

# Mineral Industry Surveys

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## COBALT IN OCTOBER 2021

The amount of cobalt contained in U.S. imports of cobalt metals and chemicals in October 2021 was nearly three times that imported in October 2020. For the first 10 months of 2021, the amount of cobalt contained in imports was slightly less than that imported during the same period in 2020 (table 2). The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals in October 2021 was 78% more than that exported in October 2020. During the first 10 months of 2021, exports were 36% more than those during the same period in 2020 (table 4).

## Prices

In the first 10 months of 2021, the cobalt market experienced higher prices and lower London Metal Exchange (LME) stocks compared with those in 2020 (fig. 1, table 1). In October, the monthly average U.S. spot cobalt price increased by 9% from that in September and was 71% higher than that in October 2020. The monthly average LME cash mean price was 6%

higher than that in September and was 64% higher than that in October 2020. The following listed prices are for cobalt metal in October, in dollars per pound.

Type	Price range	Average price
U.S. spot <sup>1</sup>	25.85–27.80	26.82
LME cash mean <sup>2</sup>	23.90–25.41	24.78

<sup>1</sup>Source: S&P Global Platts Metals Week, minimum 99.8% cobalt cathode.

<sup>2</sup>London Metal Exchange, mean of the cash buyer and cash seller price, minimum 99.3% cobalt briquettes, cathode, ingot, or rounds (converted from dollars per metric ton and rounded to the nearest cent).

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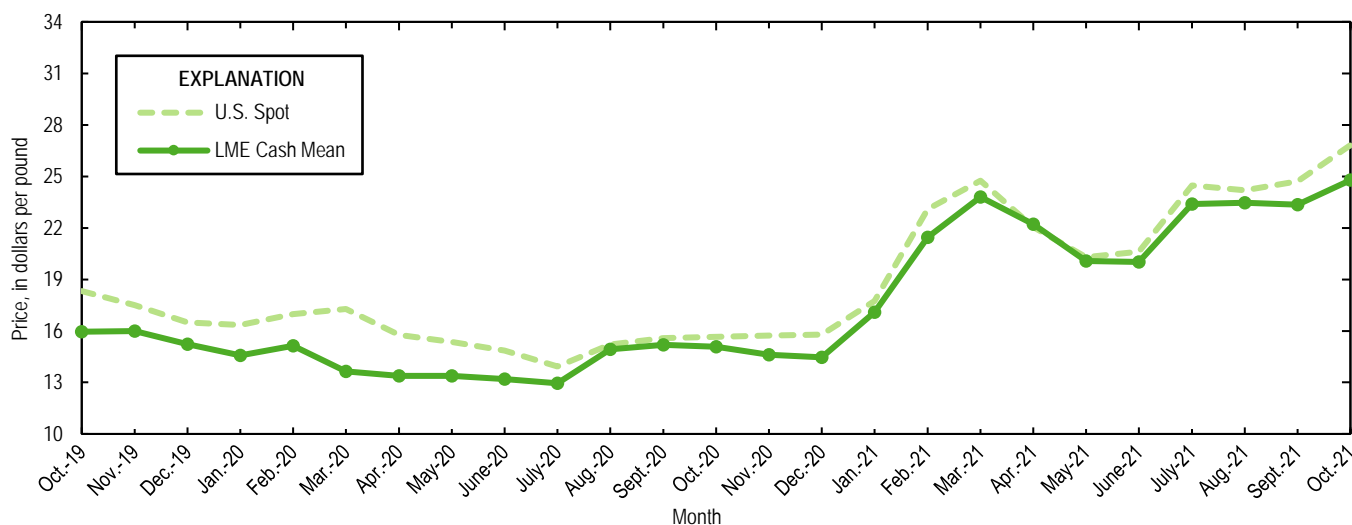


Figure 1. Average U.S. spot prices and LME cash mean prices for October 2019 through October 2021. Sources: S&P Global Platts Metals Week and London Metal Exchange.

TABLE 1  
REPORTED STOCKS OF COBALT METAL, END OF PERIOD

(Metric tons, contained cobalt)

Period	U.S. Government <sup>2</sup>	LME <sup>1</sup>		Total
		U.S. warehouse	Non-U.S. warehouse	
2020:				
October	302	82	369	451
November	302	82	369	451
December	302	82	369	451
2021:				
January	302	73	353	426
February	302	73	254	327
March	302	50	244	294
April	302	50	244	294
May	302	50	247	297
June	302	50	241	291
July	302	50	236	286
August	302	50	236	286
September	302	50	230	280
October	302	50	221	271

<sup>1</sup>London Metal Exchange.

<sup>2</sup>Data from Defense Logistics Agency Strategic Materials.

TABLE 2  
U.S. IMPORTS FOR CONSUMPTION OF COBALT, BY COUNTRY OR LOCALITY<sup>1</sup>

Period and country or locality of origin	Metals <sup>2</sup>		Oxides and hydroxides		Salts and compounds <sup>3</sup>		Total cobalt content for the period <sup>5</sup> (metric tons)	Cobalt content, year to date <sup>5,6</sup> (metric tons)
	Gross weight (metric tons)	Value <sup>4</sup> (thousands)	Gross weight (metric tons)	Value <sup>4</sup> (thousands)	Gross weight (metric tons)	Value <sup>4</sup> (thousands)		
2020:								
October	263	\$9,130	61	\$1,320	167	\$1,660	359	8,540
November	446	14,100	91	2,270	129	1,370	552	9,100
December	546	22,100	100	2,370	84	875	642	9,740
January–October	7,150	246,000	1,070	25,900	1,860 <sup>r</sup>	21,300	8,540 <sup>r</sup>	XX
January–December	8,140	282,000	1,260	30,600	2,070	23,500	9,740	XX
2021:								
January	507	16,900	137	3,600	204	2,370	674	674
February	223	7,880	175	4,170	179	2,170	409	1,080
March	1,000	39,900	176	5,300	269	2,740	1,210	2,290
April	784	32,300	159	5,540	298	3,860	985	3,280
May	508	21,800	172	6,370	335	4,430	722	4,000
June	740	31,200	236	7,410	392	4,130	1,020	5,020
July	437	20,700	202	6,600	330	3,320	675	5,690
August	801	37,800	187	6,620	216	2,300	1,000	6,690
September	577	28,500	174	6,590	199	3,070	766	7,460
October:								
Australia	74	3,940	--	--	--	--	74	203
Belgium	6	373	9	224	18	480	21	383
Brazil	--	--	--	--	71	390	20	165
Canada	127	4,680	--	--	--	--	127	674
China	(7)	25	(7)	16	10	126	3	98
Finland	44	2,430	82	2,840	120	2,000	142	1,230
Germany	2	137	--	--	3	58	3	83
Italy	--	--	(7)	3	--	--	(7)	9
Japan	20	972	--	--	--	--	20	1,030
Korea, Republic of	--	--	4	121	--	--	3	15
Madagascar	21	1,100	--	--	--	--	21	78
Mexico	--	--	--	--	--	--	--	68
Morocco	--	--	--	--	--	--	--	142
Norway	312	16,300	--	--	--	--	312	2,870
Russia	110	4,910	--	--	--	--	110	639
South Africa	2	162	--	--	--	--	2	39
Taiwan	--	--	--	--	80	961	20	169
United Kingdom	4	249	70	2,720	3	46	55	493
Other	(7)	5	4	116	5	99	4	12
Total	722	35,200	168	6,040	309	4,160	937	8,400
January–October	6,300	272,000	1,790	58,200	2,730	32,500	8,400	XX

<sup>1</sup>Revised. XX Not applicable. -- Zero.

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>Unwrought cobalt, excluding alloys; includes cobalt cathode and cobalt metal powder; may include intermediate products of cobalt metallurgy.

<sup>4</sup>Includes cobalt acetates, cobalt carbonates, cobalt chlorides, and cobalt sulfates.

<sup>5</sup>Customs value.

<sup>6</sup>Estimated from gross weights.

<sup>7</sup>May include revisions to previously published data.

<sup>8</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF ADDITIONAL COBALT MATERIALS, BY COUNTRY OR LOCALITY<sup>1</sup>

Period and country or locality of origin	Unwrought cobalt alloys		Cobalt waste and scrap		Wrought cobalt and cobalt articles	
	Gross weight (metric tons)	Value <sup>2</sup> (thousands)	Gross weight (metric tons)	Value <sup>2</sup> (thousands)	Gross weight (metric tons)	Value <sup>2</sup> (thousands)
2020:						
October	1	\$46	52	\$544	22	\$3,210
November	10	421	116	1,620	23	3,380
December	46	2,100	132	1,100	18	3,670
January–October	216	10,300	1,180	12,500	278	37,400
January–December	272	12,800	1,430	15,200	319	44,400
2021:						
January	53	2,230	84	1,330	20	2,530
February	30	1,230	96	1,170	17	2,990
March	15	749	127	1,210	16	3,370
April	4	232	108	1,400	37	3,040
May	3	166	145	1,840	9	3,270
June	11	546	149	1,480	22	3,530
July	13	649	136	1,870	25	4,220
August	3	123	128	1,680	51	4,570
September	11	476	99	1,590	34	5,000
October:						
Austria	--	--	--	--	2	238
Belgium	6	296	8	159	--	--
Canada	1	116	37	620	2	890
China	--	--	--	--	3	662
France	--	--	31	576	7	819
Germany	(3)	24	28	352	4	615
Ireland	--	--	16	12	(3)	40
Singapore	--	--	7	91	--	--
Tunisia	--	--	6	59	--	--
United Kingdom	13	670	26	426	8	850
Other	--	--	(3)	5	2	361
Total	20	1,110	160	2,300	27	4,480
January–October	163	7,500	1,230	15,900	259	37,000

-- Zero.

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

<sup>2</sup>Customs value.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 4  
U.S. EXPORTS OF COBALT MATERIALS<sup>1</sup>

Period	Unwrought cobalt, powders, matte, waste and scrap <sup>2</sup>		Oxides and hydroxides		Salts and compounds <sup>3</sup>		Total cobalt content for the period <sup>5</sup> (metric tons)	Cobalt content, year to date <sup>5, 6</sup> (metric tons)
	Gross weight (metric tons)	Value <sup>4</sup> (thousands)	Gross weight (metric tons)	Value <sup>4</sup> (thousands)	Gross weight (metric tons)	Value <sup>4</sup> (thousands)		
2020:								
October	269	\$8,650	2	\$86	20	\$52	275	3,060
November	157	6,680	(7)	11	38	254	166	3,230
December	213	6,090	1	31	--	--	213	3,440
January–October	2,930 <sup>r</sup>	84,900 <sup>r</sup>	73	2,590	338	3,570	3,060 <sup>r</sup>	XX
January–December	3,300	97,700	74	2,630	376	3,830	3,440	XX
2021:								
January	403	11,200	1	29	--	--	403	403
February	470	11,300	21	222	(7)	4	485	889
March	481	9,650	5	192	(7)	6	484	1,370
April	569	14,000	1	28	(7)	4	570	1,940
May	439	14,300	3	68	--	--	441	2,380
June	295	8,020	3	106	1	18	298	2,680
July	367	13,100	1	25	1	32	368	3,050
August	285	9,810	2	79	6	58	288	3,340
September	344	11,600	1	32	--	--	345	3,680
October	488	15,500	2	85	(7)	10	489	4,170
January–October	4,140	118,000	38	867	9	133	4,170	XX

<sup>r</sup>Revised. XX Not applicable. -- Zero.

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

<sup>2</sup>May include other intermediate products of cobalt metallurgy and unwrought cobalt alloys.

<sup>3</sup>Cobalt acetates and cobalt chlorides.

<sup>4</sup>Free alongside ship (f.a.s.) value.

<sup>5</sup>Estimated from gross weights.

<sup>6</sup>May include revisions to previously published data.

<sup>7</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 5  
U.S. EXPORTS OF WROUGHT COBALT, COBALT ORE,  
AND CONCENTRATES<sup>1</sup>

Period	Wrought cobalt and cobalt articles		Cobalt ore and concentrates	
	Gross weight (metric tons)	Value <sup>2</sup> (thousands)	Gross weight (metric tons)	Value <sup>2</sup> (thousands)
2020:				
October	167	\$14,300	--	--
November	112	10,700	--	--
December	135	12,600	--	--
January–October	1,130 <sup>r</sup>	119,000	150	\$521
January–December	1,380	142,000	150	521
2021:				
January	87	10,100	--	--
February	113	14,400	--	--
March	151	13,500	--	--
April	116	12,100	2	14
May	105	11,000	--	--
June	114	12,000	--	--
July	213	17,700	--	--
August	192	16,200	--	--
September	116	10,700	(3)	8
October	274	22,500	--	--
January–October	1,480	140,000	2	21

<sup>r</sup>Revised. -- Zero.

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

<sup>2</sup>Free alongside ship (f.a.s.) value.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.