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METALS AND MINING: OUT OF THE DARK AND INTO THE LIGHT?
From a pricing and profitability perspective of many metals markets players, last year was one to forget. It was tough. Oversupply of most every metal and soft demand compressed margins and deflated sentiment around the globe, with the epicenter being a gloomier-than-ever China.

And there was also a hangover effect into 2016. In late-December and early-January – when we start planning this edition of Platts Insight for the Global Metals Awards – the outlook was bleak. Chinese consumption of metals and raw materials was struggling and other global markets were static at best.

But as this is being written, many key prices have charted impressive gains that were unforeseen by most forecasters. Maybe, just maybe, the metals sectors are tunneling their way out of the dark.

Consider:
- Iron ore closed April 26 at $61.65/dry metric ton – up 44% from January 4, 2016’s price of $42.70/dmt, according to Platts IODEX 62% Fe assessment.
- Steel rebar exported from China surged 72% to $426.50/mt FOB on April 26, after starting the year at $246.50/mt FOB.
- Some base metals pricing, like aluminum and copper on the LME, were also up 11% and 6%, respectively, over the same period.
- Steel hot-rolled coil in the US market jumped to $520/short ton ex-works Indiana, up more than 34% from the Platts January 4 assessment of $387.50/st.
- Ferrous scrap in the US was up more than 47% over the same time frame to $272.50/mt for shredded material, delivered to mills in the US Midwest, from $185/mt on January 4.

Price upswings can be contagious, spreading to other commodities. They can also buoy confidence and help markets continue to rise.

Whether or not these are bona fide, sustained pricing rallies remains to be seen. But they have been somewhat surprising.

What’s not surprising is that the metals space is still home to many resplendent achievements, in good times and in bad, and Platts is proud to honor many of them once again at its Global Metals Awards.
A visionary and an accomplished leader, Mr. Sajjan Jindal has played a significant role in transforming lives of many across the country. Awarded with several accolades, he is a force to reckon with in the steel industry. He has also successfully diversified in related sectors like Energy, Cement and Infrastructure.

Mr. Sajjan Jindal
Chairman & Managing Director - JSW Steel
HAS IRON ORE REACHED AN END GAME?

An industry hunkers down.

Australia’s flagship annual iron ore conference held in Perth in March made for a sorry spectacle. A few years ago, some 500 delegates would routinely gather to hear the great and good of the iron ore industry; but this year there were barely 120 attendees hunkered together in a gloomy function room. The excessive air conditioning seemed to reflect the chill that has passed through the industry over the past couple of years.

Even the record $10.70/dry metric ton one-day price increase (taking 62% Fe prices back above $60/mt CFR) that occurred on the eve of the conference (March 7) failed to inspire much confidence that the gain was anything more than a short-term, sentiment-driven rally.

Presentations from senior mining executives at Rio Tinto and BHP Billiton were sober, measured, and focused more on safety and operational issues than on China’s insatiable demand for their iron ore – as had been the key message in previous years. Indeed, the two large mining companies have tip-toed away from their long-held prediction that China’s crude steel production will peak at around 1 billion mt by 2025-2030. BHP now expects China to reach steel production of 935 million-985 million mt by mid-next decade.

At the Perth event, Li Xinchuang, deputy-secretary general of the China Iron & Steel Association, highlighted just how wide of the mark those forecasts may prove to be. Li, who has been integral to China’s steel industry planning for some 32 years, said the country’s steel consumption peaked in
2014 at 702 million mt and would decline to 552 million mt in 2025; and to 492 million mt by 2030 as the country’s economy becomes less steel-intensive.

“So our forecast is very different to the big mining companies,” Li said. Further, he said the proportion of steel made by electric arc furnaces would increase gradually, which would reduce demand for iron ore and coking coal.

But not everyone believes China’s steel production and demand have already peaked. CRU senior consultant for iron ore, Adrian Doyle, said the consultancy “still believes there is a strong long-term demand story for steel in China.”

“More people are moving to cities, and while there may be at least a couple of years of pain while property inventory runs down, things will pick up again,” he said.

UK-based steel industry veteran Rod Beddows is another who thinks there is plenty of life left in the global steel industry. He predicts a large portion of Chinese housing stock will need to be replaced by steel-intensive high rise apartment blocks over coming years, while another 300 million people will move to cities and become larger consumers of cars and appliances. Beddows’ view is in line with the iron ore majors, tipping Chinese steel demand to peak at 950 million-1 billion mt over 2030-2035.

This will spur strong demand for iron ore but prices will need to rise from current low levels in order to incentivize new projects or expansion programs. At the moment, appetite for such investment does not seem forthcoming and mining companies have been slashing capex and other costs. In the US, mining and exploration investment fell 35% in 2015 to $87.7 billion, according to the US Bureau of Economic Analysis. In Australia, BIS Shrapnel sees mining investment falling 58% over the next three years. This means that if iron ore demand picks up strongly again in future years, there may be another delay to the supply response. It could also be argued, though, that there will be plenty of mothballed iron ore capacity around the globe that could be switched back on, meaning no new projects would be required.

Cliffs Natural Resources president and CEO, Lourenco Goncalves, said his company had closed two of its five iron ore mines in the US to align output with domestic demand for pellets. More recently, Cliffs said that it will be restarting iron ore pellet production at its Northshore Mining operation in Minnesota by May 15, 2016 – a move, Cliffs explained, is based on its domestic customers’ demand for iron ore pellets.

Still, Goncalves has been an outspoken critic of the major iron ore companies’ expansion strategies, accusing them of flooding the market and pushing down iron ore and steel prices across the globe.

While some, such as Goncalves, argue that too much supply is the major reason why iron ore prices have slumped – Vale, Rio, BHP and Fortescue Metals Group can now supply all of China’s iron ore import requirements by themselves – others say the extent of China’s economic slowdown and subsequent weaker demand for steel and iron ore came as a big shock. The answer is probably down to a combination of both factors.

CAPEX CUTS

Rio and BHP would argue they have not signed on significant new capital investment in iron ore for several years and their expansion programs have been a decade in the

<table>
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<tr>
<th>CHINA STEEL OUTPUT AND IRON ORE DEMAND FORECAST (million mt)</th>
<th>2014</th>
<th>2015</th>
<th>2016 forecast</th>
<th>% change</th>
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<tr>
<td>Chinese blast furnace production (pig iron)</td>
<td>716.5</td>
<td>691.4</td>
<td>670</td>
<td>-3</td>
</tr>
<tr>
<td>Total crude steel production</td>
<td>822.7</td>
<td>803.8</td>
<td>783.7</td>
<td>-2.5</td>
</tr>
<tr>
<td>% of BF production</td>
<td>87</td>
<td>86</td>
<td>86</td>
<td>-1</td>
</tr>
<tr>
<td>Iron ore imports</td>
<td>933.1</td>
<td>953.3</td>
<td>970</td>
<td>2</td>
</tr>
<tr>
<td>Ratio of imports v domestic output</td>
<td>82-18</td>
<td>87-13</td>
<td>90-10</td>
<td>3.5</td>
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Source: World Steel Association, China Customs, Platts

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<tr>
<td>Australia</td>
<td>417.1</td>
<td>548.4</td>
<td>607.6</td>
<td>59.2</td>
<td>11</td>
</tr>
<tr>
<td>Brazil</td>
<td>155.3</td>
<td>171</td>
<td>191.7</td>
<td>20.7</td>
<td>12</td>
</tr>
<tr>
<td>South Africa</td>
<td>42.9</td>
<td>43.6</td>
<td>45.3</td>
<td>1.7</td>
<td>4</td>
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<tr>
<td>Ukraine</td>
<td>15.6</td>
<td>18.5</td>
<td>20.2</td>
<td>1.7</td>
<td>9</td>
</tr>
<tr>
<td>Other</td>
<td>189.4</td>
<td>151.6</td>
<td>88.5</td>
<td>-63.1</td>
<td>-42</td>
</tr>
<tr>
<td>Total</td>
<td>820.3</td>
<td>933.1</td>
<td>953.3</td>
<td>20.2</td>
<td>2.2</td>
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Source: China Customs, GTIS, Platts
making. Both are approaching the end of their Western Australian capacity expansions, and together will likely add another 20 million mt/year of capacity in 2016. Rio is expected to invest $1 billion in its Silvergrass mine in the Pilbara region of Western Australia, but this is to maintain the quality of its Pilbara Blend product rather than to add new capacity.

Fortescue will continue to produce at a run-rate of 165 million mt/year for the foreseeable future. Despite historically high iron ore prices over much of the previous decade that incentivized a plethora of new projects, only Fortescue grew large enough to shake up the oligopoly. Many smaller iron ore companies globally have switched off production, unable to compete in a low-price environment.

Most new Australian tons will come from the $7 billion Roy Hill project – the last decent greenfield iron ore project in Western Australia – which expects to be producing at full annualized capacity of 55 million mt/year by the end of 2016. The company will sell at least 50% of its production to its joint venture partners Posco, China Steel Corp and Marubeni Corp.

Neil Bristow, a former senior BHP Billiton research executive and head of H&W Worldwide Consulting, believes Australian iron ore production capacity could be further expanded for little additional investment.

“The Australian iron ore industry invested a huge amount of money on their expansions; the facilities were lazy and over-capitalized but now they’re getting the efficiencies and a lot more volume. I think that’s one of the reasons for some of the oversupply, because you’ve got a lot of additional capacity from spending very little,” Bristow said.

Looking further ahead, the supply story is set to shift from Australia to Brazil. Vale’s 90 million mt/year capacity Serra Sul (S11D) project in the Carajás mining district of Brazil, will start exporting extremely low-cost but high quality tons from the end of 2016, helped by low freight rates, and a transshipment and blending facility off Malaysia.

MARKET SHARE BATTLE
With more iron ore supply on its way over the next few years – albeit set by some higher cost tons exiting the seaborne market – the battle for market share in a slowing China will become even more competitive. Iron ore demand in Japan, South Korea and Taiwan – along with most other developed countries – will remain fairly flat.

India was described by one of the major miners as a “crucial market” and the country caused some excitement in late 2014 when it began to lift imports, mainly from Brazil and South Africa, attracted by low seaborne prices. India imported 10.6 million mt in 2015, up 43% on 7.4 million mt a year earlier. While the volume was negligible compared to the 953.4 million mt China imported in 2015, it offered some hope of a growing market. India plans to treble steel production capacity to 300 million mt/year by the end of next decade but the country needs to overcome many perennial hurdles – lack of access to land, terrible infrastructure and excessive red tape – if it is to meet such an ambitious target. Major iron ore producers should probably not get their hopes up that India will one day take over from a slowing China. The country also has its own iron ore production and could be about to export low grade ore from Goa once more.

Beyond India, the miners are eyeing Southeast Asia. But the region is primarily an EAF environment, though two large integrated steelworks – Krakatau-Posco and Formosa Groups’ Ha Tinh works – have been built in Indonesia and Vietnam, respectively, in the past two years.

Africa was widely viewed as the next great frontier for iron ore supply and could one day be a major consumer of the steelmaking raw material. But that day is probably a very long way away, and much of the continent’s demand for steel as it urbanizes could be met by imports from China and other countries.

Rio believed there would be enough Chinese demand for iron ore to justify its Pilbara expansion and the development of its majority-owned Simandou project in Guinea, which requires ambitious new port and rail facilities. In February, Rio booked a $1.1 billion non-cash impairment charge against Simandou due to uncertainties in financing the infrastructure, along with volatility in iron ore prices. Most analysts see Simandou as an important long-term asset for Rio as grades start to deplete in Australia.

Much like the smaller Perth iron ore conference, the industry is, in effect, hunkered down in a darkened room, keeping an eye on its smartphone for any beneficial price movements, rather than on the vast horizons of Africa. That’s for another day.
INSIDE IRAN’S IRON AND STEELMAKING

Before visiting Iran in February, I believed the country’s plan to more than double steelmaking capacity to 55 million metric tons by 2025 – from 22.5 million mt at present – was government propaganda or similar. Once there, after visiting installations and speaking to steelmakers and plantmakers enthused by January’s lifting of economic sanctions, I discovered that a major flurry of expansion activity – which could make Iran one of the world’s top ten steelmaking nations – is already underway, despite global steel overcapacity.

The goal is lofty and has its critics; deadlines may be pushed back, and the expansion may be dependent on a substantial injection of foreign investment. Mostafa Moazenzadeh, advisor to Iran’s first vice-president, said on the sidelines of February’s Sixth Iranian Steel Markets conference in Tehran that some $25 billion would need to be spent on plant and infrastructure, and this was likely to come “50-60% from abroad.” Negotiations on stake sales in major companies including Esfahan Steel Co (ESCO) are already underway with European private equity funds. An investor with a UK rolling mill is expected to buy equity in Mobarakeh Steel Company (MSC)’s slabmaking subsidiary Hormozgan Steel (Hosco) in the near future.

Domestic and world demand patterns may also dictate the pace at which the expansion program – part of a 20-year economic development plan for the country – proceeds. This may be fulfilled only if Iran is able to lift its steel exports to some 18 million mt/year, compared with the 3.88 million mt it exported in the last Iranian year (ending March 20), and of course, assuming recent high levels of cheap imports from China don’t get in the way.

Still, industry sources expect an Iranian expansion of 20 million mt in Post-sanctions, Iran plans a major capacity boost. But is the timing right?
the foreseeable future. Among projects underway, Platts counted nearly 12 million mt of steelmaking capacity expansion, including furnace revamps. Of this, 5.25 million mt/year is at the Middle East’s biggest steelmaker, flat products producer Mobarakeh Steel Company (MSC) and its subsidiaries; 1.2 million mt/year at long products producer ESCO, which has just installed the Middle East’s first rail rolling mill; 3.6 million mt at Phase 1 and 2 of South Kaveh Steel (SKS) and Phase 1 of Arvand Jahanara Steel Co (AJS), supplied by Spanish plantmaker Sarralle; 700,000 mt at Iran Alloy Steel Co (IASCO), also supplied by Sarralle and 1.2 million mt at Makran Steel. In feasibility studies, meanwhile, are a further 2.4 million mt capacity at Esco, which is seeking to raise $1 billion for this expansion via blast furnace optimization, while second phases are planned at AJS and IASCO. Other capacities are planned by South Korea’s Posco (the $1.5 billion 1.6 mt/year PKP Integrated Steel Project, in pre-feasibility study), and Russian investors including pipemaker TMK, which is reportedly seeking to invest in steel pipe production for the expected rise in investments in Iran’s oil fields.

Two mega-projects, backed in part by state-owned enterprises, are under initial study for the free trade zones being created on the south coast: Variant I & II – with projected crude steel capacity of 10 million mt/year, and which would produce 500,000 mt/year of seamless pipe, 4 million mt/year of hot-rolled strip and 2.5 million mt/year of long products – and DRI-based Qeshm Steel Co with slabmaking capacity of 3.3 million mt/year. Germany’s SMS reports it is bidding to supply equipment to a seamless pipemaking project “in its very early stages.”

The free trade zones are planned near the offshore South Pars natural gas field which holds around half of Iran’s massive 34.02 trillion cubic meter natural gas reserves, expected to form the backbone of the country’s post-sanctions development plan. The government is reviving stalled natural gas pipeline projects to increase the country’s export capability. As a first step a pipeline will be built between Iran and Sohar port in Oman by a South Korean contractor. There are plans to extend a pipeline network to Kuwait, Iraq, Syria and on to Europe, as well as to Pakistan and India if political hurdles can be overcome.

The planned modernization of Iran’s oil refineries and new petrochemicals installations will also require steel. Iranian steelmakers recently started to produce the kind of steel required by these sectors: however, demand is expected to exceed domestic production capabilities.

The Swift interbank communications system has now been re-established with Iran and international banks are due to reenter Iran, although some may have limitations due to links in the US. The ability to raise financing internationally will be a major boon to Iranian companies plagued by local interest rates. Still, domestic base interest rates have been cut to 18% from 22% in the pre-sanctions period, lowering the cost of local borrowing and are set to fall to 16% in the near future. The government has also facilitated loan terms for would-be house buyers, to help boost construction industry demand.

SMS and Italy’s Danieli are this year both setting up Iranian service and parts-manufacturing facilities, to satisfy demand for local content in the planned modernization of Iran’s oil refineries and new petrochemicals installations will also require steel.

**PLANTMAKERS LEAPING TO THE BAIT**

European plantmakers are indeed jumping at the opportunities in what may be the world’s last untapped emerging market.

“Iran is one of the few (countries) offering new greenfield (project) possibilities,” along with India and Russia, Burkhard Dahmen, president and CEO of SMS Group said in an interview in Tehran. Elsewhere, opportunities are mainly on a spot basis due to steel overcapacity, Dahmen said. Still, Iran’s relative lack of infrastructure in some areas, including in rail transport, are seen slowing the target to reach 55 million mt/year capacity.

“There were (also) a lot of opportunities before. What’s different [now] is financing becoming available...SMS already had the confidence but not the financing,” he added.

The planned modernization of Iran’s oil refineries and new petrochemicals installations will also require steel.
equipment supplies, and to prepare for what some expect to be an onslaught of demand in construction and steel – demand that has been repressed during more than a decade of economic sanctions imposed principally as a result of Iran’s nuclear program. Sarralle Group already has a four-year old manufacturing joint venture in Iran. France’s Fives – which has been selling equipment to the country’s cement industry for 60 years – is also shoring up its presence.

“I see a sharp demand increase in the local market...there is repressed demand for investment in Iran,” said Bahram Sobhani, CEO of steelmaker MSC and chairman of Iran’s Steel Manufacturers’ Association in Esfahan.

Iran’s domestic steel market demand – currently put at some 16 million mt/year – “could jump 30% because of [the emergence of] new steel-using projects from mid-2016,” before settling at a higher level, Sobhani said, noting that per capita consumption of steel is currently 220 kilograms per year but in 10 years’ time should reach 350 kg/year, while the population is also set to grow by around 10 million people to 85 million.

In addition to its $50 million plant-making investment, Danieli is displaying confidence with its announcement of a planned investment of as much as $5.7 billion in the Iranian steel and metals industry, including its new Persian Metallics venture, still at the agreement stage, but which could result in an iron ore mining complex with capacity for 3 million mt/year of direct-reduced iron and 6.5 million mt/year iron ore pelletizing, with the possibility of doubling in a second phase.

The Chinese and Turks have meanwhile been steadfast – and competing – partners in the supply of steelmaking technology and equipment to Iranian steelmakers throughout the sanctions period. China’s Sinosteel and Xian are plant suppliers and Turkey late last year organized a first steel sector delegation to Iran, eyeing trade collaborations and co-investments. India’s KIOCL is reportedly considering setting up a new iron ore pellet plant in the country.

SANCTIONS – NOT ALL LIFTED

Most sanctions have now been lifted following confirmation by the International Atomic Energy Authority that Iran has fulfilled commitments under a July 2015 nuclear dismantling accord with China, France, Germany, Russia, the UK and US, reconnecting Tehran to international capital markets.

The United States, however, still has sanctions on Iran for allegedly supporting terrorism and human rights abuses, which prohibit most of its commercial ties with the country. “The US is allowing trade only in Persian rugs and commercial airplanes,” The New York Times stated in a recent report.

In addition to aiding steelmakers gain cheaper financing, the lifting of sanctions makes it easier for buyers abroad to pay for Iranian steel and minerals products. Chinese buyers no longer need to rush to their ports with suitcases of cash to pick up cargoes of Iranian iron ore. Iranian steel has become better known on international markets because the country may now export semi-finished products to the European Union. Esco plans to double its exports this year to 1 million mt, representing around one third of its output, but aims to export beam and rebar, for which southern European, CIS and Middle East demand seems good, phasing out lower-value billet exports. Flat-products maker MSC plans to export 30% of its output, or 1.6 million mt/year.

A BASTION OF STABILITY

While statistics still may not be entirely transparent, Iran has recently been a bastion of stability compared with much of the Middle East. The International Monetary Fund now
projects Iran’s economy will grow 5.5% in 2016 and in 2017, while Iranian institutions predict between 2.9% and 6%. Due to the lifting of sanctions, Iran is to gain access to some $50 billion of cash frozen in overseas accounts, according to US Treasury estimates cited in news agency reports. Inflation is still relatively high at 12-13% annually while unemployment is at 10-11%, economists told Platts.

**DRI – THE PREFERRED STEELMAKING ROUTE**

The main steelmaking route in Iran will continue to be DRI and EAF-based due mainly to the country’s massive natural gas reserves – classed as the world’s second-largest – and its deficiency in coal. More than 83% of crude steel output is currently DRI-based.

DRI technologist Iritec, which operates under license from Kobe Steel, supplying Midrex plants, is currently working on no fewer than 9.1 million mt of new DRI capacity projects in Iran. Iron ore mining and pelletizing expansions are also continuing apace: the aim is to achieve self-sufficiency in iron ore pellets, and eventually export. According to Imidro, the state-run Iranian Mines and Mining Industries Development and Renovation Organization, Iranian iron ore pelletizing capacity should reach as much as 40.2 million mt/year by 2017, from the current 22.1 million mt/year, with expansions underway at mines including Gol-e-Gohar and Sangan.

Rolling mill expansions are also underway, as well as thin slab-casting and hot- or direct-charging, as works endeavor to improve quality, including for the automotive industry as it strives to meet international standards needed to enable vehicle exports.

“Iran is competitive on price and quality on construction material, including hot and cold band,” SMS’ Dahmen said. “However, they need to widen the product range and substitute imports, for instance in ultra-high-strength steel, and they need new equipment to produce this. Stainless steel is also a topic for Iran,” he said.

Indeed, MSC and Esco plan to start production of special and stainless steel grades this year in a move to keep imports at bay. Iran currently imports some 25,000 mt/year of stainless steel products. Alloy steels are now produced by the Iran Alloy Steel Company (IASCO), with a capacity of around 350,000 mt/year.

Some observers feel that growing imports of Chinese steel could threaten progress on the capacity expansion plan. The government has responded to the threat by slapping a hefty increase of between 5% and 16% in steel import duties on most products, including semi-finished, long and flat products and pipes, from the start of the new Iranian year on March 21. This brings import tariffs on most long products to as much as 26% and to 20% for most flat products: however steelmakers continue to press for import duties of around 30% for flat products imports. Still, the Iranian syndicate of steel pipe and profile manufacturers is strongly contesting the import duties now in place on flat products under 3mm thick, since domestic production of these products is insufficient to meet demand.

“The raising of steel import tariffs is necessary for the survival of the Iranian steel industry,” said Mehdi Karbasian, deputy minister and chairman of Imidro, on the sidelines of the Sixth Iranian Steel Markets Conference in Tehran. He noted that in terms of trade “Iran is sandwiched between China and Russia,” major exporters of competitively-priced steel, and local producers are finding it difficult to compete with imports which have risen to more than 4 million mt/year, including finished products, semis and scrap, with around 60% originating from China. Last year Iran’s own crude steel production actually dipped to 16.11 million mt, from 16.33 million mt in 2014, according to World Steel Association figures.

“Iranians are suffering from Chinese low-priced competition,” said Peter Marcus, of World Steel Dynamics, at the event. “They need import protection or will get destroyed.”

– With the collaboration of Reza Zoer
RUSSIAN STEEL BUCKS INDUSTRY’S 2015 TREND

Despite weak global steel demand, persistent overcapacity, augmentation of trade barriers internationally and an economic slump in Russia, most Russian steelmakers reaped healthy gains last year.

Thanks to the cost of slab falling to $195/mt in 2015, from $280/mt in 2014, the margin between revenue/mt of steel and its production cost increased from 23.5% in 2014 to 30% in 2015, according to Platts analysis of FY-2015 results of Russian steelmakers Severstal and MMK. The 30% reduction in slab cash cost would have been impossible had the ruble held flat, at its H1 2014 level.

Analysts believe these and other steelmakers capitalized on the ruble crash, specifically on the wide gulf it left between mills’ costs and revenues. Some 75% of Severstal’s capex and 90% of production costs are denominated in rubles, whereas up to 40% of sales, being exports, fetch dollar revenue, said the company.

Mills maintain that the devaluation-driven advantage was comparable to the effect from their own efforts in making the same volume of quality products at a lower cost. “In 2014, the devaluation translated to $240 million of additional earnings. At the same time, our operational efficiency program saved us $280 million,” Sergey Takhiev, head of investor relations at another Russian mining and steel company, NLMK, told Platts.

Different companies take different measures to reduce costs, but most of
them are aimed at reducing energy intensity, administration and logistic costs and capitalizing on self-sufficiency in raw materials.

Last year, just by substituting some of the imported materials and services with domestic supply, Severstal’s steel division saved Ruble 500 million. The company’s flagship Cherepovets Iron & Steel Works, also generated a record volume of its own energy, 4 billion kWh, 3% more than in 2014, and raised its energy self-sufficiency from 69% to 72%.

NLMK cut costs by Ruble 8.8 billion ($160 million) in January-September of 2015. If the company had not saved on this expenditure, its production cost would have increased by a comparable amount because of inflation; increased efficiency helped downplay it.

INFLATION DOCKS RUBLE DEVALUATION BENEFITS

Somewhat arguable is whether the ruble depreciation that continued for 1.5 years – between September 2014 and February 2016 – was all about doing more with less. Clearly, it was not harmless.

Severstal admits that ruble devaluation has had a mixed effect, because a vast part of the company’s debt is in dollars. NLMK said inflation has hurt fixed capital investment in both public and private sectors, household disposable income and consumer confidence. These drawbacks were reflected in Russian steel consumption; 2015 saw year-on-year erosion in demand for different steel products varying from minus 6% to minus 17%.

“The ruble devaluation has a short-lived favorable effect on profitability: it gets fully annulled by cost inflation within two-three quarters,” said Takhiev.

According to federal statistics service Rosstat, consumer price inflation in Russia reached 12.9% last year. It took a toll on tariffs of public monopolies (Russian Railways, energy providers) and borrowing costs – diminishing steel mills’ gains from the devaluation.

The ruble-denominated cost of slab at NLMK’s flagship Novolipetsky Iron & Steel Works, grew by 25% from Ruble 10,000/mt in Q4 2014 to Ruble 12,500/mt in Q3 2015. The rise was prompted by year-on-year, ruble-denominated cost inflation of nearly all the items and services: transportation of input materials (up 10%), gas and electricity (up 5%), iron ore (up 20%), and coking coal (up 30%). Last year saw almost a 100% spike in the ruble value of imported materials, mostly ferroalloys and foreign-made equipment parts and components that are purchased in dollars/euros. NLMK said that import procurements could comprise up to 50% of its investment projects.

The inflation was so pronounced because of the onset of a new monetary reality when the ruble moved from 35-40 in 2014 to 55-70/$1 in 2015. This year, inflation persists but it has kicked off from an already high base and so should not be as pronounced.

COST CUTS STEM FROM CAPEX IN FAT YEARS

Some mills did focus on efficiency long before the present economic downturn in Russia and even before the onset of a steady decline in global steel prices. In NLMK’s case, the issue arose in 2012, when in 2011-2013, Russia had the lowest annual inflation rate this century, an average of 6.5% per year. By comparison, in 2015, inflation was twice as high.

By 2012, NLMK had amassed substantial debt due to several big investments undertaken over the prior few years. In 2011, the company commissioned a new 3.4 million mt/year blast furnace (No.7), reconstructed slab caster No. 8, launched a waste-heat recovery station, all at its Novolipetsky works. In early 2013, it launched a 1.5 million mt/year electric arc furnace-based plant in Kaluga, near Moscow. Between 2008 and 2013, NLMK spent a total of $8 billion on installing new and reconstructing existing facilities. As a result, at the end of 2012, its net debt
was almost twice as much as its earnings. Cost optimization became a strategic necessity. The company’s debt position has improved considerably since then, and in January-September of 2015, NLMK could cover its debt with just half of its annual earnings, it told Platts.

Back in 2012, the Novolipetsk mill already seemed fairly efficient but it kept breaking records every year since then. Despite its capacity always being 100% utilized, the steelworks continued to grow output with minimum investment. Its new, No. 7, blast furnace was expanded from an initial 3.4 million to 4.3 million mt/year, and the mill also exceeded its installed steelmaking capacity of 12.4 million mt/year with an actual output of 12.8 million mt last year.

Despite the ruble devaluation that made exports appealing, the domestic coil market was the key source of cash generation for Russian steel companies last year thanks to the abnormally high premium [over the FOB Black Sea price], which allowed producers to sustain EBITDA margins close to 30%, said Goldman Sachs. Morgan Stanley estimates last year’s HRC price premium at $68/mt. According to Platts’ assessments, Moscow CPT HRC price was on average $55-60/mt higher than FOB Black Sea.

This year’s revenues and earnings of several major Russian steel companies could contract by 21-24% from 2015, an analyst from another bank shared his forecast with Platts. Nonetheless, he reckons Russian mills will still be able to export 1 million mt more this year – in total, something close to 30 million mt – as well as displace another 1 million mt of imported steel in the domestic market. Together, this should make up for the 2 million mt loss, a probable result of Russia’s weaker steel demand.

The latter is expected to contract 3-6% year on year. Longer-term prospects are not reassuring either. In the next three years, oil prices are likely to stay low, at around $35/barrel, and sanctions against Russia will be retained in force, says the Russian economic development ministry in its forecast to 2019, implying a high probability of budget expense cuts.

Obviously, competition for both domestic and foreign steel customers is intensifying, and Russian mills’ need to keep costs at bay and make steel very efficiently, is becoming more critical than perhaps ever before.

Severstal said it will improve efficiency further with a Ruble 6 billion ($88 million) revamp of one of the eight coke batteries, the Ruble 2 billion ($29 million) revamp of the 1.1 million mt/year four-stand 1,700 mm cold-rolling mill and the Ruble 3 billion ($44 million) construction of the second ladle furnace at Cherepovets works. These relatively inexpensive projects allow room for further operational cost reductions because they will ensure fewer defects, manufacturing issues and also shorter downtime for maintenance, the company told Platts.

NLMK said once its first 6 million mt/year pelletizing plant, under construction at Stoiensky iron ore mining and beneficiation complex, is commissioned in H2 2016, it will fully cover the pellet needs at Novolipetsk. With the cost of in-house pellets being much lower than the price of those sourced externally, the project will spare NLMK $180 million annually.

2016 MIGHT PUT EFFICIENCY TO THE TEST
“The sector is on the verge of significant earnings compression,” Goldman Sachs said in its 2016 outlook.

Russian steel companies can no longer count on support of the ruble devaluation. Moreover, up to 25% of their export volume could be affected by existing trade barriers, anti-dumping investigations and possible extension of import duties on certain flat steel products, according to Goldman Sachs.

What could make things worse is that, according to several bank analysts, the premium of the Russian domestic hot-rolled coil price over export will narrow significantly, by a third from 2015, to a historic normal of $20-30/mt owing to weak domestic demand in Russia.
Weak demand coupled with economic turmoil.

The Brazilian economic tailspin, since at least 2014, drove local steelmakers to a low capacity utilization rate and ultimately the shutdown of dozens of production units in recent years. Although the market doesn’t expect a worsening situation this year, sources say Brazil’s steel markets are far from a real recovery, expected to begin only in 2017.

“2015 was a very bad year and 2016, from what we have been seeing, will be in line with last year due to the convergence of structural and cyclical factors,” said Marco Polo de Mello Lopes, president at national steel institute Aço Brasil. “Currently, there are 60 production units idled in the country and the level of utilization of the installed capacity in Brazil is at 68%;” he added, “worldwide, the average is close to 74%.”

To the president of the country’s distributors’ association Inda Carlos Loureiro, the country’s current productive capacity, after the closure of units, is now balanced with output needs. “I do not see any other steel plant being shut this year,” he said.

“What could happen is some other production contraction, but I believe the equipment was already adjusted,” said Loureiro, explaining that electric arc furnaces could easily reduce their operating cycles. “Regarding blast furnaces, if the volume of production is too low, problems in the equipment arise and it is better to shut them down,” he noted.

Domestic structural factors led to this extreme situation, Lopes maintained, citing “very high tax burdens, other cumulative taxes, interest and the exchange rates, among others.”

Regarding the exchange rate, Lopes emphasized some people might stress there was an appreciation of the US dollar against the Brazilian Real. “It happened, but there are two important points people normally overlook: competing countries devaluated their currencies stronger than Brazil did when compared to the US dollar and, second, the competitiveness gained with the devaluation of the Real was lost with the drop of steel prices in the international market,” he said.

COPING WITH AN IMPORT SURGE

That encouraged an enormous volume of imports entering Brazil’s ports at very competitive prices. In 2015, imports reached 3.21 million mt of steel
products, according to data from Aço Brasil. Imports represented 15% of Brazilian steel apparent consumption in the year, which totaled 21.3 million mt.

Just for comparison, in 2014 the tonnage imported was even greater: 3.98 million mt, also 15% of Brazilian steel apparent consumption for the year, which was 25.6 million mt.

“The appreciation of the US dollar helped imports to fall, but the drop in this volume did not mean there was a substitution by the domestic products. The Brazilian market suffered strong shrinkage [in consumption],” Lopes said.

Specifically, on January 2, 2015, the currency exchange rate was Real 2.69/US$. At the end of the year, on December 30, the exchange rate was Real 3.95/US$. The difference represents depreciation of 46.8%. What’s more, on January 21, 2016, it reached Real 4.16/US$1 – the highest value registered through mid-April.

MIRED IN A DEEP RECESSION
Steel sector difficulties aside, the country also faces a deep recession, registering in 2015 the worst GDP contraction since 1990. Data from the Brazilian Institute of Geography and Statistics (IBGE) showed the country’s
Research done by Aço Brasil shows in 2000, China was responsible for 1.3% of Brazil’s imports of steel products. In 2014, the volume jumped to 52% of the total imported.

economy last year shrank 3.8% following a piddling GDP growth rate of 0.1% in 2014. The projection is another drop of -3.5% in 2016, according to the latest report released by the Brazilian Central bank (BC).

Beyond domestic problems, Aço Brasil’s president highlighted another steel topic that is part of every discussion around the globe: China and overcapacity. “There are 700 million mt of installed overcapacity in the world and there is a potential risk regarding China, since their consumption dropped and the envisaged significant reduction of units does not really happen. For every unit they close, another one is opened.”

He added, “There is a protectionist surge in the world and everyone is moving around. This is the principle of communicating vessels,” he said, explaining when countries close their borders to imports of some products, these goods are directed to where there are no barriers. “We need to work within the short and medium terms to avoid an import surge [in Brazil] if China directs its vessels to the country,” Lopes said.

Brazil has been losing part of its steel industrial might since 2014, when it had 48.9 million mt installed capacity according to Aço Brasil data.

Gerdau announced the closure of its Guaíra long products mill and a re-roller unit, both in Paraná state, blaming weak demand. Since then, Gerdau has also halted operations at six plants due to demand issues, the last one in December 2015 – including the Sorocaba specialty steel plant in São Paulo state, the Araucaria longs mills in Parana state, and Simoes Filho – and re-rolling units in Agua Funda and Curitiba in São Paulo and Paraná state, respectively.

During 2015, Brazilian steelmakers Usiminas and CSN decided to idle some blast furnaces, while ArcelorMittal shut one longs rolling mill and delayed starting up another one.

Usiminas idled one BF at its Ipatinga mill, in Minas Gerais state, and another one at its Cubatão mill, in São Paulo state. CSN, which has its steelmaking plant in Volta Redonda, Rio de Janeiro state, idled one BF.

Usiminas, in January, interrupted the activities of the primary areas of the Cubatão plant, including another blast furnace. The company reported a decline of 11.3% in shipments of flat steel products in 2015, falling to 4.91 million mt. In 2014, the company’s shipments were 5.54 million mt. In its latest financial report, the integrated steelmaker said it lost Real 3.7 billion ($1.02 billion).

CSN reported a decrease in shipments by 5% from 2014, down to 4.99 million mt for last year. Consolidated results, though, showed CSN had profit of Real 1.62 billion in 2015. Besides steelmaking and mining, the company has other business units such logistics, energy and cement.
Shipments from ArcelorMittal Brasil grew 12.4% year on year to 10 million mt in 2015. The rise in shipments was “mainly due to an increase in exports from ArcelorMittal’s Tubarao plant,” it said. Out of the total, 51.8% was delivered domestically, while the remainder was exported.

Consolidated results from 2015 showed that ArcelorMittal Brasil lost Real 1.8 billion. This “was mainly a result of the negative impact of Real 1.4 billion from Unki de Venezuela (parent company of Unicon) due to the economic adversity of the country, which is experiencing a hyperinflation scenario,” ArcelorMittal explained.

Tubemaker Vallourec, in mid-2015, cut one of the three shifts at its Brazilian plant at Barreiro, in Minas Gerais state. In early 2016, it announced it is shutting down a blast furnace at the plant.

Numbers from Aço Brasil reveal output of finished flat steel goods dropped 5.9% year on year to 13.39 million mt. In 2014, output was 14.23 million mt.

Another factor adding to Brazil’s steel woes is the 30% reduction in auto production. In 2015, Brazil produced 2.43 million cars. In the previous year, output reached 3.15 million units.

Mexico, Brazil’s strongest competitor in Latin America in auto production, topped Brazil in output for the second consecutive year with 3.4 million units registered in 2015. Mexico was originally not expected to surpass Brazil in auto production until 2018.

Altogether Gerdau and ArcelorMittal closed nearly 10% mt of their production capacity throughout last couple of years, pulling out more than 850,000 mt of nearly 9 million mt of capacity.

ArcelorMittal reported a decrease of 15.3% in its Brazilian sales in 2015 full-year, to $8.5 billion compared to 2014’s $10 billion, “primarily due to lower average steel selling prices, impacted by foreign exchange rates and low international steel pricing for both flat and long products offset in part by higher steel shipments,” said the company in its 2015 annual report.

GERDAU PART OF INVESTIGATION
Gerdau’s Brazilian business unit domestic shipments’ fell 22.7% in 2015 to 4.28 million mt from 5.54 million mt in the previous year. This was partially offset by more than a doubling of exports to 2.17 million mt from 1.04 million mt in 2014.

The company had a decline of 5% in shipments year-over-year in its global operations, to 16.97 million mt in 2015 from 17.86 million mt in 2014. The tough scenario faced by these traditional long-products companies shows no signs of easing, because competition has increased, and prices are lower.

CSN, a well-known domestic producer, started in May 2014 at its Volta Redonda unit a 500,000 mt mill for rebar and wire rod. Furthermore, public and private investments and the consequent decrease in income, as well as consumer and business confidence, according to the construction companies union SindusconSp.

The union’s pessimistic evaluation, made in December last year, cited a “deterioration of political and economic environment.”

“What probably will happen this year,” said Carlos Loureiro, president of Inda, Brazil’s flat-rolled steel distributors’ association, “is that the apparent steel consumption in Brazil will present a two-digit drop, shrinking above 10% year over year.”

Loureiro also added he expects a positive result in margins already in the second half, but a real ‘healing’ only next year. “2015 was a really bad year, but only in 2017 consumption will stop falling and have a slight recovery.”
SECONDARY ALUMINUM STRUGGLES IN EUROPE

For pricing, the only way is up.

Demand levels for secondary aluminum are expected to be strong in 2016, but the outlook for prices remains weak. Secondary aluminum prices have languished in Europe at extremely low levels since the final quarter of 2015 and these prices are beginning to take their toll on producers’ profit margins.

Commodity grade 226 aluminum alloy has traded sideways early this year since hitting a low of Eur1,530/mt ($1,709) delivered in mid-January 2016, based on Platts data.

The cost of aluminum scrap is the main input cost for secondary aluminum producers, and scrap dealers watch the LME primary aluminum for price direction.

Scrap prices had reached such a low point in early 2016 that it was becoming increasingly economically uneconomic to collect certain grades, sources said.

In early March, primary values began to move higher and scrap dealers were holding on to material in the hope of achieving better prices.

Diecasters entered the market early to purchase both first- and second-quarter 2016 volumes, sensing strong demand across the board will signal more upside potential than downside for prices.

“Prices look set to go up by some Eur30-40/mt in the next few months,” predicted one European diecaster, back in March, who booked April volumes at an average price of Eur1,550/mt delivered for 226 and Eur1,570/mt delivered for 231.

STRONGER AUTO DEMAND SHIFTS BUYING PATTERNS

Improved demand from the auto industry since the European market began to recover in 2014, has seen purchasing patterns change. Larger and some mid-size buyers are increasingly keen to fix for the majority of the quarter rather than on a month-by-month basis.

Early on, it appeared that ingot suppliers became increasingly cautious of selling at low prices as scrap costs looked set to rise.

At the start of the year, European producers were pushing for a level of at least Eur1,600/mt to achieve workable margins. But through March this was difficult to achieve.
because supply remained plentiful in Europe.

An Italian seller observed that some of the smaller producers in East Europe were stopping production because it was not deemed economical to produce grade 226 at Eur1,550/mt delivered, especially when scrap dealers were pushing for higher numbers. Furthermore, competitively priced imported material from Russia and Asia also disappeared as 226 ingot prices in the European market sunk lower.

There has been growing concern that when ingot prices are so low and close to the cost of production, the market could see some producers run into financial difficulties.

“A lot of producers have sold Q2 at very low prices and if the price of scrap goes up it could be very problematic,” said a Polish seller several weeks ago.

The issue for alloy producers is that they can’t forward purchase their scrap requirements.

Early in Q1, many producers sold big volumes at very low price levels and with scrap moving up, their profit margins get very squeezed, explained a German producer, who also warned that if the situation continues some producers could get into financial difficulties.

A number of producers, early this year, were selling ingot to the US where prices were higher at $1,750/mt CIF East Coast. In December 2015 and January 2016 exchange rates were favorable at $0.92 to the euro, which made exports relatively lucrative to the US at the equivalent of Eur1,620/mt CIF.

DEMAND TO STRENGTHEN AGAIN

Demand, in contrast, couldn’t be better. The European automotive industry, the main consumer of 226, 231 and other grades of recycled aluminum, is continuing strongly where it left off in 2015. This comes despite concerns that Volkswagen’s diesel emission’s scandal would have a negative effect on sales.

However, the jury is still out in some quarters of the industry.”Volkswagen says they are doing well in Europe and certainly requested big quantities for both Q1 and Q2, but there are still concerns that there might be a delayed effect,” said a trader.

The European auto industry is performing well at all levels in the
region, with diecasters running at high rates to meet increased demand from automotive.

“We have got higher than expected demand so far this year,” said a German diecaster who added that he was mainly supplying German OEMs such as BMW, Volkswagen and Daimler who were all running at good levels.

Both consumers and producers of secondary aluminum are currently predicting a re-run of 2015 or even better in 2016. Early forecasts from full year is on the cautious side,” Poskitt said.

However, he added, “downside risks are notable, both externally with slowing global economic growth, and within the region, not least through potential Brexit [the UK departing the EU] in June. Nonetheless, a solid year of growth remains in prospect for the region’s car market.”

While it is clear that Europe’s demand for aluminum will most certainly rise this year, it remains uncertain whether ingot prices will also increase. Most

US OUTLOOK IS SIMILAR
While the US aluminium alloy market is expected to sustain healthy demand going forward this year, there is a cloud of uncertainty in the second half as producers expect some slowing in the automotive sector as well as continued tight scrap supply.

LMC Automotive’s North American forecast for 2016 remains at 17.8 million units for total light vehicle sales, but the outlook for retail light vehicle sales was revised down 500,000 to 14.5 million units.

“We expect 2016 to be another record year, but all eyes will be tracking the expected slower growth rate as the year progresses,” said Jeff Schuster, senior vice president of forecasting at LMC Automotive. “All brands will not be able to grow as they have over the past few years, creating a higher level of competitive intensity and pressure on each brand.”

“Our vision is automotive will be very strong this year, but it all depends on which vehicle model you are associated with,” said an aluminum diecast source, who supplies parts to the Ford and General Motors to their truck programs.

He noted the cheaper gas prices seen since last year helped demand for trucks. “We are predicting every bit of a strong year in 2016,” he said. “There is a lot of pent-up demand.”

The Platts benchmark US A380 price saw a bump up to 85.5-87 cents in March and is only expected to gain another 5 cents later in the year, largely due to pressure from units arriving from Europe.

Early forecasts from industry players suggest that demand for aluminum alloy will rise over 2015 levels by 3-5%, or even as high as 8% in some areas.
Many market players do not expect the scrap tightness to ease this year, pointing to the number of scrap yards that have closed so far this year.

The A380 market hit a low of 83-85 cents in November 2015 – a level not seen since August 2009 – but slowly crept up in Q1.

A producer said he expected scrap supplies to remain “extremely tight” with record low inventories this year, but in talking to his diecast customers, “they are all busy. Everyone is getting orders, and things are flowing nicely. But with scrap prices so high, it hurts our margins.”

He added that he did expect a typical summer slowdown beginning in June. “We do expect our business to soften a bit,” he said.

Another producer said in speaking with a number of OEMs that “it doesn’t look like there’s any intent to slow down for the second half. Maybe we’re just not satisfied with where we’re at now. We’ve all come to expect high growth rates, and we’re not seeing anything but slower growth. It doesn’t mean it’s falling.”

He added that “I think most of the year [for the alloys] will be fine. I don’t see a lot of upside risk on the price, but I wouldn’t be surprised to see the low 90s ahead [on A380]. I’m confident my customers will remain busy through the year.”

A third producer pointed to the impact from the dollar and export levels. “The strong dollar is chipping away at American manufacturing’s capability to export. This leads to a softer market, and the strong dollar invites imports of both ingot and products which compete with our consumers.”

He added: “I think we have a tough grind until China cuts back on capacity, if that will ever happen, and the dollars weakens.”

Aluminum diecasters said they expected minimal changes in price for the remainder of this year. “All commodities are beat up,” said one Midwestern diecaster. “Automotive has just come off a record year, and we are expecting this year to be a record year. I think things will begin to taper off later in the year. The rest of the aluminum diecast market has slowed slightly, and I would project it to be solid through the end of the year but not stellar. And toward the end of the year we will start to see some softening in all markets.”

SCRAP PICTURE EXPECTED TO STAY TIGHT

Many market players do not expect the scrap tightness to ease this year, pointing to the number of scrap yards that have closed so far this year. “They can’t get enough volume,” said a producer. “We need more peddlar scrap. Somewhere along the line something has to give. The spreads have gotten out of hand, and China has not been in the market really at all.”

But one non-Midwestern producer expected scrap supplies to loosen up slightly in the second half of the year. “I think underlying forces are there to bring about more scrap volume in the second half. And this will allow the smelters to recoup some of their margins.”

“I am just not seeing a tremendous amount of increased flow into the [scrap] yards,” said a scrap dealer. “And I don’t expect that to change. When I go out to visit the yards, they are not sitting on a tremendous amount of inventory. I equate it to the late 2011s and early 2012s as for material availability.”

Added a second dealer: “For scrap companies, all of 2016 looks to be a very difficult year. I think alloys will hold somewhat steady with tight scrap supplies, but I’m also concerned that demand could possibly soften in the second half as manufacturing has been slipping a little every month, and automotive looks like it could be flat this year.”

A third dealer said he expected wider spreads on scrap over the near term. “If not, then there would be a lot of people not in business anymore,” he said.

The dealer noted that in the metals and mining sector in 2016 through February, there were already 19 bankruptcies – versus 42 for all of 2015.
A MAJOR STEEL REGION IN PERIL

Can Europe’s industry bounce back?

2015 was a terrible year for much of the European steel industry. Despite a slight recovery in annual domestic demand, the second half of the year was marked by a sharp drop-off in prices, huge financial losses for some of the main players and capacity closures. The question: Was this the beginning of a terminal decline in the continent or will the industry rebound?

Crude steel production in the EU28 fell 1.8% year on year in 2015 to some 166.2 million mt, according to the World Steel Association. The UK industry was the hardest hit. During the year SSI UK, the former Corus now Thai-controlled slab-maker, announced the permanent closure of its integrated production, ending the dream of resurrecting the mill that began with its acquisition in 2010.

The largest steelmaker in the UK, India’s Tata Steel, confirmed in late March that it would explore ways of quitting its UK business completely – including the sale of the group’s British assets “in whole or in parts.”

Prior to this bombshell, Tata had been busy restructuring its business. It had cut back production substantially at its Port Talbot flat product hub, and was desperately trying to sell off its heavy loss-making long products division.

Tata Steel also pulled out of the plate business entirely, mothballing the two associated mills in Scotland and leaving Spartan as the sole domestic supplier. The group also scaled back its downstream operations at Llanwern, closing a number of lines,
while also mothballing its galvanizing line in Shotton. The company wrote o/g426 the value of its Scunthorpe-centered long products division to zero and set a deadline of the end of March to agree on a sale of the assets before funding is cut off.

Caparo Industries also went into administration taking a number of downstream processing facilities temporarily out of the market before much of the operations were acquired by Liberty Steel and restarted.

While the UK had specific problems with the relative strength of the pound compared to the euro increasing import pressure, the difficulties in the European industry were not confined to the UK market. ArcelorMittal, the largest steelmaker in Europe and the world, posted a global net loss of $7.9 billion for the 2015 financial year. While this figure included a write-down of almost $5 billion of its mining and steel assets, the result was emblematic of the struggles in the entire steel industry.

In Europe, the company has focused on restructuring and rationalizing its production since 2011 – but the further deterioration of the market accelerated that process. The downturn in the oil and gas sector hit suppliers to the energy sector hard, and the troubles at one of ArcelorMittal’s key clients in the Spanish welded-pipe business forced the company to announce the temporary closure of its 2 million mt/ year EAF-based coil plant in Sestao, North of Spain.

In France, the local press has focused widely on the troubles at Vallourec. The pipemaker has faced weakening demand for its products during the year and in response plans to cut its tubemaking capacity in Europe by one third by 2017 and seek a majority partner to run its EAF-based billet and bloom mill located in Saint-Saulve, France. While talks over the mill were ongoing in Q2 2016 with special steel group Ascometal, a solution for the mill had not been reached by the time of publication.

The list of casualties in the European steel market could well stack up further without a sustained increase in steel prices, but there were some players in the market that were able to buck the trend and increase their profits during 2015.

Voestalpine, the Austrian steelmaker, reported for the first nine months of its financial year (April to December 2015) an 18.8% year-on-year increase in pre-tax profits to almost Eur630 million (about $704 million). “We are pleased and aware that, in contrast to competitors, we do not have existential worries and are expecting that we will not experience them within the next quarters,” CEO Wolfgang Eder said. Downstream companies servicing the automotive sector have enjoyed bumper sales volumes as the industry continues to drive manufacturing.

OPPORTUNITIES FOR 2016

2016 started with a slightly positive sentiment in the European market with a definite calm period for prices following the storm in 2015. Iron ore and Chinese steel offers have climbed during the first quarter of the year, supporting European steelmakers in fresh attempts to increase their offer prices for both long and flat products.

The year is expected to be one of transition; while ArcelorMittal expects European demand for steel to continue growing at a pace of some +1% on 2015, measures are being taken to tackle the threat of import competition and return pricing power and market share to the domestic producers.

After months of complaints from mills in Europe, the authorities have started taking action with preliminary anti-dumping measures imposed on imports of rebar from China as well as Chinese and Russian cold-rolled coil. The Commission has also launched an investigation into hot-rolled coil, plate and seamless pipe from China, in a bid to secure better protection for European steelmakers in a new world where massive quantities of cheap Chinese material are available.

A petition has also been filed by rebar producers to address the increasing levels of rebar imports from BMZ in Belarus, while there is speculation that Russia, Ukraine and Turkey could be added to any resulting investigation. This would indicate a change in policy to be more in line with US trade cases that are much more widely targeted.

So far, Eurofer and its steelmaking members have been left unsatisfied by the initial European Commission decisions with rows erupting over the scale of the dumping measures and the way they are derived. But there is no doubt the picture of the European market has changed from last year. CRC imports from China and Russia have stopped and the fear of retroactive duties being applied to other products has hurried traders
into ordering their last batch of supplies from China ahead of the expectation that duties will be imposed as soon as September this year.

**THE CASE AGAINST TRADE CASES**
The argument against the effectiveness of trade measures such as these is that material is simply diverted elsewhere or other countries come into the market, not addressing the fundamental issues of global oversupply and low prices.

This was certainly apparent in late 2015 when Brazilian cold-rolled coil was redirected to Europe after access to the US market was blocked off. Similarly, the UK rebar market continued to weaken after the preliminary measures for Chinese material with the weakness of the euro making continental suppliers more competitive.

But at the start of this year it was clear that the more protected US and European flat steel markets are benefitting, for the moment, from reduced competition.

For the longer-term outlook it is clear that there has to be a fundamental restructuring of the European market if it is going to survive. Overcapacity is rife in the steel production and distribution sectors, a particular issue for the region with slowest post-recession recovery in demand in the world. Central government austerity policies have limited steel-intensive projects such as infrastructure investments, and economic growth from the private sector has resulted in only slightly stronger steel demand.

**ADDRESSING THE SUPPLY/DEMAND IMBALANCE**
With demand not expected to accelerate anytime soon, steelmakers must continue to restructure to address the imbalance in supply and demand. So far, the most under-used tool to achieve this has been mergers and acquisitions.

Consolidation has been happening in the European market for the last decade, but the process has somewhat slowed at a time when it is probably most needed. The last big venture was the long anticipated acquisition of Finnish group Rautaruukki by Sweden’s SSAB. But 2016 could well see a new important development in this re-organization process.

Ilva, the largest Italian integrated steelmaker and one of the main European suppliers of flat products, is set to be sold by the current administrators to a new owner. The Italian government set a deadline of June this year and currently a large number of companies (over 20) have been admitted in the bidding process. ArcelorMittal and CSN are among the biggest groups to have expressed an interest, but market observers see the likely outcome as a creation of a new Italian integrated producer together with the participation of a number of local players, including the main re-rollers.

Politics could also be a major burden in resolving the issues at Ilva. The intervention of the government to rescue the producer, a major employer in the Taranto area of Italy, allowed the company to safely cut prices without the risk of insolvency.

While China is widely blamed in the mainstream media for forcing European prices downward, it seems unlikely that domestic prices would have fallen as low as they did without Ilva’s price cuts. State aid questions have come to the fore as a result.

ArcelorMittal has long been touted as a potential buyer, but with the company’s difficult financial position and a strategy to cut current debt levels, the group is in a much weaker position to take it on. The highly indebted position of many steel companies makes it much less likely that banks will fund major investments such as these, resulting in a catch-22 situation where the weakness of the market necessitates mergers, but because the market is so weak mergers will not happen.

Instead, companies are chasing niche markets where higher margins can be achieved. Tata Steel, Voestalpine, SSAB, ArcelorMittal all subscribe to the theory that commodity grades will increasingly be difficult to produce competitively in Europe. Research and development groups appear to have gone into overdrive as steelmakers seek to create everything from lighter-weight automotive grades or higher-tensile strengths in plate. The issue, however, is that niche markets are by definition smaller than commodities, and if everyone jumps into the market it will become just as oversupplied and unprofitable as basic-grade rebar or hot-rolled coil.

Once again, the logic points to production cuts as the solution. But it remains to be seen what will close next – and where.
The SNL Mine Economics solution offers detailed forecasts and estimated mine costs for the next 25 years, and historical data from 1991 so you can compare both ends of the spectrum.

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US SCRAP DERIVATIVES: READY FOR TAKE OFF

Another ferrous hedging tool emerges.

Volatile in obsolete ferrous scrap prices is intensifying as the global steel industry suffers a capacity overhang for finished products, trade wars escalate, and the price of iron ore (the other primary steelmaking raw material) fluctuates widely.

For the US, however, a possible solution lies in the nascent derivatives market for US obsolete scrap, a hedging tool that would allow both buyers and sellers to lock-in forward prices and manage their price risk.

Steel is the most widely recycled product on earth, and by a considerable margin. In few places is this truer than in the United States, where nearly 70% of steel is produced from ferrous scrap via the electric arc furnace route. EAFs use an electric arc to re-melt recycled obsolete scrap, rather than using iron ore and coking coal, to produce crude steel.

US MILLS FEEL THE PAIN OF IMPORTS

According to the World Steel Association, earlier this year average capacity utilization among its members worldwide was just 66%. Steel output in China was more than 800 million mt in 2015, over ten times the steel produced in the US, giving the country a mammoth market share of 49.5% of global crude steel production.

With China’s steel sector in a state of structural overcapacity, lower-cost producers in east Asia have sought to export the excess. And the US market is certainly an attractive destination with above average spot prices and, despite its increased filing of trade cases, still has support for trade liberalization. In recent times, steel imports into the US have supplied 20-30% of the domestic market’s needs, while China exports more every year than the entire US output as a consequence of its chronic overcapacity. While China is not solely responsible for US woes, it’s partly to blame, according to US steelmakers. The result has been extremely competitive import prices compared with domestic steel.

Inevitably, ever-increasing imports placed downward pressure on domestic steel prices in the US Midwest as mill capacity utilization rates slipped, ultimately leading to a 10.5% year-on-year fall in crude steel output in 2015. Spot hot-rolled coil prices plummeted over 40% in just 12 months, to finish at a decade-low level in November 2015. The impact on
Obsolete shredded scrap prices was even more brutal with a 50% year-on-year fall over the same period.

**OBSCURE SCRAP FUTURES SET TO TAKE OFF**

With US steelmakers vehemently demanding, and succeeding, in getting more trade sanctions against allegedly dumped and/or subsidized foreign steel, import volumes have finally begun to pare back. A flurry of anti-dumping duties (AD) for flat-rolled imports from a number of countries has helped lead the finished steel price recovery in the Midwest. On March 15, another round of AD duties of between 4-49% was imposed. And with flat steel import volumes abating, domestic coil prices recovered around 11.5% from their multiple year lows.

Obsolete scrap prices have also bounced back, but remain highly volatile. In March 2016, TSI’s index saw delivered shredded scrap prices jump 11.5% month-on-month. These monthly price changes of +/-5% are increasingly frequent with 10 of the previous 18 months experiencing changes of this magnitude. To add to the domestic markets concerns, scrap exports have continued to decline, with volumes nosediving minus 39% in the period between 2012 and 2015. The recently strong US dollar exacerbated the decline, with Turkish buyers opting to source material from Europe and Baltic suppliers instead.

During such uncertain and volatile times, financial derivatives contracts are a viable option for protecting cash flows and locking in a fixed price for companies in the steel supply chain, no matter which direction scrap prices go. Late March saw the launch of one such tool – the world’s first US obsolete shredded scrap futures contract, listed on the NASDAQ OMX Commodities Exchange and cash-settled against the TSI 10-day Shredded Scrap (delivered US Midwest) reference price.

For scrap recyclers, the motive for hedging is clear. A cash-settled scrap futures contract can help bring about forward price certainty by protecting processing margins. Equally, for steel producers, the futures contract represents an opportunity to lock-in a portion of their raw material input costs and thereby helping them to manage gross margins. The value for end-users is clear too, for those in the demolition industry, scrap derivatives offer an opportunity to tender more competitively for projects with a clear view of the future value of the scrap recovery.

Despite an array of ferrous futures contracts on offer, few have been suitable for companies looking to ‘proxy hedge’ their exposure to obsolete steel scrap. Despite strong correlations, the unpredictable spread between HRC and scrap pricing has reduced the usefulness of HRC futures as a proxy contract for potential scrap hedgers.

Another no-go product for those wishing to hedge obsolete scrap has...
been the extremely liquid iron ore derivatives markets. Although they both ostensibly go into steelmaking (and are therefore somewhat linked), scrap is driven by European, US and Turkish market fundamentals, while iron ore demand is driven by China, where the overwhelming majority of steel is refined from blast furnace iron. Correlations of prices in steelmaking proportions are a weak 81%.

**A GROWING INDUSTRY APPETITE**

“The US ferrous scrap industry has been in need of additional risk management tools for some time,” says Spencer Johnson, a broker with INTL FCStone. And while the need for obsolete scrap futures may be long overdue according to Johnson, some notable steel players are already active in trading other ferrous derivatives.

Take Worthington Industries, a steel service center headquartered in Ohio, where Director of Price Risk Management Marc Gase says the company has been actively trading ferrous derivatives “since 2009.” Gase notes the use of these tools “has helped drive a fundamental change in our business.”

In Cargill’s case, futures contracts offer the trading house the ability to work with customers to lock-in prices with buyers in the current low price environment.

Beyond the direct impact to the industry participants, capital providers in the metals space take a positive view of those looking for funding that are taking advantage of such tools to hedge against adverse price movements.

“The benefits of hedging price risks are well known, but often times not enough is said about collateral benefit of more predictable cash flows, which gives lenders an added layer of comfort as they respond to the credit needs of the scrap industry,” says Daniel Uslander, director Futures & Foreign Exchange for JH Darbie & Co.

Indeed, the rapid uptake of cash-settled iron ore futures is proof of growing appetite for such instruments in the ferrous industry. The contract first listed on the Singapore Exchange in April 2009 (basis TSI’s 62% Fe Iron ore index) and together with iron ore futures on the CME Group cleared around 1.15 billion mt in 2015 – approximately the size of physical seaborne market.

Exchanges around the world continue to build a suite of price risk management tools for other ferrous products, too. The London Metals Exchange (LME), for instance, listed contracts for steel scrap and steel rebar, based on TSI and Platts assessments, in November of last year. Both contracts target the Turkish long products steel supply chain, a region that continues to act as a genesis for pricing for both products. During the same week as iron ore prices surged, steel scrap volumes traded on the LME were more than 50% of all volumes traded on that venue to-date.

The CME Group, a ferrous derivatives pioneer in North America, continues to believe in the growth potential of the ferrous marketplace. “In early March, we saw a one-day price move of 18% in iron ore, underscoring the continued volatility in ferrous markets and the importance of using risk management tools, like futures and options from CME Group to manage ferrous price risk. ... We’re optimistic this market will continue to grow as more customers continue to embrace the use of future and options to hedge their price risk,” says CME’s Young-Jin Chang, executive director of Metals Products.

**EVOLVING FERROUS METALS MARKETS**

Steel scrap has long been the archetypal ‘spot’ market in an industry largely characterized by annual iron ore, coking coal and steel prices. As steel is so closely tied to industrial production and scrap was the fastest moving price element within it, it attracted the interest of economists, most famously, perhaps, Alan Greenspan.

Scrap was also a leader in the use of floating-priced deals, with volumes being bought and sold linked to an index that would report the price some time after material had changed hands. These transactions are often labeled ‘to be determined’ (or TBD) sales.

Other raw materials’ pricing structures, however, have changed radically in recent years, with iron ore and coking coal (and to a lesser extent finished steel) sales also now conducted on a spot or floating-price basis.

Will pricing in the steel scrap industry prove as able to change as the other parts of the steel industry have in recent years?

That, like some scrap pricing, is yet to be determined.
What’s happened to US ferrous scrap exports?

Scrap happens.

It is a common saying in the scrap world. Iron ore, which accounts for 5% of the earth’s crust, has to be mined underground. But you cannot simply mine scrap, which is why the scrap market is sometimes called the mine above ground. You cannot flip a switch and produce more of it. You cannot add scrap capacity. Scrap just happens.

And lately, it has not been happening all that much in the United States.

In 2011, the US exported a record 24.48 million mt of ferrous scrap. In 2012, those totals fell to 21.34 million mt; in 2013, they were 18.46 million mt, and in 2014, they were 15.31 million mt. Last year, the US exported 12.97 million mt of ferrous scrap, a decline of 11.51 million mt from the record year of 2011.

Where did 11.51 million mt of US scrap go?

“For now it represents a decrease in both supply and demand,” one US scrap exporter said. “The lower supply is the effect of less collection on lower prices; fewer scrap companies and peddlers; and less scrap as a byproduct of the 2008 crash.”

The decline in the economy in the late 2000s is being felt now. Auto production fell to under 10 million units in 2009. The life of appliances and auto units varies widely, but are usually around a decade at least, so there is an obvious lag before the goods are scrapped.

“The scrap from those lower sales of autos and appliances is now what is coming to the scrap market, and will for the next three to seven years,” the exporter said. “I think this is the norm until price increases bring out additional tons and/or overall demand brings out scrap from untapped regions like China. We may get back to those tons [from 2011], but I think it will take several years.”

Current scrap supply is also a double-edged sword. Not only were fewer automobiles and appliances bought in the late 2000s, but without a significant rebound in the economy, those consumers may not be as willing to replace those goods anytime soon.

Nathan Fruchter, CEO of New York-based Idoru Recycling Corporation, says that scrap is a product of affluence.

“When the economy is doing well, we throw out more refrigerators, we
knock down more homes and build newer ones; if the economy is not doing well, you are throwing out less and therefore generating less scrap,” Fruchter said. “To a certain extent there is less being generated and maybe just as much still laying around,” he continued. “So the desire to go collect it is gone, it is a combination of both. People are not so much interested in working the same amount of work and earning less. Maybe there are easier jobs for it.”

To demo or not to demo is a dilemma facing many property owners and scrap companies with demolition contracts. When scrap companies bid for demolition rights with a property owner, the bid takes into account the current scrap pricing environment.

After scrap prices fell $100/long ton in February 2015, some companies opted to keep buildings standing and pay the higher taxes rather than pay to tear down the building and sell the scrap at a loss.

In this era of large mill-owned scrap networks and even larger publicly traded scrap companies, the scrap peddler is often forgotten. While industrial scrap, also known as prime scrap, flows fairly steadily, obsolete scrap needs to be collected.

“The collection process of scrap has broken down,” Pete Meyers, vice president of ferrous sales and marketing for New Jersey-based Metalico, said. “The lower level of the food chain is doing something else. It is going to take a while to come back.”

Meyers said the industry will need to see sustained higher prices before the obsolete pipeline is replenished.

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“When a peddler with a half-ton pickup truck is going to get $50 a ton,” Harris said. “What is he going to do for gas? For food?”

Harris said if the delivered scrap price into steel mills is $150, then the peddler is likely receiving $50 from the scrap yard.

“I will tell you, if that export market picked up again and prices jumped up, scrap is immediately available, guaranteed,” Harris said. “The peddler comes out of his basement, gets his pickup truck moving and gets going again.”

Buildings set for demolition that are still standing, the end-of-life automobiles and appliances that are still in someone’s driveway or kitchen, the other obsolete scrap out in the field that is not being collected by the unmotivated peddler – it all adds up. There may not be giant piles of scrap visible to the naked eye, but most evidence points to a large supply of scrap building in the United States, just waiting to come to market.

And the base of shredders in the United States is ready to meet a flood of obsolete scrap.

Scott Newell is the chairman of Newell Recycling Equipment, which has supplied or licensed over half of the world’s shredders. Newell believes that no more than 250 shredders are presently operating in the United States, down from more than 300 in 2014. His shredder customers indicate they are operating at 40-50% of their average production compared with 2014.

“Of course the capacity is there,” Newell said. “If the demand grows, it will immediately be met.”
SILICON METAL PLANT DEBUTS IN US

Last September a new plant in the northeast corner of Mississippi made history in the US when it started the first of two 24-MW electric-arc furnaces to produce silicon metal, making it the first new such plant in the country in 40 years.

About a month later, on October 28, Mississippi Silicon held a formal opening celebration at its Burnsville, Mississippi plant, with a ribbon cutting ceremony performed jointly by Mississippi Governor Phil Bryant and “NJ” Correnti, a director of Mississippi Steel and son of the late John Correnti, a well-known figure in the US steel industry, who had been chairman of the new company.

Two months later, Mississippi Silicon started a second furnace, and the plant is now producing at full capacity, designed at 36,000 mt/year.

The startup of Mississippi Silicon brought to an end a monopoly in domestic production enjoyed by Globe Specialty Metals – now FerroGlobe – which it had held for decades. Mississippi Silicon also overcame a barrage of legal hurdles thrown in its path, mainly by Globe – in a battle not yet entirely over – in order to build and open the plant.

Globe incorporated a subsidiary, 16 Front Street LLC, on October 6, 2014, the same day it filed a lawsuit challenging the legality of the air permit issued by the Mississippi Department of Environmental Quality. Co-plaintiffs in the suit also included Richard Cotton, a writer and resident of Saltillo, some 45 miles southwest of the plant, who argued that emissions from Mississippi Silicon would hurt his enjoyment of area parks and lakes.

Apart from the legal challenges Mississippi Silicon faced, the new company – an 80:20 venture between Brazil’s Rima Industrial (80%) and CleanTech (20%) – has also faced a market in which spot silicon prices fell by around 33% from March 2015 to mid-March 2016. Accounting for inflation, “today’s silicon prices are the worst they have been,” Braaulio Lage, a director of the company and president of Polymet Alloys, recently told Platts.

Such a decline in silicon prices has not come without casualties. In February Globe Specialty Metals closed its Selma, Alabama, silicon plant and laid-off its 90-strong workforce. Selma was believed to have had one of the highest power costs of all of Globe’s plants.
Despite starting operations in such adverse circumstances, Mississippi Silicon is shipping to customers in the chemical sector and also to primary aluminum consumers and secondary aluminum smelters.

In the US, silicon metal pricing orbits around the 553-grade price, the grade favored by secondary smelters. But, like Globe, Mississippi Silicon’s production is predominantly a higher grade – typically 3301.

“We aim to make 3301 every time, so a secondary aluminum customer is getting a better product than 553, albeit at a 553 price,” Dave Tuten, president and CEO of Mississippi Silicon, told Platts.

The chemical market represents the premium market for US silicon producers, according to Lage, and Mississippi Silicon is aiming to have a higher proportion of its customer base in the chemical sector, which pays significant premiums for the higher grades of silicon compared with secondary aluminum smelters.

“There are higher costs involved in producing for the chemical sector,” explained Lage. “Apart from lower impurities, it requires more crushing to a much smaller size, as the chemical grade involves grinding to a powder and dissolving it.”

The typical size for the secondary aluminum market is 4-inch lump, requiring less crushing.

Lage admitted that Mississippi Silicon has a larger proportion of its customer base in the secondary aluminum sector than it would like.

Mississippi Silicon has water access with the plant right next to a loading and discharge berth on the
Tennessee-Tombigbee Waterway, a 237-mile (377 km) man-made waterway built by the US Army Corps of Engineers and completed in 1984. The waterway links with the Tennessee River to the north and, in turn, to the Mississippi River system, and to the US Gulf in the south.

Mississippi Silicon uses the waterway to ship silicon north to domestic customers, but also has the capability to load barges destined for the Gulf for export. The company also made use of the waterway to bring in materials and equipment during the construction phase of the plant.

“We also use it to bring in Blue Gem coal from Kentucky and, eventually, we hope to build a conveyor to take the coal straight up to the plant,” said Lage.

Blue Gem coal is one of the key raw materials for silicon production. It is found in a small area around the Kentucky-Tennessee state border and is produced by a handful of producers, including Globe Specialty Metals’ subsidiary Alden Resources.

It is a low ash, low sulfur, high-carbon, hard metallurgical coal and ideal for producing the necessary chemical reaction at high temperatures in the furnace with the other key ingredients – quartz and woodchip – to make a high-purity silicon metal.

Mississippi Silicon sources the quartz in neighboring Alabama, while the woodchip is sourced from local, managed hardwoods. Ricardo Vicintin, CEO of Rima Industrial and chairman of Mississippi Silicon, said during the company’s opening ceremony, that the availability of low-cost power and the support from the state of Mississippi were key in the choice of the plant’s location.

The other vital ingredient is an abundance of low-cost power. Mississippi Silicon has a long-term power contract with Tennessee Valley Authority, which is a major hydroelectricity generator.

Last October, Vicintin told Platts that most of Mississippi Silicon’s production had been sold for 2016. He said it would replace about two-thirds of the silicon metal imported into the US from Rima in Brazil.

Mississippi Silicon is non-integrated, buying its raw materials from third parties, unlike FerroGlobe, which is fully-integrated.

Since Mississippi Silicon started producing, some market participants, especially traders, have suggested that the fall in silicon metal prices has been, in part, because of the presence of a new US producer. But Lage said Mississippi Silicon had concluded very little business in the spot market.

“The only times we have done spot business are in rare circumstances that somebody needs material urgently and has difficulty getting it elsewhere, or as trials with new customers,” Lage said.

LEGAL TUSSES CONTINUE

While Judge Debra M. Brown of the US District Court for the Northern District of Mississippi dismissed the lawsuit by 16 Front Street and Richard Cotton challenging the legality of the plant, the plaintiffs decided in January to appeal that decision to the US Court of Appeals for the Fifth Circuit in New Orleans.

While the plaintiffs failed to prevent the plant from opening, they could succeed in forcing the plant to stop producing if they prevail with the appeal, but it is a process that could take months or even years, according to Mississippi Silicon’s executives.

“It’s disappointing,” said Lage. “But it’s not going to stop us from producing the best silicon we can for our customers.”
RECYCLING SECRETS REVEALED!

Brazil’s amazing aluminum UBC recycling rates.

The figures are eye-popping; maybe even miraculous. For more than a decade, Brazil has enjoyed the world’s highest rate of aluminum beverage can (UBC) recycling – reaching a new world record of 98.4% in 2014, according to statistics from ABAL, the Brazilian Aluminum Association.

Underpinning such an extraordinary recycling rate are factors mostly related to social and economic drivers, rather than those reflecting an environmental consciousness.

To put that in context, the next highest recycler of aluminum cans is Japan at 92.6%, a highly developed and procedure-focused country. The average for Europe is 66.7%, which is still slightly higher than the US rate of 54.1%.

“The comparison with these selected countries takes into account the fact there is no legal obligation to recycle,” said Renault Castro, executive president at Abralatas, the Brazilian Association of Highly Recyclable Can Manufacturers.

The recycling index for 2015 is not yet available, “but anything close to 98% is still a record high,” said Castro, adding that reaching 100% may not be achievable in the near future. “We need to consider that a parcel of the non-recycled material is used in craftwork and the remaining is still improperly discarded, since there is no national consciousness about recycling yet.”

RECYCLING’S CLASS STRUCTURE
Starting in the late 1980s, private initiatives set up a collection chain of recycling, which has been totally
sustained in Brazil based on its own cost benefit.

The pyramid of this recycling chain in Brazil is robust at its base, which is composed of the scrap collectors, or “catadores” as they are known locally. “The country’s unfair income inequality, low levels of education and low absorption by the labor market contributed to the creation of this business class,” added Castro.

Recycling provides a living to families across Brazil who otherwise would have few ways of making ends meet.

In Brazil, aluminum is the gold of garbage-picking. Pound-for-pound it’s worth 10 times more than plastic, 12 times more than glass and 30 times more than paper on the local recycling market. A full-time can collector can earn up to $428 per month, or more than $1,000 per month, if paid around $3.50/kg of aluminum UBC.

Further up the pyramid, the collectors’ cooperatives occupy a relevant rung. They centralize all the collection countrywide and make logistics possible to medium and big scrap companies that separate, prepare and transport the material to the recycling plants.

The recycling industry in Brazil has grown and matured. “For over 10 years we have been the country with the highest rate of aluminum can recycling worldwide,” said ABAL’s Mario Fernandez, recycling market committee coordinator. “This demonstrates both the maturity level and the structure of the Brazilian recycling market,” he added.

Data from Abralatas showed that collecting aluminum beverage cans in 2014 injected Real 845 million into the country’s economy, thereby generating income and jobs for thousands of collectors.

**MARKET DYNAMICS**

In addition to the solid pyramid structure, there is always price and demand. “As long as aluminum retains an attractive value, and the Brazilian market continues to show strong production and consumption of aluminum cans, the recycling rate will continue high,” said Castro.

The three manufacturers of aluminum beverage cans in Brazil – Rexam, Crown and Latapack-Ball – are cautious regarding the performance of the packaging market in 2016. It is expected to grow just 0% to 1% over 2015 – when 24.1 billion units were sold.

“Pressured by the exchange rate, the loss of purchasing power of the population, and an increase in VAT (valued added tax) in some markets, the sales of beverage cans must have a growth of about 1%,” said Carlos Medeiros, president of Rexam.

Wilmar Arinelli, president of Crown agreed, adding that the Brazilian economic and political turmoil will continue to impact negatively the various productive sectors, inhibiting new investments. Jorge Angel Garcia, CFO of Latapack-Ball, also shared a cautious outlook, but he believes that the industry will continue finding the best solutions for beverage producers.

Abralatas’ Castro noted: “We had a very high reference base in 2015, because of strong growth in 2014, mainly due to the Soccer World Cup in Brazil. Therefore, an increase of just over 1% in 2015 and also in 2016 is cause for celebration.”

Still, the aluminum industry wants to move beyond reliance on the professional scrap collectors. It is trying to teach more privileged Brazilians to recycle with an educational program directed at schools, churches, hotels and tenant associations.

“Recycling is economics,” said a scrap dealer. “You have to make the best of what you have, do your best to fill in the missing pieces, and reuse what is available.”

**COST-SAVINGS OPPORTUNITIES**

- To produce a ton of aluminum from scratch, 5 mt of bauxite and 16,000 kilowatt-hours of electricity are required. With recycling, producers need a ton of old cans and just 750 kilowatt-hours of electricity, a boon for a country straining its power grid.

- This means that the recycling activity in 2014 allowed savings of 4,250 GWh per year for the country, a figure equivalent to the annual residential consumption of 6.6 million people in two million homes.

- In the past 10 years, Brazil collected 2.1 million mt of aluminum beverage cans, enough to fill 249 buildings of 10 floors each.

Source: Abralatas
CHINA’S IRON ORE MARKET OVER A DECADE

Who’s crying now?

To many in global commodities, February’s shock news that mining giant Anglo American was looking to sell its near 70% interest in South Africa’s Kumba Iron Ore Ltd and to exit the iron ore business entirely by end-2017 was the unequivocal end of an era.

Anglo had bought 20% of the then Kumba Resources – owner of the huge Sishen mine – back in 2002 and a year later lifted its stake to controlling two-thirds. Now, a little over a decade later, Anglo is getting out.

On the other side of the planet in China, the country whose drive to expand steel production had fed the steelmaking resources boom, there is tacit recognition that the global iron ore business is in transition.

For many in China’s steel and raw materials sector, they’ve experienced enough turbulence in the past decade to last a lifetime. In iron ore for example, they’ve seen the collapse of annual pricing, the launch of spot e-trading platforms, and the emergence of iron ore swaps, futures, and options to hedge their risk. These developments alone – and there have been many others, like the launch of 400,000 dwt very larger ore carriers Valemax for carrying iron ore – were mere dreams a decade ago.

During the past decade too, China’s reliance on imported iron ore has climbed to more than 85% of the country’s total consumption in 2015 from about 63% in 2010, and this ratio could be as high as 90% by the end of this year. This happened to the dismay of the central government in Beijing where the plan had been to increase China’s self-sufficiency in iron ore to 45%, through expanding domestic iron ore mine production and through Chinese companies – steelmakers as well as traders – securing equity material from investments in overseas mines in Australia, Africa or South America. Neither of these strategies has proven to be particularly successful. To reach higher grade ore, domestic miners have to dig much deeper, making the operations more expensive at a time of low prices. China’s overseas investments have not reaped the hoped-for benefits either, among which CITIC Pacific’s 100%-owned Sino Iron magnetite project in Western Australia has been particularly disastrous, costing many billions more dollars than planned and producing very little ore to date.
During 2003-2016 it was roaring demand for iron ore in China – and to a lesser extent in South Korea, Japan and more recently India – that helped propel iron ore prices to almost $200/mt CFR China in early 2011, only to see them collapse late last year to less than $40/mt. As if to show the commodity can still surprise, iron ore spot prices gained more than $10/mt in a single day on March 7 (a 20% increase) to reach $64/mt CFR China – the biggest ever single-day jump. Within a week, however, prices had softened once more to $55/mt.

Yet, irrespective of where iron ore prices are trading on a daily basis, the view in China – quite correctly – is that the evolution of daily pricing has benefitted the global mining giants extremely well because of their strong competitiveness in production costs against rivals both inside China and outside. Just as the Japanese mills and South Korea’s Posco recognized in earlier decades, the major miners in Australia and Brazil have rich resources of quality hematite ore whose vast deposits near the earth’s surface require little by way of costly extraction and concentrating. The big four producers – Vale, Rio Tinto, BHP Billiton and Fortescue Metals Group – have drastically lowered their production costs to the point where they can still make reasonable margins at prices of $55/mt. Nearly all small and medium-sized Chinese iron ore producers exited the market when prices fell to around $50/mt, leaving just larger, state-owned and integrated miners. Analysts estimate prices would have to return to levels of around $60-70/mt CFR for smaller Chinese producers to switch back on.

Most trading houses and Chinese steelmakers have adapted themselves over time to such changes, and may have even benefited from iron ore trading, especially since last year’s price volatility when many top-tier Chinese mills stepped up their involvement in the re-sale of iron ore for profit.

Indeed, the casual observer – or foreign equities analysts now regretting their iron ore miner-heavy portfolios – might expect the passing of the era in China would be marked with melancholy and regret. Not a bit of it.

The Mysteel iron ore event in March in Qingdao in east China’s Shandong province had clearly recovered its mojo. After struggling since 2011, the Chinese traders and mill representatives were back in force and ready to frolic. On the opening day the Shangri-La Hotel lobby pulsed with about 500 delegates – in sharp contrast to the relatively deserted venue in 2013 – with the attendees evidently upbeat about the business judging by the noise and exuberant body language.

ANYONE WONDERING “WHAT IFS”? Back in 2003-2004 only a clairvoyant would have foreseen the huge and fundamental changes that would envelope the iron ore market in the coming ten years or so. Yet surprisingly given the huge changes the business’s evolution has wrought, no Chinese industry participant surveyed by Platts expressed the least regret about those changes or indicated any desire for a return to the Good Old Days.

“No market players miss those days much,” said a procurement executive from a state-owned steel mill in east China. “After all, the miners these days, on the one side, undertake index- and fixed-price sales in the spot market and – armed with hedging tools – can make the best out of iron ore supplies in a downward market with the combination of spot- and long-term deals taking care of the tonnage.”

“On the receiving end, China’s medium- and small-sized mills will hate to be back in the days when they had been deprived of any access to big miners’ output. The smaller consumers had no long-term supply relationship set with these global producers and had to rely on traders and top-tier mills for iron ore feeds.”

The financially solid and cash-rich traders, together with the major mills receiving huge ore tonnage under long-term supply arrangements, have to varying degrees successfully explored the new business model of reselling contracted tons, and sourcing from port inventories to guarantee their own mills’ iron ore utilization.

At the same time, many have skillfully used iron ore-related derivatives on the Singapore Exchange and the Dalian Commodity Exchange to hedge against price volatility. Indeed, since 2009 traded volumes on the SGX have more than doubled annually year-on-year, averaging a growth rate of more than 130% per annum, such that in 2015 more than 1.1 billion mt of iron ore derivatives were cleared.

“The re-sale of iron ore was definitely more profitable than steelmaking, at least since last year,” admitted a procurement executive with a private mill in north China, adding that many more steel mills, privately- or state-owned, have joined the business.
“Besides, large iron ore import volumes – whether for the mills’ own use or re-sales – has rescued them when their partner banks have cut their credit quota. This has enabled such steelmakers to remain in the industry, surviving when peers have disappeared, because cash flow is life-death crucial for Chinese mills right now,” he added.

Little wonder then that the many trading houses and steelmakers Platts met at the March Qingdao event had no hesitation acknowledging plans to boost their iron ore trading volumes this year.

An official from a top-tier steel mill in east China revealed that last year after identifying and being convinced of the profit potential of ore re-sale, his company had actually established an independent trading team to take care of the iron ore sales business. For 2016, the team’s iron ore trading volume will see a further surge from last year’s almost 25 million mt. Indeed, later at a cafe near the Qingdao event venue the two officials could be seen busily engaging with existing and new customers for iron ore sales in back-to-back meetings.

For 2015, China’s iron ore imports reached a record high of 953 million mt, according to China’s official statistics. This was up 2.2% year on year, and represented almost a five-fold increase on the 210 million mt China imported in 2004. Last year imports accounted for 86% of the country’s total consumption for the production of 691 million mt of pig iron last year.

The actual consumption proportion may be lower, though, as nearly 100 million mt of iron ore was still piled at Chinese ports by the end of 2015, market sources noted.

THE IRON ORE MARKET IN ANOTHER DECADE
Despite the continuing growth in the proportion of imported iron ore utilized in China’s iron and steelmaking, Beijing is unlikely to abandon its goal of raising the country’s self-sufficiency in iron ore in coming years.

Chinese market participants, on the other hand, have long accepted the fact that ore mined overseas will be the chief ingredient in their furnaces. Like their North Asian rivals the Japanese and Korean mills that are almost entirely dependent on foreign ore, the Chinese producers are content to import iron ore so long as the supplies meet their requirements of quality and cost-effectiveness.

“I do not see the danger of relying on imported iron ore,” said a Beijing-based trader. “This means that overseas miners have been heavily relying on us and will continue to do so in the next five years at least. Any added new [ore] output must come to China, until a new country emerges whose ore requirement is sizeable enough to replace China’s,” he said. “Such a relationship is mutually beneficial – or risky, depending on how you view it.”

Annual, bi-annual, or quarterly pricing schemes for iron ore are long gone as well, and will never return. Chinese market participants have learned quickly and adopted means to manage risk and shield themselves from iron ore price volatility in ways that rigid fixed pricing never allowed.

In any case, with iron ore prices so far this year hovering in the band of $40-60/dry mt CFR China, there is very limited room for dramatic declines compared with when prices were extraordinary high at around $190-200/dmt CFR China a couple of years ago, market sources agreed.

SOME MILESTONES IN CHINA’S IRON ORE MARKET

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<tr>
<td>June 2, 2008</td>
<td>Platts launches iron ore prices indices (IODEX) for 58%, 62% Fe fines</td>
<td>December 30, 2011</td>
<td>India, China’s third largest iron ore supplier, introduces a 30% import tax on all lumps, a 30% on fines above 58% Fe and a 10% on fines below 58% Fe</td>
<td>May 8, 2012</td>
<td>China Beijing International Mining Exchange (CBMX) launches electronic platform for spot iron ore trading (now under the management of Beijing Iron Ore Trading Center Corporation) with Chinese Mills and Iron ore suppliers as stakeholders</td>
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<td>2009</td>
<td>The first cracks appear in the decades-old annual pricing settlements between China and iron ore miners</td>
<td>April 27, 2009</td>
<td>Singapore Exchange launches iron ore swaps, settling basis The Steel Index</td>
<td>October 18, 2013</td>
<td>Dalian Commodity Exchange launches iron ore futures with physical delivery</td>
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<td>2005</td>
<td>China is forced to accept 71.5% annual iron ore price increase with Japanese mills first agreed to this settlement</td>
<td>March 2010</td>
<td>BHP Billiton and Vale disclosed settling shorter-term quarterly pricing schemes to replace the annual settlement with Asian mills</td>
<td>December 2015</td>
<td>China’s iron ore imports hit a single-monthly record high at 96.3 million metric tons</td>
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China’s One Belt, One Road Strategy

Its impact on steel overcapacity.

China has turned to an ancient strategy to try and resolve a very modern problem. The country’s One Belt, One Road initiative, originally mooted by Chinese president Xi Jinping in late 2013, is Beijing’s big plan to establish new infrastructure-driven trading and investment networks along the old Silk Road trade route, while spreading China’s global influence, or “soft power.”

Importantly, it is also an attempt to relocate some of China’s industrial overcapacity – including steel – into some 65 potential partner countries.

The ‘belt’ part of the strategy takes in countries in Central and Western Asia, Europe and the Middle East, while the ‘road’ aspect somewhat confusingly refers to a maritime route, involving countries in Southeast Asia, North Africa and Oceania. The OBOR venture will be largely funded by the newly formed Asia Infrastructure Development Bank – supported by 57 countries though the United States is not one of them – which has a purse of some $100 billion.

The separate Silk Road Infrastructure fund holds a further $40 billion, while sovereign wealth fund, China Investment Corp., has around $750 billion to invest in OBOR-related projects. In other words, there is plenty of cash available for this initiative.

Funding will be provided to partner countries to help them develop new infrastructure projects, which will be largely fulfilled by Chinese companies. The OBOR initiative is expected to provide much-needed work and jobs for China’s engineering and construction firms at a time when domestic fixed asset investment and economic growth are slowing markedly. Many Chinese companies expect to see the benefits of the program over a 5-10 year period, but in all likelihood the initiative will last for decades.

“In our view, the key driver behind the recent accelerated momentum in OBOR is wrapped up in Beijing’s efforts to ensure continued economic growth and employment during the current slowdown of China’s economic growth,” Morgan Stanley analyst Joel Crane said.

China’s beleaguered steel sector is hungrily eyeing the opportunities that OBOR could provide. China Iron
Steel Association secretary general Liu Zhejiang said in July last year that CISA would help its member mills explore investment opportunities that may emerge under OBOR.

Steel mills view OBOR as a way of maintaining production levels at a time when China plans to cut domestic output by 100 million-150 million mt over the next five years. China is estimated to have removed almost 100 million mt of obsolete capacity over 2011-2015.

CAPACITY RELOCATION
Moving capacity overseas is one of four measures identified by the Chinese government as a means of tackling domestic steel overcapacity. The others include the removal of facilities that do not meet environmental standards, more industry consolidation via mergers and acquisitions, and some stimulus to generate more domestic demand. Most of these policies have been in place for several years and have done little to date to curb overall production levels.

Some pig iron producers are also understood to be exploring the viability of moving their facilities to OBOR countries rather than upgrading them at great expense to meet new environmental standards.

CISA deputy-secretary general Li Xinchuang told Platts that OBOR would not be able to solve China’s steel overcapacity situation in the short-term.

“It’s not easy for Chinese companies to go overseas, though it is better for us to move some capacity, but it’s a very long-term strategy,” he said.

Chinese state planner, National Development and Reform Commission, has identified 15 countries across Asia, Africa, Latin America and Europe, which could cooperate on capacity transfer and equipment exports. NDRC has also earmarked cooperation projects...
targeting some 46 million mt/year of new steel capacity, along with 15 million mt/year of alumina and 190,000 mt/year of copper production capacity, though NDRC did not provide a timeline for when any of this might be achieved.

Supported by the local government, mills in China’s leading steelmaking province of Hebei are already mulling the possibility of relocating production capacity to partner countries. The government is targeting at least 5 million mt/year of new steel capacity offshore by the end of 2017, with a longer-term goal of 20 million mt/year by 2023. Priority destinations would be countries holding iron ore resources in Southeast Asia, West Asia and Africa.

HEBEI I&S IN AFRICA
China’s largest steel group, Hebei Iron & Steel, is already building a 5 million mt/year integrated steelworks in South Africa. Given this strategy, it would be surprising if Chinese interests weren’t at least looking at Anglo America’s unwanted Kumba iron ore subsidiary in South Africa.

One of the first examples of relocating production capacity under OBOR is due to take place in Kazakhstan, where China’s Ma’anshan Iron & Steel (Magang) inked a “steel capacity export” agreement with Kazakhstan’s Ferrum Corp in 2014. This will see engineering firm China Metallurgical Group Corporation (MCC) build a 1 million mt/year facility on behalf of Magang in Kazakhstan to produce long steel products. The Kazakhstan works will in effect replace production from Magang subsidiary Hefei Iron & Steel in Anhui province, which is scheduled to close its 1 million mt/year works producing long products in late 2016. Magang will supply most of the equipment for the Kazakhstan venture and help operate the plant.

The ability of Chinese companies, such as MCC, to shift a massive workforce around the world is unmatched. Riots caused by anti-China feelings in 2014 at the Formosa Ha Tinh steelworks construction site in northern Vietnam highlighted the enormous size of the Chinese workforce, as some 3,000 Chinese contract workers had to be quickly evacuated. With China now expecting at least 500,000 job losses in its domestic steel sector, state-owned mills would prefer to relocate some of these workers – even overseas – rather than lose them altogether and risk the social unrest that could bring about. In general, China is losing rather than creating jobs in manufacturing and construction, therefore the country will try to shift more of these positions overseas to work on infrastructure and engineering projects.

TRANSPORT CORRIDOR
One of the first major infrastructure projects to be agreed under OBOR was the $46 billion China-Pakistan Economic Corridor, which encompasses new transport links, as well as pipelines to transport oil and gas. To help meet demand for steel this and other projects in the region may generate, China’s Sinosteel Corporation is investing $778 million in Pakistan Steel Mills. This will allow the ailing steelmaker to triple steel production capacity to 3 million mt/year within three or four years. Sinosteel is also eyeing steel export opportunities in neighboring countries to Pakistan.

Another potential benefit of China moving production capacity offshore would be to avoid trade barriers that are coming down on Chinese steel exports with increasing regularity.

Now free of sanctions, Iran is seen as another strategically important country in the implementation of OBOR, as it connects Asia to Europe via Central Asia. Earlier this year, Sinosteel Engineering & Technology signed an agreement worth $47.5 million with Iranian steel producer Bafgh Kasra to be the prime contractor for the construction of a 1 million mt/year integrated steelworks. Sinosteel ENTEC hopes the deal will lead to other project work in Iran.

Indonesia is another early OBOR partner with China Minsheng Investment Group agreeing to invest $5 billion to develop an industrial park in the Southeast Asian country.

The roll-out of OBOR will not be without its challenges. While many countries (both developing and developed) are keen to secure Chinese investment, they also need to consider local political sensitivities. They do not want to appear to cede too much power and influence to Chinese interests, nor do they want to see locals losing out on job opportunities to Chinese contract workers.

From a steel perspective, the danger is that new production facilities set up under the auspices of OBOR will simply maintain, or even worse, add to the global steel glut. Individual countries may also feel inhibited when it comes to instigating trade cases concerning Chinese steel imports, if China is a major investor.
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REACTIONS TO CHINESE STEEL EXPORTS

A spreading rash of trade cases.

With the global oversupply of steel approaching epidemic proportions, steelmakers virtually everywhere are looking to preserve their own health. The US still leads the way in the filing of trade cases against alleged dumped and subsidized imports, but remedy actions are now commonplace around the world.

More specifically, steelmakers in the US, EU and at least 17 other countries have resorted to trade actions to protect their markets from dumped and subsidized Chinese steel exports. Early provisional anti-dumping duties alone have granted some relief, and settled cases have locked in past protective actions.

The knock-on effects and unintended consequences in steel markets not yet subject to these trade cases have altered markets as well – by product and region.

The US has been a leader in initiating AD and subsidy-taming countervailing duty (CV) cases and has at times imposed prohibitively high duty margins in excess of 100% or 200% against imports from China.

For years, US mills have been successful in keeping key Chinese products, like hot-rolled coil and rebar, out of their home market by defending duties already on the books. Mills are now fighting for new AD and CV duties on value-added cold-rolled coil, corrosion-resistant sheet, stainless steel sheet and narrow strip from China.

Reactions to disruptive, low-priced exports can well up in the form of a variety of trade actions. With steel trade cases launched for six individual products in 2015 and two initiated so far in 2016, it seems unlikely the US would attempt a blanket safeguard action, a trade tool recently utilized by India, Egypt, Morocco and Malaysia.

“I don’t think the industry is ruling anything out,” said Kevin Dempsey, senior vice president of public policy at the American Iron and Steel Institute.

Comprehensive safeguard actions have some benefits. Following a petition, the US International Trade Commission has 120-150 days to make a recommendation to the US president on a trade remedy, such as a tariff or import volume restrictions, and then the president has 180 days from the petition date to decide whether to impose the measure. The domestic
industry needs to prove that it was seriously injured or threatened with injury to impose broad-based safeguard measures, and the relief typically does not last more than two or three years.

In comparison, AD and CV duty investigations typically take about a year or more in the US, do not require presidential approval and have a lower injury standard. Aside from the longer timeline, the main drawback of regular AD and CV duty cases is that countries have to be cited individually and imports can still enter the US from unaffected countries.

“You get a second round of surges,” Dempsey said, adding that steelmakers are watching out for the spillover effects of the recent traditional trade cases. For example, since the US imposed preliminary CV duty rates of 227% to counteract subsidies for Chinese cold-rolled coil, Vietnam has emerged as the most competitive player in the market.

The upside is that when duties are imposed, they are in place for five years before they are reviewed for renewal.

After shipping 792,300 mt of CRC to the US in 2014, according to the US Department of Commerce, Chinese CRC shipments by the end of 2015 became negligible because of the trade case. But what happens to Chinese steel exports after duties are imposed?

Often they are diverted to other countries and can cause an oversupply situation there, prompting those countries to export more – and the US is a popular destination.

The ongoing trade cases have stemmed the flow of cheap steel exports to the US. Even though finished steel imports were up nearly 15% in the first half of last year, they finished the year down 12% when compared with the 2014 total.

US VICTORIES SPAWN COPYCATS
US mills have a long history of success using federal unfair trade laws, so much so that there have been copycats around the globe – both in adopting rules similar to those in the US and, more recently, in the willingness to use them.

In 2014, the US imposed high duties on Chinese wire rod imports that effectively eliminated them as an option for US buyers in 2015. China had shipped 682,151 mt of rod to the US in 2013, 413,129 mt in 2014 and 1,953 mt in 2015. Despite losing one of its major customers, China's rod exports rose 7.5% in 2015 to 13.5 million mt, with Vietnam, Thailand and South Korea being the main recipients, according to China Customs data.

Countries rushed to put up barriers in response to the surge in Chinese wire rod shipments. Mexico, Colombia, Chile, Thailand, Pakistan and Australia all launched antidumping investigations or safeguards against Chinese rod in the last year.

EU mills have apparently been studying the success of US trade actions, but have achieved more modest results. Early this year, the EU imposed provisional duties of roughly 14-16% on Chinese CRC, which seems measly compared with the 266% preliminary dumping margin imposed by the US in March. Even though the EU found a 59% dumping margin for Chinese steelmakers, authorities reduced the duty under the lesser duty rule to an amount "adequate to remove injury," according to the World Trade Organization.

“The high preliminary tariff set by the US demonstrates that the administration takes seriously the need to re-establish a level playing field for its domestic steel industry,” Axel Eggert, director general of the European Steel Association, said in a statement. “Such low [EU] anti-dumping tariff levels do not sufficiently capture the injury suffered by the European steel industry, making the continued application of the [lesser duty rule] unnecessarily damaging.”

But if the US is such a trade remedy paragon, why have US mills been running at only about 70% of their capability this year, even after multiple mills have been idled? This is after utilization rates fell into 60-65% levels in December.

US steel mill shipments have foundered, falling about 12% in 2015 from 2014, even as construction and auto demand picked up.

Market players and industry observers agree that China needs to cut its overcapacity for there to be a real recovery, because even if the Chinese can’t ship a product to a specific country, they can ship ultra-low-priced, semi-finished steel billet, downstream products and steel to other countries for finishing. According to the OECD Steel Committee, the world has about 700 million mt of excess steelmaking capacity – of which AISI estimates 336 million-425 million mt is in China.
CHINA SANGUINE ABOUT EXPORT LEVELS
At the start of 2015, China removed an export tax rebate on certain alloy steels, a move widely viewed as Beijing’s attempt to curb the high level of steel exports and instead force the industry to focus on removing excess capacity.

Many Chinese mills and traders simply added chromium rather than boron to their steel and continued to claim the rebate and maintain exports. Chinese government steel officials said at the time the situation was being closely watched and the export tax rebate could be extended to include chromium. However, in response to the slowing economy and weakening demand for steel, Beijing has become far more sanguine on the export issue.

Indeed, the mantra now is: “The Chinese government doesn’t encourage steel exports, but it doesn’t discourage them either.” This view was repeated by China Iron & Steel Association deputy-secretary general, Li Xinchuang, at Platts Steel Markets Asia conference in Shanghai in late 2015.

“We’re very disappointed by some of the dumping investigations – it’s unfair. We even have anti-dumping cases from Australia and only a few tons go there,” he said.

Li has consistently pointed out China only exports some 10% of its total steel production, whereas Japan typically exports some 40% of its output. But the proportion of exports to production is changing. In 2013, China exported 62.3 million mt, equivalent to 8% of production of 779 million mt. Last year, this proportion jumped to 14% as China’s steel exports rose 20% on-year to 112 million mt, while the country’s crude steel output dipped 2.3% to 803.8 million mt.

China believes its exports are being unfairly targeted and insists it competes on quality and service as well as price. At steel events in Europe and the US, in particular, the constant complaint from rival producers is that China’s state-owned mills are subsidized – hence the raft of countervailing investigations underway – and international steel mills are therefore not competing on a level playing field. Chinese steel officials disagree, and point to the shaky financial position of most Chinese mills as evidence they are also “battling away alone” in the tough international steel market.

In 2015, Chinese steel exports were targeted in 37 new trade cases globally, with China’s Ministry of Commerce estimating the value of the steel involved at $4.7 billion. The spotlight on Chinese imports has shone even brighter this year, with the usually slow-moving European Commission launching an anti-dumping investigation into imports of Chinese heavy plate, hot-rolled flat and seamless pipe in February. The EC has already imposed anti-dumping duties of 13.8-16% on Chinese plate and has preliminary duties of 9.3-13% on Chinese rebar.

China exports roughly equal volumes of long- and flat-steel products, though longs exports increased by 40% on-year to 49.9 million mt in 2015, compared with flats exports which grew just 11% to 48.4 million mt. The top 10 major export markets for Chinese long steel products accounted for 60% of its total longs exports in 2015, similar to 2014’s 58%. South Korea remains China’s largest customer for long steel and Southeast Asian countries feature prominently among the top 10 recipients, along with Turkey and India. South Korea is also a major exporter of steel to China and therefore is unlikely to ever impose duties on its Asian neighbor.

Only India among China’s top customers could pose some threat due to its recently implemented Minimum Import Price regime. This will largely affect Chinese imports of wire rod, though tonnages for both rebar and wire rod imports dropped.

At the start of 2015, China removed an export tax rebate on certain alloy steels, a move widely viewed as Beijing’s attempt to curb the high level of steel exports and instead force the industry to focus on removing excess capacity.
drastically after India introduced new building material standards in 2014. China exported 12.3 million mt in 2015, up 7.5% on the year before, according to China Customs.

Looking at last year’s export volumes, less than 4 million mt could be viewed as being threatened by trade sanctions. Canada, the EU, Australia and Pakistan have either imposed dumping duties on Chinese rebar imports or may do so. But there are plenty of other markets where China could redirect material; therefore export volumes this year may not be far off 2015 levels. January-February exports of 17.85 million mt were down 1.3% on 2015 due to stronger demand in China’s home market. China’s steel export prices have been far weaker than domestic ones, as the country’s mills and traders were forced to trim prices to attract customers offshore due to weak domestic demand from end-users.

Compared with long steel products, Chinese exports of flat steel products are under much greater scrutiny from the plethora of trade cases. South Korea accounted for 7.5 million mt of the 48.4 million mt China exported in 2015, followed by Vietnam with 6.3 million, before a big volume drop to India in third place with 2.7 million mt. Compared with longs, which are predominantly exported into the Asian region, flat steel travels much further afield, with Italy and Belgium among the top 10 largest markets.

Based on last year’s trade numbers, around 12.5 million mt of flat product exports could be viewed as being ‘under threat’ from duties and other barriers this year, significantly higher than is the case for longs.

Including tube and pipe exports, some 16 million-18 million mt of exports could be impacted in 2016. This amounts to just 14-16% of China’s total exports of 112 million mt last year.

### STEEL TRADE CASES 2015-2016

<table>
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<tr>
<th>Complainant</th>
<th>Duties</th>
<th>Product(s)</th>
<th>Origin(s)</th>
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<tr>
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<tr>
<td>US</td>
<td>AD</td>
<td>HRC</td>
<td>Brazil, Australia, Japan, South Korea, Netherlands, Turkey, UK</td>
<td>Preliminary AD duties of 4-7% for South Korea, Netherlands 5%, Turkey 5-7%, Japan 7-11%, Australia 23%, Brazil 34% and UK 49%</td>
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<tr>
<td>US</td>
<td>CVD</td>
<td>HRC</td>
<td>Brazil, Korea, Turkey</td>
<td>No prelim CVD margins for Korean and Turkish mills; Brazil hit with preliminary CVD of 7.42%</td>
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<tr>
<td>US</td>
<td>AD</td>
<td>CRC</td>
<td>Brazil, China, India, South Korea, Russia, Japan, UK</td>
<td>Preliminary AD duties of 265.79% for China, Brazil 20.84-35.43%, Japan 71.35%, UK 5.79-31.39%, Korea 2.17-6.85%, India 6.78%, Russia 12.62-16.89%</td>
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<tr>
<td>US</td>
<td>CVD</td>
<td>CRC</td>
<td>Brazil, China, India, Korea and Russia</td>
<td>Brazilian producers hit with 7.42% subsidy rate; China 227.29%; India 4.45%; Russia (except Severstal) 6.33%; negative for S. Korea</td>
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<tr>
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<td>Rebar</td>
<td>Turkey</td>
<td>Commerce published a draft redetermination that found a de minimis weighted average dumping margin for Habas and a 3.64% margin for Icdas and all other Turkish producers and exporters</td>
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<td>US</td>
<td>AD</td>
<td>Corrosion-resistant sheet</td>
<td>China, India, Italy, South Korea, Taiwan</td>
<td>Prelim AD duties of 255.8% for China; 6.64-6.92% for India; zero to 3.11 for Italy; 2.99-3.51% for Korea and zero for Taiwan</td>
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<tr>
<td>US</td>
<td>CVD</td>
<td>Corrosion-resistant sheet</td>
<td>China, India, Italy, South Korea, Taiwan</td>
<td>Prelim CVD margins of 26.26-235.66% for China; 2.85-7.71% for India; de minimis to 38.41% for Italy; de minimis to 1.37% for Korea and zero for Taiwan</td>
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<tr>
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<td>Structural tube</td>
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<tr>
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<tr>
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<td>Circular welded carbon-quality steel pipe</td>
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<td>US found a preliminary 64.81% CVD margin on pipes from Pakistan</td>
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<tr>
<td>US</td>
<td>CVD</td>
<td>Seamless pipe</td>
<td>China</td>
<td>Duties extended for further five years. US Dept of Commerce said early February that net subsidies of 13.66-56.67% would continue or recur if duties were terminated</td>
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<tr>
<td>US</td>
<td>AD, CVD</td>
<td>Stainless sheet and strip</td>
<td>China</td>
<td>AD and CVD investigation launched. Alleged dumping margins are 51.07-76.64%</td>
</tr>
<tr>
<td>US</td>
<td>CVD</td>
<td>Stainless seamless pipe</td>
<td>India</td>
<td>Preliminary CVD duties of 2.96-6.21% applied to welded stainless pressure pipe suppliers</td>
</tr>
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### STEEL TRADE CASES 2015-2016 (continued)

<table>
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<tr>
<th>Complainant</th>
<th>Duties</th>
<th>Product(s)</th>
<th>Origin(s)</th>
<th>Status/comments</th>
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</thead>
<tbody>
<tr>
<td><strong>Canada</strong></td>
<td>AD, CVD</td>
<td>Hot rolled plate</td>
<td>India, Russia</td>
<td>Countries found not to have dumped in January announcement.</td>
</tr>
<tr>
<td><strong>Canada</strong></td>
<td>AD, CVD</td>
<td>Line pipes</td>
<td>China</td>
<td>Preliminary duties issued in November, final ruling in May.</td>
</tr>
<tr>
<td><strong>Mexico</strong></td>
<td>AD</td>
<td>HRC, CRC, slab, plate &amp; wire rod</td>
<td>Brazil and other exporters</td>
<td>Local steelmakers preparing case.</td>
</tr>
<tr>
<td><strong>Mexico</strong></td>
<td>AD</td>
<td>CR sheet</td>
<td>China</td>
<td>Duties (65.99-103.41%) imposed in June.</td>
</tr>
<tr>
<td><strong>Mexico</strong></td>
<td>AD</td>
<td>Ferromanganese</td>
<td>South Korea</td>
<td>Case launched in January.</td>
</tr>
<tr>
<td><strong>Mexico</strong></td>
<td>CVD</td>
<td>HRC</td>
<td>Russia and Ukraine</td>
<td>Duties (21% for Russia and 25% for Ukraine) extended for further five years.</td>
</tr>
<tr>
<td><strong>South America</strong></td>
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<tr>
<td>Colombia</td>
<td>AD</td>
<td>Wire rod</td>
<td>China</td>
<td>Provisional duties extended for two months in February.</td>
</tr>
<tr>
<td>Chile</td>
<td>AD</td>
<td>Wire rod</td>
<td>All countries (China major importer)</td>
<td>Provisional duties implemented, investigation continuing.</td>
</tr>
<tr>
<td>Chile</td>
<td>AD</td>
<td>Wire</td>
<td>Unspecified countries</td>
<td>Investigation begun in December.</td>
</tr>
<tr>
<td>Peru</td>
<td>AD</td>
<td>Tubes</td>
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<td>Duties imposed for three years from April 2015.</td>
</tr>
<tr>
<td>Brazil</td>
<td>AD</td>
<td>Heavy plate (chrome added)</td>
<td>China</td>
<td>Duties extended to chrome-added heavy plate in August.</td>
</tr>
<tr>
<td>Brazil</td>
<td>AD</td>
<td>HR bars</td>
<td>China</td>
<td>Investigation launched in December.</td>
</tr>
<tr>
<td>Brazil</td>
<td>AD</td>
<td>Rebar</td>
<td>Turkey</td>
<td>Case started in January, no timeframe disclosed.</td>
</tr>
<tr>
<td>Brazil</td>
<td>AD</td>
<td>Seamless pipes</td>
<td>China</td>
<td>Provisional duties ranging from $810.46-1,151.76/mt valid for six month from February.</td>
</tr>
<tr>
<td><strong>Europe &amp; Turkey</strong></td>
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</tr>
<tr>
<td>EU</td>
<td>AD</td>
<td>HR flats, HR plate and seamless tubes</td>
<td>China</td>
<td>EC opened investigation in February.</td>
</tr>
<tr>
<td>EU</td>
<td>AD</td>
<td>Rebar</td>
<td>Belarus</td>
<td>European mills send petition to European Commission.</td>
</tr>
<tr>
<td>EU</td>
<td>AD</td>
<td>CRC</td>
<td>China, Russia</td>
<td>EU imposed AD duties of 13.8%-16% for Chinese producers and 19.8%-26% for Russian producers with duties retroactive to mid-December.</td>
</tr>
<tr>
<td>EU</td>
<td>AD</td>
<td>Rebar</td>
<td>China, Belarus</td>
<td>Preliminary duties of 9.3%-13% on Chinese rebar. EC opens AD case into imports from Belarus.</td>
</tr>
<tr>
<td>EU</td>
<td>AD</td>
<td>Grain-oriented electrical steel</td>
<td>China, US, Russia, South Korea</td>
<td>EC found dumping had occurred, preparing minimum import prices.</td>
</tr>
<tr>
<td>EU</td>
<td>AD</td>
<td>Stainless CR</td>
<td>China, Taiwan</td>
<td>Duties imposed in August (China 24.3-25.2%, Taiwan 6.8%).</td>
</tr>
<tr>
<td>EU</td>
<td>AD</td>
<td>Butt-weld tube &amp; pipe fittings</td>
<td>China</td>
<td>Duties in place since 1996 extended.</td>
</tr>
<tr>
<td>EU</td>
<td>AD</td>
<td>Silicon sheet</td>
<td>Japan, China, Russia, South Korea, US</td>
<td>Definitive duties imposed in November.</td>
</tr>
<tr>
<td>EU</td>
<td>AD, CVD</td>
<td>Ductile cast iron pipe imports</td>
<td>India</td>
<td>14.1% on Jindal Saw Ltd, but put none on Electrosteel Castings Ltd. On all other companies it has imposed a duty of 14.1%. The EC imposed countervailing duty on Electrosteel Castings Ltd of 9%; Jindal Saw Ltd. of 8.7% and all other firms 9%.</td>
</tr>
<tr>
<td>Turkey</td>
<td>AD</td>
<td>HRC</td>
<td>China, Russia, Japan, Slovakia</td>
<td>Final duties imposed January 2016: Russia 9.42-13.66%, Ukraine’s Zaporizhye 1.12% (other Ukraine mills exempt), China 15.47-35.155, Japan 6.95-8.9%, Slovakia 7.02-9.8%, France 0.42%, Romania zero.</td>
</tr>
<tr>
<td>Turkey</td>
<td>AD</td>
<td>Seamless pipe</td>
<td>China</td>
<td>Transitional measures of 22.15%-50.35%.</td>
</tr>
<tr>
<td>Turkey</td>
<td>AD</td>
<td>PPGI</td>
<td>China</td>
<td>Preliminary dumping margin of 30.01%.</td>
</tr>
<tr>
<td><strong>Africa &amp; Middle East</strong></td>
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<tr>
<td>Morocco</td>
<td>Safeguard duties</td>
<td>Rebar, wire rod</td>
<td>All imports, duties extended by three years from December</td>
<td>Duty in effect since 2013 is dirham 0.55/kilogram. Tonnage allowed in duty-free rises by 10% per year.</td>
</tr>
<tr>
<td>Morocco</td>
<td>Safeguard duties</td>
<td>CRC, coated sheet</td>
<td>All imports, duties extended by four years from December</td>
<td>Duty rates are 22% for 2015, 20% for 2016, 18% for 2017 and 16% for 2018.</td>
</tr>
<tr>
<td>Egypt</td>
<td>Safeguard duties</td>
<td>Rebar</td>
<td>All imports for three years from May 2015</td>
<td>Tariff of 8%.</td>
</tr>
<tr>
<td>Iran</td>
<td>Import duties</td>
<td>Flats (except HRC 2mm), longs and billet</td>
<td>China, Russia, Turkey</td>
<td>Duties raised from 10-15% in March.</td>
</tr>
</tbody>
</table>
## STEEL TRADE CASES 2015-2016 (continued)

<table>
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<th>Complainant</th>
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<tbody>
<tr>
<td><strong>Asia</strong></td>
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</tr>
<tr>
<td>South Korea</td>
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</tr>
<tr>
<td>Thailand</td>
<td>AD</td>
<td>HR sheet, tubes, pipes</td>
<td>Brazil, Turkey, Iran</td>
<td>Investigation set to begin</td>
</tr>
<tr>
<td>Thailand</td>
<td>AD</td>
<td>Tubes, pipes</td>
<td>China, South Korea</td>
<td>Investigation set to begin</td>
</tr>
<tr>
<td>Thailand</td>
<td>AD</td>
<td>Wire rod</td>
<td>China</td>
<td>Review of current duties (5-34%) to start</td>
</tr>
<tr>
<td>Thailand</td>
<td>AD</td>
<td>HRC</td>
<td>14 countries including South Korea, Japan, India, Taiwan, Russia</td>
<td>AD penalties maintained in May this year</td>
</tr>
<tr>
<td>Thailand</td>
<td>AD</td>
<td>Pickled and oiled HRC</td>
<td>South Korea</td>
<td>Investigation announced on February 4. Sahaviriya Steel Industries alleges a dumping margin of 22.11%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Safeguard duties</td>
<td>HRC</td>
<td>Importers</td>
<td>Case dropped in January</td>
</tr>
<tr>
<td>Malaysia</td>
<td>AD</td>
<td>HRC</td>
<td>China</td>
<td>Duties of 6.3-12.9% imposed in February</td>
</tr>
<tr>
<td>Malaysia</td>
<td>AD</td>
<td>CRC</td>
<td>China, South Korea, Vietnam</td>
<td>Preliminary duties imposed in January, ranging from 4.58% to 23.78% (most Chinese exporters)</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Safeguard duties</td>
<td>HR plate</td>
<td>Importers</td>
<td>Safeguard duties extended for further three years in July</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Import duties</td>
<td>Rebar, wire rod</td>
<td>Importers</td>
<td>5% import tariff reinstated in June</td>
</tr>
<tr>
<td>Malaysia</td>
<td>AD</td>
<td>Color coated coil</td>
<td>China, Vietnam</td>
<td>Duties of 0.6% to 52.10% (all Chinese exporters) imposed in January</td>
</tr>
<tr>
<td>Vietnam</td>
<td>AD</td>
<td>CR plate</td>
<td>China, Taiwan, Indonesia, Malaysia</td>
<td>Duties imposed in September 2014</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Import duties</td>
<td>HRC, CRC, galv, wire rod</td>
<td>Most favored nations including India, South Korea, Japan, CIS, Latin America</td>
<td>Jakarta close to raising import duties</td>
</tr>
<tr>
<td>China</td>
<td>AD</td>
<td>Grain-oriented electrical steel</td>
<td>EU, South Korea and Japan</td>
<td>Provisional AD duties of 39-45.7% for Japan, 14.5-29.5% for South Korea and 46.3% for EU mills</td>
</tr>
<tr>
<td>India</td>
<td>Safeguard duties</td>
<td>HRC</td>
<td>South Korea, Taiwan, Thailand, South Africa, US</td>
<td>Duties raised to 20% for 200 days from September 2015</td>
</tr>
<tr>
<td>India</td>
<td>AD</td>
<td>Stainless CR</td>
<td>South Korea, Taiwan, Thailand, South Africa, US</td>
<td>Duties extended for further five years until 2020. Investigation into claims exporters are circumventing duties</td>
</tr>
<tr>
<td>India</td>
<td>Minimum import price</td>
<td>173 products, including HRC, CRC, plate, galv and semis</td>
<td>All importers</td>
<td>Effective February 5 for six months; MIP for HRC listed as $445/mt, does not factor in 12.5% import duty on flat products and 20% safeguard duty on HRC</td>
</tr>
<tr>
<td>Pakistan</td>
<td>AD</td>
<td>CRC</td>
<td>China, Ukraine</td>
<td>Preliminary duties of 8-19% imposed on January 13, final ruling by June 13</td>
</tr>
<tr>
<td>Pakistan</td>
<td>AD</td>
<td>Wire rod</td>
<td>China</td>
<td>Investigation launched in October, preliminary determination by mid-April</td>
</tr>
<tr>
<td><strong>Australia</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>AD</td>
<td>Structural sections</td>
<td>UAE, India</td>
<td>Investigation launched in December</td>
</tr>
<tr>
<td>Australia</td>
<td>AD, CVD</td>
<td>Rebar</td>
<td>China</td>
<td>Preliminary dumping duties of 5-24% imposed ahead of final ruling in March, CVD probe to start</td>
</tr>
<tr>
<td>Australia</td>
<td>AD</td>
<td>Wire rod</td>
<td>China</td>
<td>Preliminary dumping duties of 9.5-18.4% imposed</td>
</tr>
<tr>
<td>Australia</td>
<td>AD</td>
<td>Rebar</td>
<td>South Korea, Singapore, Spain, Taiwan</td>
<td>Dumping duties of up to 14.3% imposed on the four countries in November</td>
</tr>
<tr>
<td>Australia</td>
<td>AD</td>
<td>Chrome-plated bar</td>
<td>Italy, Romania</td>
<td>Investigation initiated in November</td>
</tr>
<tr>
<td>Australia</td>
<td>AD</td>
<td>Hollow structural sections</td>
<td>Thailand, India, UAE</td>
<td>Duties of 5.7-29.7% imposed in August; probe into India and UAE announced in December</td>
</tr>
<tr>
<td>Australia</td>
<td>AD</td>
<td>Wire rod</td>
<td>Indonesia, Taiwan (Turkey exempted)</td>
<td>Duties of 10.1% on Indonesian exporters and 2.7% on Taiwanese exporters imposed in June</td>
</tr>
<tr>
<td>Australia</td>
<td>AD</td>
<td>Quenched &amp; tempered plate</td>
<td>Sweden, Finland, Japan</td>
<td>Duties imposed in November 2014</td>
</tr>
<tr>
<td>Australia</td>
<td>AD</td>
<td>ERW pipes</td>
<td>China, South Korea, Malaysia and Taiwan</td>
<td>Dumping duties imposed in 2012 continued (China also subject to CVD duties)</td>
</tr>
</tbody>
</table>

Source: Compiled by Platts, updated monthly.
INDUSTRY LEADER PROFILE

ALCOA

A global leader in lightweight metals technology, engineering and manufacturing, Alcoa innovates multi-material solutions that advance our world. Our technologies enhance transportation, from automotive and commercial transport to air and space travel, and improve industrial and consumer electronics products. We enable smart buildings, sustainable food and beverage packaging, high performance defense vehicles across air, land and sea, deeper oil and gas drilling and more efficient power generation. We pioneered the aluminum industry over 125 years ago, and today, our approximately 60,000 people in 30 countries deliver value-add products made of titanium, nickel and aluminum, and produce best-in-class bauxite, alumina and primary aluminum products.

As announced in 2015, Alcoa is preparing to separate its Value-Add and Upstream business segments into two, independent, publicly-traded companies in the second half of 2016. The Value-Add Company will be a premier innovator of high performance multi-material products and solutions in attractive growth markets. The Upstream Company will be a global leader in bauxite, alumina and aluminum, with a unique portfolio of casthouses, and substantial energy assets. The name, logo and tagline of the future Value-Add Company is: “Arconic. Innovation, Engineered.” The future Upstream Company will operate as Alcoa. For more information, visit www.alcoa.com and www.arconic.com.

KLAUS KLEINFELD
CHAIRMAN AND CHIEF EXECUTIVE OFFICER

AQUA METALS

Aqua Metals (Nasdaq: AQMS) is reinventing the lead acid battery industry with its proprietary technology, AquaRefining. This groundbreaking room temperature, water-based process is a fundamentally non-polluting alternative to lead smelting. The modular design of AquaRefining technology enables the creation of smaller, more efficient lead recycling centers to meet growing global demand for lead in battery applications such as automotive, data centers and grid scale storage. Bringing environmentally clean lead acid battery recycling closer to battery collection/distribution centers and manufacturers will greatly reduce logistics costs and change the way the lead industry operates forever.

We are on the cusp of a Battery Age, with lead acid at the heart. AquaRefining will modernize lead acid battery recycling and help the $60B+ lead acid battery industry thrive as the only battery industry able to operate in a truly sustainable and environmentally friendly manner by cleanly recycling nearly 100% of input stock.

Aqua Metals is based in Alameda, California where it manufactures AquaRefining Modules, and is building its first AquaRefinery in Nevada’s Tahoe-Reno Industrial Complex, slated to open in June, 2016. The company is actively working with existing lead smelters, battery manufacturers and battery distribution companies to license or franchise the technology.

DR. STEPHEN R. CLARKE
CHAIRMAN AND CEO
CLIFFS NATURAL RESOURCES INC

With a corporate heritage dating back 168 years, Cliffs Natural Resources Inc. has been a major supplier to the production of iron and steel in the US by offering steelmakers world-class raw materials. Today, Cliffs continues to be a leading iron ore mining company and operator. Pioneers in developing the beneficiation and pelletizing process, the Company holds the top position as the largest iron ore producer of pellets in North America, as well as one of the lowest cost pellet producers in the world. Cliffs’ technical knowledge and expertise has helped the company to foster strong relationships with steel producers through the years.

Cliffs’ US Iron Ore operations located in Michigan and Minnesota had an annual rated capacity of 32.9 million tons of iron ore pellet production in 2015, which represents approximately 56 percent of total US pellet production capacity. Cliffs owns and operates five of the eight open pit iron ore mining and processing facilities in the US. While most iron ore producers mine, market and sell a commoditized product to steel producers, Cliffs’ production of high-grade, custom-made pellets is the differentiating factor when comparing the Company to its peers in the iron ore industry.

As a differentiated mining company, Cliffs Natural Resources Inc. is uniquely positioned to satisfy the requirements of its North American steelmaking customers. Its high-grade, premium pellets are customized for and fed directly to its customers’ blast furnaces and are produced under the most stringent environmental regulatory framework in the world. Thanks to its long-term partnerships with North American steelmakers, Cliffs operates under stable contracts, serving the growing end-markets for steel such as automotive, construction, white goods and manufacturing.

EAF steel producers (‘mini-mills’) in North America require a reliable and quality source of iron-based metallics. Cliffs is pursuing the opportunity to tap into this potential market to become a supplier of DR-grade pellets, pig iron and other alternative iron units. Using its technical expertise to increase product offerings, Cliffs developed a new product, DR-grade pellets, for feedstock in DRI production. The Company has reached a significant milestone with full-scale production testing, and is well-positioned to move forward in this market.

Cliffs’ Western Australia iron ore operations consist of the wholly-owned Koolyanobbing complex, a collective term for the operating deposits at Koolyanobbing and Mount Jackson. The Koolyanobbing operations serve the Asian iron ore markets with direct-shipped fines and lump ore. Ore is crushed and blended, then transported by rail for shipment from the port of Esperance.

Driven by the core values of safety, social, environmental and capital stewardship, Cliffs’ employees are committed to providing all stakeholders with operating and financial transparency. Fundamental to the Company’s business is responsible and safe operation, respectful engagement and effective stewardship. By cultivating these values, Cliffs has been successful in developing opportunities while gaining the support of its stakeholders and agencies that grant its license to operate.

Lourenco Goncalves was appointed Chairman, President and Chief Executive Officer of Cliffs Natural Resources Inc. in August 2014. Since joining the company, he has implemented and has been executing a strategic initiative designed to strengthen Cliffs’ position as a major supplier of iron ore pellets to the US steel industry.

Mr. Goncalves brings more than 30 years of experience in the metals and mining industries, as well as extensive Board experience, in the United States and abroad. He earned a Masters of Science degree in Metallurgical Engineering from the Federal University of Minas Gerais in Belo Horizonte, Brazil and a Bachelor’s degree in Metallurgical Engineering from the Military Institute of Engineering in Rio de Janeiro, Brazil.
ESAN

Esan is one of the leading industrial raw material and metallic mineral producers in Turkey. Since its foundation in 1978 it has grown steadily and today counts among Turkey’s top industrial enterprises.

Since the opening of the Balya Lead&Zinc plant in 2009, the production of metallic minerals has become a substantial component of Esan’s operations and made it the largest exporter of lead concentrates in Turkey.

Following its successful entry into lead and zinc mining, Esan is expanding into new areas of mineral production, among them high technology products and metallurgy. In late 2015, the company officially opened Turkey’s first, and Europe’s only, primary magnesium metal production facility. There, Esan will produce primary pure magnesium and alloys in different shapes and forms.

Esan’s global presence has expanded through the years parallel to its growing business volume and range. Esan currently operates 37 mines and 7 processing plants, markets more than 150 products to industries in Turkey and over 40 other countries and has representative offices in Italy, Ukraine, Kosovo, China and, as of early 2016, Portugal.

MIDWEST MATERIALS INC

MidWest Materials, Inc. is honored to be named as a finalist in two categories of the 2016 Global Metals Awards – “Physical Metals Service Provider of the Year” and “CEO of the Year”.

MidWest Materials is a leading steel service center serving the metal needs of manufacturers across North America for 65 years. The 240,000 sq. ft. warehousing and processing facility near Cleveland, Ohio, USA, currently distributes hot rolled, HRPO, cold rolled and coated steel products. It is home to the largest Leveltek Stretch Leveling System in North America, providing memory-free steel over 5/8” thick and over 100” wide, as well as corrective levelers, slitters, shears, an on-site testing laboratory, direct rail access and a dedicated fleet of trucks, and it is ISO 9001:2008 certified.

MidWest Materials’ focus on customer service initiatives and their relationship-based business model is emphasized by their motto “Together we are Stronger than Steel!” They are honored to be recognized repeatedly by leading manufacturers and associations with outstanding supplier and service awards.

CEO Brian D. Robbins is proud to be the third generation of the family-owned and operated business, advancing initiatives based on traditions of quality, service, safety, innovation and dedication to long term relationships with vendors, customers, employees and the community. Brian spent the past two years serving the greater steel community as President of the Association of Steel Distributors (ASD).

For more information please visit www.midwestmaterials.com.
Mr. Kailash Dhar Diwan took charge as Chairman cum Managing Director of Hindustan Copper Limited (HCL) on January 9, 2012. Prior to his appointment as CMD, Mr. Diwan was Director (Operations) of HCL since September 2007, additionally overseeing Material and Contract functions for the Company.

Mr. K.D. Diwan has contributed immensely to the growth of the Company. He was a key member of the management team instrumental in turnaround of the Company, transforming it into a self-sustainable and vibrant organization. Being a decisive leader, he spearheaded the market which was dominated by large smelting and refining companies and came out with flying colors.

The smelter plant at Ghatsila and copper wire rod at Taloja have achieved its best ever production since inception and also played stellar roles in modernization and capacity expansion of the Ghatsila Smelter plant. Under Mr. Diwan’s stewardship, the Company is implementing concurrently eight mining projects to enhance mine capacity of the Company by fourfold in the next five years. The projects include expansion of existing mining capacity, reopening of closed mines and green-field mining projects. Recognizing his efforts, the Asia Pacific HRM Congress has conferred on him the CEO with HR Orientation award in 2013. Recently, Mr. Diwan, CMD, HCL, has been instrumental in acquisition of Jhagadia Copper Ltd., a “State of the Art” plant based on a secondary route. This will help to increase annual capacity to produce copper cathode by 100%, i.e. by 50,000 mt. Mr. Diwan was instrumental in developing the technology to monetize the huge quantity of mineral waste generated during operations in the last 48 years. Extract minerals and materials from copper ore tails is one such initiative in this regard.

Prior to joining HCL, Mr. Diwan served Bharat Refractories Limited (BRL) for 24 years and was Head (Marketing and Services). Mr. Diwan had made remarkable contributions to the turnaround of the Bhilai Unit of BRL which was on the brink of closure. Mr. Diwan also held various important positions in the departments of Maintenance, Purchase, Stores, Contracts Cell, Finance and Accounts, Marketing and Services, EDP, etc.

Mr. Diwan was born on August 19, 1957, and obtained his bachelor’s degree in Electrical Engineering from the National Institute of Technology, Raipur in 1981. He also holds a bachelor’s degree in Law, a post-graduate degree in Materials Management and a post graduate diploma in Financial and Accounts.

Mr. Diwan has published and presented research papers at various national conferences and has been visiting faculty for 17 years at Ravishankar University, Raipur, teaching various subjects of Management to post-graduate students. Mr. Diwan is a thorough gentleman with strong convictions, clear strategic vision and intellectual capacity, coupled with proven managerial experience.
NanoSteel and AK Steel are proud to be finalists for the Platts ‘Breakthrough Solution of the Year’ Award.

**NANOSTEEL**

NanoSteel is an advanced materials company specializing in the design and commercialization of patented steels with exceptional mechanical properties derived from their nano-scale microstructure. The Company’s primary focus is proprietary alloys for use as sheet steel in automotive lightweighting applications. Founded as a spinoff of the US Department of Energy’s Idaho National Laboratory in 2002, NanoSteel has developed multiple generations of ferrous materials innovations including metallic coatings, additive manufacturing powders, and sheet steel protected by over 300 patents filed and granted worldwide.

**AK STEEL**

AK Steel is a world leader in the production of flat-rolled carbon, stainless and electrical steels, primarily for automotive, infrastructure and manufacturing, construction and electrical power generation and distribution markets. AK Steel’s focus is the on the future of steelmaking. We are bringing innovative new products and processes to the market to meet our customers’ needs today and for the future. AK Steel is on the forefront of technology including advanced high strength steels for automotive light-weighting applications.

**OWENSBORO RIVERPORT AUTHORITY**

The Owensboro Riverport Authority (ORA) was chartered by the City of Owensboro, Kentucky in 1976 for the purpose of regional economic development and multimodal transportation. After 40 years in operation, ORA has become one of the leading inland waterway ports for the handling and storage of metals, agricultural products, and general cargo.

Located in the heart of America on the Ohio River, ORA offers 300 acres of metal storage, industrial property and warehousing for a variety of industrial applications optimizing the key transportation modes of river, rail and road.

As the Ohio River Valley’s premier gateway to global trade, our multimodal port provides the advantage of being a Foreign Trade Zone, US Port of Entry and designated LME and CME good delivery site. In addition, our customers benefit from reliable barge service, direct rail access, public/private partnerships and the convenience of major highways and interstates.

With our centralized location and a reputation of quality, innovation and dependability, ORA provides value-added services to businesses worldwide. As a service provider, we remain committed to excellence by focusing on the competitive needs of each individual customer and how best to meet the customer’s strategic business objectives in the international marketplace.
REAL INDUSTRY INC

Real Industry, Inc. (NASDAQ: RELY) is a North America-based holding company seeking to take significant ownership stakes in large, well-managed and consistently profitable businesses concentrated primarily in the United States industrial and commercial marketplace with a focus on the food, water, energy and transportation industries. The company has significant capital resources, and federal net operating loss tax carryforwards of more than $870 million.

Real Industry purchased Real Alloy in February 2015 from Aleris. Real Alloy is the global market leader in third party aluminum recycling and specification alloy production. The company converts aluminum scrap and by-products into reusable aluminum metal and delivers it back to customers in molten, ingot and sow forms. Real Alloy operates twenty-four facilities strategically located in six countries across North America and Europe to serve global customers and support a customer-driven approach to aluminum recycling and metal supply.

Real Industry is led by its chairman and CEO Craig Bouchard, New York Times best-selling author of The Caterpillar Way and a seasoned entrepreneur coming from an extensive background in the metals industry. For more information about Real Industry, visit its corporate website at www.realindustryinc.com.

CRAIG BOUCHARD
CHAIRMAN AND CEO
STEEL DYNAMICS, INC.

Steel Dynamics, Inc. (SDI) began producing steel in 1996, and 20 years later we are one of the largest and most diversified domestic steel producers and metals recyclers in the United States based on current estimated annual steel capacity of 11 million tons. We operate six electric-arc-furnace steel mills located in the Midwest and Southern U.S., producing various sheet and long steel products. We are the largest non-automotive sheet steel coating company in the U.S. operating ten coating lines, including galvanized, galvanneal, Galvalume®, Galfan and painted products. We also produce long steel products, including structural beams and shapes, engineered special-bar-quality bars, merchant bars, specialty shapes and rail. Ferrous scrap is our single largest cost of production. As such, we are vertically integrated with approximately 75 metals recycling locations with an annual estimated ferrous processing capacity of 7 million tons, allowing for a just-in-time, high-quality and lower cost raw material supply for our steel mills. This strategic symbiotic relationship with our own steelmaking operations provides valuable pull-through demand to our ferrous scrap operations, representing approximately 54% of metals recycling 2015 ferrous shipped tons. We also utilize some of our steel in the downstream fabrication of steel joist and deck used in the non-residential construction market. We operate eight steel fabrication plants which are located throughout the U.S., with one in Mexico. SDI provides employment for approximately 7,500 individuals, supporting families and communities.

We achieved revenues of $7.6 billion in 2015, of which 69% was from our steel operations, 19% from our metals recycling operations and 9% from our steel fabrication operations. We generated record cash flow from operations in 2015 of over $1.0 billion and free cash flow after capital expenditures of $923 million. With our strong credit profile and record liquidity of over $1.9 billion for 2015, we are uniquely positioned to grow organically and inorganically in this challenging steel industry environment.

Although 2015 was filled with macro volatility, we continued to outperform our industry peers on a number of key business measures, including shareholder value appreciation, operating margin, EBITDA margin and for our steel operations, profitability per steel ton shipped. Even in this challenged environment, our steel mills achieved a production utilization rate of 79%, while the domestic steel industry reported only 70% for 2015. We consistently achieve higher utilization as a result of our diversified product portfolio, emphasis on higher value-added steels and a consistent customer focus.

Steel Dynamics differentiates itself through a superior operating culture, low-cost, highly variable operations, diversified highly value-added product portfolio and an entrepreneurial spirit that is found throughout our entire organization. Employees are passionate about delivering quality products and providing excellent service to our customers. Our common goal – safety and consistently achieving excellence in all we do – is reflected in the esprit de corps that permeates Steel Dynamics. Whether driving toward industry-leading safety performance results, implementing innovative technology in our manufacturing processes or ensuring we consistently meet customers’ needs, our employees vigorously pursue excellence. These dynamics create and sustain value for our employees, customers and shareholders alike.

2015 STATISTICS

- Annual steel capacity of 11.0 million tons
- 7,500 Employees
- Annual sales of $7.6 billion
- Record annual operating cash flow of over $1.0 billion
- Record liquidity of over $1.9 billion
- Record low total recordable safety incident rate
UNITED SCRAP METAL INC

In 1978, Marsha Serlin founded United Scrap Metal with $200 and a rental truck. At that time, Serlin was a divorced single-parent solely responsible for two young children. She saw an opportunity to support her family by gathering scrap from alleys, manufacturers, and facilities. Serlin relentlessly knocked on doors and solicited businesses to acquire customers and develop relationships.

A pioneer in recycling, Serlin has re-defined the industry by adding value to materials, thus allowing her business and that of her customers to thrive. Now a top metal supplier in the US, United Scrap Metal’s 400 employees serve more than 3,000 customers across the country.

Serlin’s leadership extends to her service across numerous national and international boards, councils, and committees, including an appointment to the United States Department of Commerce Manufacturing Council.

In addition to being a successful leader and entrepreneur, Serlin is a philanthropist. She balances her success by supporting the community and numerous charities while challenging others to get involved by making a difference for those in need.


United Scrap Metal is one of the largest scrap metal recycling firms in the Midwest manufacturing clean metal stock from wire granulation. The company is a reflection of the determination and spirit of its founder, Marsha Serlin, who started the business with no capital, no customers, and no experience. In the past two years, the company has expanded into four new markets: Philadelphia, PA, Charlotte, NC, Richmond, VA, and St. Louis, MO.

With a client retention rate of over 98%, their excellence in client service is reflected in their culture. Their philosophy boils down to their five reciprocal core values: Trust, Commitment, Loyalty, Passion, and Performance. Team members not only commit to these values, but also to quality and continuous improvement. Internal and external customers have learned to expect these service qualities from United Scrap Metal.

Additionally, environmental compliance and downstream liability management are important aspects of United Scrap Metal’s Risk Management platform. The program is a unique package of comprehensive services created exclusively for both the public and private company sectors. United Scrap Metal created a package of risk mitigation services uniquely designed to meet the needs of the energy industry. That led to an expansion into four new markets.

United Scrap Metal also provides commodity reports and current market intelligence to customers, keeping clients informed while navigating ever-changing economic conditions. United Scrap Metal operates its own delivery fleet, ensuring a quick response and 24/7 order processing. All orders, including high-volume transactions, are processed and delivered on schedule.

United Scrap Metal has been named an Alcoa Top Ten Supplier for five consecutive years and recognized with 30 plus additional awards and honors. They’ve received recognition from global, national, and local organizations. The company is listed in the Crain’s Chicago Business Top Privately-Held Companies, Top Five Women-Owned Businesses, and “Fast Fifty” lists.

STATISTICS
- Employees: 400+
- Locations: 5
- Clients: 3,000 nationwide
- Fleet: 100 units
- Awards/Honors: 30+
- Facility: 150 acres dedicated to metal processing, over 600,000 sq. ft. under the roof
Upstate Shredding-Weitsman Recycling, founded in 1996 by Adam Weitsman, is the largest privately held scrap processor on the East Coast. With 400 employees, Upstate is headquartered on a 17-acre environmentally certified facility in Owego, New York, and operates sixteen thriving locations in both New York State and Pennsylvania. The company was recognized with the Leadership Award for Scrap & Recycling by Platts in 2014 and was the American Metal Market Scrap Company of the Year (Large Company) in 2015. The company is dedicated to leadership within the industry, aggressive financial growth and the establishment of new standards within the field.

In 2016, the company will process more than 1 million tons of ferrous and 300 million pounds of non-ferrous scrap metal. Through acquisition, the company broadens its client base and increases productivity. The strategic plan of the company is to operate 50 facilities on the East Coast. Upstate Shredding-Weitsman Recycling is projected to earn one billion dollars annually in 2016.

The company has two distinct divisions – the scrap collection system within the Ben Weitsman structure and the scrap processing and shredding operations within the Upstate Shredding division. It has now grown to include facilities in Allegany, Binghamton, Owego, Brant, Jamestown, Hornell, Ithaca, Rochester, Syracuse, and Albany in New York, as well as Scranton and New Castle in Pennsylvania. The company sells its product to companies across the United States and abroad and just opened a brand new, state-of-the-art shredder and retail scrap yard in New Castle.

Built on hard work and a strong client focus, the company pays top prices for scrap metal, keeps offices open seven days a week, and offers same-day cash payment. As a result of its aggressive growth strategy and quickly expanding capacity, Upstate Shredding-Weitsman Recycling is heralded as a resource within the industry, providing insights and leadership to multi-billion-dollar financial and research companies internationally.

While others in the industry have downsized, laid off workers, and closed locations in one of the worst years for the scrap industry, Upstate Shredding-Weitsman Recycling has remained profitable through aggressive growth and expansion. It has set a standard by financial success, reputation, and brand recognition. As the largest privately held scrap metal processor on the East Coast, the company has consistently posted record quarters, with profits made for 40 consecutive quarters. This impressive record has been achieved without staging a single layoff.

The owner, Adam Weitsman, has dedicated the time and resources to make his company grow, working 90+ hours per week to guarantee the company’s success. Under his leadership, the company has been positioned as a resource in the industry. This is apparent through the media’s use of the company as a resource (including a CNN report and articles in National Geographic and Wall Street journal article) and the fact that many billion-dollar companies look to Adam as a trailblazer within the metals market.

Weitsman is credited with ushering in the new age of scrap yards, significantly investing in his facilities to erect new buildings, seek out environmental certifications, and pave and landscape the yards. The company utilizes the newest technologies to increase productivity, and minimize their impact on the environment.
LATEST PROVEN STEEL TECHNOLOGIES

ENERGY SAVING – HIGHEST PRODUCTION CAPACITY – ECO FRIENDLY

- Steel Scrap Continuous Charging (ConSteel Technology).
- Endless Casting Technology.
- Endless Rolling Technology.
- Direct Rolling & Bundling (DRB).

www.egyptian-steel.com
The winners of the 2016 Platts Global Metals Awards aim to honor and recognize the people and companies at the pinnacle of the metals industry. They point us towards a new paragon, and reveal a path to excellence in leadership, innovation, safety, integrity and overall performance – whatever market conditions may bring. This year, Platts received more than 100 nominations, narrowing them to an impressive roster of finalists from 17 countries competing for 15 category awards, including the coveted title “Metals Company of the Year.”

In the fourth year for the Global Metals Awards, nominations were more deeply dispersed across the full slate of performance categories than ever before. Despite the broad spectrum of businesses represented, the winners shared a talent for reading the markets well and acting decisively. For some, the path to growth led them through reduction, realignment and restraint, while others expanded cautiously with an eye towards future growth. All of our winners made it through 2015’s wild ride and emerged equipped not only to survive, but also to succeed.

Judging was conducted by an impartial panel of independent judges: Alberto Hassan, Former President & CEO, Orinoco Iron; David King, Former CEO and Director, LME; Jim Lennon, Former Chairman of Commodities, Macquarie; Rana Som, Former Chairman, NMDC and Hindustan Copper; and Michael Setterdahl, Former Managing Director of Nucor Trading. Winners were honored on May 19 at a black-tie dinner in London.

METALS COMPANY OF THE YEAR
Steel Dynamics, Inc.
United States
Each year, judges select the Metals Company of the Year winner from the entire list of Global Metals Awards finalists. The 2016 program’s top honor goes to Steel Dynamics (SDI), one of the US’s largest steel producers and metals recyclers. SDI is a comparatively young company in the steel industry, but it was founded on strong fundamentals, began greenfield production in 1996 and has since exhibited steady growth.
2015 was challenging for SDI’s sector, with average selling prices decreasing throughout the year. While its core businesses may not be particularly unique, SDI employed what judges called “foresight and boldness” to achieve higher returns than its peers. This was due in part to its swift integration of a deal completed in late 2014. The business, which increased SDI’s annual steel shipping capacity by 40% to 11 million tons, essentially doubled its volume of flat products and catapulted the company ahead of its peers. It also diversified SDI’s steel operating base and materially increased the company’s earnings power by offering access to the high-growth markets of automotive and construction. “Through innovative products and production methods, they were able to raise the volume of higher value added products and achieve better returns,” analyzed one judge.

The integration was immediately accretive to SDI’s annual results, which, in a falling market, have been exceptional; in 2015, the company reported $7.6 billion in annual sales. Judges also appreciated that SDI’s EBITDA margin percentage performance has been at the top of its peer group in the last ten of eleven years; they noted that the company “maintained profitability in difficult times” and “showed consistent fundamental performance” in 2015. Its operational and financial strengths are underpinned by a unique company culture, a remarkable team, and what one judge called “integrity principles from the top man,” CEO and co-founder Mark Millett.

SDI’s impressive financials, successful deal integration and inspiring leadership during 2015 carry it above and beyond its market category to Metals Company of the Year. As one judge declared, “This is a business model for the future.”

CEO OF THE YEAR
Marsha Serlin
United Scrap Metal, Inc.
United States

Did you get your invitation to the “recession party”? United Scrap Metal CEO Marsha Serlin says she did: “We saw it coming. We just chose not to go.” As instability in the global metals markets reverberates all along the value chain, the recycling industry is in crisis, with falling profits forcing many recyclers to close their doors or succumb to bankruptcy. Serlin, bucking the trend, has led her $200 million company to notch recent double-digit growth in annual volume.

United purchases, processes and markets recyclable commodities for customers in the manufacturing, utilities, service centers and construction industries across the US. Serlin founded the company in 1978 armed only with $200, a rented truck and boundless determination. At that time, she was a divorced single parent of two young children. To support her family, she began gathering scrap from alleys, manufacturers and facilities. She stood out as a woman in a male-dominated business, often loading her truck while awestruck workers looked on.

Competitors predicted her start-up would fail as the industry entered an economic recession, but she persisted, learning lessons that she would apply to her company whenever difficult financial climates threatened. She also worked doggedly to stand apart from her competitors by professionalizing her business, building a reputation for honesty, transparency and fair pricing. Today, her status is what judges called “the favored supplier over many institutions” has led to a strong, stable business. United claims more than 4,000 clients nationwide and enjoys an exceptionally high customer retention rate.

Serlin is expected to continue bucking industry trends by focusing on growth sectors such as automotive and aerospace, negotiating annual contracts with customers and keeping a close eye on inventory. She received a chorus of approval from judges who praised her “consistent growth” and “strong performance,” underscored by the “great story” she is living.
Steel (AHSS) that is redefining the metal’s longstanding relationship to the automotive industry.

This AHSS solution combines NanoSteel’s expertise in designing new alloys with AK Steel’s skills in production, plant capital and existing automotive supply chain links to deliver a new solution to a looming issue for automakers. Though steel has been the automotive industry’s metal of choice for over a century, 2025 emissions standards require a reduction in vehicle weight, leading some manufacturers to consider alternatives such as aluminum or composites. However, this AHSS is based on new mechanisms that form nano-structures during production, eliminating the brittleness previously associated with sheet steel. The resulting cold-formable product gives engineers new design freedom to form unique geometry parts and is stronger than its predecessors, allowing automakers to use thinner gauges of steel to reduce part weight and ultimately improve fuel economy as well as occupant safety.

Importantly, use of AHSS enables automakers to continue to employ steel’s existing infrastructure, scale and efficiencies versus facing the cost, timing, availability and operator training issues inherent in shifting gears to different lightweight materials.

Building on AHSS’ possibilities for the automotive industry, judges remarked on its potential for markets such as aerospace, energy and defense. In a category that produced a “very tight race,” they praised these innovators for their development “that could totally transform the light, high-strength steel space.”

ABRALATAS Brazil
There’s a saying among the waste pickers, or catadores, on the streets of Brazil: “A latinha e oro,” or “The aluminum can is gold.” More than 800,000 catadores have a better standard of living thanks to ABRALATAS, as the cans manufacturers’ trade association has rallied members in an impactful CSR program to benefit both citizens and the environment.

Brazil is the world’s third-largest market for aluminum cans, producing approximately 25 billion beverage cans in 2015. These discards have high value relative to other recyclables; unlike many materials that must be down-cycled, or turned into less valuable material, aluminum has the ability to be endlessly reincarnated as new beverage cans without losing quality. ABRALATAS noted the high relative price of used beverage cans – about $1.50 per kilo – and the high unemployment rates among the professionally under-qualified population, and created a program to connect the two.

Today, individual can collectors are the first link in Brazil’s impressive recycling chain. ABRALATAS has united collecting cooperatives,中间省略部分内容，继续

ALCOA United States
Last year’s unanimous choice for Metals Company of the Year, Alcoa returns at the helm of this year’s outstanding deal: its $1.5 billion acquisition of titanium-product producer RTI International Metals. The agreement is a continuation of Alcoa’s aggressive strategy to transform itself from a commodity-dominated enterprise to an industrial innovator with a focus on higher-value markets such as aerospace.

Titanium is the fastest-growing metal used in aerospace production thanks to its high strength-to-weight ratio and excellent corrosion resistance, and the RTI deal positions Alcoa as “a titan in titanium,” according to CEO Klaus Kleinfeld. Together, Alcoa and RTI create a near-complete titanium
value chain, from midstream processing to finished sub-assembled products.

The RTI purchase is Alcoa’s third in a series of recent aerospace acquisitions – including titanium component producer Titl and component provider Firth Rixson – and its significance lies in its ability to “give Alcoa even more penetration to the aerospace industry,” said one judge. RTI’s advanced manufacturing and materials technologies capabilities complement Alcoa’s existing titanium investment casting and forging capabilities, and enable a value-creating closed titanium scrap loop – a move that helps ensure a more stable supply of titanium for customers, saves costs and improves productivity.

Judges noted that while this $1.5 billion purchase may seem small for Alcoa, “it secured their strength” in aerospace – the company has inched approximately $10 billion in aerospace contracts since the start of 2015. Like Alcoa’s previous “big decisions,” this Deal of the Year advances the company’s reputation for smart strategic alignment.

INDUSTRY LEADERSHIP AWARD – BASE METALS
Hindustan Copper Limited
India
Facing low prices in the global copper markets, many producers are cutting costs in order to survive. However, some analysts predict a brighter future ahead: India is expected to register the fastest gains of any major copper metal market through 2019, thanks to increases in domestic building construction activity. Judges gave Hindustan Copper Limited (HCL) high marks across the board, observing that the company is “strategically positioned for future success” while also “maintaining profitability in a soft market.”

HCL, India’s state-owned copper producer, is the country’s only vertically integrated copper producer. HCL owns all of India’s copper mines, with access to over two-thirds of the country’s copper ore reserves. The company keeps close watch on production costs with an eye towards eventual market improvement; HCL aims to increase its mining capacity from current level of 3.4 million tons per year to 12.4 million tons per year by 2017. This bold move, designed to reduce India’s dependence on imported copper concentrate, will take place through expansion of existing mines, re-opening of closed mines and greenfield projects. It is now in “acquisition mode,” capturing the assets of Jhagadia Copper Ltd. in 2015.

This Base Metals Industry Leader is also leveraging its abilities in auxiliary

INDUSTRY LEADERSHIP AWARD – ALUMINUM
UC RUSAL
Russia
It has been a difficult run of late for the global aluminum industry. Oversupply continues to plague prices and weaken sentiment, global trade shifts have brought further challenges, and the potential for supply chain cutbacks and price volatility remain. In the face of difficult market conditions, RUSAL has stood strong by focusing on production and cost control.

In a proactive move that judges said showed “discipline and restraint” as well as mastery of market fundamentals, RUSAL was “one of the few companies” to address the industry’s oversupply issues head-on by voluntarily reducing its aluminum production capacity – in RUSAL’s case, by 647,000 tons in 2013. The company has continued to lead by example, keeping its aluminum production output flat in 2015 with no plans to restart any mothballed aluminum capacity.

Judges also admired RUSAL’s “strategic goals” for carbon-free power and its authentic commitment to battling climate change. The company has cut its emissions by 54% since the mid-1990s, with a planned switch to full hydro power for electricity by 2020. In 2015, the company initiated the Climate Partnership for Russia, an organization of more than a dozen of Russia’s largest businesses and NGOs united by their efforts to implement green practices.

RUSAL’s efficiency and cost reduction initiatives are paying off, as the company’s aluminum segment cost per ton decreased by 15.6% to a new record low of $1,410 in the fourth quarter of 2015, compared to $1,671 per ton in the same period of 2014. Judges salute RUSAL for being “resourceful,” wisely heeding fundamentals and taking action while others stood by.
markets beyond copper. The company is employing new technology to recover nickel from the waste generated during the smelting process. Construction of a nickel recovery plant, now underway in Ghati, will facilitate the production of nickel for the first time in India, where demand for the metal is currently on the rise.

The company has reported profits for the past five years, and has “weathered the downturn,” admired one judge, leaving them well prepared for the opportunities ahead.

INDUSTRY LEADERSHIP AWARD — RAW MATERIALS & MINING
Cliffs Natural Resources Inc.
United States
Few companies were hit harder by declining commodities prices than Cliffs Natural Resources, which as the largest US miner of iron ore, saw prices plunge nearly 50% in 2014. However, Cliffs swept this year’s RM&M category, earning top votes from every judge for staying afloat in a difficult market through bold strategic decisions. In Cliffs’ case, the chief decision-maker was a new CEO, Lourenco Goncalves, who took over in 2014.

During Goncalves’ first year, Cliffs sidestepped the issues associated with shrinking steel demand in China by electing to withdraw from the volatile international seaborne iron ore market. Instead, the company made a strategic shift to focus on its US iron ore business, taking advantage of the opportunities for growth in supplying steelmakers with higher-grade direct reduced iron. The company also buckled down to reduce costs, create operating efficiencies, and optimize cash flow, ultimately producing solid financial results despite depressed prices.

In another series of critical moves designed to keep Cliffs afloat as commodities prices remained low, Goncalves engineered a new capital structure for the company, successfully completing refinancing transactions that reduced net debt and lowered interest expense – again, despite very difficult financial market situations.

The company-wide focus on cost cutting did not deter Cliffs from maintaining – even improving – its record of outperforming industry peers in safety metrics despite reduction in headcount, a victory that judges credited to the “strong culture of safety.”

Judges hailed Cliffs as “prescient” and commended the company’s Board of Directors for hiring Goncalves, “a man who could make tough decisions” to set a new standard for his industry.

Upstate Shredding is the largest privately-held scrap processor on the east coast and one of the largest operations of its type in the US. Beginning with annual sales of $3 million in 1996, the company now records sales of approximately $750 million each year. In contrast to the bold moves that characterized the company’s early days, Weitsman attributes his company’s recent success to a consistent, conservative approach: “We don’t speculate on scrap. Once we buy it, we immediately sell it. So we don’t keep inventory or piles of scrap,” he says.

Impressed with the company’s ability to transform itself to meet market conditions, judges also liked what the company has kept consistent despite the chaotic markets: a strong customer service focus, environmental awareness, and a reputation for “state-of-the-art” plants and equipment. “(Weitsman) based his operations on scrap he could get,” and “invested wisely,” said judges, moves that enabled Upstate Shredding to triumph once again.
Facing soft pricing, stagnant demand and overcapacity issues in 2014, many global steel manufacturers were forced to reformulate operations. Thanks to a plan characterized by restraint, NLMK Group is thriving as Russia’s largest and one of the world’s most efficient and profitable steelmakers.

This vertically-integrated manufacturer, with a crude steel production capacity topping 17 million tons per year, has focused on steady business growth, efficiency of production, and safety through its Strategy 2017 program. Launched in early 2014, the program aimed to boost efficiency across the production chain, enhance vertical integration into key raw materials, and increase sales of high-value-added products. By year-end 2014, the program was paying off in a significant increase in cash flow from operations, which helped the company reduce its debt leverage and increase dividend flexibility. In 2014-2015, the program generated a structural net gain of $477 million per year, exceeding its goals.

“They’re really strong financially this year, when so many are struggling,” said one judge, observing that NLMK possesses the most competitive cash cost among its global peers. Through nine months in 2015, the company generated $6.37 billion in revenue and a net profit of $891 million, with an impressive net debt/EBITDA ratio of 0.5.

Going forward, the steelmaker is developing innovative products for the energy, electrical, machine-building, automotive and construction markets, which now generate around 11% of sales and 16% of revenues; and focusing on energy efficiency, which has led to 53% self-sufficiency in electricity at its main production site. In a three-horse race among the finalists, the judging panel ultimately selected NLMK for its prevailing discipline in the global steel markets.

Schorsch’s most recent decade at ArcelorMittal offers a glimpse of the strategic vision that is his hallmark. He orchestrated a diverse group of assets following the 2007 merger between Arcelor and Mittal; acquired and integrated AM/NS Calvert, the largest M&A deal for ArcelorMittal’s Americas; integrated key departments and leveraged automotive investments to advance automotive as his company’s franchise business; and created a private-public partnership to preserve the Great Lakes basin.

Above all, judges applaud this statesman of steel for the respect he earned across a dedicated career. ArcelorMittal’s Chairman and CEO, Lakshmi Mittal, summarizes Schorsch’s contribution, saying he “tuned into the challenges, looked out for the opportunities and constantly challenged himself and us to consider all the options and understand all the dynamics, so that when we make a decision, it’s the right one.”

Metals User of the Year honors a customer of metals producers who has built on the industry’s spirit of innovation to develop its own leading-edge applications. Maverick Enterprises is the nation’s top provider of capsules and secondary closures for the wine, distilled spirits, and specialty food and beverage industries.
Founded in 1992, Maverick operates two facilities near wine country in Northern California, where its 115 employees turn out an average of over 3 million capsules per day. Most of its products end up wrapped around the top of wine bottles for customers across the US, Canada, Mexico, South America and Australia. “They’re small, but they’re global,” observed one judge.

The vertically-integrated company prints and forms all materials in-house, and is committed to sustainability, carefully enforcing conservation and recycling during its production processes and recycling all returned capsules, regardless of producer.

The company continues to expand, observing a milestone in 2015 as its 10 billionth wine bottle capsule rolled off the production lines, destined for a bottle of Vintner’s Reserve Chardonnay at the Kendall-Jackson winery. With demand for wine packaging in the US projected to reach $2.9 billion in 2019, judges raised a proverbial glass to Maverick’s “sustained, steady growth” and stretch goals that seem “achievable given their track record.”

The system gives LME the in-house capability to guarantee, clear and secure transactions, operating in real time with the ability to provide a clear view of aggregated cash positions at any moment. The start-up managed this complex technological feat by designing the system in consultation with LME members and custom-building it to be EMIR-compliant from the ground up, combining experienced clearing professionals with leading-edge technology to create a structure that is well positioned to innovate and keep pace with change. Judges noted that “the regulatory side is equally as significant” as the technological achievements, given that the system must withstand thorough scrutiny.

LME Clear is now clearing more than 100,000 matched contracts every day. It notched a number of industry firsts during its launch year: beyond introducing real-time clearing to the financial industry, it became the first European clearing house to accept Chinese offshore yuan as collateral and the first globally to accept LME metals warrants as collateral. It also introduced a post-trade, risk-free compression service.

The creation of LME Clear was an important strategic decision in that it not only generates revenue for the LME, but also empowers it to pursue new markets, products and capabilities. Judges marveled at the “remarkable achievements” of this stand-out winner and look forward to the expansion of the franchise.

One metals service provider stood apart in 2015 by adding significant value to its links in the commodities chain. As a steel service center, MidWest Materials faces fierce competitors and punishing market conditions, but the company has captured market share by offering customers superior product quality and exceptional service; judges applauded them as “astute buyers who add real service, speed and customization.”

Carbon flat rolled steel processor and distributor MidWest was founded in a one-room sales office in 1952 and is currently in its third generation of family leadership. The company now operates a 240,000 square foot facility, providing customers throughout North America with hot rolled, HRPO, coated, and cold rolled steel products.

MidWest’s company culture dictates that the success of its business is dependent upon its relationship with customers. In order to ensure timely delivery, the company operates a private fleet of tractor-trailers to supplement its network of common carriers, and boasts a private railway connection from its warehouse to nearby tracks.

MidWest has had record profits 12 out of the last 13 years, and experienced no customer defaults in 2014 or 2015, all despite the market downturn.
Judges appreciated the family’s diligence in building a strong company – founded on quality customer service and relationships – that has proven to withstand market turbulence.

RISING STAR AWARD
Aqua Metals
United States
This year’s Rising Star has tackled two prominent issues head-on: lead toxicity and recycling. Lead is an essential component of 98% of the world’s batteries, and lead-acid batteries have a 99% recycling rate. However, smelting – the only existing recycling option – is one of the world’s five most polluting industries, generating toxic liquid, gases and particulate waste that are difficult and expensive to manage. The end product of smelting is low-grade secondary lead, which requires further refining.

Enter applied science company Aqua Metals, which was founded in 2013 with a goal of reducing the inefficiency, costs and toxic waste associated with conventional smelter-based recycling, a major challenge for the $60 billion global lead-acid battery industry. The company is commercializing a non-polluting electrochemical lead recycling technology called AquaRefining which it claims delivers a higher-grade product, at a higher yield, eliminates toxic waste, reduces permitting and is less expensive to build than smelting. AquaRefining’s room temperature, water-based process is fundamentally non-polluting, with modular systems that enable the lead acid battery industry to simultaneously improve environmental impact and scale production to meet demand.

Aqua Metals is growing quickly – a key consideration in the Rising Star Award. In 2015, it raised $36.2 million in an IPO, broke ground on its first AquaRefinery, commenced construction of its modules, and received a $10 million loan guaranteed by the US Department of Agriculture. The company aims to bring its first AquaRefinery live in 2016, reaching production levels to 80 metric tons of lead per day by year-end. As it moves forward and builds strategic relationships with major lead industry players, judges believe this environmentally responsible company has the power to “potentially transform the very traditional production side of this industry.”

PLATTS METALS DAILY
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