3,416,194</td>
<td>0.4%</td>
</tr>
<tr>
<td>Sheets &amp; Strip Galv Hot Dipped</td>
<td>272,289</td>
<td>257,723</td>
<td>5.7%</td>
<td>1,599,078</td>
<td>1,791,963</td>
<td>-10.8%</td>
<td>3,198,156</td>
<td>3,421,194</td>
<td>-6.5%</td>
</tr>
<tr>
<td>Sheets Hot Rolled</td>
<td>168,815</td>
<td>220,653</td>
<td>-26.6%</td>
<td>1,275,198</td>
<td>1,032,016</td>
<td>23.8%</td>
<td>2,560,396</td>
<td>2,120,384</td>
<td>18.8%</td>
</tr>
<tr>
<td>Sheets Cold Rolled</td>
<td>169,834</td>
<td>206,135</td>
<td>-17.6%</td>
<td>1,218,626</td>
<td>1,516,015</td>
<td>-39.6%</td>
<td>2,437,252</td>
<td>2,932,375</td>
<td>-16.9%</td>
</tr>
<tr>
<td>Line Pipe</td>
<td>162,076</td>
<td>175,354</td>
<td>-7.6%</td>
<td>1,108,074</td>
<td>970,008</td>
<td>14.2%</td>
<td>2,216,147</td>
<td>2,234,960</td>
<td>-0.8%</td>
</tr>
<tr>
<td>Plates in Coils</td>
<td>107,047</td>
<td>161,875</td>
<td>-33.3%</td>
<td>796,024</td>
<td>657,916</td>
<td>21.0%</td>
<td>1,592,048</td>
<td>1,365,316</td>
<td>16.6%</td>
</tr>
<tr>
<td>Bars - Hot Rolled</td>
<td>87,928</td>
<td>109,357</td>
<td>-19.6%</td>
<td>655,428</td>
<td>719,415</td>
<td>-3.3%</td>
<td>1,309,856</td>
<td>1,453,127</td>
<td>-4.3%</td>
</tr>
<tr>
<td>Bars - Reinforcing</td>
<td>47,953</td>
<td>164,577</td>
<td>-75.9%</td>
<td>605,935</td>
<td>1,036,050</td>
<td>-36.2%</td>
<td>1,321,871</td>
<td>1,566,310</td>
<td>-15.0%</td>
</tr>
<tr>
<td>Wire Rods</td>
<td>80,697</td>
<td>135,604</td>
<td>-46.5%</td>
<td>573,041</td>
<td>916,333</td>
<td>-37.5%</td>
<td>1,146,082</td>
<td>1,581,077</td>
<td>-27.5%</td>
</tr>
<tr>
<td>Standard Pipe</td>
<td>68,323</td>
<td>60,608</td>
<td>-1.8%</td>
<td>510,555</td>
<td>606,650</td>
<td>-15.8%</td>
<td>1,021,110</td>
<td>1,165,069</td>
<td>-12.4%</td>
</tr>
<tr>
<td>Sheets &amp; Strip All Other Met. Ctd.</td>
<td>76,648</td>
<td>68,993</td>
<td>11.1%</td>
<td>485,160</td>
<td>649,845</td>
<td>-25.3%</td>
<td>970,319</td>
<td>1,173,623</td>
<td>-17.3%</td>
</tr>
<tr>
<td>Wire Drawn</td>
<td>59,527</td>
<td>75,226</td>
<td>-20.9%</td>
<td>419,212</td>
<td>466,215</td>
<td>-6.1%</td>
<td>838,424</td>
<td>856,820</td>
<td>-2.1%</td>
</tr>
<tr>
<td>Tin Plate</td>
<td>48,332</td>
<td>74,088</td>
<td>-33.4%</td>
<td>400,481</td>
<td>455,635</td>
<td>-12.1%</td>
<td>600,382</td>
<td>941,400</td>
<td>-38.4%</td>
</tr>
<tr>
<td>Mechanical Tubing</td>
<td>46,571</td>
<td>67,241</td>
<td>-36.7%</td>
<td>384,401</td>
<td>328,280</td>
<td>11.0%</td>
<td>728,802</td>
<td>669,791</td>
<td>8.8%</td>
</tr>
<tr>
<td>Structural Shapes Heavy</td>
<td>22,551</td>
<td>67,837</td>
<td>-66.6%</td>
<td>361,270</td>
<td>453,104</td>
<td>-20.3%</td>
<td>722,540</td>
<td>859,800</td>
<td>-16.0%</td>
</tr>
<tr>
<td>Plates Cut Lengths</td>
<td>34,522</td>
<td>73,693</td>
<td>-53.2%</td>
<td>353,226</td>
<td>387,682</td>
<td>-8.9%</td>
<td>705,451</td>
<td>828,010</td>
<td>-14.7%</td>
</tr>
<tr>
<td>All Other</td>
<td>160,492</td>
<td>243,440</td>
<td>-21.8%</td>
<td>1,485,231</td>
<td>1,516,101</td>
<td>-2.0%</td>
<td>2,970,462</td>
<td>3,012,041</td>
<td>-1.4%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>2,480,141</td>
<td>2,933,862</td>
<td>-15.5%</td>
<td><strong>17,889,112</strong></td>
<td><strong>19,695,905</strong></td>
<td><strong>-9.3%</strong></td>
<td><strong>35,738,224</strong></td>
<td><strong>38,125,982</strong></td>
<td><strong>-6.3%</strong></td>
</tr>
</tbody>
</table>

Subtotal Finished Imports: 1,842,582 2,442,726 -24.6% 13,999,094 15,070,138 -7.1% 27,998,186 29,560,912 -5.3%

Sources: U.S. Commerce Department, American Iron and Steel Institute

U.S. steel imports during the first half of 2018 decreased by more than 9 percent. For the month of June, finished steel imports declined nearly 25 percent.
U.S. Ferrous Scrap Exports Up 38% Through May

- Turkey: 1,528,247 (Jan-May 2018)
- Mexico: 889,204 (Jan-May 2017) 685,144 (Jan-May 2018)
- Taiwan: 780,048 (Jan-May 2017)
- India: 519,860 (Jan-May 2017)
- China: 342,439 (Jan-May 2017)
- Vietnam: 299,783 (Jan-May 2017)
- Bangladesh: 282,029 (Jan-May 2017)
- Canada: 278,294 (Jan-May 2017)
- Egypt: 268,657 (Jan-May 2017)
- Kuwait: 222,845 (Jan-May 2017)
- Jan-May 2018 and Jan-May 2017 values are shown for each country.
Heavy Melt Prices Are Up This Year, But Haven’t Kept Pace with Steel Price Hikes

Monthly Composite No. 1 Heavy Melt Price ($/gross ton)

Source: Scrap Price Bulletin
Nonferrous Prices Have Come Under Pressure Lately

After trading as high as $7,268 per metric ton (=$3.30/lb.) in early June, LME copper prices dropped to around $6,000 per ton (=$2.72/lb.) in July. Copper scrap spreads remain wide.
For Copper Scrap Exporters, China is the Major Concern

Net Gains and Losses in U.S. Copper & Copper Alloy Scrap Exports, Jan-May 2017 vs. Jan-May 2018 (metric tons)

China: -90,451
Canada: 2,213
Belgium: 3,970
Germany: 5,739
Taiwan: 5,891
Japan: 7,459
Korea: 10,163
Thailand: 26,287
Malaysia: 0
Ditto for Aluminum Scrap Exporters, but Growth Markets Exist

Net Gains and Losses in U.S. Aluminum Scrap Exports,
Jan-May 2017 vs. Jan-May 2018
(metric tons)

- China: -54,837 tons
- Hong Kong: -8,176 metric tons
- Taiwan: 6,910 metric tons
- Indonesia: 8,378 metric tons
- Mexico: 14,225 metric tons
- Korea: 16,365 metric tons
- India: 29,604 metric tons
- Malaysia: 39,050 metric tons
Outlook Going Forward

• Focus on **QUALITY** and consistency to meet consumer demands at home and abroad has become the key.

• The U.S. scrap recycling is in the middle of a restructuring phase.

• Targeted investment in recycling equipment, technology, and consumption could lead to further consolidation.

• U.S. exporters need to develop new overseas markets, but quality concerns are everywhere.

• Scrap recyclers are resilient!