Global Steel Trade Monitor

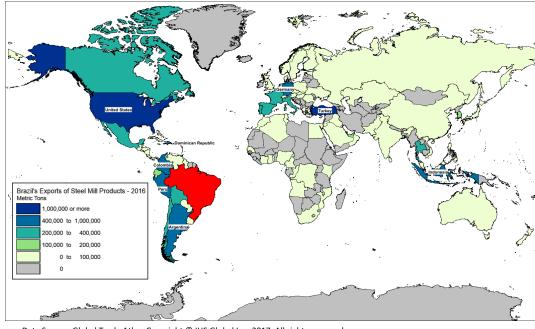
Steel Exports Report: Brazil

Background

R A D E

Brazil is the eleventh-largest steel exporter in the world. In year-to-date 2017 (through March), further referred to as YTD 2017, Brazil exported 3.8 million metric tons of steel, up 17 percent from YTD 2016 levels. Brazil's exports represented about 3 percent of all steel exported globally in 2016. The volume of Brazil's 2016 steel exports was nearly the same size as the tenth-largest exporter, France, and about 12 percent of the volume of the world's largest exporter, China. In value terms, steel represented just 3 percent of the total goods Brazil exported in 2016.

Brazil exports steel to more than 150 countries and territories. The eight countries labeled in the map below represent the top markets for Brazil's exports of steel, receiving more than 400 thousand metric tons each and accounting for about 68 percent of Brazil's steel exports in 2016.



Brazil's Exports of Steel Mill Products - 2016

July 2017

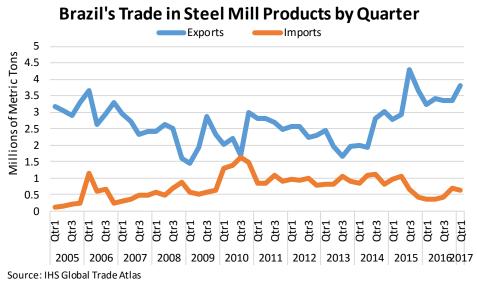
Quick Facts:

- World's eleventh-largest steel exporter: 3.8 million metric tons (YTD 2017)
- 124% growth in steel exports since Q3 2010
- YTD export volume up 17% and export value up 56%
- Top three markets: United States, Germany, Turkey
- Exports as a share of production at 46.2% in YTD 2017
- Largest producers: Gerdau, ArcelorMittal, USIMINAS, CSN
- 12 trade remedies in effect in 4 countries involving steel mill imports from Brazil

Data Source: Global Trade Atlas; Copyright $\ensuremath{\mathbb{C}}$ IHS Global Inc. 2017. All rights reserved.

Steel Trade Balance

Brazil has maintained а consistent trade surplus in steel Decreasing exports products. and increasing imports caused the trade surplus to narrow by half in 2010 to 3.1 million metric tons. Between Q3 2010 and Q1 2017, exports grew 124 percent, while imports declined 62 percent. As a result, the trade surplus bounced back and increased 272 percent between 2010 and 2016. Brazil's surplus in YTD 2017 was 3.2 million



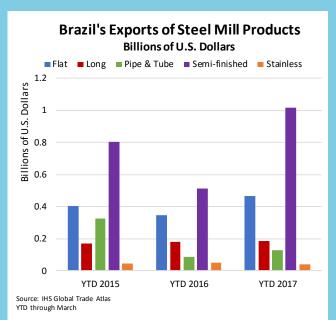
metric tons, a gain of 10 percent from YTD 2016.

Export Volume, Value, and Product

The volume of Brazil's steel exports reached a peak in 2015 at 13.7 million metric tons rising 40 percent from 2014. Export volume remained relatively on par in 2016, decreasing by just 2 percent to 13.4 million metric tons. In YTD 2017, exports have increased 17 percent from YTD 2016. After decreasing by 15 percent in 2016, the value of Brazil's steel exports has increased by 56 percent in YTD 2017 to \$1.8 billion from \$1.2 billion in YTD 2016.

Semi-finished steel accounted for 68 percent of Brazil's steel exports by volume in YTD 2017 at 2.6 million metric tons. Flat products represented the second-largest category at 20 percent (773 thousand metric tons), followed by long products at 9 percent (328 thousand metric tons), pipe and tube at 2 percent (91 thousand metric tons), and stainless steel at less than one percent (19 thousand metric tons, down 32 percent from YTD 2016).

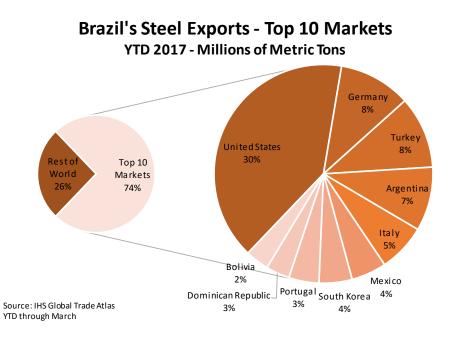




Exports by Top Market

Exports to Brazil's top 10 steel markets represented 74 percent of Brazil's steel export volume in YTD 2017 at 2.8 million metric tons (mmt). The United States was the largest market for Brazil's exports with 30 percent (1.1 mmt), followed by Germany and Turkey at 8 percent (0.3 mmt, each), and Argentina at 7 percent (0.27 mmt).

The United States has ranked first as a destination for Brazil's steel exports for most of the last decade. Despite this, exports to the United States fell the most of

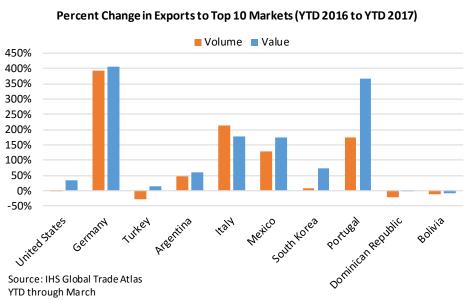


Brazil's to 10 export markets in 2016 and fell by 3 percent in YTD 2017 compared to YTD 2016.

Trends in Exports to Top Markets

The volume of Brazil's steel exports increased to six of the country's top 10 steel export markets in YTD 2017 compared to YTD 2016. Exports increased the most to the Germany (up 394% by volume in YTD 2017), followed by Italy (up 213%), Portugal (up 174%), Mexico (up 129%), Argentina (up 46%), and South Korea (up 8%). Brazil's exports decreased to Turkey (down 28%), the Dominican Republic (down 23%), Bolivia (down 11%) and the United States (down 3%).

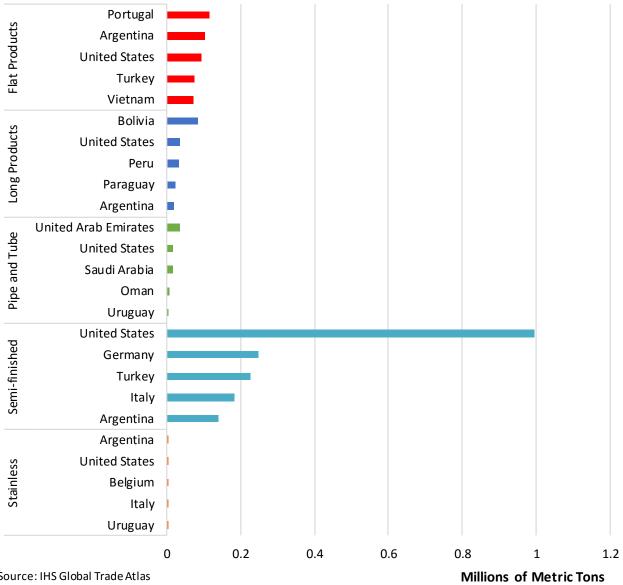
The value of steel exports increased to eight of Brazil's top 10 markets in YTD 2017. As with volume, Germany saw the largest increase in value, up 406 percent in YTD 2017, followed by Portugal (up 366%), Italy (up 177%), Mexico (up 175%), South Korea (up 73%), Argentina (up 61%), the United States (up 35%), and Turkey (up 14%). Bolivia had the greatest decline in value in YTD 2017, lower by 9 followed the percent, bv Dominican Republic (down 2%).



Other notable increases of steel exports by volume were to Vietnam (up 383%), Ecuador (up 192%), and the United Arab Emirates (up 732%) in YTD 2017.

Top Markets by Steel Product Category

Brazil's top export markets by volume vary across types of steel products, though the United States remained in the top of each of the five product categories in YTD 2017. Portugal was the largest market for Brazil's exports of flat products at 15 percent (116 thousand metric tons), while Bolivia was the largest market for Brazil's long products at 26 percent (85 thousand metric tons). The United Arab Emirates accounted for the largest share of Brazil's pipe and tube exports at 37 percent (34 thousand metric tons). The United States was the largest market for Brazil's semi-finished exports at 38 percent (1 million metric tons). The U.S. ranked third as a destination for Brazil's long product exports of flat products (12% or 95 thousand metric tons), second as a destination for Brazil's long product exports (11% or 35 thousand metric tons), and second as a destination for Brazil's stainless exports (15% or 3 thousand metric tons).



Brazil's Top 5 Export Markets by Product - YTD 2017

Source: IHS Global Trade Atlas YTD through March

In 2016, the import market	Brazil's Steel Import Market Share				
share for Brazil's steel products increased in five of	Top 10 Export Markets	Share of	Brazil's Rank in 2015	Share of	Brazil's Rank in 2016
Brazil's top 10 export	Warkets	Imports from Brazil - 2015	IN 2015	Imports from Brazil - 2016	IN 2016
destinations. Countries with	United States	13.8%	2	13.0%	2
increases in their share of	Turkey	1.9%	12	3.1%	10
steel imports from Brazil	Germany	0.7%	18	0.5%	22
included Argentina (up 9	Argentina	53.5%	1	62.5%	1
percentage points from	Indonesia	5.1%	5	4.7%	5
2015), Bolivia (up 8.4	Colombia	11.9%	4	14.7%	3
percentage points), Peru (up	Dominican Republic	15.0%	4	N/A	N/A
7.4 percentage points),	Peru	10.9%	3	18.3%	2
Colombia (up 2.8 percentage	Mexico	2.0%	9	1.7%	9
points) and Turkey (up 1.2	Bolivia	34.5%	2	42.8%	1
percentage points). The	Source: IHS Global Trade Atlas, based on import data per reporting country				

Brazil's Import Market Share in Top Destinations

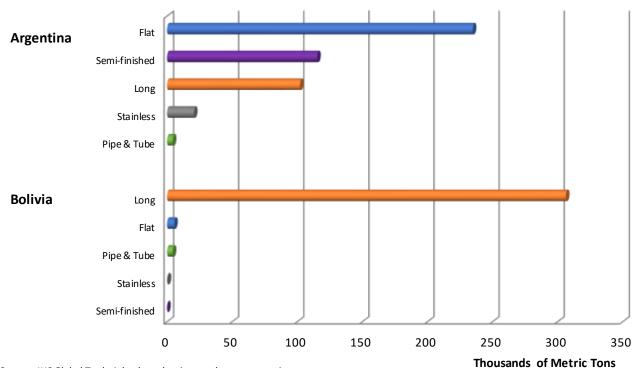
products increased in five Brazil's top 10 expo destinations. Countries with increases in their share steel imports from Braz included Argentina (up points percentage fro (up Bolivia 2015), 8 percentage points), Peru (u 7.4 percentage points Colombia (up 2.8 percentag points) and Turkey (up 1 percentage points). The United States,

Germany,

Note: 2016 data for Dominican Republic not available

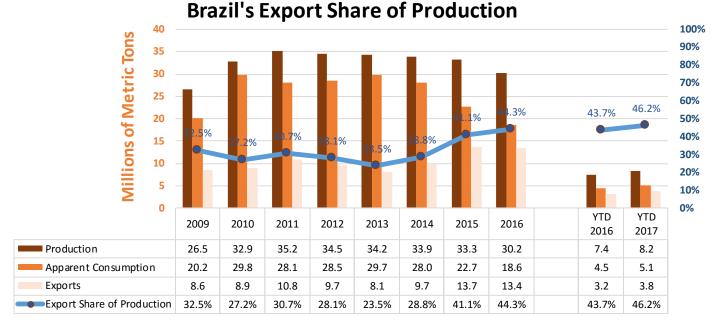
Indonesia, and Mexico decreased their share of imports from Brazil by less than 1 percentage point each.

Among Brazil's top export markets, Argentina and Bolivia received more than 40 percent of their total steel imports from Brazil in 2016. Flat products accounted for nearly half of Argentina's imports from Brazil at 49 percent (235 thousand metric tons), while nearly all of Bolivia's imports from Brazil were of long products at 97 percent (306 thousand metric tons).



Steel Import Composition of Top Market-Share Countries - 2016

Source: IHS Global Trade Atlas, based on import data per reporting country



Overall Production and Export Share of Production

Sources: World Steel Association; IHS Global Trade Atlas YTD through March

Brazil's crude steel production has decreased every year since 2011, with the largest decrease of 9 percent occurring between 2015 and 2016 as production declined from 33.3 million metric tons to 30.2 million metric tons. Brazil's production in YTD 2017 was up 11 percent from YTD 2016. Apparent consumption (a measure of steel demand) has also been declining, down 33 percent from 2014 and 18 percent from 2015. However, YTD 2017 apparent consumption showed an increase of 11 percent over YTD 2016. Production has consistently outpaced demand, and the gap between the two has increased 159 percent since 2013 to a total of 11.6 million metric tons in 2016. The YTD 2017 gap between production and demand was 3.2 million metric tons. Brazil's steel exports as a share of production was 46.2 percent for YTD 2017 compared to 43.7 percent for YTD 2016.

Top Producers

Steel production in Brazil is concentrated among four large companies — the majority of which are domestically-owned. Despite large reserves of iron ore in the country, Brazilian steel production uses a mix of iron ore-based blast furnaces and scrap metal-based electric arc furnaces.

Brazil's Top Steel Producers				
Company	Capacity (mmt)	Main Products		
Gerdau SA	16 (worldwide)	Long products, semi-finished		
ArcelorMittal Brasil	11.6	Long products, flat products		
Usinas Siderurgicas de Minas Gerais SA (USIMINAS)	4.1	Cold-rolled, strip, heavy plates, galvanized		
Companhia Siderurgica Nacional (CSN)	4.1	Hot-rolled, cold-rolled, galva- nized, coated sheets		
	Company Gerdau SA ArcelorMittal Brasil Usinas Siderurgicas de Minas Gerais SA (USIMINAS) Companhia Siderurgica	CompanyCapacity (mmt)Gerdau SA16 (worldwide)ArcelorMittal Brasil11.6Usinas Siderurgicas de Minas Gerais SA (USIMINAS)4.1Companhia Siderurgica4.1		

Sources: Brazil Steel Institute; Worldsteel Association, Company websites

Trade Remedies in the Steel Sector

Antidumping duties (AD), countervailing duties (CVD), associated suspension agreements, and safeguards are often referred to collectively as trade remedies. These are internationally agreed upon mechanisms to address the market-distorting effects of unfair trade, or serious injury or threat of serious injury caused by a surge in imports. Unlike anti-dumping and countervailing measures, safeguards do not require a finding of an "unfair" practice. Before applying these duties or measures, countries investigate allegations and can remedy or provide relief for the injury caused to a domestic industry. The tables below provide statistics on the current number of trade remedies various countries have against steel mill products from Brazil.

Steel Mill Trade Remedies in Effect Against Brazil					
		Suspension Agreements			
Country	AD	CVD	and Undertakings	Total	
Canada	2			2	
India	1			1	
Mexico	1			1	
United States	5	3		8	
TOTAL	9	3	0	12	
Source: World Trade Organization, through June 1, 2017					

Global Steel Mill Safeguards in Effect			
Country	Product(s)		
Egypt	Steel rebar		
India	1) Hot-rolled steel in coils; 2) Hot-rolled steel flat sheets and plates		
	1) Articles of finished casing and tubing; 2) Flat-rolled products of iron or non-alloy steel; 3) I and H sec-		
Indonesia	tions of other alloy steel; 4) Bars and rods, hot-rolled, in irregularly wound coils		
Malaysia	1) Hot-rolled steel plate; 2) Steel concrete reinforcing bar; 3) Steel wire rod and deformed bar-in-coil		
Morocco	1) Cold-rolled sheets and plated or coated sheets; 2) Reinforcing bars and wire rods		
Philippines	Steel angle bars		
	1) Hot-rolled steel flat products with certain amounts of alloying elements; 2) Unalloyed hot-rolled steel		
Thailand	flat products in coils and not in coils; 3) Structural hot-rolled H-beams with alloy		
Vietnam	Semi-finished and certain finished products of alloy and non-alloy steel		
Source: World Trade Organization, through May 22, 2017			

Steel Exports Report: Glossary

Apparent Consumption: Domestic crude steel production plus steel imports minus steel exports. Shipment data are not available for all countries, therefore crude steel production is used as a proxy.

Export Market: Destination of a country's exports.

Flat Products: Produced by rolling semi-finished steel through varying sets of rolls. Includes sheets, strips, and plates. Used most often in the automotive, tubing, appliance, and machinery manufacturing sectors.

Import Penetration: Ratio of imports to apparent consumption.

Import Source: Source of a country's imports.

Long Products: Steel products that fall outside the flat products category. Includes bars, rails, rods, and beams. Used in many sectors but most commonly in construction.

Pipe and Tube Products: Either seamless or welded pipe and tube products. Used in many sectors but most commonly in construction and energy sectors.

Semi-finished Products: The initial, intermediate solid forms of molten steel, to be re-heated and further forged, rolled, shaped, or otherwise worked into finished steel products. Includes blooms, billets, slabs, ingots, and steel for castings.

Stainless Products: Steel products containing at minimum 10.5% chromium (Cr) offering better corrosion resistance than regular steel.

Steel Mill Products: Carbon, alloy, or stainless steel produced by either a basic oxygen furnace or an electric arc furnace. Includes semi-finished steel products and finished steel products. For trade data purposes, steel mill products are defined at the Harmonized System (HS) 6-digit level as: 720610 through 721650, 721699 through 730110, 730210, 730240 through 730290, and 730410 through 730690. The following discontinued HS codes have been included for purposes of reporting historical data (prior to 2007): 722520, 722693, 722694, 722910, 730410, 730421, 730610, 730620, and 730660.

Global Steel Trade Monitor: The monitor provides global import and export trends for the top countries trading in steel products. The current reports expand upon the early release information already provided by the Steel Import Monitoring and Analysis (SIMA) system that collects and publishes data on U.S. imports of steel mill products. Complementing the SIMA data, these reports provide objective and current global steel industry information about the top countries that play an essential role in the global steel trade. Information in these reports includes global exports and import trends, production and consumption data and, where available, information regarding trade remedy actions taken on steel products. The reports will be updated quarterly.

Steel Import Monitoring and Analysis (SIMA) System: The Department of Commerce uses a steel import licensing program to collect and publish aggregate data on near real-time steel mill imports into the United States. SIMA incorporates information collected from steel license applications with publicly released data from the U.S. Census Bureau. By design, this information provides stakeholders with valuable information on the steel trade with the United States. For more information about SIMA, please go to http://enforcement.trade.gov/steel/license/.



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