



Hilco™

Valuation Services

The Hilco Global Four-Minute Metal

Everything you need to know about metal market pricing in four minutes or less

Thought for the First Quarter of 2017

Imports of metal products of all types have a significant effect on the U.S. economy and a destabilizing effect when foreign producers use subsidies, currency manipulation, or other methods to gain short-term advantages in the U.S. market. A recurring theme seems to be a gradual increase in exports of one type or another, which drives down market prices. As imports into the U.S. increase, domestic producers react with trade cases, which reign in imports. Demand for domestic producers increases and market prices recover. As domestic market prices increase, imports increase again starting the next cycle.

Ad hoc trade cases against pipe, coil, or plate will provide a short-term benefit as imports are restricted, providing higher demand and higher domestic market prices. This effect was seen in 2016 when demand and prices for galvanized and cold-rolled steel increased after tariffs were imposed late in 2015 against China and other export-driven producers.

Trade policy based on trade cases and tariffs is time consuming and ineffective, like playing Whac-a-Mole with hundreds of producers, importers, and brokers. Restrictions on Chinese steel coils led to increased orders for mills in Vietnam, Egypt, Turkey, and the Middle East. Metals industry purchasers want both low prices and stability. In recent years, rapid market price changes for steel, stainless, aluminum, and copper make it difficult to buy, sell, or plan inventory levels. Recovery rates in asset-based lending can change rapidly as market prices rise and fall, adding uncertainty to lending. That's why annual or semi-annual appraisals make sense.

A cohesive, long-term trade policy may bring stability to the metals markets and decreased uncertainty for asset-based lenders. That is probably too much to hope for in the short term, so lenders should seek to understand how market changes effect recovery rates. Confused or concerned? Call Hilco. We love metals.

**Metals Products Summary and Expected Changes to GOLVs
(One-Minute Metal for the *really* busy)**

Product Type	Market price outlook	Market drivers	Expected effect on GOLV
Steel Coils and Sheets	Typically increase in the first quarter and did so in 2017; now seem to have reached a point of stability	Tariffs are limiting low-cost imports, supporting higher prices and increased demand for domestic producers. The startup of Big River Steel and increased output from other domestic mills leads to increased competition.	Prices likely at their peak, with the potential for some decrease as the year continues
Pipe and Tube	Drilling increased significantly in the fourth quarter of 2016; at month-end March 2017, the U.S. rig count was nearly double that of March 2016	Increasing coil prices lead to increasing pipe prices, recent trade cases have limited low-cost imports	Increased values
Steel Long Products (Beams, Bars, and Structural)	Flat to slight increases in certain products	Some bright spots in the economy are adding to demand and supporting higher prices	Likely will remain at current levels
Aluminum Products	Market prices are increasing. Aluminum is both a physical commodity and an investment tool. Changes in market prices can be driven by factors other than supply and demand.	London Metals Exchange (LME) values for aluminum and the Midwest Premium both trended upward in 2016 and the first three months of 2017, adding approximately \$300 per ton to most commodity aluminum products in 12 months ended March 2017	Increased values

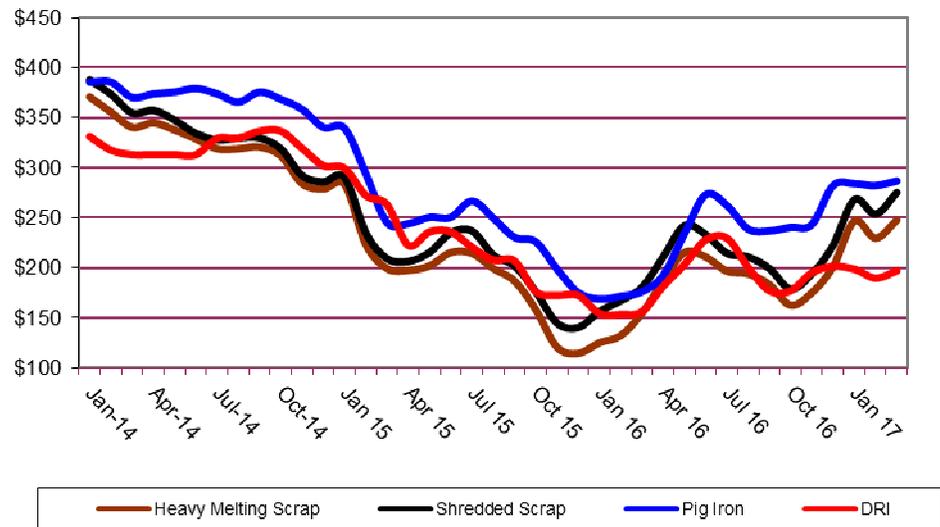
Steel Products

Prices for ferrous scrap trended upward in the first six months of 2016, trended downward in the third quarter of 2016, and then increased again at year-end and in the first quarter of 2017. Shredded scrap derived from shredding automobiles and appliances is a common product in the industry. Shredded scrap prices averaged approximately \$150 per ton in January 2016, \$230 per ton in June 2016, \$220 per ton in December 2016, and \$275 per ton in March 2017. Other scrap types may have higher or lower prices, but typically market prices for all ferrous scrap types increase or decrease together. Most scrap types were approximately \$100 per ton higher in March 2017 than they were in March 2016.

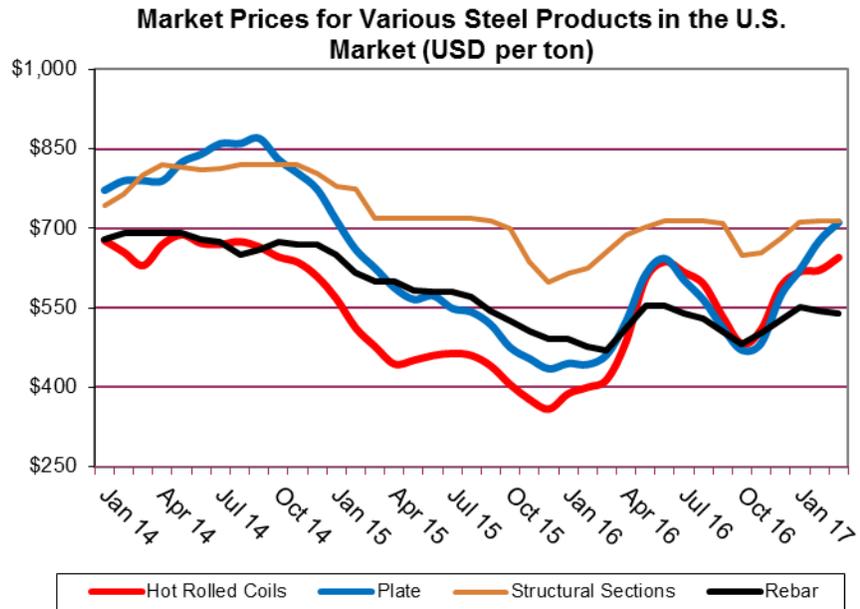
Ferrous scrap typically is used in steel mills or steel and iron casting facilities. Steel mills typically require all scrap types to be less than five feet long in any direction, so most scrap types require some preparation before they can be used. Plates and beams derived from demolition activities, scrapped pipe, machinery, and other types are transported to scrap yards, torch-cut to appropriate sizes, and shipped via rail or truck to steel mills.

Fully integrated mills use both iron ore processed through blast furnaces and steel scrap to produce new steel products. "Mini mills" do not operate blast furnaces and, therefore, use only steel scrap and scrap substitutes such as pig iron and direct reduced iron as raw materials. Recent market prices for steel scrap and scrap substitutes are shown in the chart below.

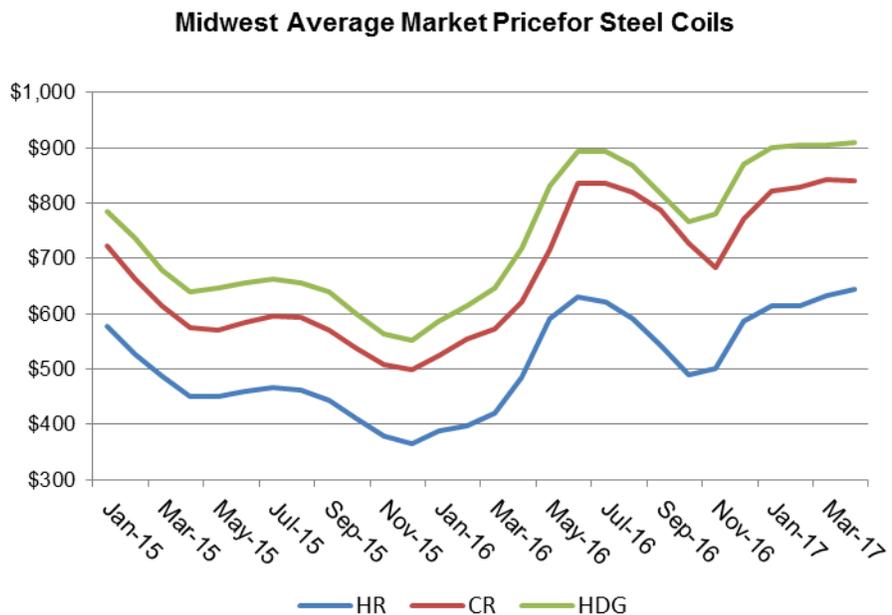
Prices for Various Steelmaking Raw Materials and Steel Scrap in the U.S. Market (USD per ton)



Market prices for finished steel products are influenced by market prices for steel scrap, energy, alloys, and other cost factors, as well as supply and demand factors. As shown in the charts below, market prices for most steel products trended in the same patterns as steel scrap.



Market prices for hot-roll coils, cold-rolled coils, and hot-dipped galvanized coils followed scrap pricing trends but were also driven by trade cases that took effect in the later part of 2015 and are therefore more volatile than other product types.



In 2014 and 2015, record imports of galvanized and cold- and hot-rolled steel coils brought about trade cases and tariffs that went into effect in the third quarter of 2015. The industry spent the last six months of 2015 consuming the majority of the stockpiled low-cost imports and demand for domestic products and market prices both increased rapidly in the first six months of 2016, before trending downward again in the third quarter and increasing again in the fourth quarter of 2016 and the first quarter of 2017. Coil prices were driven by cost (i.e., scrap and energy prices) and by supply and demand factors as domestic mills added capacity and then competed on price to utilize that capacity. Steel bars, rebar, plate, and other mill products followed a similar market price curve, rising in the early part of 2016 decreasing in the third quarter and then rising again.

The intended benefit of tariffs against China, Taiwan, Russia, and other countries had more limited effect than anticipated. Turkey, Egypt, producers in the Middle East, and other suppliers increased their imports into the U.S. as the Chinese supply was eliminated. Certain market segments traditionally utilized lower-cost foreign products and participants in those markets bought domestic goods in the short term but sought out new low-cost suppliers for the future.

The energy market now shows signs of life, with oil prices stabilizing at higher prices and drilling activity increasing. Increased drilling means increased demand for steel pipe (made from hot-rolled coils) used in down hole and transmission applications, as well as and plate, bar, and tube used to manufacture drilling equipment. The U.S. active rig count increased from a low of 464 in March 2016 to 864 in March 2017. Rig count peaked in August 2013 at 1,791, so active rigs remain well below the historical peak.

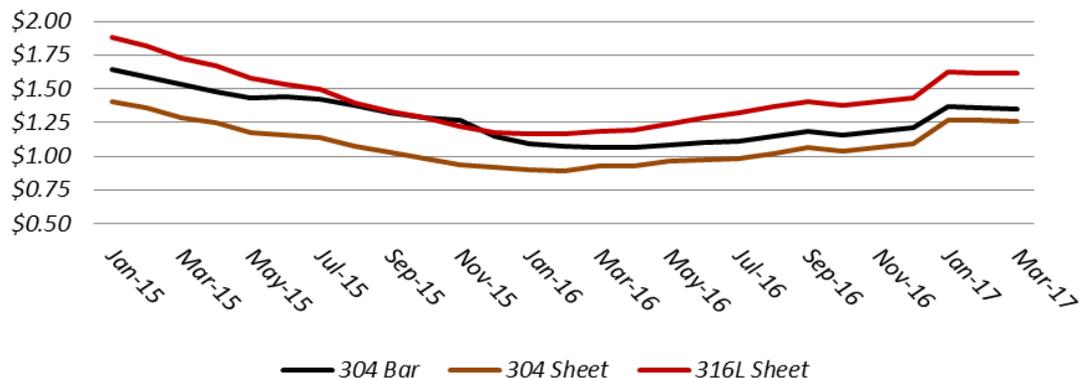
The increase in drilling likely will lead to increased transmission so demand for pipe used in both down-hole and transmission (pipelines) will increase. Pipe is derived from hot rolled coils increasing demand for that product.

Stainless Steel

Unlike steel products, which have one price, stainless steel product cost typically is composed of a base price that changes slowly over time and alloy surcharges that are published monthly by the major stainless producers and change each month. Alloy surcharges are dominated by the cost of the three key alloys used in stainless: nickel, chrome, and molybdenum. Major producers of stainless steel like Outokumpu and North American Stainless publish surcharge tables monthly.

Like carbon steel, the recovery values for stainless products are based, in part, on "replacement cost". Replacement cost is based in large part on changes in the alloy surcharges. Decreasing nickel values typically would signal a decrease in the cost of new stainless products and a loss in value of existing stainless inventories; the reverse would be true in a period of rising nickel values. The table below shows recent changes in market prices for common stainless products. The downward trend in 2015 and upward trend 2016 are related in part to changes in the market prices of nickel.

U.S. Stainless Market Prices including Surcharges (USD/pound)



Aluminum Market

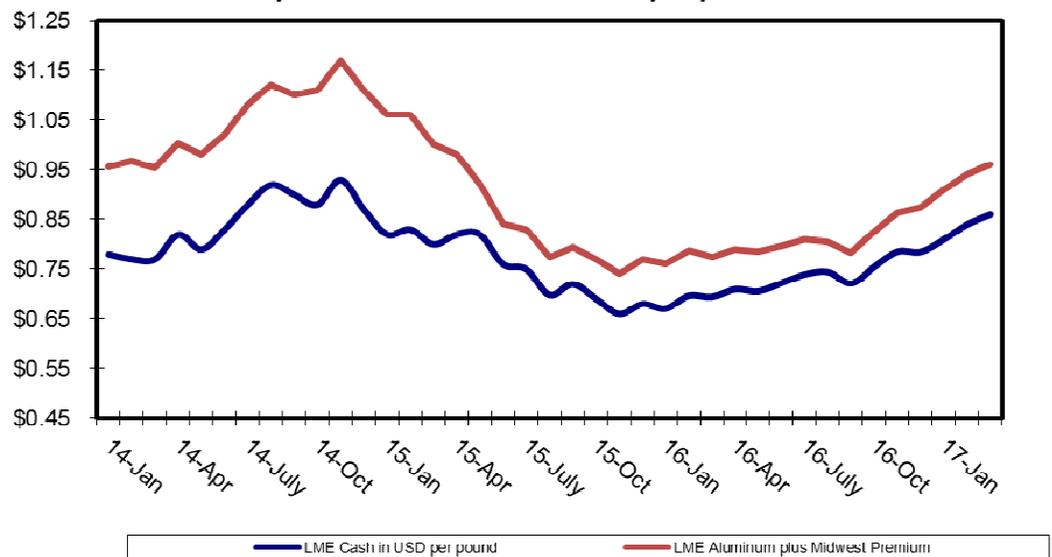
Aluminum product prices in North America typically are based on the cost of pure aluminum as reported on the LME; the Midwest Premium, which accounts for transportation, warehousing, and financing; and fabrication costs to convert aluminum ingots into semi-finished products (e.g., coils, sheets, and bars). LME and Midwest Premium prices change daily, and the sum of the two numbers is referred to as the Midwest Transaction Price.

Fabrication costs for common products (sheets, coils, and extrusions) vary from \$0.40 to \$0.70 per pound. Certain highly processed goods, such as machined plate, are significantly more expensive than sheets and coils due to higher fabrication cost. Fabrication costs change slowly over time, reflecting changes in supply and demand; increasing in periods of high demand and decreasing in periods of low demand.

Unlike steel or stainless steel, aluminum is both a physical metal and a financial tool, and market prices for aluminum are driven by supply and demand factors, as well as financial hedging and speculation. LME aluminum prices and the Midwest Premium both trended downward in 2015. The Midwest Premium stabilized at approximately \$0.08 per pound, and recently moved upward to \$0.10 per pound. The LME aluminum price trended upward throughout 2016, increasing from an average of \$0.67 per pound in January 2016 to \$0.79 per pound in December 2016, and then continued to increase in the first three months of 2017 averaging \$0.86 in March 2017. Recent market prices for LME aluminum and the Midwest Premium are shown in the chart below. Significant capacity worldwide is offline and it is likely that increased demand for aluminum will result in idle capacity common back on line, making significant market price increases unlikely.

Aluminum scrap prices correspond to the LME and Midwest Premium; as those two indices increase, scrap prices also tend to increase. Scrap prices vary by product type. Aluminum recycling typically follows one of two paths: obsolete scrap derived from automobile shredding, old aluminum gutters, siding, or other sources typically remelted and cast into ingots or sows. The majority of recycled aluminum is sold as A380.1, a secondary grade common to the U.S. market; factory scrap, or excess or obsolete goods that can be segregated by metallurgical grade, can be purchased by aluminum coil or extrusion producers that purchase this “clean” and segregated scrap as a substitute for “new” aluminum.

LME Aluminum Average Monthly Cash Price plus Midwest Premium USD per pound



Coal Mining

Decreasing demand and market prices negatively affected coal mining companies. Major companies have gone through Chapter 11 bankruptcy and reemerged or ceased operations completely. Part of this cycle has been the rationalization of the industry where high-cost mines closed, and companies with operations scattered throughout the U.S. sold far-off locations to consolidate into more efficient regional operations. As this transition took place, asset-based lending on coal inventories became common and Hilco has engaged for multiple spin-offs, consolidations, and refinancing, and Hilco visited more than 100 mining operations in the last three years.

There are basically two types of coal: thermal (or steam coal) and metallurgical (or coking coal). Thermal coal is used to create steam in power plants, which, in turn, is used to generate electricity. To a lesser extent, thermal coal is used in universities and industries that operate their own power plants to produce steam heat or process steam. Metallurgical coal has certain physical properties that make it different from the more common steam coal and typically sells at a premium to steam coal. Currently, there is an active demand for exports of metallurgical coal and market prices for that product increased significantly due to a combination of global factors.

Market prices for coal were negatively affected by the natural gas boom. Fracking increased the supply of natural gas and decreased the cost. Power companies that operated both natural gas and coal burning power plants shifted utilization from gas to coal. Clean energy efforts from the Obama administration mandated expensive retrofitting of pollution control equipment on existing power plants, which made continued operation unfeasible. Despite the change in administrations, power plants already closed likely will not reopen, and those currently scheduled to close likely will. Coal usage likely will trend slowly downward in the coming years but will remain a significant part of power generation for the foreseeable future.

Hilco's valuation of coal and other minerals is different from that of industrial and commercial products. In many cases, mineral inventories are still at the mines or transloading points, and transport and handling fees must be built into the liquidation expenses. Portions of the inventory may be in a semi-finished state, requiring additional processing. Minerals typically incur royalties, state and federal taxes at the time of sale, and liquidation expenses at the time of sale; these are part of Hilco's calculated liquidation expenses, resulting in liquidation cost that are typically significantly higher than those incurred in manufactured products.

In short, valuation of coal and other bulk minerals becomes a puzzle with multiple pieces, such as processing, transport, fees, and taxes, and to accurately calculate recovery values, all the pieces have to be put in place. If you are puzzled about opportunities in the minerals, or in the dark about underground mining, call Hilco.

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