

Mineral Industry Surveys

For information, contact:

Patricia J. Loferski, PGM Commodity Specialist
National Minerals Information Center
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-7708, Fax: (703) 648-7757
Email: ploferski@usgs.gov

Paula R. Neely (Data)
Telephone: (703) 648-7949
Fax: (703) 648-7975
Email: pneely@usgs.gov

Internet: <http://minerals.usgs.gov/minerals/>

PLATINUM-GROUP METALS IN MARCH 2016

The Engelhard average March prices for platinum, palladium, and rhodium increased by 5%, 12%, and 9%, respectively, compared with average February prices (fig. 1). The average monthly prices for iridium and ruthenium were unchanged during the same time period. During 2 days in March, the daily platinum price was greater than \$1,000 per troy ounce for the first time since October 2015, and the palladium price was greater than \$600 per troy ounce for the first time since November 2015. The increase in platinum prices was reportedly a reflection of a rising gold price and increased interest in industrial commodities; the increased palladium price coincided with car sales in the United States being at their highest levels since 2001 (Heraeus Metal Management, 2016a, b). The primary end use for palladium is in automobile catalytic converters to reduce harmful emissions. The platinum daily prices were below those of gold for the 13th consecutive month and the average monthly rhodium price was below that for platinum for the 12th consecutive month.

In February 2016, Jubilee Platinum Plc (South Africa) commissioned a processing plant to extract platinum from tailings at Dilokong Chrome Mine Proprietary Ltd., a subsidiary of ASA Metals Proprietary Ltd. The plant has a capacity of 25,000 metric tons per month (t/mo) of tailings. A second processing plant, having a capacity of 55,000 t/mo of tailings, was expected to be commissioned in December 2016 at Hernic Ferrochrome Proprietary Ltd.'s operations. The Hernic tailings contain an estimated 7,000 kg of platinum, palladium, rhodium, and gold. About 1,000 kg of platinum-group metals and gold in

concentrate was expected to be produced annually from the two operations (Jubilee Platinum Plc, 2016a; b, p. 2–4).

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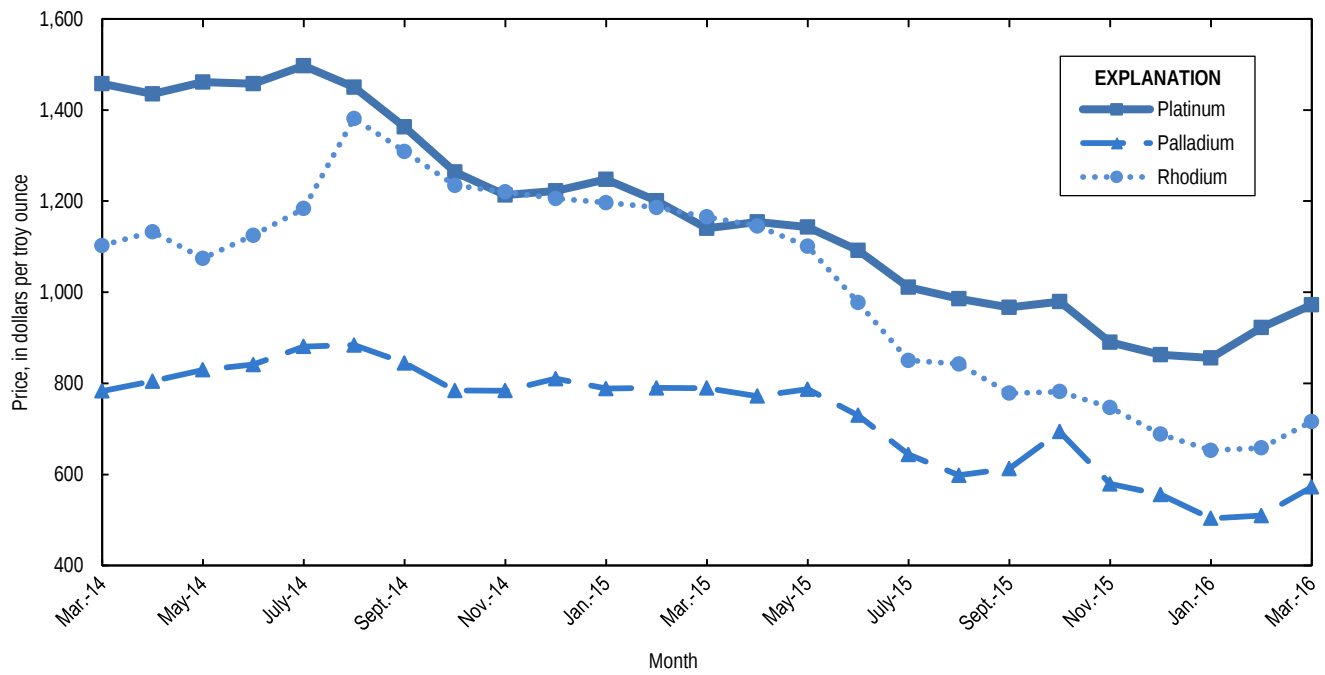


Figure 1. Engelhard monthly platinum, palladium, and rhodium prices for March 2014 through March 2016. Source: Platts Metals Week.

TABLE 1
PLATINUM-GROUP METALS PRICES¹

(Dollars per troy ounce)

	Platinum	Palladium	Rhodium	Iridium	Ruthenium
2015:					
Low/date	833.00 Nov. 30	527.00 Aug. 26	660.00 Dec. 16 and 17	500.00 July–Sept. ²	40.00 July–Aug. ²
High/date	1,289.00 Jan. 21	834.00 Mar. 3	1,245.00 Jan. 2 and 5	575.00 Jan.–June ²	58.00 Jan. ²
Average	1,056.09	694.99	954.90	544.19	47.63
2016:					
February:					
Low/date	864.00/3	492.00/25	640.00/2	525.00 ²	42.00 ²
High/date	960.00/12	531.00/12	685.00/29	525.00 ²	42.00 ²
Average	922.35	509.45	658.00	525.00	42.00
March:					
Low/date	934.00/2	516.00/1	675.00/2	525.00 ²	42.00 ²
High/date	1,008.00/8	610.00/22	750.00 ²	525.00 ²	42.00 ²
Average	972.14	572.50	716.14	525.00	42.00
January–March:					
Low/date	816.00 Jan. 21	473.00 Jan. 12	640.00 Jan. 11 and 12, and Feb. 2	525.00 Jan.–Mar. ²	42.00 Jan.–Mar. ²
High/date	1,008.00 Mar. 8	610.00 Mar. 22	750.00 Mar. ²	525.00 Jan.–Mar. ²	42.00 Jan.–Mar. ²
Average	916.71	528.33	675.63	525.00	42.00

¹Quotes from Engelhard.

²Occurred multiple days in month(s) listed.

Source: Platts Metals Week.

TABLE 2
U.S. IMPORTS FOR CONSUMPTION OF PLATINUM METAL, BY COUNTRY¹

(Kilograms metal content, unless otherwise specified)

Period and country	Platinum grain and nuggets		Platinum sponge		Other unwrought platinum		Platinum, other		Platinum waste and scrap		Platinum coins	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
2015	820	\$24,100	30,000	\$1,040,000	4,750	\$167,000	5,960	\$197,000	196,000	\$903,000	1,210	\$43,700
2016:												
January	3	71	1,180	32,900	222	6,850	279	7,960	3,250	72,600	82	2,390
February	4	104	3,130	91,200	382	11,100	816	24,000	5,140	52,400	150	4,730
March:												
Australia	--	--	--	--	--	--	1	50	51	1,630	9	312
Austria	--	--	--	--	--	--	--	--	--	--	62	2,000
Brazil	--	--	--	--	--	--	3	56	31	789	--	--
Canada	2	64	--	--	--	--	15	507	1,480	5,950	16	572
China	--	--	--	--	8	215	5	229	--	--	--	--
Colombia	--	--	--	--	127	3,530	--	--	46	1,280	--	--
Czech Republic	--	--	--	--	--	--	18	527	--	--	--	--
France	--	--	--	--	--	--	9	311	212	6,150	--	--
Germany	--	--	--	--	10	375	678	20,200	256	12,300	14	638
Israel	--	--	--	--	--	--	--	--	14	336	--	--
Italy	--	--	441	13,800	--	--	--	--	1,390	14,800	--	--
Japan	--	--	--	--	--	--	3	59	481	5,510	--	--
Korea, Republic of	--	--	55	1,540	--	--	(2)	3	--	--	--	--
Malaysia	--	--	--	--	--	--	--	--	20	180	--	--
Mexico	--	--	--	--	1	34	--	--	184	1,060	--	--
Norway	--	--	31	932	--	--	--	--	--	--	--	--
Saudi Arabia	--	--	--	--	--	--	--	--	73	2,200	--	--
Singapore	--	--	--	--	3	121	4	157	410	9,640	--	--
South Africa	212	6,000	1,570	46,700	371	11,700	--	--	--	--	--	--
Switzerland	--	--	--	--	63	1,670	6	135	--	--	43	1,480
Taiwan	--	--	--	--	--	--	--	--	44	808	--	--
United Arab Emirates	--	--	--	--	--	--	--	--	145	4,770	--	--
United Kingdom	--	--	17	545	--	--	21	618	590	10,500	1	20
Venezuela	--	--	--	--	--	--	(2)	10	14	444	--	--
Other	--	--	11	315	--	--	1	34	164	473	--	--
Total	214	6,060	2,130	63,900	582	17,700	764	22,900	5,610	78,800	145	5,020
January–March	221	6,240	6,440	188,000	1,190	35,700	1,860	54,800	14,000	204,000	377	12,100

-- Zero.

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

²Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF PLATINUM-GROUP METALS, BY COUNTRY¹

(Kilograms metal content, unless otherwise specified)

Period and country	Unwrought palladium		Palladium, other		Iridium ²		Osmium ²		Ruthenium ²		Rhodium ²	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
2015	72,900	\$1,650,000	9,600	\$228,000	1,010	\$17,400	8	\$59	8,230	\$14,600	10,600	\$336,000
2016:												
January	4,600	74,600	954	16,000	90	1,490	--	--	841	1,380	567	12,400
February	4,970	82,000	581	10,100	69	1,080	--	--	349	739	1,380	28,700
March:												
Belgium	112	1,860	--	--	--	--	--	--	--	--	23	528
Brazil	264	858	--	--	--	--	--	--	--	--	--	--
Canada	2	65	176	5,310	--	--	--	--	--	--	1	29
Germany	38	274	(3)	16	--	--	--	--	95	162	12	317
Italy	176	3,240	71	1,140	--	--	--	--	--	--	40	888
Japan	100	453	--	--	--	--	--	--	--	--	--	--
Korea, Republic of	317	5,410	--	--	--	--	--	--	--	--	189	3,660
Norway	156	2,480	--	--	--	--	--	--	--	--	--	--
Russia	2,110	33,900	755	13,200	--	--	--	--	--	--	75	1,500
South Africa	915	15,200	--	--	162	2,630	--	--	635	1,230	424	8,820
United Kingdom	470	8,890	1	15	10	186	--	--	142	255	51	1,230
Other	--	--	4	121	1	41	--	--	--	--	--	--
Total	4,660	72,600	1,010	19,800	174	2,860	--	--	871	1,650	814	17,000
January–March	14,200	229,000	2,540	45,900	333	5,430	--	--	2,060	3,770	2,760	58,000

-- Zero.

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

²Unwrought and other forms.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 4
U.S. EXPORTS OF PLATINUM-GROUP METALS, BY COUNTRY¹

(Kilograms metal content, unless otherwise specified)

Period and country	Platinum ²		Platinum waste and scrap		Palladium ²		Iridium, osmium, and ruthenium ^{2,3}		Rhodium ²	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
2015	14,400	\$470,000	246,000	\$886,000	23,000	\$458,000	782	\$13,800	759	\$25,800
2016:										
January	944	26,800	15,300	63,800	2,470	36,700	94	1,660	179	3,900
February	2,520	75,300	20,600	45,600	1,830	22,900	38	452	40	1,010
March:										
Australia	2	79	--	--	13	109	19	239	--	--
Belgium	--	--	72	1,840	--	--	--	--	--	--
Canada	14	481	1	17	91	1,840	1	6	(4)	9
China	8	205	--	--	189	3,420	2	17	39	1,550
Dominican Republic	7	248	--	--	--	--	--	--	--	--
France	2	67	--	--	39	286	5	63	--	--
Germany	52	2,160	281	4,400	410	8,880	19	220	3	65
Hong Kong	9	277	18	20	82	764	4	60	--	--
India	74	2,420	71	2,130	23	410	--	--	--	--
Ireland	21	618	--	--	22	93	(4)	3	--	--
Israel	2	35	--	--	135	494	--	--	--	--
Italy	(4)	16	--	--	16	373	--	--	--	--
Japan	5	149	20,700	14,400	105	1,760	--	--	--	--
Korea, Republic of	3	103	25	386	151	2,600	--	--	--	--
Luxembourg	186	5,510	--	--	186	3,250	--	--	--	--
Mexico	256	4,060	--	--	42	403	--	--	--	--
Singapore	124	3,380	--	--	1	40	--	--	--	--
Switzerland	2	47	471	7,600	4	74	--	--	--	--
Taiwan	(4)	3	--	--	172	1,880	1	11	2	42
Thailand	8	246	--	--	13	303	--	--	(4)	5
United Kingdom	40	1,150	1,510	33,300	21	303	2	58	--	--
Other	54	678	--	--	27	216	4	18	--	--
Total	570	21,900	23,200	64,100	1,740	27,500	55	696	44	1,670
January–March	4,330	124,000	59,000	174,000	6,030	87,100	187	2,800	262	6,570

-- Zero.

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

²Unwrought and other forms.

³Gross weight.

⁴Less than ½ unit.

Source: U.S. Census Bureau.