Mineral Industry Surveys

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CHROMIUM IN JANUARY 2024

Stainless steel production increased by 17% in January 2024 compared with production in December 2023 and increased by 8% compared with production in January 2023 (table 1). In January 2024, the leading import sources for ferrochromium into the United States were, in descending order of quantity by gross weight and chromium content, Albania, South Africa, and Kazakhstan (table 4), whereas the leading import sources for chromium metal were China, the United Kingdom, and France (table 5).

Imports of chromite ore, chromium ferroalloys, stainless steel, and stainless steel scrap commonly fluctuate from month to month (fig. 1, table 1). Imports of chromite ore in January 2024 were more than 4 times the ore imports in December 2023 and more than 13 times imports in January 2023. Imports of all grades of chromium ferroalloys in January 2024, including ferrochromium silicon, decreased by 27% compared with imports in December 2023 and decreased by 21% compared with imports in January 2023 (tables 1, 3). Stainless steel imports in January 2024 increased by 15% compared with imports in December 2023 and increased by 5% compared with imports in January 2023. Stainless steel scrap imports in January 2023 decreased by 3% compared with imports in December 2023 and increased by 20% compared with those in January 2023 (table 1).

The U.S. chromium metal (99% chromium) average price was $5.04 per pound in January 2024, unchanged from the average price in December 2023 and 8% less than the average price in January 2023. The U.S. high-carbon ferrochromium (mininum 62% chromium) average price was 191.25 cents per pound of contained chromium in January 2024, 6% less than

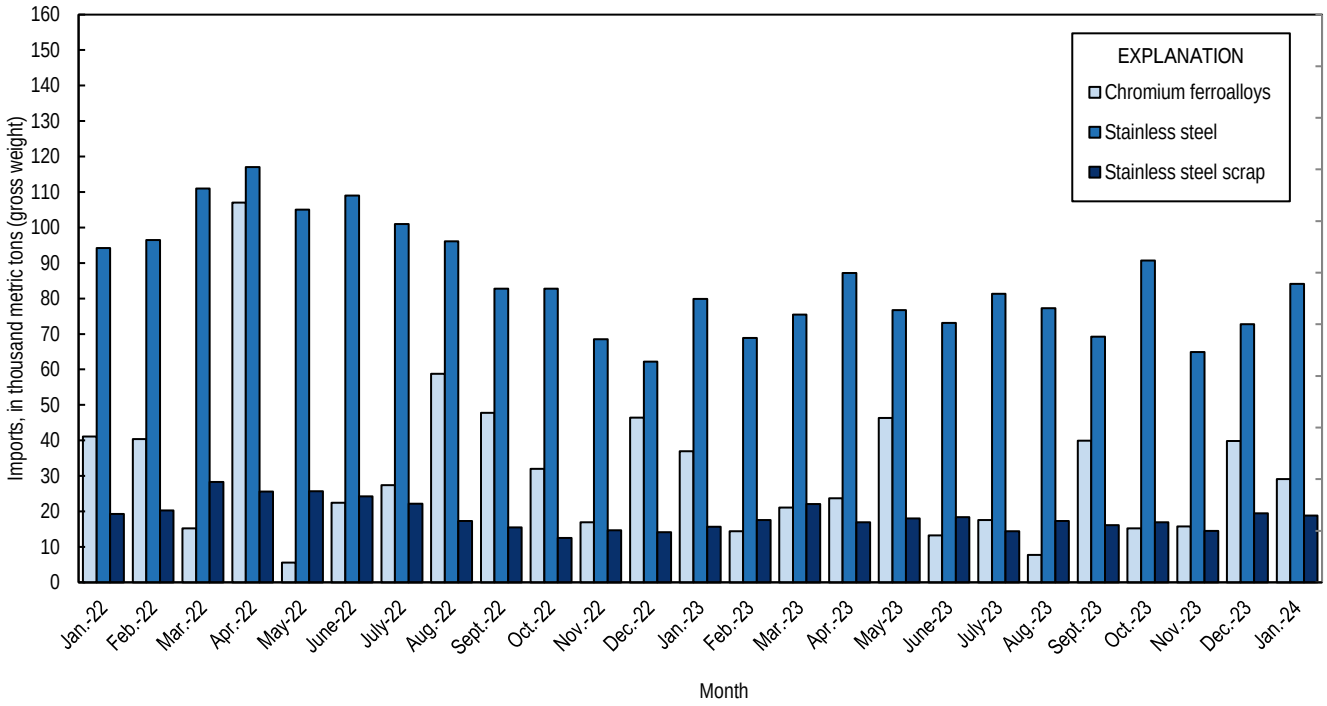

Figure 1. Chromium ferroalloys, stainless steel, and stainless steel scrap imports from January 2022 through January 2024. Source: U.S. Census Bureau.

the average price in December 2023 and 33% less than the average price in January 2023 (fig. 2) (Argus Metals International, 2024).

Industry News

Outokumpu Oyj (Finland) temporarily idled one of its three ferrochromium furances and one of its sintering plants in Tornia, Finland, owing to decreases in stainless steel demand. The furnace and processing plant would be kept offline until the third quarter of 2024. The remaining ferrochromium furances would operate at 80% capacity (Outokumpu Oyj, 2024b). Outokumpu also completed the acquisition of a 10% minority stake in Cronimet Holding GmbH (Germany), a high-quality steel scrap recycling company with operations in Northeastern Europe (Outokumpu Oyj, 2024a).

Cogne Acciai Speciali SpA, a stainless steel and nickel alloy producer in Italy, signed a purchase agreement with Com.Steel SpA (Italy) to acquire a 65% stake in its subsidiary, Com.Steel Inox SpA, a stainless steel and nickel alloy scrap recycling company in Italy (Cogne Acciai Speciali SpA, 2024).

References Cited

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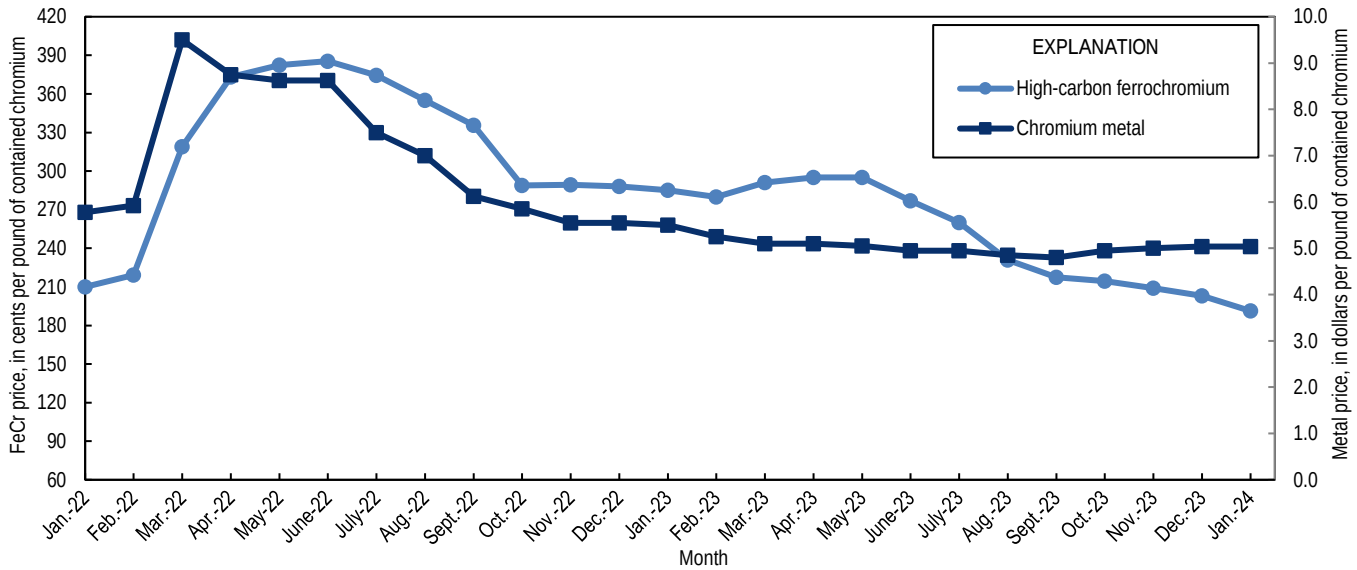

Figure 2. Average monthly prices for U.S. high-carbon ferrochromium (FeCr) and chromium metal from January 2022 through January 2024. Source: Argus Metals International.

Table 1. Salient United States chromium statistics.
[Data are rounded to no more than three significant digits; may not add to totals shown. Revised data are marked with a superscript "r". Not available data are marked with "NA". Data are in metric tons, gross weight.]

Product	2023			2024, January
	November	December	January–December[1]	
U.S. production				
Stainless steel[2]	137,000	151,000	1,820,000	176,000
Components of U.S. supply				
Stainless steel scrap receipts	41,700 r	41,700 r	501,000 r	NA
Stainless steel scrap consumption	61,800 r	61,800 r	755,000 r	NA
Imports for consumption				
Chromite ore	3,430	6,100	103,000	28,500
Ferrochromium				
More than 4% carbon	12,800	36,900	252,000	25,500
More than 3% but not more than 4% carbon	2	28	98	0
More than 0.5% but not more than 3% carbon	504	457	2,950	533
Not more than 0.5% carbon	2,410	2,370	34,400	2,450
Ferrochromium silicon	0	0	1,680	620
Total ferroalloy imports	15,800	39,800	292,000	29,100
Chromium metal[3]	1,000	1,190	12,400	1,490
Stainless steel	64,900	72,800	918,000	84,100
Stainless steel scrap	14,500	19,500	207,000	18,800
Exports				
Chromite ore	97	252	2,240	139
Chromium ferroalloys				
High-carbon ferrochromium	236	219	4,100	193
Low-carbon ferrochromium	6	11	344	0
Ferrochromium silicon	0	0	83	33
Total ferroalloy exports	242	230	4,530	227
Chromium metal	26	29	447	210
Stainless steel	25,400	22,900	334,000	31,300
Stainless steel scrap	28,500	38,500	517,000	23,200

[1]May include revised data that are not broken out by specific month(s).
[2]Data 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.
[3]Includes waste and scrap and other.

Table 2. U.S. exports of chromite, chromium ferroalloys, and metal.
[Data are rounded to no more than three significant digits; may not add to totals shown. Source: U.S. Census Bureau.]

Period	Chromite ore		Chromium ferroalloys[1]			Chromium metal[2]	
	Gross weight (metric tons)	Value (thousand dollars)	Gross weight (metric tons)	Content (metric tons)	Value (thousand dollars)	Gross weight (metric tons)	Value (thousand dollars)
			2023				
January	124	110	1,020	398	1,130	43	1,120
February	158	145	418	141	446	20	675
March	129	121	505	117	455	26	846
April	203	173	279	64	311	16	488
May	255	223	989	373	896	49	1,830
June	167	145	463	104	424	78	2,360
July	230	178	89	37	113	16	589
August	312	233	122	27	146	49	839
September	218	161	30	18	33	48	1,030
October	92	83	141	59	142	47	1,030
November	97	66	242	76	237	26	1,200
December	252	217	230	66	211	29	1,490
January–December[3]	2,240	1,860	4,530	1,480	4,540	447	13,500
			2024				
January	139	134	227	80	259	210	2,010

[1]Includes low- and high-carbon ferrochromium and ferrochromium silicon.
[2]Includes chromium metal, waste and scrap, and unwrought powders.
[3]May include revised data that are not broken out by specific month(s).

Table 3. U.S. imports for consumption of chromite ore, ferrochromium, and chromium metal.
[Data are rounded to no more than three significant digits; may not add to totals shown. Data are in metric tons. Source: U.S. Census Bureau.]

Product	2023		2024, January
	December	January–December[1]	
Chromite ore, not more than 40% chromic oxide			
Gross weight	2,190	6,220	19
Chromic oxide content	459	1,560	7
Chromite ore, more than 40% but less than 46% chromic oxide			
Gross weight	2,410	20,900	2,300
Chromic oxide content	1,050	9,060	993
Chromite ore, 46% or more chromic oxide			
Gross weight	1,500	75,900	26,200
Chromic oxide content	1,360	66,700	23,300
Chromite ore, total, all grades			
Gross weight	6,100	103,000	28,500
Chromic oxide content	2,870	77,300	24,300
Ferrochromium, low-carbon[2], not more than 0.5% carbon			
Gross weight	2,370	34,400	2,450
Chromium content	1,590	23,000	1,670
Ferrochromium, low-carbon[2], more than 0.5% but not more than 3% carbon			
Gross weight	457	2,950	533
Chromium content	292	1,910	369
Ferrochromium, low-carbon[2], total			
Gross weight	2,830	37,300	2,990
Chromium content	1,880	24,900	2,040
Medium-carbon[3]			
Gross weight	28	98	0
Chromium content	14	64	0
High-carbon[4]			
Gross weight	36,900	252,000	25,500
Chromium content	19,500	140,000	15,300
Total, all grades			
Gross weight	39,800	290,000	28,500
Chromium content	21,400	165,000	17,400
Chromium metal			
Unwrought powders	952	10,500	1,250
Waste and scrap	44	451	50
Other than waste and scrap and unwrought powders	198	1,510	181
Total, all grades	1,190	12,400	1,490

[1]May include revised data that are not broken out by specific month(s).
[2]Ferrochromium containing not more than 3% carbon.
[3]Ferrochromium containing more than 3% carbon but not more than 4% carbon.
[4]Ferrochromium containing more than 4% carbon.

Table 4. U.S. imports for consumption of ferrochromium in 2024, by grade and country or locality.
[Data are rounded to no more than three significant digits; may not add to totals shown. Source: U.S. Census Bureau.]

Grade and country or locality	January		
	Gross weight (metric tons)	Content (metric tons)	Value[1] (thousand dollars)
High-carbon ferrochromium[2]			
Albania	12,100	8,230	29,600
Brazil	108	59	131
India	209	115	325
Kazakhstan	2,600	1,790	6,860
South Africa	10,400	5,090	10,700
Zimbabwe	48	30	105
Total	25,500	15,300	47,800
Low-carbon ferrochromium[3], more than 0.5% but not more than 3% carbon			
Brazil	54	33	147
Kazakhstan	479	336	2,210
Total	533	369	2,350
Low-carbon ferrochromium[3], not more than 0.5% carbon			
Germany	527	368	2,760
India	391	228	1,280
Japan	62	43	426
Kazakhstan	1,270	894	5,720
Russia	4	3	13
Turkey	200	139	822
Total	2,450	1,670	11,000
All grades			
Albania	12,100	8,230	29,600
Brazil	162	92	279
Germany	527	368	2,760
India	600	342	1,610
Japan	62	43	426
Kazakhstan	4,350	3,020	14,800
Russia	4	3	13
South Africa	10,400	5,090	10,700
Turkey	200	139	822
Zimbabwe	48	30	105
Total	28,500	17,400	61,200

[1]Customs 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.
[2]Ferrochromium containing more than 4% carbon.
[3]Ferrochromium containing not more than 3% carbon.

Table 5. U.S. imports for consumption of chromium metal in 2024 by grade and by country or locality.

[Data are rounded to no more than three significant digits; may not add to totals shown. Source: U.S. Census Bureau.]

Grade and country or locality	January	
	Gross weight (metric tons)	Value[1] (thousand
Unwrought powders		
China	916	8,670
Germany	8	79
Japan	(2)	6
Russia	20	140
Spain	23	111
United Kingdom	286	4,190
Total	1,250	13,200
Waste and scrap		
Canada	9	72
China	2	13
United Kingdom	40	341
Total	50	427
Other than waste and scrap and unwrought powders		
China	(2)	20
France	175	1,840
Germany	1	67
Japan	1	18
United Kingdom	5	78
Total	181	2,030
All grades		
Canada	9	72
China	918	8,700
France	175	1,840
Germany	8	147
Japan	1	23
Russia	20	140
Spain	23	111
United Kingdom	331	4,610
Total	1,490	15,600

[1]Customs 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.

[2]Less than ½ unit.

Table 6. U.S. stainless steel trade, by product, in 2024.
[Data are rounded to no more than three significant digits; may not add to totals shown. Source: U.S. Census Bureau.]

Stainless steel product	January	
	Gross weight (metric tons)	Value[1] (thousand dollars)
Exports		
Ingot	633	6,100
Flat-rolled (width > 600 mm)	20,400	66,400
Flat-rolled (width < 600 mm)	3,640	39,700
Bars and rods in irregular coils	66	437
Other bars and rods	2,940	46,300
Wire	540	12,800
Tubes, pipes, hollow profiles	3,050	38,100
Total	31,300	210,000
Stainless steel scrap	23,200	25,800
Grand total	54,500	236,000
Imports		
Ingot	13,500	35,400
Flat-rolled (width > 600 mm)	35,200	108,000
Flat-rolled (width < 600 mm)	3,780	17,100
Bars and rods in irregular coils	2,410	11,700
Other bars and rods	13,500	79,700
Wire	2,860	16,200
Tubes, pipes, hollow profiles	12,900	111,000
Total	84,100	379,000
Stainless steel scrap	18,800	22,400
Grand total	103,000	401,000

[1]Export 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.