



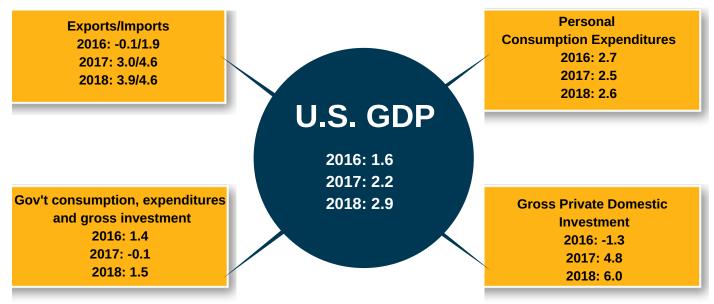
March 2019

MARKET INTELLIGENCE POWERED BY RYERSON

MARKET VIEW

Each month as part of the macro economic dashboard (see below) this report publishes the Atlanta Fed GDP Now from the Atlanta Fed. This data point, updated daily, provides a "nowcast" (i.e., real-time look) at what the Bureau of Economic Analysis (BEA) is forecasting for U.S. GDP (gross domestic product). Since the official estimate from BEA is released with a delay, the Atlanta Fed GDP Now can be viewed as a running estimate of real GDP growth based on available data for the current measured quarter.

But let's take a look at U.S GDP, which was reported at the end of February. According to BEA, real U.S. GDP increased at an annual rate of 2.6 percent in Q4 2018. While that number is down from the 3.4 percent reported in Q3, year-over-year numbers show that GDP increased for the third consecutive year. It's not difficult to understand why if you look at the data points that make up GDP. The graphic below charts the three-year pattern of the primary data points and how they roll up to the overall GDP as a measurement of the overall economy.



In this issue: Aluminum extrusions (p.3), pricing carbon (p.4) and stainless steel production by country (p.5).

Macro Economic Indicators

Our monthly dashboard of indicators driving the market.

	Latest Period	Prior Period	MoM Change	Prior Year	YoY Change
Atlanta Fed GDP Now	0.27	1.85	➡	2.37	➡
Durable Goods Orders	254,126	251,197		245,875	
ISM Manufacturing Index	54.2	56.6	÷	60.7	I
Crude Oil	56.57	57.22	+	64.94	+
U.S. Auto Sales	16.56	16.60	-	16.96	

Atlanta Fed gross domestic product Now is a running estimate of real GDP growth based on available data for the current measured quarter. This model provides a "nowcast" of the official estimate prior to its release by estimating GDP growth using a methodology similar to the one used by the U.S. Bureau of Economic Analysis.(Source: Atlanta Fed)
 Durable goods orders, measured in billions of USD, reflects new orders placed with domestic manufacturers for delivery of factory hard goods in the near term or future. (Source:

• Crude oil, measured in USD per barrel of oil, is a raw input into metals production. (Source: Bloomberg)

• U.S. auto sales, measured in millions of vehicles sold, represents a major consumer of metal and is an important indicator of the strength of the U.S. economy. (Source: Bloomberg)

<sup>U.S. Census Bureau)
The ISM Manufacturing Index is based on surveys of more than 300 manufacturing firms, monitoring employment, production, inventories, new orders, and supplier deliveries. A</sup>

data point above 50 typically reflects growth. (Source: The Institute for Supply Management)

ALUMINUM

Extrusion Education

Do you repeatedly machine the same parts from standard aluminum bar sizes? Reduce both material waste and

machining times with custom extrusions in which initial production of the item is close to the final shape.

What: Extrusion is defined as the process of shaping material, such as aluminum, by forcing it to flow through a shaped opening in a die.

How: Begin by drafting a proposed cross-section for engineering approval. Once approved, a custom die is designed and created with a cross-sectional profile based on the needs of the project. Material is shaped as it is pushed through the opening in the die, taking on the same profile as the die opening.

Where: Mills across North America operate extrusion presses in a multitude of sizes and capabilities. For each press, dies are fabricated to produce extruded parts and are typically specific to that press.

Press lead times are a function of the demand for dies tooled on a given press (see below).



Aluminum Indicators

Our monthly dashboard of market indicators driving the price of aluminum.

Aluminum Lead Times Domestic sheet: 13-18 weeks Domestic plate: 13-18 weeks Off-shore sheet/plate: 15-22 weeks Extrusions: 3-20 weeks (varies by press)

	Latest Period	Prior Period	MoM Change	Prior Year	YoY Change
LME Aluminum	0.8500	0.8668	÷	0.9092	➡
Midwest Aluminum Premium	0.1735	0.1735	•	0.1773	+
Midwest Aluminum Ingot	1.0235	1.0403	Ļ	1.0865	➡

All data measured in dollars per pound. Sources: LME, CME.

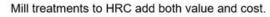
CARBON

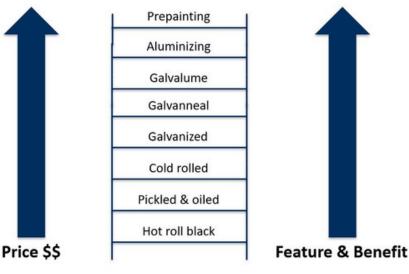


Pricing Carbon

HRC (hot roll coil) is the principal finished steel form in the global steel industry and an important raw material for manufacturers. It is a critical material that requires accurate and timely spot pricing and analysis. Many factors, ranging from the cost of the raw material to global trade agreements, ultimately impact pricing of the carbon steel product you purchase. Let's highlight three:

- Raw input: Carbon begins in the raw state of iron ore, scrap, coking coal, and natural gas. The price of these resources is influenced by the producing countries and traded on exchanges like CME.
- Global market: Macro-economic factors that influence supply and demand dynamics play a large role. For example, when the U.S. administration imposed a 25 percent tariff on steel in early 2018 via Section 232, the U.S. experienced a rise in the pricing of HRC. Throughout much of 2018, on a non-tariff adjusted basis, U.S. steel prices traded at a wider premium relative to European and Chinese steel prices. When adding in applicable tariffs, however, the spreads appeared to have been more in line with historical norms.
- Mill process: Depending on the end use of a product, HRC undergoes various treatments at the mill, all of which add value but come with an added cost (see chart).





Carbon Indicators

Our monthly dashboard of market indicators driving the price of carbon.

Carbon Lead Times Hot rolled: 3-5 weeks Cold rolled: 5-6 weeks Coated: 6-8 weeks Plate: 8-10 weeks

	Latest Period	Prior Period	MoM Change	Prior Year	YoY Change
Busheling Scrap	373	373	•	400	┡
Iron Ore	82.9	81.6		61.5	
Capacity Utilization	82.8	81.9		77.9	

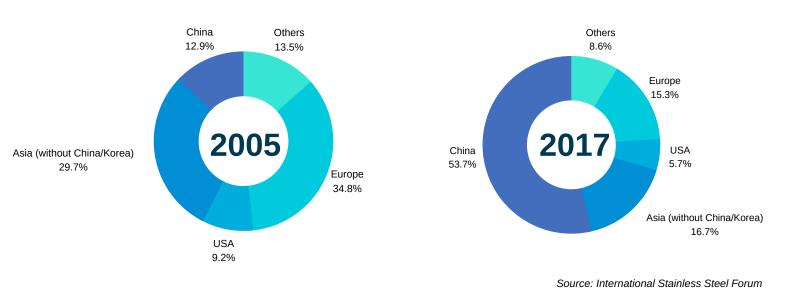
Busheling Scrap and Iron Ore measured in dollars per metric ton. Sources; Bloomberg, CME, American Iron and Steel Institute.

STAINLESS STEEL



Regional Production

When compared to the overall market for steel, stainless steel represents a small segment of global steel output by volume, with production levels varying by country. A closer look at the numbers from the International Stainless Steel Forum shows the volume of stainless steel production by country has shifted from 2005 to 2017. It is important to note that these figures are accurate as of 2017 and do not reflect any potential impact of recent steel tariffs.



Stainless Steel Indicators

Our monthly dashboard of market indicators driving the price of stainless steel.

Stainless Steel Lead Times CR: 4-8 weeks CMP: 3-5 weeks PMP: 4-12 weeks Long: 5-9 weeks

	Current Period	Prior Period	MoM Change	Prior Year	YoY Change
LME Nickel	6.0124	5.9194	+	6.0328	➡
304 Surcharge	0.5792	0.5328		0.6502	+
316 Surcharge	0.8434	0.7878		0.9460	+