The Global Iron Ore Market Has a Junk Problem

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- Mainland cleanup adds momentum to greater use of steel scrap
- Scrap's share of steel production seen climbing to 30% by 2025

The global iron ore market's junk problem just got worse. China's push to clamp down on pollution is giving extra impetus to the use of scrap in steel-making, strengthening a long-term trend that sees mills in the top producer progressively favor recycling over the raw material.

With tighter emission limits, improved furnace technology and output curbs, mills are using more scrap than ever before, according to Goh Kian Guan, chief investment officer at recycler Chiho Environmental Group Ltd. If a steelmaker is causing too much pollution, "there'll be a chance they will be shut down, or asked to reduce production," Goh said in an interview from Shanghai.

While China is the world's top iron ore importer, taking cargoes from Australia and Brazil, mills in the country have been steadily raising the amount of scrap they use as the nation's stock of junk increases, with more buildings torn down and appliances jettisoned. That drawn-out shift matches a pattern seen in more developed economies. But on top of the long-term trend, policy makers in Beijing have embarked on a great clean-up, especially targeting air pollution, and encouraging expanded use of scrap dovetails with that initiative.

"They are very careful," Chiho's Goh said, referring to mainland mills. "They play by the book and try to comply." And as steelmakers outside China are also using more scrap to avoid carbon taxes, he expects the global market will tip to use more scrap, instead of iron ore, in 2020.

Bureau's Outlook

China's environmental policy has helped to boost scrap usage, according to the Bureau of International Recycling, a Brussels-based federation than groups private sector companies and 36 national associations. Most blast furnaces have increased scrap input, and many electric arc furnaces, which process scrap into steel, are being installed, the bureau said in an email.

Recycled steel scrap generated 19.5 percent of crude steel output in the first half, up 4.6 percentage points from a year earlier, Li Shubin, secretary-general of China Association of Metal Scrap Utilization, said last month. In

the period, scrap used for steel production rose 41 percent to 87.7 million tons, Li said.

As mills target greater scrap consumption, prices have surged. So far this year, heavy steel scrap has averaged 2,530 yuan ($363) a metric ton in the steel-making hub of Tangshan, according to Shanghai Steelhome E-Commerce Co. That compares with 1,935 yuan last year and 1,458 yuan in 2016.

Solid Waste

Scrap usage reduces the use of coal and iron ore, and cuts emissions and output of solid waste, according to the China association. Using scrap instead of iron ore can also remove the need for sintering -- the polluting process by which grainy fines are stuck together for use in furnaces. By 2025, the association aims for scrap to account for 30 percent of steel production.

Steel product prices have rallied too -- with spot rebar in China heading for a seventh monthly gain in October -- as the anti-pollution drive restrains industrial activity, crimping supply. That's aiding mills' profitability and incentivizing steelmakers to beef up the proportion of scrap used in blast furnaces to buttress productivity. In addition to using iron-rich ores, operators have been raising the portion of scrap in their feed-stock to as much as 30 percent from about 10 percent, according to Goldman Sachs Group Inc.

China imports more than 1 billion tons of iron ore a year from miners including Rio Tinto Group and BHP Billiton Ltd. The flows supplement

local output, which has dropped as miners also face disruption from the environmental push. Australia's government expects imports to shrink 1.5 percent next year and 2.1 percent in 2020 as China's steel production peaks and scrap use rises.

Scrap usage may displace 200 million tons of annual iron ore consumption by 2030, according to Ian Roper, head of international business at Shanghai Metals Market. It is only a matter of time before China parallels most developed economies, where at least 40 percent of steel is made from scrap, he said.

"That's what I like to joke as the rusty nail in the coffin for the iron ore industry," Roper said, adding that life cycles of infrastructure in China are getting shorter. "Given that the scrap is local, and that iron ore is imported, we think that the government is going to push for scrap consumption."

China's aims for scrap usage could have an "enormous" impact, according to Kallanish Commodities Ltd. analyst Tomas Gutierrez, who forecasts demand for iron ore may fall by up to 20 percent by 2025. "And when something enormous happens in China, the repercussions tend to be felt around the world."

(Updates steel price averages in seventh paragraph.)