

Mineral Industry Surveys

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COBALT IN APRIL 2019

The amount of cobalt contained in U.S. imports of cobalt metals and chemicals in April 2019 was 24% more than that imported in April 2018. For the first four months of 2019, the amount of cobalt contained in imports was slightly less than that imported during the same period in 2018 (table 2). The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals in April 2019 was 21% less than that exported in April 2018 and during the first four months of 2019, the amount exported was 48% less than that exported during the same period in 2018 (table 4).

Prices

In April, the monthly average U.S. spot cobalt price increased by 8% from that in March and was 63% lower than that in April 2018. The monthly average LME cash mean price increased by 9% from that in March and was 63% lower than that in April

2018. The following listed prices are for cobalt metal in April, in dollars per pound.

| Type | Price range | Average price |
|----------------------------|-------------|---------------|
| U.S. spot ¹ | 15.00-17.00 | 16.13 |
| LME cash mean ² | 13.83-15.99 | 15.24 |

¹Source: Platts Metals Week, minimum 99.8% cobalt cathode.

²London 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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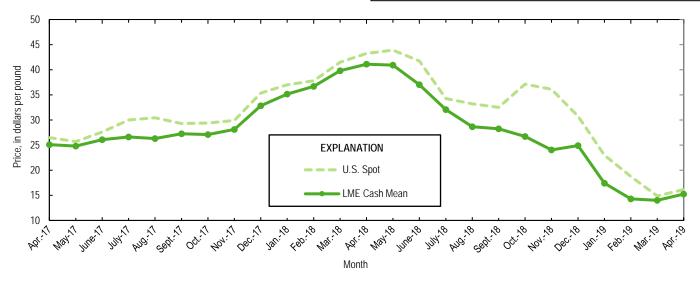


Figure 1. Average U.S. spot prices and LME cash mean prices for April 2017 through April 2019. Sources: Platts Metals Week and London Metal Exchange.*

^{*}Corrections posted on June 16, 2020.

TABLE 1 REPORTED STOCKS OF COBALT METAL, END OF PERIOD

(Metric tons, contained cobalt)

| | | LME ¹ | | | | |
|-----------|-------------------------|------------------|-----------|-------|--|--|
| | U.S. | U.S. | Non-U.S. | | | |
| Period | Government ² | warehouse | warehouse | Total | | |
| 2018: | | | | | | |
| April | 302 | 141 | 446 | 587 | | |
| May | 302 | 139 | 471 | 610 | | |
| June | 302 | 135 | 501 | 636 | | |
| July | 302 | 131 | 520 | 651 | | |
| August | 302 | 131 | 559 | 690 | | |
| September | 302 | 131 | 592 | 723 | | |
| October | 302 | 130 | 611 | 741 | | |
| November | 302 | 130 | 585 | 715 | | |
| December | 302 | 130 | 733 | 863 | | |
| 2019: | _ | | | | | |
| January | 302 | 184 | 781 | 965 | | |
| February | 302 | 204 | 779 | 983 | | |
| March | 302 | 204 | 761 | 965 | | |
| April | 302 | 204 | 700 | 904 | | |

¹London Metal Exchange.
²Data from Defense Logistics Agency Strategic Materials.

 $\label{eq:table 2} \textbf{U.S. IMPORTS FOR CONSUMPTION OF COBALT, BY COUNTRY OR LOCALITY}^1$

| | Metals ² Gross | | Oxides and hydroxides | | Salts and compounds ³ | | Total cobalt | Cobalt |
|-----------------------|---------------------------|---------------------|-----------------------|---------------------|----------------------------------|---------------------|---------------------------------------|-----------------------------|
| | | | Gross | ilyuloxides | Gross | mpounds | content for | content, year to |
| Period and country or | weight | Value ⁴ | weight | Value ⁴ | weight | Value ⁴ | | date ^{5, 6} |
| locality of origin | (metric tons) | (thousands) | (metric tons) | (thousands) | (metric tons) | (thousands) | the period ⁵ (metric tons) | (metric tons) |
| 2018: | (metric tons) | (tilousalius) | (metric tons) | (tilousalius) | (metric tons) | (tilousalius) | (metric tons) | (metric tons) |
| April | 922 | \$71,600 | 149 | \$8,700 | 454 | \$4,900 | 1,180 | 4,930 |
| May | 745 ^r | 51,800 ^r | 172 | 9,950 | 207 ^r | 2,660 ^r | 939 ^r | 5,870 ^r |
| June | 743 767 | 54,700 | 172 | 7,620 | 832 | 5,400 | 1,100 | 6,960 |
| July | 577 | 43,000 | 133 | 7,820 | 204 | 1,170 | 731 | 7,690 |
| August | 674 | 48,400 | 133 56 | 2,880 | 35 | 484 | 731 724 | 7,690 8,420 ^r |
| | | | 122 | | 551 | | 851 | 9,270 ^r |
| September | 604 | 38,500 | | 6,680 | 353 ^r | 3,850 | | |
| October | 968 | 63,900 | 112 | 5,170 | | 4,000 ^r | 1,150 ^r | 10,400 |
| November | 462 ^r | 29,100 ° | 102 | 5,930 | 385 | 3,030 | 640 727 ^r | 11,100 ^r |
| December | 622 | 39,300 | 103 ^r | 4,250 ^r | 86 ^r | 1,780 ^r | | 11,800 |
| January–April | 3,760 | 252,000 | 764 | 41,700 | 2,000 | 19,600 | 4,930 | XX |
| January–December | 9,170 ^r | 621,000 | 1,690 ^r | 92,000 ^r | 4,660 ^r | 42,000 ^r | 11,800 | XX |
| 2019: | 953 | 49,000 | 116 | 2 000 | 110 | 2.040 | 079 | 079 |
| January | 852 | 48,000 | 116 | 3,880 | 119 | 2,040 | 978 | 978 |
| February | 824 | 41,400 | 116 | 2,630 | 268 | 4,670 | 998 | 1,980 |
| March | 1,240 | 50,300 | 102 | 2,900 | 159 | 2,430 | 1,370 | 3,340 |
| April: | 156 | 11.500 | | | | | 156 | 101 |
| Australia | 156 | 11,500 | | | | | 156 | 181 |
| Belgium | | | 81 | 1,940 | 16 | 81 | 63 | 138 |
| Brazil | | | | | (7) | 4 | (7) | 7 |
| Canada | 238 | 8,140 | | | | | 238 | 861 |
| China | 8 | 426 | (7) | 5 | 9 | 201 | 12 | 295 |
| Finland | 54 | 1,950 | 18 | 499 | 185 | 3,100 | 138 | 432 |
| France | 1 | 101 | | | | | 1 | 5 |
| Germany | 3 | 162 | | | | | 3 | 14 |
| India | | | | | | | | 12 |
| Japan | 83 | 3,140 | | | | | 83 | 404 |
| Korea, Republic of | (7) | 3 | 3 | 77 | | | 2 | 40 |
| Madagascar | 103 | 3,460 | | | | | 103 | 544 |
| Morocco | 20 | 603 | | | | | 20 | 80 |
| Norway | 340 | 10,400 | | | | | 340 | 1,150 |
| Russia | 196 | 7,190 | | | | | 196 | 391 |
| South Africa | 39 | 567 | | | | | 39 | 115 |
| Taiwan | | | | | | | | 10 |
| United Kingdom | 23 | 712 | 59 | 1,430 | 29 | 240 | 74 | 134 |
| Other | | | | | | | | 1 |
| Total | 1,260 | 48,400 | 161 | 3,960 | 239 | 3,630 | 1,470 | 4,810 |
| January–April | 4,180 | 188,000 | 495 | 13,400 | 785 | 12,800 | 4,810 | XX |

^rRevised. XX Not applicable. -- Zero.

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

²Unwrought cobalt, excluding alloys; includes cobalt cathode and cobalt metal powder; may include intermediate products of cobalt metallurgy.

³Includes cobalt acetates, cobalt carbonates, cobalt chlorides, and cobalt sulfates.

⁴Customs value.

⁵Estimated from gross weights.

⁶May include revisions to previously published data.

⁷Less than ½ unit.

 ${\it TABLE~3}$ U.S. IMPORTS FOR CONSUMPTION OF ADDITIONAL COBALT MATERIALS, BY COUNTRY OR LOCALITY 1

| | Unwrought c | obalt alloys | Cobalt waste | and scrap | Wrought cobalt and cobalt articles | | |
|--|----------------------------------|--------------------------------|----------------------------------|--------------------------------|------------------------------------|--------------------------------|--|
| Period and country or locality of origin | Gross weight (metric tons) | Value ² (thousands) | Gross weight (metric tons) | Value ² (thousands) | Gross weight (metric tons) | Value ² (thousands) | |
| 2018: | | | | | | | |
| April | 45 | \$2,550 | 164 | \$3,760 | 21 | \$2,600 | |
| May | 85 | 4,150 | 207 | 3,190 | 37 ^r | 4,260 | |
| June | 38 | 2,480 | 212 | 3,860 | 24 | 3,360 | |
| July | 26 | 1,770 | 226 | 4,080 | 24 | 4,050 | |
| August | 25 | 1,720 | 179 | 2,880 | 23 | 2,830 | |
| September | 24 | 1,580 | 186 | 2,890 | 32 | 3,620 | |
| October | 41 | 2,380 | 264 | 4,170 | 35 | 3,880 | |
| November | 53 | 3,550 ^r | 165 | 3,360 | 39 | 4,990 | |
| December | 85 | 4,330 | 212 | 3,360 | 23 | 4,020 | |
| January–April | 188 | 9,890 | 781 | 13,300 | 103 | 13,600 | |
| January-December | 565 | 31,900 | 2,430 | 41,100 | 341 ^r | 44,600 | |
| 2019: | | | | | | | |
| January | 29 | 1,920 | 173 | 1,990 | 42 | 5,410 | |
| February | 59 | 3,490 | 179 | 2,520 | 24 | 3,350 | |
| March | 85 | 4,040 | 144 | 2,410 | 43 | 4,890 | |
| April: | | | | | | | |
| Belgium | 1 | 52 | 3 | 29 | (3) | 42 | |
| Canada | (3) | 2 | 3 | 19 | 3 | 994 | |
| Costa Rica | | | 17 | 159 | | | |
| Finland | 2 | 306 | | | | | |
| France | 1 | 86 | 22 | 386 | 7 | 1,360 | |
| India | | | | | 6 | 152 | |
| Ireland | | | 76 | 478 | (3) | 10 | |
| Japan | | | 13 | 304 | 2 | 155 | |
| Netherlands | | | 6 | 142 | | | |
| Norway | | | | | 2 | 142 | |
| Romania | | | 38 | 551 | | | |
| Taiwan | | | 3 | 116 | (3) | 7 | |
| Tunisia | | | 8 | 77 | (3) | 11 | |
| United Kingdom | 34 | 2,420 | 65 | 1,160 | 11 | 1,010 | |
| Other | (3) | 5 | (3) | 4 | 2 | 606 | |
| Total | 38 | 2,870 | 253 | 3,430 | 34 | 4,490 | |
| January–April | 211 | 12,300 | 749 | 10,300 | 143 | 18,100 | |

^rRevised. -- Zero.

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

²Customs value.

³Less than ½ unit.

 $\label{eq:table 4} \textbf{U.S. EXPORTS OF COBALT MATERIALS}^1$

| | Unwrought col | alt, powders, | | | | | | Cobalt | |
|------------------|-------------------------------------|----------------------|-----------------------|--------------------|----------------------------------|--------------------|-------------------------|----------------------|--|
| | matte, waste and scrap ² | | Oxides and hydroxides | | Salts and compounds ³ | | Total cobalt | content, | |
| | Gross | | Gross | | Gross | | content for | year to | |
| | weight | Value ⁴ | weight | Value ⁴ | weight | Value ⁴ | the period ⁵ | date ^{5, 6} | |
| Period | (metric tons) | (thousands) | (metric tons) | (thousands) | (metric tons) | (thousands) | (metric tons) | (metric tons) | |
| 2018: | | | | | | | | | |
| April | 530 | \$16,200 | 5 | \$290 | 38 | \$555 | 543 | 3,160 | |
| May | 760 ^r | 16,400 ^r | 7 | 412 | 21 | 833 | 770 ^r | 3,930 ^r | |
| June | 336 | 12,000 | 5 | 180 | 1 | 12 | 340 | 4,270 ^r | |
| July | 605 | 19,100 | 12 | 686 | 12 | 35 | 616 | 4,880 ^r | |
| August | 626 | 19,700 | 2 | 83 | 59 | 851 | 642 | 5,530 ^r | |
| September | 360 ^r | 14,200 | 6 | 346 | 42 | 666 | 374 | 5,900 ^r | |
| October | 312 ^r | 11,400 | 2 | 74 | 39 | 496 | 322 | 6,220 ^r | |
| November | 284 | 11,700 | 3 | 64 | 11 | 61 | 289 | 6,510 ^r | |
| December | 447 | 13,000 ^r | 2 | 73 | 22 | 422 | 453 | 6,960 ^r | |
| January–April | 3,120 | 54,700 | 30 | 891 | 73 | 1,110 | 3,160 | XX | |
| January-December | 6,850 ^r | 172,000 ^r | 69 | 2,810 | 279 | 4,490 | 6,960 ^r | XX | |
| 2019: | | | | | | | | | |
| January | 266 | 9,190 | 3 | 126 | 22 | 416 | 273 | 273 | |
| February | 518 | 15,900 | 4 | 84 | 20 | 258 | 525 | 798 | |
| March | 413 | 14,300 | 1 | 49 | 6 | 69 | 415 | 1,210 | |
| April | 424 | 10,800 | 4 | 207 | 16 | 157 | 431 | 1,650 | |
| January–April | 1,620 | 50,200 | 13 | 466 | 64 | 900 | 1,650 | XX | |

^rRevised. XX Not applicable.

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

²May include other intermediate products of cobalt metallurgy and unwrought cobalt alloys.

³Cobalt acetates and cobalt chlorides.

⁴Free alongside ship (f.a.s.) value.

⁵Estimated from gross weights.

⁶May include revisions to previously published data.

 $\label{eq:table 5} \mbox{U.S. EXPORTS OF WROUGHT COBALT, COBALT ORE,} \\ \mbox{AND CONCENTRATES}^{1}$

| | Wrought cobalt a | | Cobalt ore and concentrates | | |
|------------------|--------------------|--------------------|-----------------------------|--------------------------------|--|
| | Gross | rticies | Gross | | |
| | weight | Value ² | weight | Value ² (thousands) | |
| Period | (metric tons) | (thousands) | (metric tons) | | |
| 2018: | | | | | |
| April | 70 | \$6,970 | (3) | \$3 | |
| May | 69 | 8,500 | | | |
| June | 109 | 11,800 | 2 | 83 | |
| July | 92 | 9,850 | 35 | 302 | |
| August | 85 | 9,370 | | | |
| September | 91 | 10,600 | 18 | 160 | |
| October | 92 | 11,900 | | | |
| November | 147 | 14,000 | (3) | 11 | |
| December | 124 | 13,400 | | | |
| January–April | 356 ^r | 37,500 | (3) | 7 | |
| January-December | 1,160 ^r | 127,000 | 55 | 562 | |
| 2019: | - | | | | |
| January | 111 | 12,200 | 16 | 103 | |
| February | 102 | 11,300 | | | |
| March | 105 | 13,300 | 8 | 264 | |
| April | 151 | 13,300 | | | |
| January–April | 469 | 50,100 | 24 | 367 | |

^rRevised. -- Zero.

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

²Free alongside ship (f.a.s.) value.

³Less than ½ unit.