

Mineral Industry Surveys

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IRON ORE IN DECEMBER 2021

Monthly and annual iron ore data are reported as gross weight unless otherwise noted and do not include iron metallics such as direct-reduced iron, hot-briquetted iron, iron nuggets, or pig iron. Data estimates for 2021 were updated in December 2021 to improve estimation methodology and incorporate yearend employment hours.

U.S. mine production and shipments of iron ore in December 2021 were estimated to be 3.2 million metric tons (Mt) and 3.7 Mt, respectively (fig. 1, table 1). Average daily production of iron ore was 105,000 metric tons (t), a 6% decrease from that in November and a 22% decrease from that in December 2020. Average daily shipments of iron ore were 120,000 t, nearly unchanged from those in November 2021 and a 15% decrease from those in December 2020. Mine stocks were estimated to be 4.8 Mt at the end of December 2021, a 9% decrease from those held at the end of November and a 35% increase from those held at the end of December 2020 (fig. 1, table 1).

In 2021, total production and shipments were higher than those in the same time period in 2020 because the industry has recovered to some extent from the effects of the global COVID-19 pandemic.

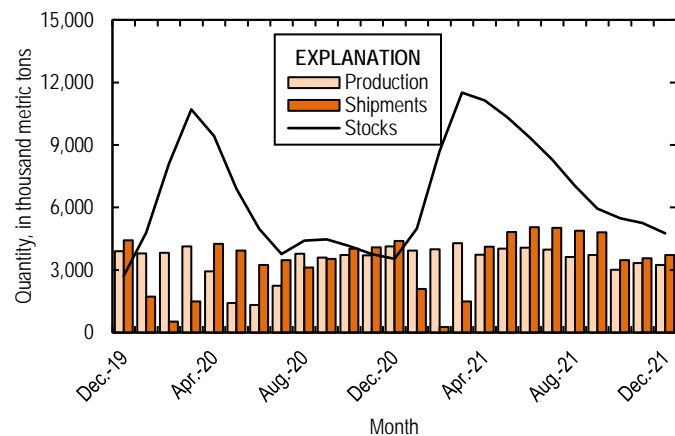


Figure 1. Monthly domestic production, shipments, and stocks of iron ore from December 2019 through December 2021.

U.S. exports of iron ore were 1.36 Mt in December 2021, a 9% decrease from those in November and a 43% increase from those in December 2020 (fig. 2, tables 3, 6). U.S. imports of iron ore were 239,000 t in December, a 15% increase from those in November and a 6% increase from those in December 2020 (fig. 2, tables 4, 6).

The spot price for imported iron ore fines, 62% iron content, cost and freight, at Tianjin Port, China, was \$116.96 per dry metric ton in December 2021, a 22% increase from \$96.24 per dry metric ton in November and a 25% decrease from \$155.43 in December 2020 (fig. 2).

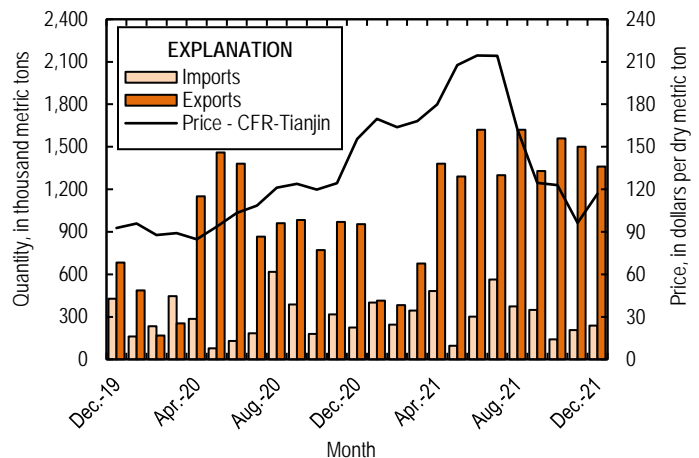


Figure 2. Monthly domestic imports and exports of iron ore and spot prices for imported iron ore fines, 62% iron content, cost and freight (CFR), at Tianjin Port, China, from December 2019 through December 2021. Source: U.S. Census Bureau and IndexMundi, undated.

Annual Review

Yearend totals for iron ore in 2021 were calculated using estimated data, whereas yearend totals for 2020 were calculated using annual totals reported by the companies. Total production in 2021 was an estimated 45.0 Mt, an 18% increase from 38.1 Mt in 2020. Shipments in 2021 totaled an estimated 43.3 Mt, a 14% increase from 38.0 Mt in 2020 (table 1). Pig iron

production totaled 23.4 Mt and raw steel production totaled 85.8 Mt in 2021, increases of 28% and 18%, respectively, from those in 2020 (table 2). Iron ore exports totaled 14.4 Mt in 2021, a 39% increase from 10.4 Mt in 2020 (tables 3, 6). Iron ore imports totaled 3.74 Mt, a 15% increase from 3.24 Mt in 2020 (tables 4, 5, 6).

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TABLE 1
U.S. PRODUCTION, SHIPMENTS, AND STOCKS OF IRON ORE^{1,2}
(Exclusive of ore containing 20% or more of manganese)

(Thousand metric tons, usable ore)

Period	Production		Shipments ³		Stocks
	Monthly	Year to date	Monthly	Year to date	End of Month
2020:					
December	4,140	38,600	4,390	37,800	3,530
Total ⁴	XX	38,100	XX	38,000	3,290
2021: ⁵					
January	3,940 ^r	3,940 ^r	2,090 ^r	2,090 ^r	4,990 ⁶
February	3,990 ^r	7,930 ^r	268 ^r	2,360 ^r	8,710 ^r
March	4,290 ^r	12,200 ^r	1,490 ^r	3,850 ^r	11,500 ^r
April	3,740 ^r	16,000 ^r	4,120 ^r	7,970 ^r	11,100 ^r
May	4,030 ^r	20,000 ^r	4,820 ^r	12,800 ^r	10,300 ^r
June	4,070 ^r	24,100 ^r	5,060 ^r	17,800 ^r	9,350 ^r
July	3,980 ^r	28,000 ^r	5,030 ^r	22,900 ^r	8,300 ^r
August	3,620 ^r	31,700 ^r	4,890 ^r	27,800 ^r	7,030 ^r
September	3,720 ^r	35,400 ^r	4,810 ^r	32,600 ^r	5,940 ^r
October	3,020 ^r	38,400 ^r	3,470 ^r	36,000 ^r	5,490 ^r
November	3,330 ^r	41,700 ^r	3,570 ^r	39,600 ^r	5,250 ^r
December	3,240	45,000	3,720	43,300	4,770

⁶Estimated. ^rRevised. XX Not applicable.

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

²Excludes byproduct ores and iron metallics.

³Includes rail and vessel.

⁴Total for 2020 as reported by mines may vary from monthly production totals.

⁵Data are estimated based on reported employment hours and historical ratios. Methodology for estimation was updated in December 2021.

⁶Monthly stock adjustment for January based on 2020 annual reporting total.

TABLE 2
U.S. PRODUCTION OF PIG IRON AND RAW STEEL, BY TYPE OF FURNACE¹

(Thousand metric tons)

Period	Pig iron production ²		Raw steel production	
	Monthly	Year to date	Monthly	Year to date
2020:				
December ^e	1,660	18,200	6,470	72,700
2021:				
January	1,870 ^e	1,870	6,970	6,970
February	1,760 ^e	3,630	6,320	13,300
March	1,950 ^e	5,580	7,100	20,400
April	1,920 ^e	7,500	7,130	27,500
May	2,020 ^e	9,520	7,370	34,900
June	1,970 ^e	11,500	7,170	42,100
July	2,040 ^e	13,500	7,480	49,500
August	2,050 ^e	15,600	7,520	57,100
September	1,950 ^e	17,500	7,150	64,200
October	2,010 ^e	19,500	7,380	71,600
November	1,930 ^e	21,500	7,100	78,700
December	1,940 ^e	23,400	7,100	85,800

^eEstimated.

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

²Pig iron data are estimated based on historical ratios. In 2021, market consolidation resulted in the need to withhold reported information to avoid disclosing company proprietary data.

Source: American Iron and Steel Institute, estimated by the U.S. Geological Survey using reported data.

TABLE 3
U.S. EXPORTS OF IRON ORE, BY COUNTRY OR LOCALITY AND TYPE ^{1,2}
(Exclusive of ore containing 20% or more manganese)

Country or locality and type of product	2020		2021			
	January–December	December		January–December		Unit value ³ (dollars per ton)
	Quantity (thousand metric tons)	Quantity (thousand metric tons)	Value ³ (thousand dollars)	Quantity (thousand metric tons)	Value ³ (thousand dollars)	
Canada	7,030	1,010	72,200	8,830	767,000	86.90
China	200	146	25,100	1,600	240,000	150.23
France	--	77	7,700	77	7,700	100.00
Japan	1,880	56	3,300	1,510	89,500	59.12
Netherlands	50	15	508	338	23,800	70.30
Spain	--	57	5,730	448	41,900	93.47
Other	1,250	(4)	84	1,630	117,000	72.14
Total	10,400	1,360	115,000	14,400	1,290,000	89.22
Concentrates	221	204	30,900	1,750	265,000	151.18
Fine ores	2	(4)	43	2	532	266.00
Pellets	9,930	1,140	83,200	12,200	995,000	81.61
Other	254	15	511	486	27,300	56.57
Total	10,400	1,360	115,000	14,400	1,290,000	89.22

-- Zero.

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

²All countries receiving less than 5,000 metric tons of U.S. exports per month included in "Other."

³Free alongside ship (FAS) value.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE, BY COUNTRY OR LOCALITY AND TYPE^{1,2}
(Exclusive of ore containing 20% or more manganese)

Country or locality of origin and type of product	2020		2021			
	January–December	December		January–December		Unit value ³ (dollars per ton)
	Quantity (thousand metric tons)	Quantity (thousand metric tons)	Value ³ (thousand dollars)	Quantity (thousand metric tons)	Value ³ (thousand dollars)	
Brazil	1,510	157	34,300	2,110	410,000	194.11
Canada	775	76	19,900	735	153,000	208.81
Sweden	463	5	1,310	353	69,400	196.57
Other	494 ^r	(4)	169	544	117,000	215.23
Total	3,240	239	55,700	3,740	750,000	200.35
Concentrates	196	(4)	9	233	35,300	151.69
Fine Ores	287 ^r	(4)	14	231	37,900	163.86
Pellets	2,740	238	55,600	3,260	673,000	206.74
Other	22	(4)	9	26	3,960	152.35
Total	3,240	239	55,700	3,740	750,000	200.35

^rRevised.

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

²All countries shipping less than 5,000 metric tons of imports per month to the United States included in "Other."

³Customs value. Excludes international freight and insurance charges.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 5
 U.S. IMPORTS FOR CONSUMPTION OF IRON ORE, BY CUSTOMS DISTRICT^{1,2}
 (Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

Customs district (code no.)	Pellets			Total, all products		
	January–December		December	January–December		December
	2020	2021	2021	2020	2021	2021
Houston-Galveston, TX (53)	170	117	14	192	128	14
New Orleans, LA (20)	2,540	3,140	224	2,740 [†]	3,350	224
Other	26 [†]	--	(3)	316 [†]	263	(3)
Total	2,740	3,260	238	3,240	3,740	239

[†]Revised. -- Zero.

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

²Customs Districts with less than 5,000 metric tons of imports per month included in "Other."

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6
U.S. IRON ORE TRADE SUMMARY¹

(Thousand metric tons and thousand dollars)

Period	Exports		Imports	
	Quantity	Value ²	Quantity	Value ³
2020:				
December	953	88,000	225	30,200
January–December	10,400	842,000	3,240	389,000
2021:				
January	414	37,400	400	53,300
February	382	44,200	246	39,900
March	676	61,400	345	56,500
April	1,380	109,000	482	82,700
May	1,290	109,000	95	19,300
June	1,620	138,000	302	58,700
July	1,300	132,000	564	123,000
August	1,620	152,000	374	91,800
September	1,330	139,000	348	91,600
October	1,560	138,000	142	31,800
November	1,500	114,000	207	45,900
December	1,360	115,000	239	55,700
January–December	14,400	1,290,000	3,740	750,000

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

²Free alongside ship (FAS) value.

³Customs value. Excludes international freight and insurance charges.

Source: U.S. Census Bureau.