

The background of the entire page is a blurred industrial scene featuring a laser cutting machine. A bright, focused laser beam is shown cutting through a metal plate, with a dense spray of bright orange and yellow sparks erupting from the point of contact. The machine's nozzle is visible at the top center. The overall color palette is dominated by the metallic grays of the machinery and the vibrant oranges and yellows of the sparks.

# the Gauge

MARKET  
INTELLIGENCE  
POWERED BY  
**RYERSON**

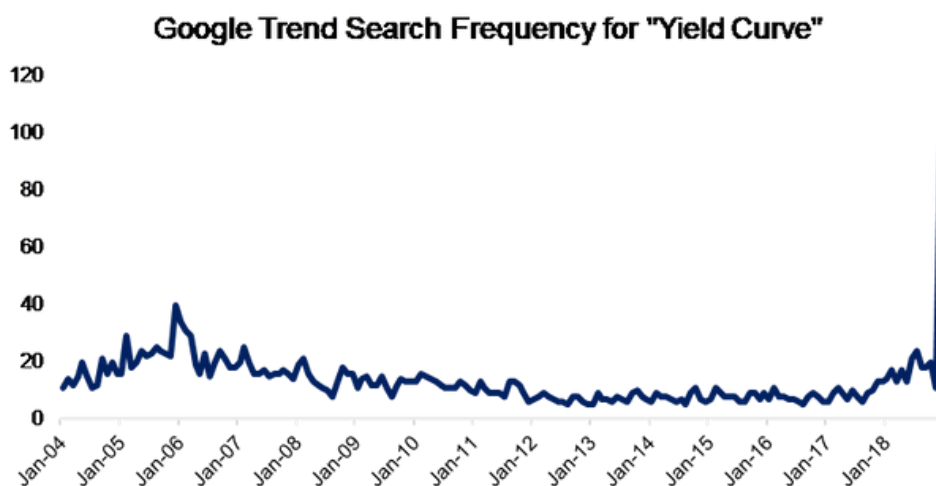
**MONTHLY MARKET REPORT**

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**DECEMBER 2018**

## MARKET VIEW: BALANCING INDICATORS

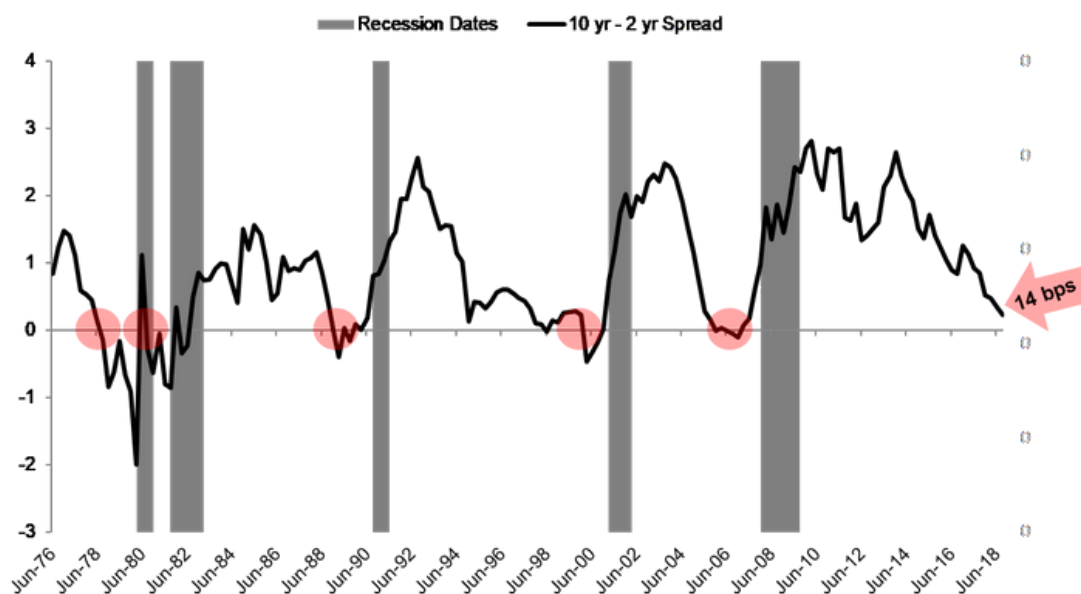
Does it seem like you've been hearing the phrase 'yield-curve inversion' more as of late? A yield curve inversion occurs when shorter-term interest rates are higher than longer-term interest rates. According to Google Trends data, the phrase 'yield curve' has garnered more search attention in the past few months than at any point since it began tracking the data (see chart below).



Source: Google Trends

It is true that the yield curve has flattened in recent months, but the 2-year interest rate vs. the 10-year interest rate has not yet inverted. The 10-year yield is normally higher than the 2-year yield, but if that relationship reverses and the 10-year moves below the 2-year, referred to as a yield curve inversion, it could signal the market's expectation of a sustained downturn in growth in the months ahead.

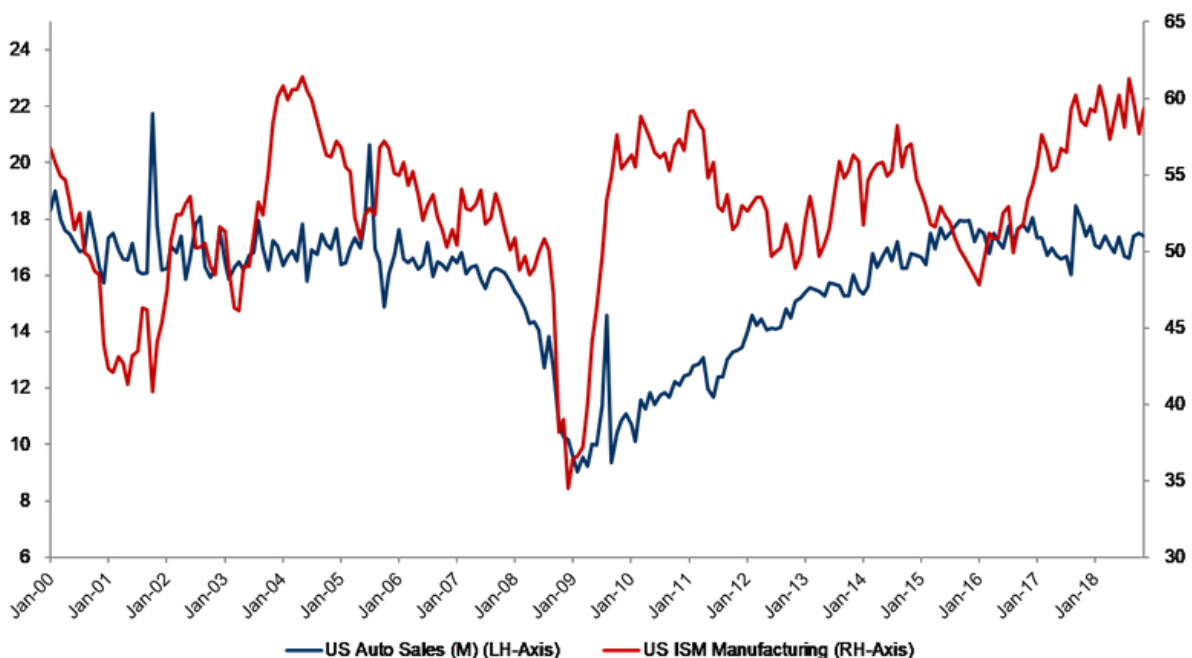
The Effective Federal Funds Rate currently sits at 2.20%, less than half the historical rate of the 4.82%, dating back to 1954. Using history as a guide, one could argue that the current rate environment is still in an accommodative range to support economic activity.



Source: FRED data

From a demand perspective, U.S. manufacturing data continued to trend favorably in recent months. The Institute for Supply Management's PMI (Purchasing Managers' Index) remained close to 50, the number used by ISM to indicate strength in the U.S. manufacturing economy. November's PMI was 59.3, up from 57.7 in October. A subset of total PMI for new orders increased to 62.1, up from 57.4 in that same period.

The automotive industry is a significant consumer of flat rolled steel in the U.S., and therefore correlates strongly with overall industry demand. Data from WardsAuto states annualized production of 17.4 million units as of November 2018, which appears to indicate continued strength/support of the industry.



Source: WardsAuto

On the flip side, November saw crude oil experience its sharpest decline since December 2014. While this may have positive impacts for the consumer at the pump, it could weigh negatively on the energy industry. More information on the oil market can be found on page 12.

All things considered, we see both positive and negative macroeconomic data as it relates to the metals markets. On the pages that follow we dig a bit deeper into the data, and the impact on supply-demand fundamentals across aluminum, stainless steel and carbon.

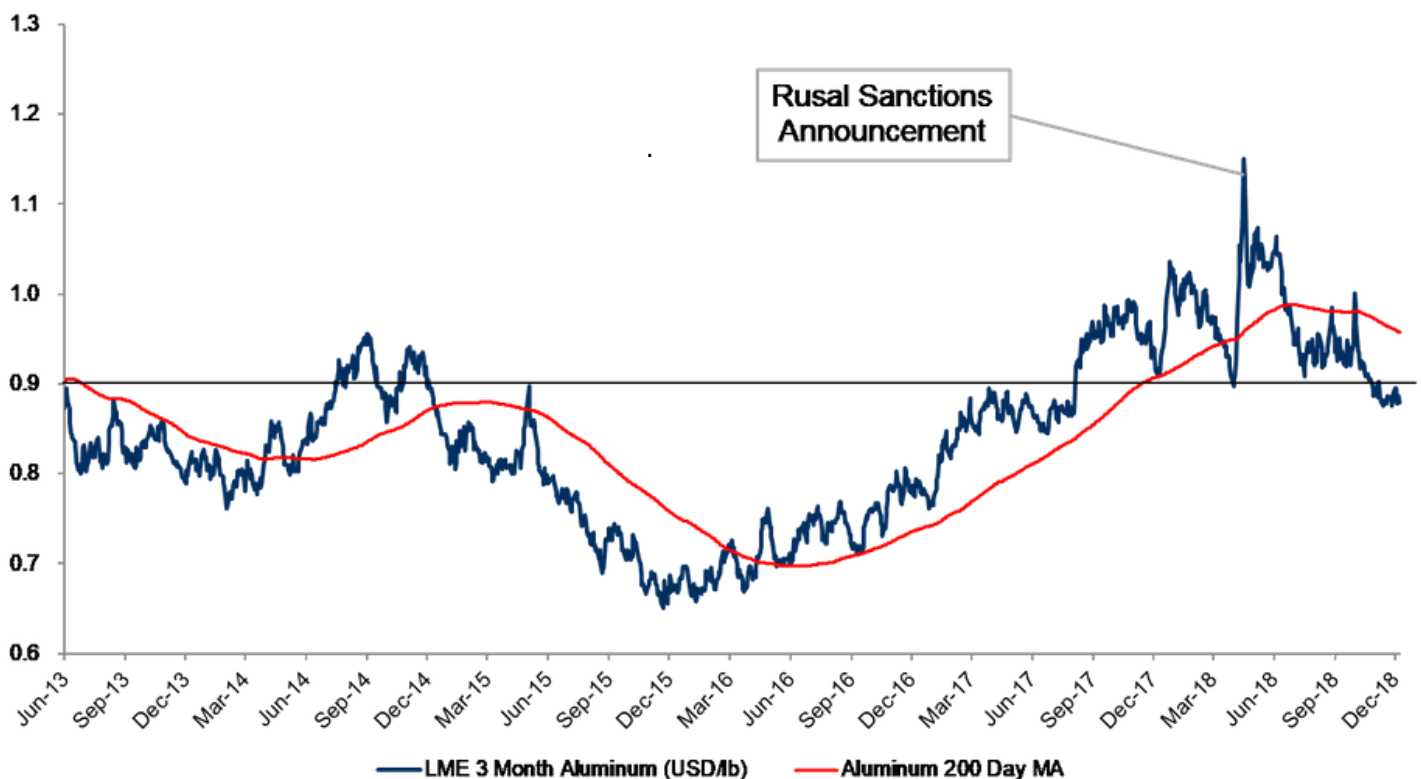


# ALUMINUM UPDATE

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The aluminum market within the U.S. continued to be extremely tight from a supply-demand perspective. This as evidenced by elevated Midwest premiums and conversion prices from the mills.

However, pricing on the LME (London Metal Exchange) for ingot was pressured by such factors as weaker oil markets and a stronger U.S. dollar. This contributed to the price remaining below its 200-day moving average and being flat on a month-over-month basis.

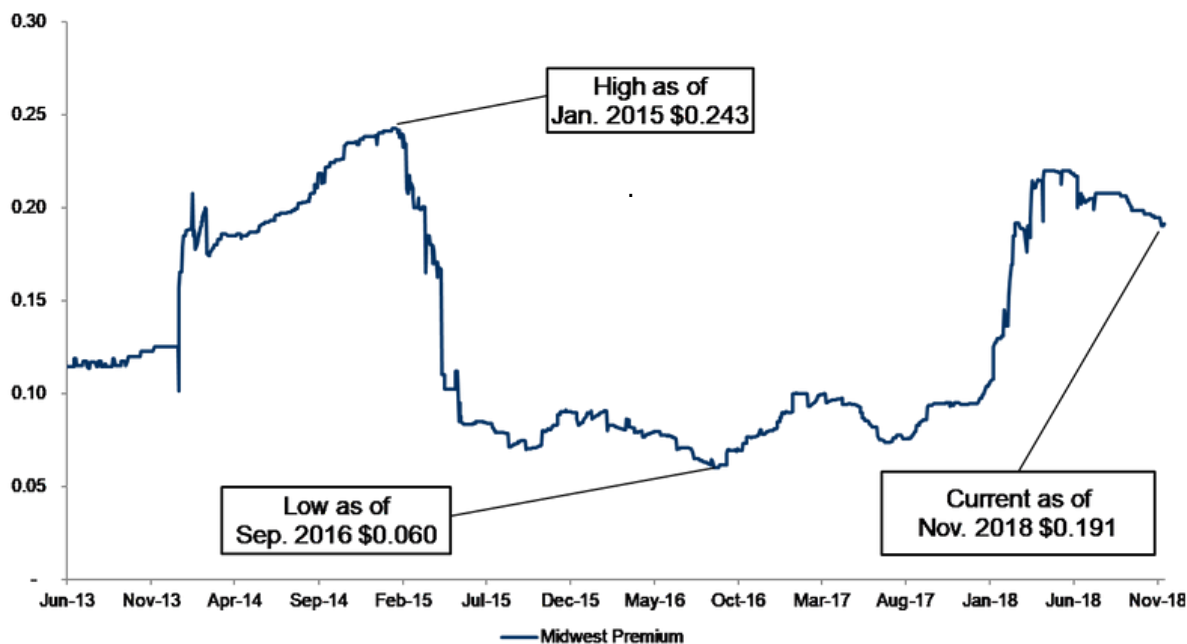


Source: Bloomberg, LME

# ALUMINUM UPDATE

**Midwest Premium:** Midwest aluminum premiums remained elevated on the back of Section 232/301 and the U.S. Dept. of Commerce (DoC) common alloy investigation on Chinese aluminum. On December 7, the DoC released its final determinations on common alloy aluminum sheet imports from China, which found anti-dumping margins of 49.85%-59.72% and countervailing rates of 46.48%-116.49%. The duties will now be applied, and a report from the ITC (International Trade Commission) will be made available to the public by Jan. 11, 2019.

The futures market for premiums appeared to show a slight downward slope, which may indicate that the market believes there could be a gradual decline in premiums over the next 12 months.



Source: Bloomberg, Platts

On December 19, the U.S. Treasury notified Congress of its intentions to terminate the sanctions imposed on UC Rusal, one of the largest alumina and aluminum suppliers in the world, within 30 days. While this outcome was anticipated by many analysts in the market, the announcement from the Treasury helps further reduce the supply side risks in both alumina and aluminum supply chains.

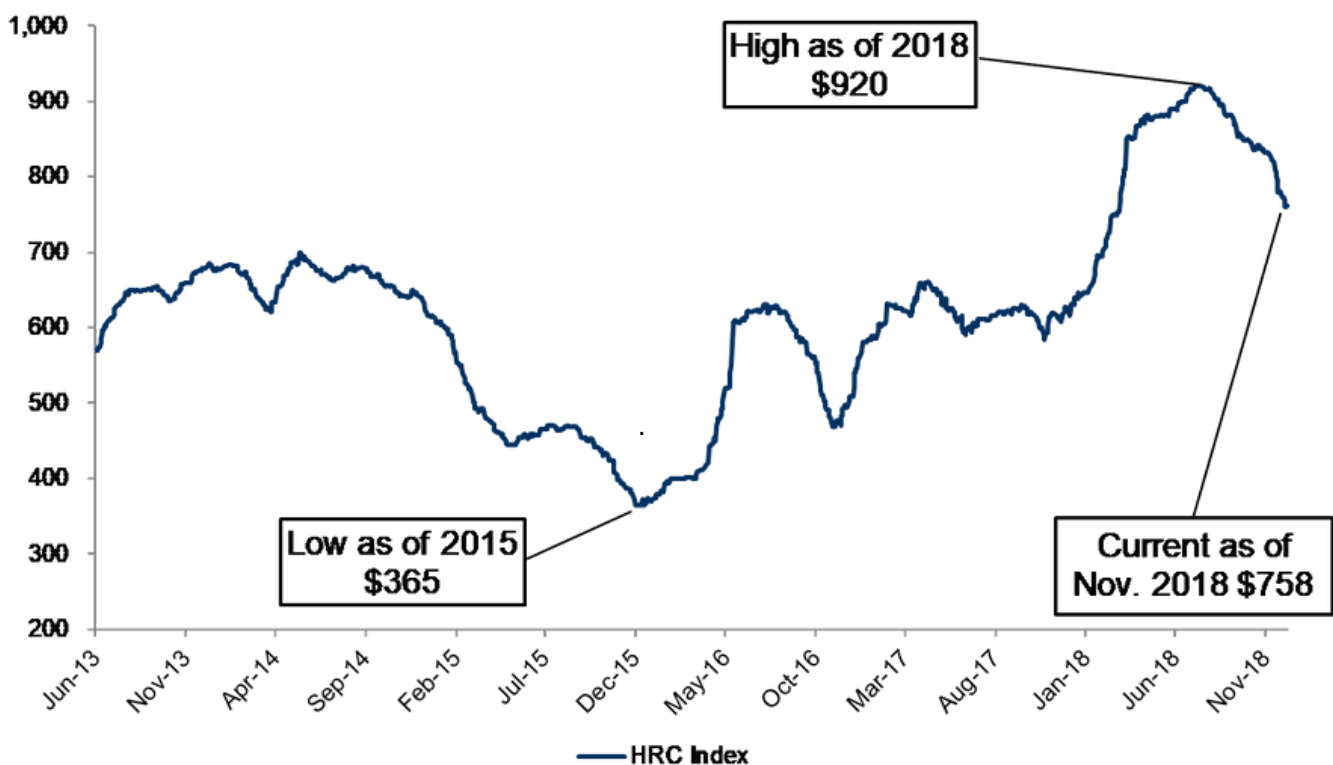
## Lead Times

Extrusions	3-13 weeks
Domestic Sheet	13-18 weeks
Domestic Plate	13-18 weeks
Off-Shore Sheet/Plate	15-22 weeks

# CARBON UPDATE

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Carbon sheet prices continued to move lower, down 6% on a month-over-month basis and were down 17.6% from the 2018 peak achieved in July. Limited spot buying related to seasonal weakness helped drive carbon prices lower in November.



Source: Bloomberg, Platts

## Lead Times

Hot Roll 3-4 weeks  
Cold Roll 6-8 weeks  
Coated 6-8 weeks  
Plate 10-12 weeks

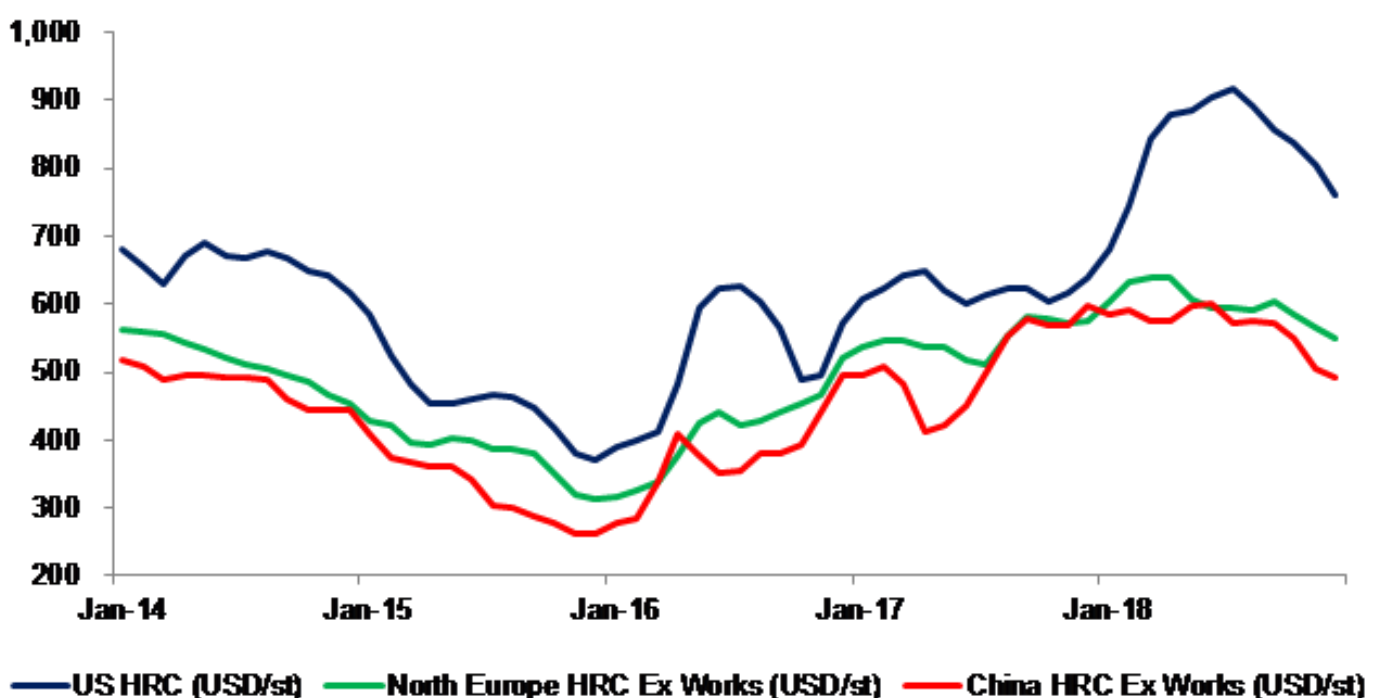
# CARBON UPDATE

## Domestic vs. Foreign

**Prices:** On a non-tariff adjusted basis, U.S. steel prices traded at a very wide premium relative to European and Chinese steel prices. Some of the premium can be attributed to the fact that 25% tariffs remain in place on most steel-exporting nations. Additionally, European and Chinese steel prices continued to soften over the last couple months (*see chart to the right*).

	U.S. vs. Europe	U.S. vs. China
12/1/18	211	270
11/1/18	237	299
10/1/18	254	289
9/1/18	255	287
8/1/18	300	318
7/1/18	322	344
6/1/18	311	305
5/1/18	276	288
5-yr. mean	\$128	\$168

Source: Bloomberg, Platts

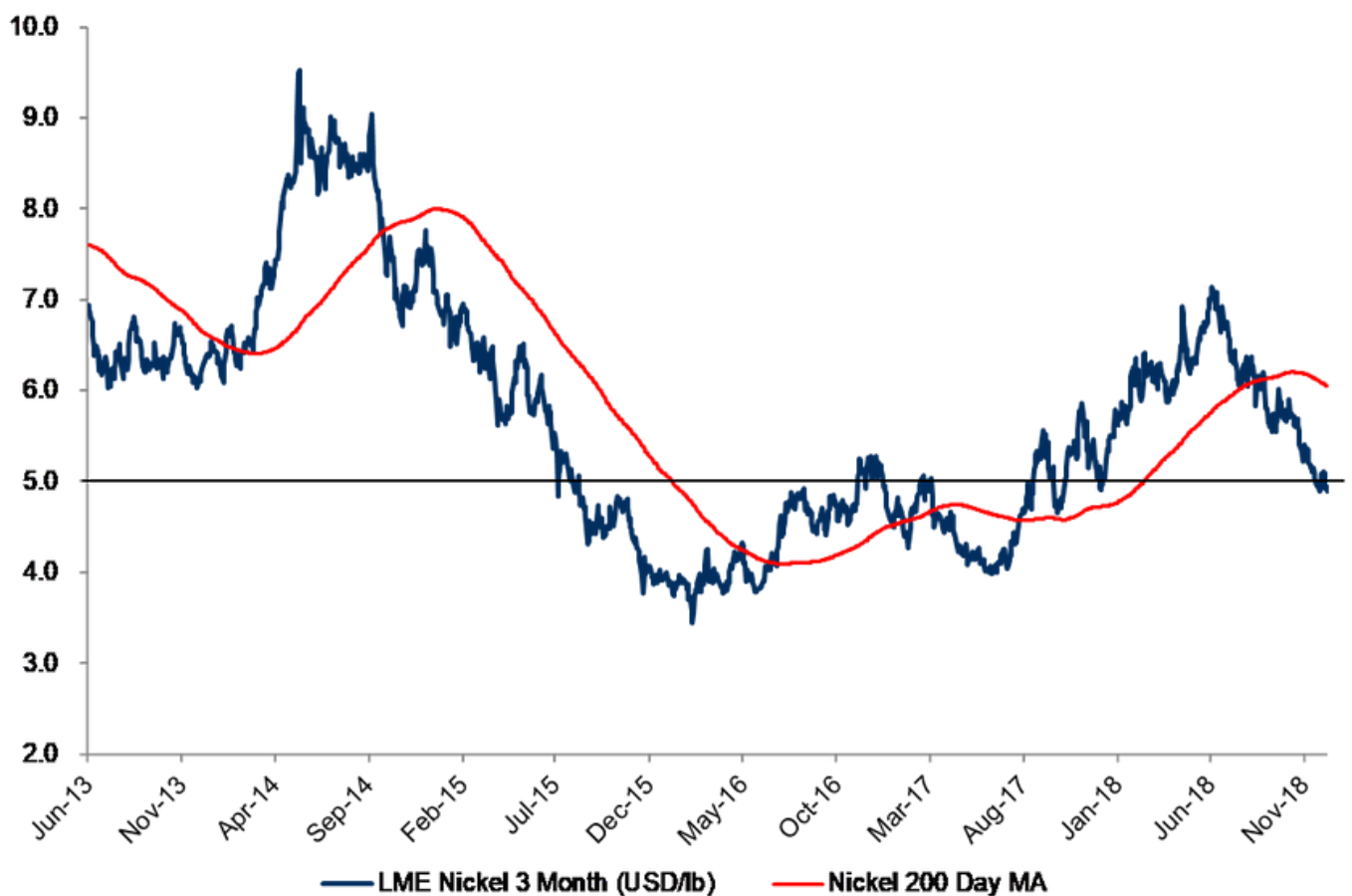


Source: Bloomberg, Platts

# STAINLESS STEEL UPDATE

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Nickel was down 15% year-to-date and traded at \$4.86 as of December 12. Though supply-demand fundamentals still look balanced (see inventory level data on page 10), the stronger U.S. dollar may have acted as a headwind to price.



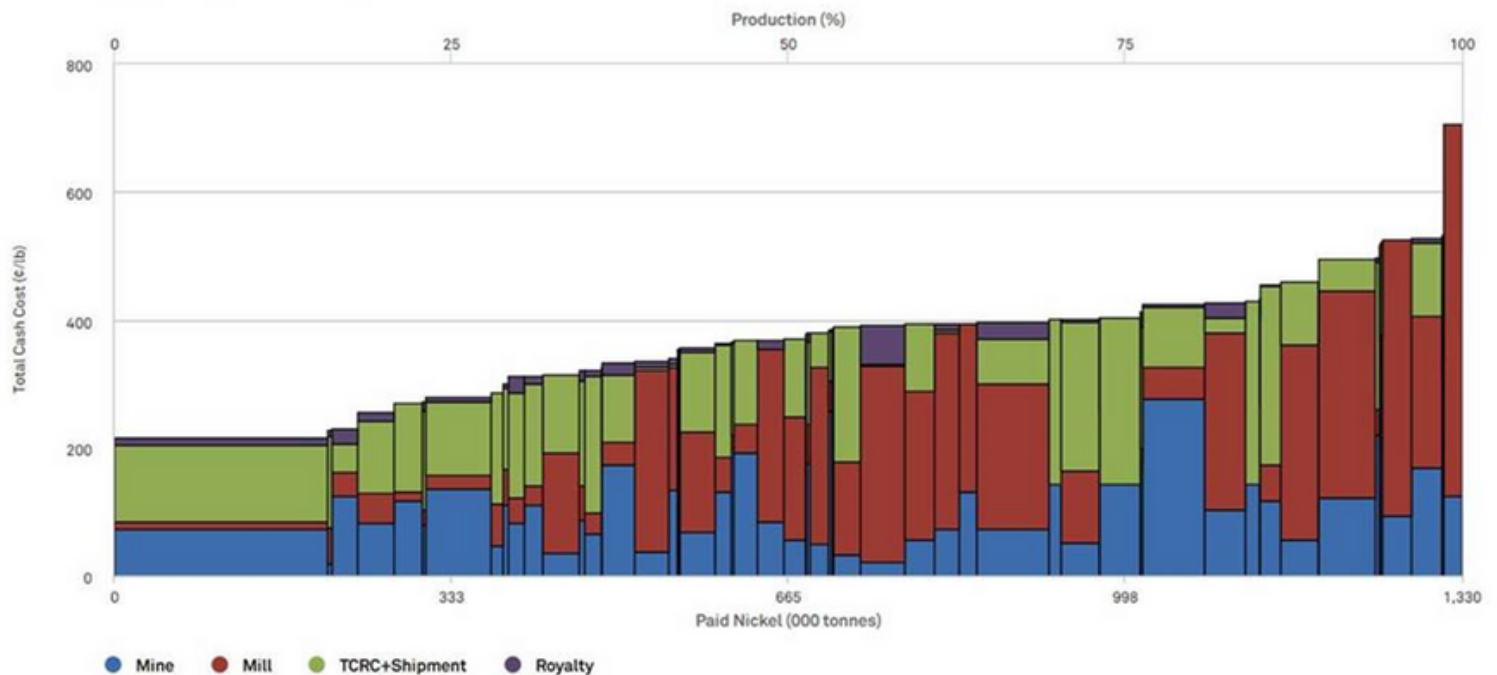
Source: Bloomberg, LME



# STAINLESS STEEL UPDATE

**Nickel Cost Curve:** With nickel prices now below \$5, the cost curves of many mining entities appear challenged. When prices reach this point in the cost curve, some miners historically face the option of curtailing production or continuing to produce at a loss.

2018 Modeled Cost and Production - Nickel



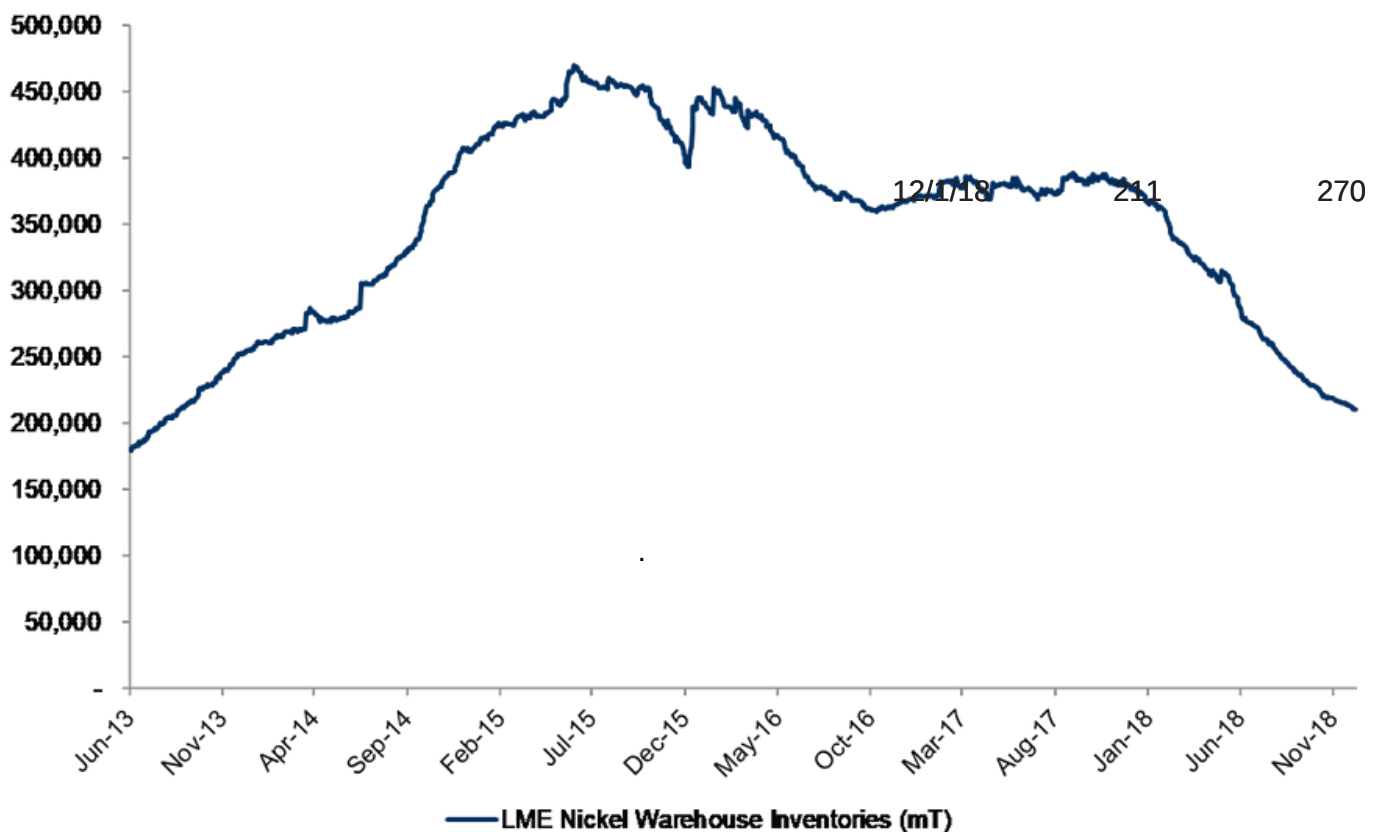
Source: CapitalIQ

**How to read this chart:** The Y axis represents cents/pound, while the X axis shows the volume of nickel produced. Each column represents a producer of nickel with the following cost indicators: Blue (the mining cost), red (the milling cost) and green (the cost of treatment and refinement). In some instances, producers must pay a royalty to the country in order to mine the resource (purple).

As the chart indicates, the cost to produce nickel for some producers is greater than the current market price of the commodity. This means these producers must determine whether it is still advantageous to produce nickel at a loss. Should they limit production, it would reduce supply from the market.

# STAINLESS STEEL UPDATE

**Inventories:** Nickel inventories on the LME (London Metal Exchange) are rapidly depleting. One contributing factor appears to be the shift to electric vehicles, which consume a great deal of this commodity.



Source: Bloomberg, LME



The move to electric vehicles appears to have contributed to tightness in supply of stainless steel.

## Lead Times

Cold Roll Coil 6-7 weeks

Polished Coil 7-8 weeks

Plate 6-8 weeks

Plate Coil 5 weeks

Bar 8 weeks

Angle 8-10 weeks

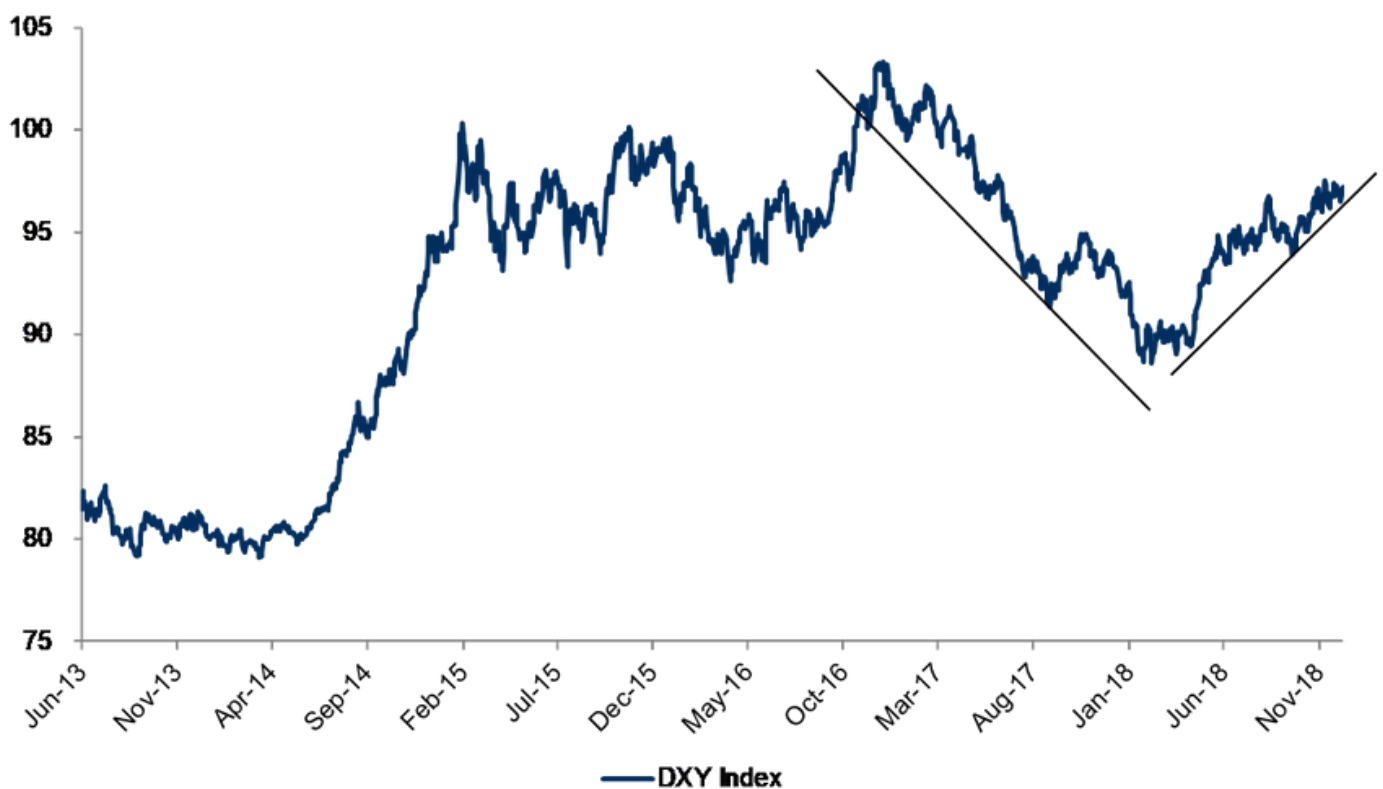
Tube 7-8 weeks

# ECONOMIC INDICATORS

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**The US Dollar, as measured by the DXY Index:** After months of sideways price action, the DXY/USD gained momentum in October and continued to move higher in November. The U.S. dollar tends to move inversely to the price of commodities.

**The DXY compares the U.S. dollar to a basket of global currencies, acting as a solid broad-based measure of currency moves.**

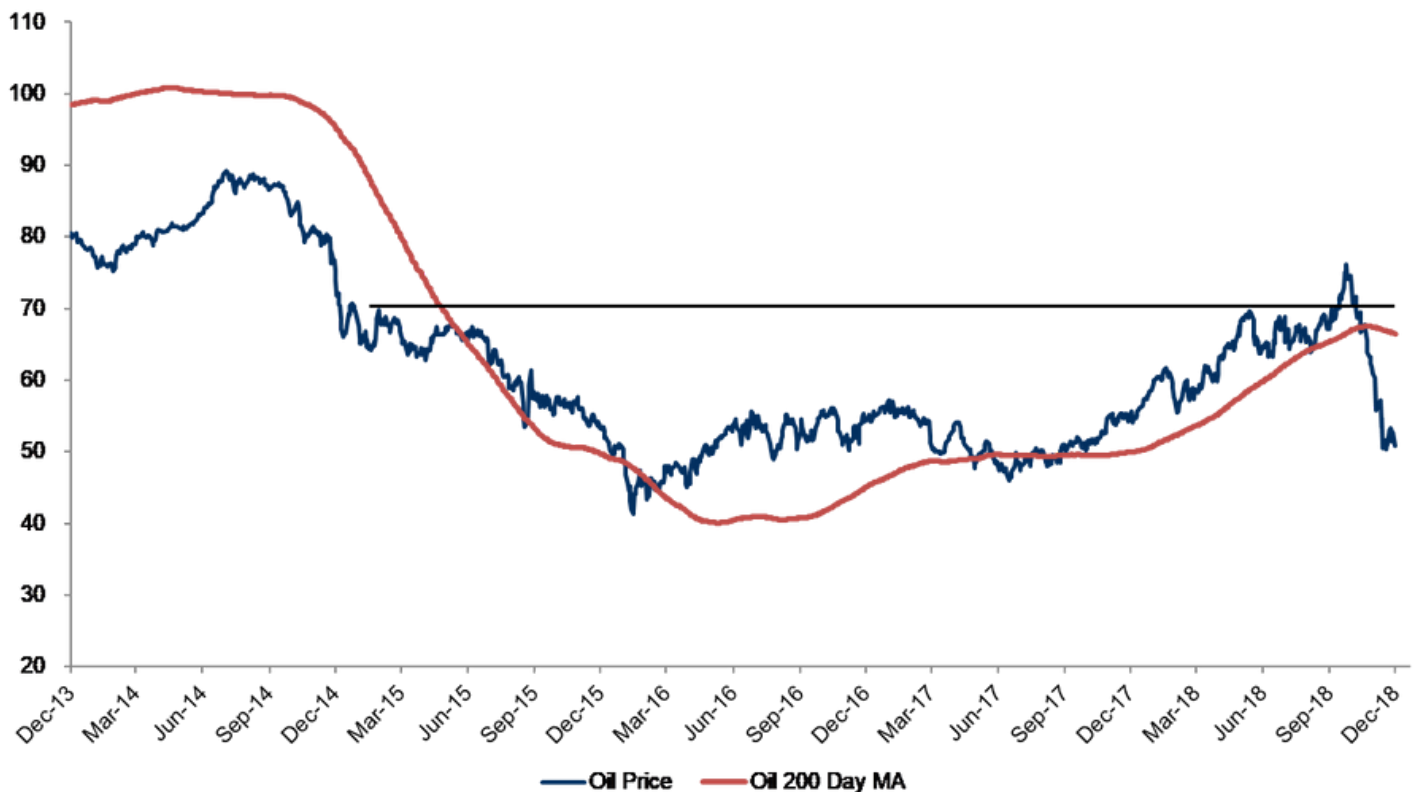


Source: Bloomberg, ICE Futures U.S.

# ECONOMIC INDICATORS

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Oil prices were \$52.83 on December 12, down 31% from the year-to-date high of \$76.10, on October 4. Historically, an adverse price move in crude oil prices has had an impact on the price of industrial commodities.



Source: Bloomberg, S&P & Goldman Sachs

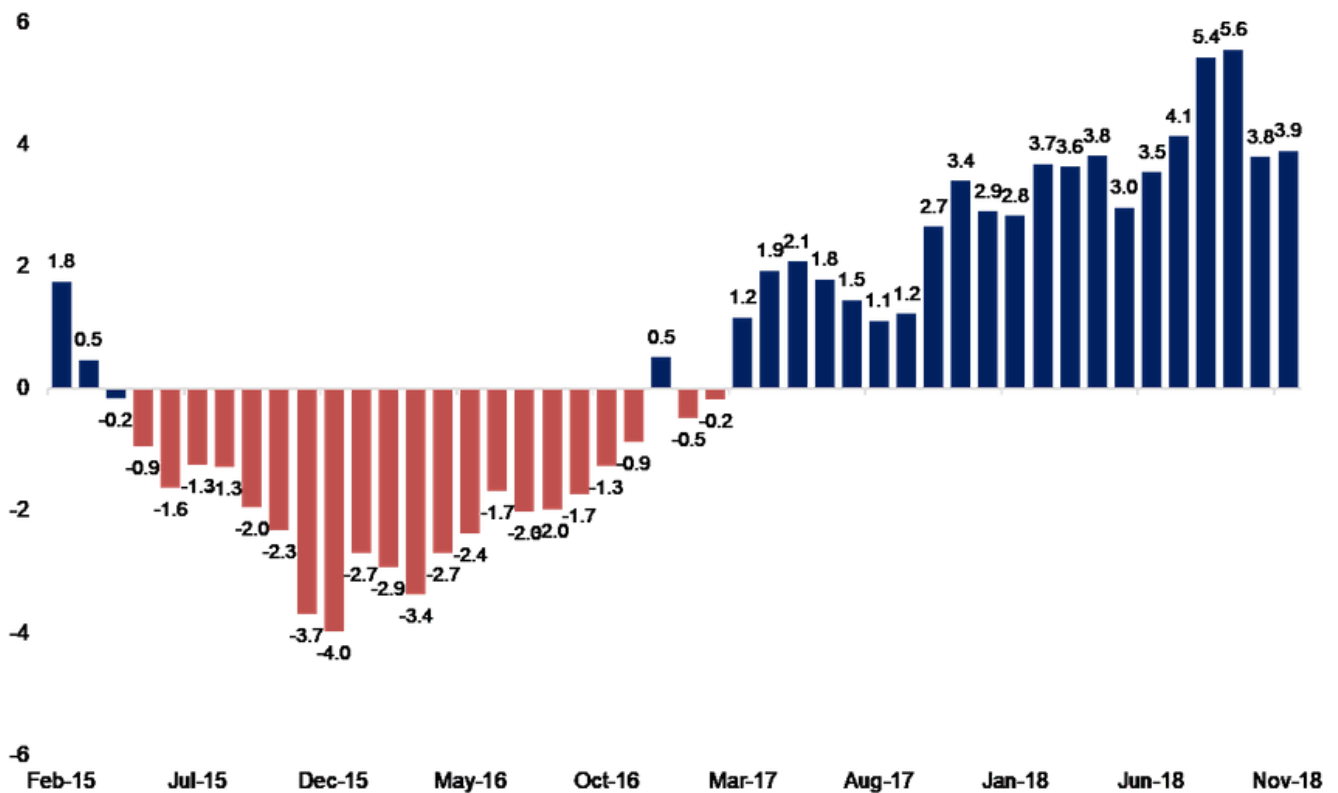
**DID YOU KNOW?** Oil is a raw input into metals production, and similarly the oil industry consumes large amounts of metal.



# ECONOMIC INDICATORS

**U.S. Industrial Production:** U.S. industrial production continued to show strength through October, up 3.9% on a year-over-year basis.

Industrial production is a measure of output of the economy's industrial sector, which includes manufacturing, mining and utilities.



Source: Bloomberg, LME