

Mineral Industry Surveys

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CHROMIUM IN JANUARY 2020

Reported consumption of chromium, on a gross weight basis, in January 2020 decreased by 4% compared with reported consumption of chromium in December 2019, and increased by 7% compared with reported consumption in January 2019. High-carbon ferrochromium accounted for 87% of the chromium material consumed in January 2020. Stainless and heat-resisting steels were the leading end uses, consuming 89% of chromium materials. Consumer stocks increased slightly compared with those of the previous month and increased by 47% compared with those of January 2019 (tables 1, 2).

Estimated stainless steel production increased by 21% in January 2020 compared with production in December 2019,

and decreased by 5% compared with production in January 2019 (table 1). Government stockpile inventories for chromium metal have remained essentially unchanged since February 2018 and unchanged since August 2018. Government stockpile inventories of ferroalloys decreased slightly compared with December 2019 and decreased by 8% compared with those of January 2019 (table 3).

Imports of chromite ore, chromium ferroalloys, chromium metal, and stainless steel commonly fluctuate from month to month (table 1). Imports of all grades of chromium ferroalloys decreased by 15% in January 2020 compared with imports of chromium ferroalloys in December 2019 and decreased by 53% compared with those in January 2019. Stainless steel

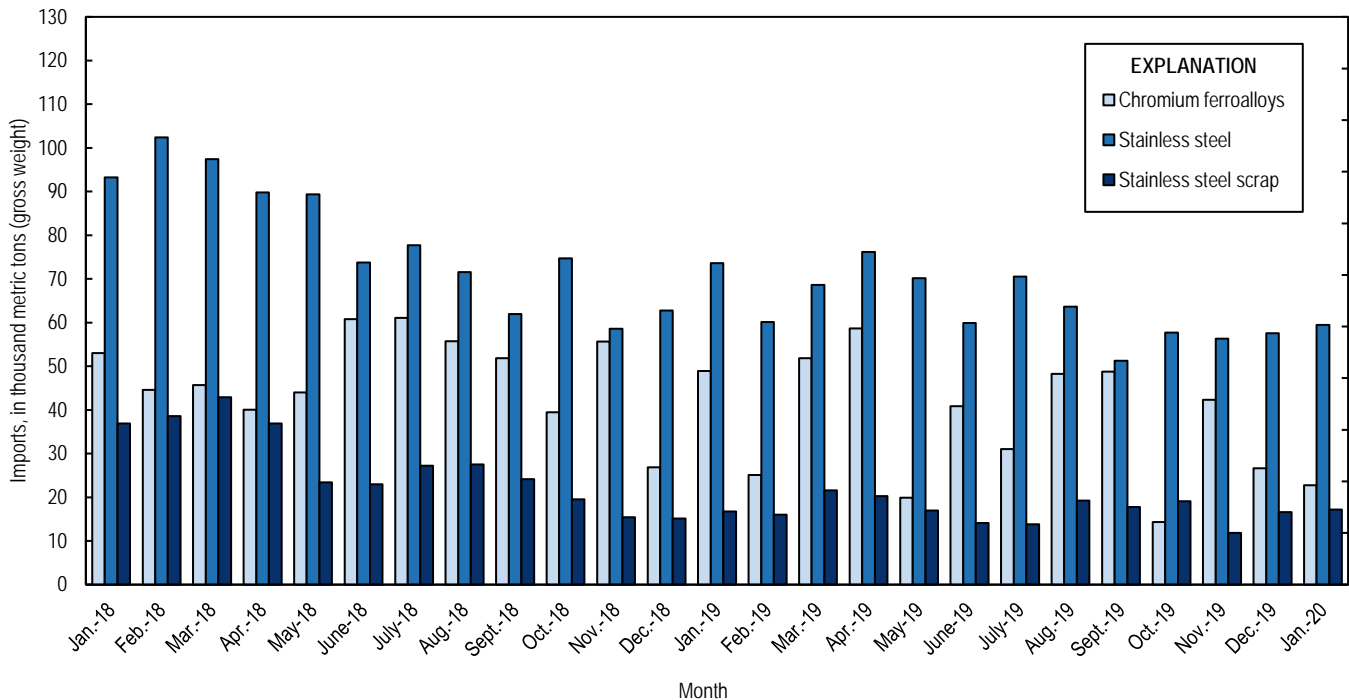


Figure 1. Chromium ferroalloys and stainless steel imports from January 2018 through January 2020. Source: U.S. Census Bureau.

imports in January 2020 increased by 3% compared with imports in December 2019 and decreased by 19% compared with those in January 2019 (fig. 1, table 1).

Exports of chromite ore, chromium ferroalloys, chromium metal, and stainless steel also frequently fluctuate from month to month (table 1, table 4). Exports of chromium ferroalloys decreased by 21% in January 2020 compared with exports in December 2019 and decreased by 68% compared with exports in January 2019. Stainless steel exports in January 2020 increased by 46% compared with exports in December 2019 (table 1) and decreased by 23% compared with those of January 2019.

In January 2020, the leading import sources for ferrochromium (FeCr) into the United States were, in descending order of quantity by gross weight and chromium content, Kazakhstan, Russia, and India (table 6), whereas the leading import sources for chromium metal were Russia, the United Kingdom, and France (table 7).

The U.S. chromium metal (99% Cr) average price decreased slightly to \$3.197 per pound in January 2020 compared with the average price in December 2019 and decreased by 36% compared with the average price in January 2019 (CRU Group, 2020). The U.S. high-carbon FeCr (62%–70% chromium) average price was 84.278 cents per pound of contained chromium in January 2020, essentially unchanged from the average price in December 2019, and a 21% decrease from the average price in January 2019 (fig. 2) (CRU Group, 2020).

Industry News

Vedanta Ltd. (India) acquired Ferro Alloys Corp. Ltd. (FACOR) (India) in January 2020 following regulatory approval. The acquisition included control over management

and 100% capital of FACOR (Vedanta Ltd., 2020). FACOR owned a ferrochromium plant with a production capacity of 72,000 metric tons per year and two chromite ore mines in Odisha State.

The Odisha State government of India issued a 50-year mining lease in the Saruabil chromite mining block to T S Alloys Ltd. (India), a subsidiary of Tata Steel Ltd. (India) (Asian News International, 2020).

References Cited

- Asian News International, 2020, Tata Steel arm gets license for chromite ore mine in Odisha: Mumbai, India, Asian News International, January 8. (Accessed March 20, 2020, at <https://www.aninews.in/news/business/business/tata-steel-arm-gets-licence-for-chromite-ore-mine-in-odisha20200108114602/>.)
- CRU Group, 2020, CRU prices_chrome_historical data_03-feb-2020-jan-avg: CRU Group, February 3. (Accessed February 3, 2020, via <http://www.crugroup.com/>.)
- Vedanta Ltd., 2020, Vedanta Limited to acquire Ferro Alloys Corporation Limited: Mumbai, India, Vedanta Ltd. press release, January 31. (Accessed March 20, 2020, at <https://www.vedantalimited.com/MediaDocuments/Vedanta%20FACOR%20Acquisition%20Press%20Release.pdf>.)

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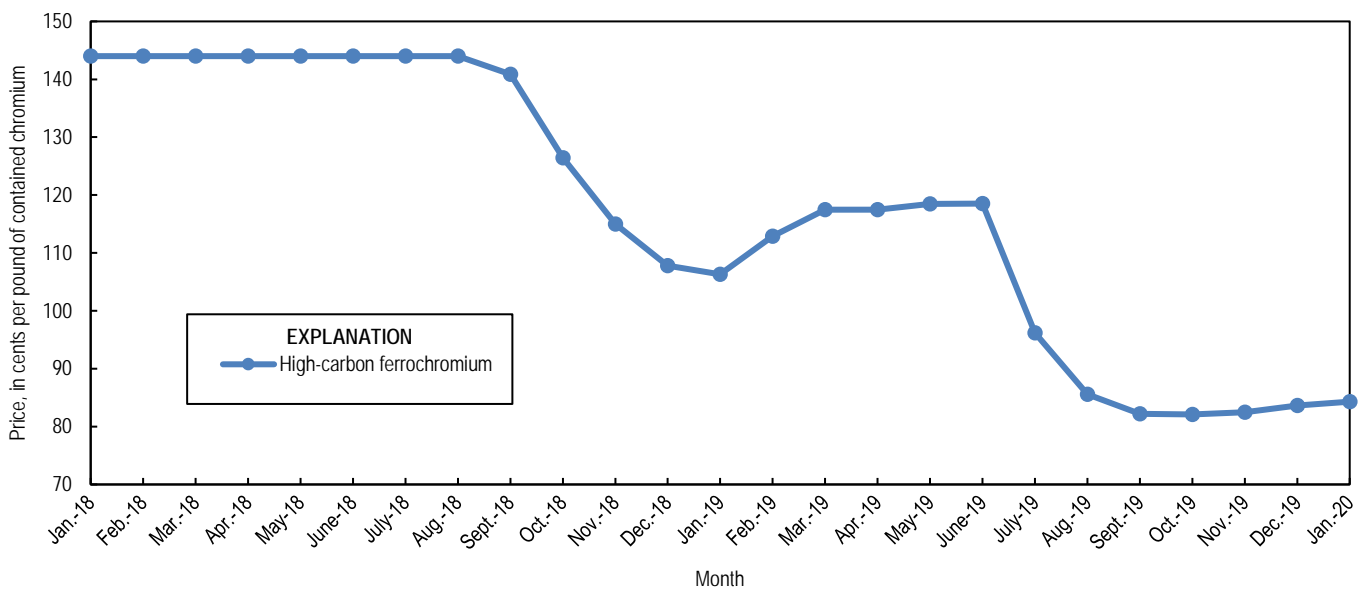


Figure 2. Average monthly prices for U.S. high-carbon ferrochromium from January 2018 through January 2020. Source: CRU Group.

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS¹

(Metric tons, gross weight)

	2019			2020 January
	November	December	January– December ^{p, 2}	
Production, stainless steel ³	188,000	183,000	2,590,000	221,000
Components of U.S. supply:				
Stainless steel scrap receipts	65,600	67,400	810,000	70,000 ^c
Stainless steel scrap consumption	102,000	103,000	1,240,000	105,000 ^c
Imports for consumption:				
Chromite ore	6,770	37,200	152,000	1,920
Ferrochromium:				
More than 4% carbon	40,200	20,100	393,000	13,200
More than 3% but not more than 4% carbon	--	900	1,210	--
More than 0.5% but not more than 3% carbon	113	259	2,090	668
Not more than 0.5% carbon	2,010	4,110	42,900	5,420
Ferrochromium silicon	--	1,350	17,600	3,500
Total ferroalloy imports	42,300	26,700	457,000	22,800
Chromium metal ⁴	1,280	1,510	14,400	1,540
Stainless steel	56,300	57,500	766,000	59,500
Stainless steel scrap	11,800	16,600	204,000	17,200
Distribution of U.S. supply:				
Consumption, industry, chromium ferroalloys and metal	35,200	36,100	424,000	34,600
Exports:				
Chromite ore	141	120	2,300	147
Chromium ferroalloys:				
High-carbon ferrochromium	144	82	1,170	64
Low-carbon ferrochromium	35	1	437	2
Ferrochromium silicon	--	--	22	--
Total ferroalloy exports	179	83	1,630	66
Chromium metal	23	31	430	37
Stainless steel	29,100	22,900	434,000	33,400
Stainless steel scrap	33,000	74,500	474,000	35,200
Stocks at end of period:				
Consumer, industry, chromium ferroalloys and metal	14,800	15,000	15,000	15,300
Government stockpile:				
Chromium ferroalloys	66,100	66,100	66,100	65,200
Chromium metal	3,850	3,850	3,850	3,850

^cEstimated. ^pPreliminary. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include revised data that are not broken out by specific month(s).

³Data on stainless steel production reported by American Iron and Steel Institute; monthly, quarterly, and year-to-date production of stainless and heat-resisting raw steel.

⁴Includes waste and scrap and other.

TABLE 2
U.S. REPORTED CONSUMPTION AND STOCKS OF CHROMIUM PRODUCTS^{1,2}

(Metric tons, gross weight unless otherwise noted)

	2019		2020 January
	December	January– December ³	
Consumption by end use:			
Steel:			
Carbon steel	W	W	W
High-strength low-alloy steel	146	1,750	146
Stainless and heat-resisting steel	32,400	380,000	30,900
Unspecified steel ⁴	2,720	32,600	2,720
Superalloys	422	5,090	427
Other alloys and uses ⁵	W	W	W
Total	36,100	424,000	34,600
Total, chromium content	20,600	242,000	19,700
Consumption by material:			
Low-carbon ferrochromium	2,090	24,700	2,080
High-carbon ferrochromium	31,400	367,000	29,900
Ferrochromium silicon	W	W	W
Chromium metal	162	2,220	162
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	36,100	424,000	34,600
Total, chromium content	20,600	242,000	19,700
Consumer stocks:			
Low-carbon ferrochromium	1,560	1,560	1,570
High-carbon ferrochromium	8,390	8,390	8,720
Ferrochromium silicon	814	814	773
Chromium metal	44	44	44
Chromium-aluminum alloy	51	51	50
Other chromium materials ⁶	4,100	4,100	4,100
Total	15,000	15,000	15,300
Total, chromium content	8,110^r	8,110^r	8,280

^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Total."

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes estimates.

³May include revised data that are not broken out by specific month(s).

⁴Includes electrical, full alloy, tool, and unspecified steel end uses.

⁵Includes cast irons, welding and alloy hard-facing rods and materials, wear- and corrosion-resistant alloys, and aluminum, copper, magnetic, nickel, and other alloys.

⁶Includes chromite ore as foundry sand

TABLE 3
U.S. GOVERNMENT STOCKPILE INVENTORY OF
CHROMIUM MATERIALS¹

(Metric tons)

	Chromium ferroalloys		Chromium metal
	High-carbon ferro- chromium	Low-carbon ferro- chromium	
2019:			
January	43,800	27,400	3,850
February	43,300	27,400	3,850
March	42,400	27,400	3,850
April	41,000	27,400	3,850
May	39,900	27,400	3,850
June	39,900	27,400	3,850
July	39,900	27,400	3,850
August	39,900	27,400	3,850
September	39,600	27,400	3,850
October	39,600	27,400	3,850
November	38,700	27,400	3,850
December	38,700	27,400	3,850
2020, January	37,800	27,400	3,850

¹Data are rounded to no more than three significant digits.

Source: Defense Logistics Agency, DLA Strategic Materials.

TABLE 4
U.S. EXPORTS OF CHROMITE ORE, CHROMIUM FERROALLOYS, AND METAL¹

	Chromite ore		Chromium ferroalloys ²			Chromium metal ³	
	Gross weight (metric tons)	Value (thousands)	Gross weight (metric tons)	Chromium content (metric tons)	Value (thousands)	Gross weight (metric tons)	Value (thousands)
2019:							
January	169	\$124	204	64	\$188	25	\$644
February	158	134	48	29	111	44	1,220
March	113	106	322	175	667	26	848
April	199	226	169	78	256	28	1,190
May	251	192	47	28	87	70	2,460
June	220	177	90	54	158	37	844
July	269	217	95	53	160	42	971
August	382	356	38	23	78	44	1,370
September	218	152	30	18	40	25	649
October	61	56	328	184	525	39	1,340
November	141	110	179	107	319	23	889
December	120	86	83	50	107	31	718
January–December ⁴	2,300	1,940	1,630	864	2,690	430	13,100
2020, January	147	82	66	36	91	37	733

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes low- and high-carbon ferrochromium and ferrochromium silicon.

³Includes chromium metal, waste and scrap, and unwrought powders.

⁴May include revised data that are not broken out by specific month(s).

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE, FERROCHROMIUM, AND
CHROMIUM METAL¹

(Metric tons)

	2019		2020 January
	December	January– December ²	
Chromite ore:			
Not more than 40% chromic oxide:			
Quantity	95	973	557
Chromic oxide content	19	360	86
More than 40% but less than 46% chromic oxide:			
Quantity	524	4,170	770
Chromic oxide content	227	1,810	333
46% or more chromic oxide:			
Quantity	36,500	147,000	593
Chromic oxide content	34,300	90,400	355
Total, all grades:			
Quantity	37,200	152,000	1,920
Chromic oxide content	34,500	92,500	774
Ferrochromium:			
Low-carbon: ³			
Not more than 0.5% carbon:			
Quantity	4,110	42,900	5,420
Chromium content	2,820	29,900	3,570
More than 0.5% but not more than 3% carbon:			
Quantity	259	2,090	668
Chromium content	185	1,330	442
Total, low-carbon:			
Quantity	4,370	45,000	6,080
Chromium content	3,000	31,300	4,010
Medium-carbon: ⁴			
Quantity	900	1,210	--
Chromium content	621	802	--
High-carbon: ⁵			
Quantity	20,100	393,000	13,200
Chromium content	11,000	215,000	8,440
Total, all grades:			
Quantity	25,300	439,000	19,300
Chromium content	14,600	247,000	12,400
Chromium metal:			
Unwrought powders	1,330	11,500	1,200
Waste and scrap	12	221	11
Other than waste and scrap and unwrought powders	169	2,680	337
Total, all grades	1,510	14,400	1,540

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include revised data that are not broken out by specific month(s).

³Ferrochromium containing not more than 3% carbon.

⁴Ferrochromium containing more than 3% carbon but not more than 4% carbon.

⁵Ferrochromium containing more than 4% carbon.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN 2020, BY GRADE AND COUNTRY
OR LOCALITY¹

Grade and country or locality	January		
	Quantity (metric tons)	Chromium content (metric tons)	Value ² (thousands)
High-carbon ferrochromium:³			
Albania	148	92	\$162
India	1,420	848	1,120
Kazakhstan	8,230	5,710	8,700
Russia	3,000	1,540	2,290
Turkey	392	258	415
Total	13,200	8,440	12,700
Low-carbon ferrochromium:⁴			
More than 0.5% but not more than 3% carbon			
Brazil	378	236	624
Kazakhstan	290	206	734
Total	668	442	1,360
Not more than 0.5% carbon:			
Belgium	339	236	1,140
Brazil	371	231	611
China	5	3	14
India	100	66	206
Japan	100	72	385
Russia	4,480	2,940	9,050
Turkey	20	15	67
Total	5,420	3,570	11,500
All grades:			
Albania	148	92	162
Belgium	339	236	1,140
Brazil	749	467	1,240
China	5	3	14
India	1,520	915	1,330
Japan	100	72	385
Kazakhstan	8,520	5,910	9,430
Russia	7,480	4,480	11,300
Turkey	411	273	482
Total	19,300	12,400	25,500

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the merchandise into the United States.

³Ferrochromium containing more than 4% carbon.

⁴Ferrochromium containing not more than 3% carbon.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN 2020,
BY GRADE AND BY COUNTRY OR LOCALITY¹

Grade and country or locality	January	
	Quantity (metric tons)	Value ² (thousands)
Unwrought powders:		
China	136	\$1,360
Estonia	10	75
France	202	1,850
Germany	66	433
India	19	172
Russia	512	3,110
Spain	23	119
United Kingdom	227	2,460
Total	1,200	9,570
Waste and scrap:		
Canada	5	15
Japan	1	18
United Kingdom	5	33
Total	11	67
Other than waste and scrap and unwrought powders:		
China	20	143
Germany	1	54
Japan	1	50
Malaysia	(3)	4
Russia	276	1,070
United Kingdom	40	245
Total	337	1,570
All grades:		
Canada	5	15
China	157	1,500
Estonia	10	75
France	202	1,850
Germany	66	487
India	19	172
Japan	1	68
Malaysia	(3)	4
Russia	788	4,180
Spain	23	119
United Kingdom	273	2,740
Total	1,540	11,200

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the merchandise into the United States.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8
U.S. STAINLESS STEEL TRADE, BY PRODUCT, IN 2020¹

Stainless steel product	January	
	Gross weight (metric tons)	Value ² (thousands)
Exports:		
Ingot	1,330	\$8,620
Flat-rolled (width > 600 mm)	20,100	55,700
Flat-rolled (width < 600 mm)	5,900	27,900
Bars and rods in irregular coils	427	2,080
Other bars and rods	2,570	28,200
Wire	670	9,910
Tubes, pipes, hollow profiles	2,430	30,200
Total	33,400	163,000
Stainless steel scrap	35,200	25,000
Grand total	68,600	188,000
Imports:		
Ingot	5,990	45,000
Flat-rolled (width > 600 mm)	24,500	56,800
Flat-rolled (width < 600 mm)	3,990	16,800
Bars and rods in irregular coils	3,130	11,600
Other bars and rods	8,180	33,500
Wire	3,710	18,500
Tubes, pipes, hollow profiles	9,980	65,600
Total	59,500	248,000
Stainless steel scrap	17,200	14,000
Grand total	76,700	262,000

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Export value is free alongside ship. Import value is Customs import value, which generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the merchandise into the United States.

Source: U.S. Census Bureau.