Steel Exports Report: South Korea

Background

South Korea was the world’s fourth-largest steel exporter in 2018. In year-to-date 2019 (through June), further referred to as YTD 2019, South Korea exported 14.9 million metric tons of steel — a 3 percent decrease from 15.3 million metric tons in YTD 2018. South Korea’s exports represented about 7 percent of all steel exported globally in 2017. The volume of South Korea’s 2018 steel exports was less than half of the world’s largest exporter, China, and just behind the second-largest exporter, Japan. In value terms, steel represented just 4.3 percent of the total amount of goods South Korea exported in 2018.

South Korea exports steel to more than 150 countries and territories. The ten countries labeled in the map below represent the top destinations for South Korea’s exports of steel, accounting for 72 percent of South Korea’s steel exports in 2018. The top 10 countries each received more than 900 thousand metric tons of South Korea’s steel exports.

Quick Facts:

- Exported 14.9 million metric tons (YTD 2019)
- 41% annual steel export decline since Q2 2009
- Exports as a share of production at 40.7% in YTD 2019
- YTD 2019 export volume down 3%, and value down 7% from YTD 2018
- Top three export markets: Japan, China, and India
- Largest producers: POSCO and Hyundai Steel Co.
- 63 trade remedies in effect involving steel mill imports from South Korea
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Steel Trade Balance
Prior to 2009, South Korea had a trade deficit in steel products. The deficit peaked in 2008 at 8.2 million metric tons. Since 2009, imports began to fall and exports began to steadily increase. South Korea subsequently consistently had an annual steel trade surplus since mid 2010, with annual exports rising 49 percent and imports declining by 27 percent between 2009 and 2018. In YTD 2019, South Korea’s steel trade surplus was 6.1 million metric tons, down 21 percent from 7.7 million metric tons in YTD 2018.

Export Volume, Value, and Product
In 2014, South Korea’s steel exports reached a record high of 31.6 million metric tons. Since then, exports have fluctuated between 29.8 and 31.6 million metric tons per year. In YTD 2019, South Korea exported 14.9 million metric tons of steel, down 3 percent from 13.3 million metric tons in YTD 2018. The value of South Korea’s YTD 2019 exports decreased 7 percent to $12.4 billion from $13.3 billion in YTD 2018.

Flat products account for the largest share of South Korea’s steel exports. In YTD 2019, 76 percent, or 11.2 million metric tons of South Korea’s steel exports consisted of flat products. Long products accounted for 12 percent, or 1.8 million metric tons, followed by pipe and tube products at 6 percent (884 thousand metric tons), stainless products at 5 percent (778 thousand metric tons), and semi-finished steel at 1 percent (201 thousand metric tons).
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Exports by Top Market
Exports to South Korea’s top 10 steel markets represented 75 percent of South Korea’s steel export volume in YTD 2019 at 11.1 million metric tons (mmt). Japan was the largest market for South Korea’s exports, capturing a 13 percent share (1.9 mmt), followed by China at 12 percent (1.8 mmt), India at 11 percent (1.7 mmt), the U.S. at 8 percent (1.2 mmt), Mexico at 7 percent (1.1 mmt), Thailand at 7 percent (1.0 mmt), and Vietnam at 6 percent (932 thousand metric tons) in YTD 2019.

Trends in Exports to Top Markets
The volume of South Korea’s steel exports increased to 7 of its top 10 markets in YTD 2019. Among the top markets, South Korea’s exports increased the most by volume to Thailand (14%), Mexico (12%), India and Malaysia (both 7%), Vietnam (6%), Japan (5%), and Indonesia (4%). South Korea’s exports decreased the most by volume to the United States (-14%), China (-6%), and Italy (-5%).

The value of South Korea’s steel exports increased to all but 4 of South Korea’s top 10 export markets between YTD 2018 and YTD 2019. They increased most to Mexico (9%), India, Vietnam, Indonesia (all 4%), Thailand (3%), and Japan (2%). South Korea’s exports decreased in value to Italy and China (both -12%), and the United States (-10%). Korean exports to Malaysia were essentially flat (down less than 1 percent).

Outside the top 10 markets, other notable changes in South Korea’s YTD 2019 export volume included exports to 11th-ranked Turkey (-26%), 20th-ranked Bangladesh (42%), 22nd-ranked Philippines (-45%), 26th-ranked Sweden (74%), and 31st-ranked Iraq (2,082%).
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Top Markets by Steel Product Category

South Korea’s top export markets by volume vary across types of steel products. China accounted for the largest share of South Korea’s exports of flat products at 14 percent (1.6 million metric tons), followed closely by India and Japan, both at 13 percent (1.5 million metric tons each).

Japan was the largest destination for South Korea’s long product exports at 12 percent (212 thousand metric tons), followed by Vietnam at 11 percent (185 thousand metric tons). Japan also received the most exports of South Korea’s semi-finished products at 50 percent (100 thousand metric tons). Vietnam received the largest share of South Korea’s stainless exports at 15% (117 thousand metric tons), followed closely by Turkey at 13% (98 thousand metric tons), and Thailand at 12% (92 thousand metric tons).

The United States accounted for the largest share of South Korea’s pipe and tube exports at 49 percent (429 thousand metric tons), while Canada received the second largest share at 8 percent (67 thousand metric tons).

Korea's Top 5 Export Markets by Product - YTD 2019

Source: U.S. Department of Commerce - IHS Markit Global Trade Atlas

[Bar chart showing the top 5 export markets by product category for South Korea in YTD 2019]
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**South Korea’s Import Market Share in Top Destinations**

In 2018, the import market share for South Korea’s steel products decreased in 6 of its top export destinations. The share of China’s imports from South Korea decreased the most (down 3.3 percentage points), followed by Indonesia (down 2.7 percentage points) Japan (down 2.4 percentage points) and the United States (down 1.7 percentage points). Thailand and Malaysia’s share of imports decreased by less than 1.0 percentage points.

Countries with notable increases in their share of steel imports from South Korea included India (up 3.7 percentage points from 2016), Mexico (up 0.5 percentage points), and Italy (up 0.2 percentage points).

Among South Korea’s top export markets, Japan, China, and India received more than 25 percent of their total steel imports from South Korea. In 2018, flat products overwhelmingly accounted for the largest share of steel imports from South Korea in each country. In Japan, flat products accounted for 73% (2.7 mmt) of steel mill products from South Korea, flat products from South Korea amounted to 86% (3.3 mmt) of imports in China, and 89% (2.7 mmt) in India.

### South Korea's Steel Import Market Share

<table>
<thead>
<tr>
<th>Top 10 Export Markets</th>
<th>Share of Imports from South Korea - 2017</th>
<th>Share of South Korea’s Rank in 2017</th>
<th>Share of Imports from South Korea - 2018</th>
<th>Share of South Korea’s Rank in 2018</th>
<th>Change in Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>30.4%</td>
<td>2</td>
<td>27.1%</td>
<td>2</td>
<td>-3.3%</td>
</tr>
<tr>
<td>Japan</td>
<td>64.6%</td>
<td>1</td>
<td>62.2%</td>
<td>1</td>
<td>-2.4%</td>
</tr>
<tr>
<td>India</td>
<td>29.7%</td>
<td>1</td>
<td>33.4%</td>
<td>1</td>
<td>-6.3%</td>
</tr>
<tr>
<td>United States</td>
<td>9.9%</td>
<td>3</td>
<td>8.1%</td>
<td>4</td>
<td>-1.8%</td>
</tr>
<tr>
<td>Mexico</td>
<td>13.7%</td>
<td>3</td>
<td>14.2%</td>
<td>3</td>
<td>0.5%</td>
</tr>
<tr>
<td>Thailand</td>
<td>12.2%</td>
<td>3</td>
<td>11.8%</td>
<td>3</td>
<td>-0.4%</td>
</tr>
<tr>
<td>Vietnam*</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Indonesia</td>
<td>12.2%</td>
<td>3</td>
<td>9.5%</td>
<td>3</td>
<td>-2.7%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>11.9%</td>
<td>4</td>
<td>11.9%</td>
<td>4</td>
<td>0.0%</td>
</tr>
<tr>
<td>Italy</td>
<td>4.2%</td>
<td>9</td>
<td>4.4%</td>
<td>8</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

*Data for Vietnam unavailable*

Source: IHS Markit Global Trade Atlas, based on import data per reporting country

**Steel Import Composition of Top Market-Share Countries-2018**

Source: IHS Markit Global Trade Atlas, based on import data per reporting country
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### Overall Production and Export Share of Production

Between 2009 and 2012, South Korea’s crude steel production grew by 42 percent. Since then, production has fluctuated, but averaged about 68.4 million metric tons per year through 2018. In YTD 2019, production totaled 36.5 million metric tons, up 1 percent from 36.1 million metric tons in YTD 2018. Apparent consumption (a measure of steel demand) went from being in balance with production in 2009 and 2010 to falling behind production in 2011. In YTD 2019, apparent consumption increased to 30.4 million metric tons, up from 28.4 million metric tons in YTD 2018. The gap between production and apparent consumption reached its widest point in 2018 when it grew to 15.0 million metric tons. In YTD 2019 the gap between demand and production decreased to 6.1 million metric tons, down from 7.7 million metric tons in YTD 2018. Exports as a share of production gradually increased from 41.2 percent in 2009 to peak of 44.3 percent in 2015 before declining for 3 consecutive years. In YTD 2019, exports as a share of production fell to 40.7%, down from 42.4% in YTD 2018.

### Top Producers

South Korea’s steel production is concentrated among a small number of companies, with the country’s top 3 producers accounting for 68.51 million metric tons, or 94 percent, of total 2018 production, based on available data.

#### South Korea's Top Steel Producers in 2018

<table>
<thead>
<tr>
<th>Rank</th>
<th>Company</th>
<th>Production (mmt)</th>
<th>Main Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Posco</td>
<td>42.86</td>
<td>Billets, tubes, pipes, bars, plates</td>
</tr>
<tr>
<td>2</td>
<td>Hyundai Steel Company</td>
<td>21.88</td>
<td>Plates, sheets, wire rod, bars, sections</td>
</tr>
<tr>
<td>3</td>
<td>Dongkuk Steel Mill Co, Ltd</td>
<td>3.77</td>
<td>Rebar, wire rod, slabs, coils</td>
</tr>
</tbody>
</table>

*Source: World Steel Association; Hoover’s; Bloomberg; Company websites*
Trade Remedies in the Steel Sector

Antidumping duties (AD), countervailing duties (CVD), associated suspension agreements, and safeguards are often referred to collectively as trade remedies. These are internationally agreed upon mechanisms to address the market-distorting effects of unfair trade, or serious injury or threat of serious injury caused by a surge in imports. Unlike anti-dumping and countervailing measures, safeguards do not require a finding of an “unfair” practice. Before applying these duties or measures, countries investigate allegations and can remedy or provide relief for the injury caused to a domestic industry. The tables below provide statistics on the current number of trade remedies various countries have against steel mill products from South Korea.

Steel Trade Remedies in Effect Against Korea

![Steel Trade Remedies in Effect Against Korea chart]

Source: World Trade Organization, through June, 2019

Global Steel Mill Safeguards in Effect

<table>
<thead>
<tr>
<th>Country</th>
<th>Product(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>Certain steel products</td>
</tr>
<tr>
<td>EU</td>
<td>Steel Products</td>
</tr>
<tr>
<td>Gulf Cooperation</td>
<td>Flat-rolled steel</td>
</tr>
<tr>
<td>Council</td>
<td>I and H sections of other alloy steel</td>
</tr>
<tr>
<td>Indonesia</td>
<td>1) Steel concrete reinforcing bar; 2) Steel wire rod and deformed bar-in-coil</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1) Cold-rolled sheets and plated or coated sheets; 2) Reinforcing bars and wire rods</td>
</tr>
<tr>
<td>Morocco</td>
<td>Hot-Rolled steel flat products</td>
</tr>
<tr>
<td>South Africa</td>
<td>Unalloyed hot-rolled steel flat products in coils and not in coils;</td>
</tr>
<tr>
<td>Thailand</td>
<td>1) Semi-finished and certain finished products of alloy and non-alloy steel;</td>
</tr>
<tr>
<td>Vietnam</td>
<td>2) pre-painted</td>
</tr>
</tbody>
</table>

Source: World Trade Organization, through June, 2019
Steel Exports Report: Glossary

**Apparent Consumption:** Domestic crude steel production plus steel imports minus steel exports. Shipment data are not available for all countries, therefore crude steel production is used as a proxy.

**Export Market:** Destination of a country’s exports.

**Flat Products:** Produced by rolling semi-finished steel through varying sets of rolls. Includes sheets, strips, and plates. Used most often in the automotive, tubing, appliance, and machinery manufacturing sectors.

**Import Penetration:** Ratio of imports to apparent consumption.

**Import Source:** Source of a country’s imports.

**Long Products:** Steel products that fall outside the flat products category. Includes bars, rails, rods, and beams. Used in many sectors but most commonly in construction.

**Pipe and Tube Products:** Either seamless or welded pipe and tube products. Used in many sectors but most commonly in construction and energy sectors.

**Semi-finished Products:** The initial, intermediate solid forms of molten steel, to be re-heated and further forged, rolled, shaped, or otherwise worked into finished steel products. Includes blooms, billets, slabs, ingots, and steel for castings.

**Stainless Products:** Steel products containing at minimum 10.5% chromium (Cr) offering better corrosion resistance than regular steel.

**Steel Mill Products:** Carbon, alloy, or stainless steel produced by either a basic oxygen furnace or an electric arc furnace. Includes semi-finished steel products and finished steel products. For trade data purposes, steel mill products are defined at the Harmonized System (HS) 6-digit level as: 720610 through 721650, 721699 through 730110, 730210, 730240 through 730290, and 730410 through 730690. The following discontinued HS codes have been included for purposes of reporting historical data (prior to 2007): 722520, 722693, 722694, 722910, 730410, 730421, 730610, 730620, and 730660.

**Global Steel Trade Monitor:** The monitor provides global import and export trends for the top countries trading in steel products. The current reports expand upon the early release information already provided by the Steel Import Monitoring and Analysis (SIMA) system that collects and publishes data on U.S. imports of steel mill products. Complementing the SIMA data, these reports provide objective and current global steel industry information about the top countries that play an essential role in the global steel trade. Information in these reports includes global exports and import trends, production and consumption data and, where available, information regarding trade remedy actions taken on steel products. The reports will be updated quarterly.

**Steel Import Monitoring and Analysis (SIMA) System:** The Department of Commerce uses a steel import licensing program to collect and publish aggregate data on near real-time steel mill imports into the United States. SIMA incorporates information collected from steel license applications with publicly released data from the U.S. Census Bureau. By design, this information provides stakeholders with valuable information on the steel trade with the United States. For more information about SIMA, please go to http://enforcement.trade.gov/steel/license/.