

Mineral Industry Surveys

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PLATINUM-GROUP METALS IN JUNE 2018

Imports for consumption of platinum-group metals (PGMs) in June 2018 were dominated by palladium, platinum waste and scrap, and platinum, which made up 44%, 20%, and 22%, respectively, of imports (tables 3, 4). Imports for consumption of PGMs, including waste and scrap, were 18,900 kilograms (kg) in June 2018, a 4% increase compared with those in May 2018 and an 76% decrease compared with those in June 2017. The leading import sources for PGMs into the United States were, in descending order, South Africa, Russia, and Germany (tables 3, 4). For January through June 2018, imports of PGMs were 113,000 kg, a 69% decrease compared with 368,000 kg during the similar period in 2017.

Prices

Compared with the prior month, the Engelhard average June prices were essentially unchanged for palladium and ruthenium, decreased slightly for platinum, and increased by 10% and 6% for iridium and rhodium, respectively. Compared with June 2017, the June 2018 average price of platinum decreased by 5%, whereas prices of iridium, palladium, rhodium, and ruthenium increased by 49%, 24%, 136%, and 286%, respectively (figs. 1, 2; tables 1, 2). According to news sources, rhodium's price increase was related to increased demand by industrial users in conjunction with a limited supply (Thomson Reuters, 2017). Ruthenium's price increase was the result of increased purchases of the metal likely owing to reports of new uses for it in chemical catalysts, hard-disk drives, and semiconductors (Jonson, 2017).

Industry News

Heraeus Precious Metals North America LLC expanded its precious metals recycling plant in Wartburg, TN, to meet growing demand. The expansion included upgrades to recycling technologies and capabilities and created 20 new jobs (International Precious Metals Institute, 2018).

In June, Zimplats Holdings Ltd. announced that it had agreed to release 23,903 hectares of mining claims back to the Government of Zimbabwe. In 2013, the Government planned to compulsorily acquire a portion of Zimplats' mining claims to

allocate to other investors, which the company initially opposed. Karo Mining Holdings Ltd. was awarded mining rights to the land area (Tharisa plc, 2018; Zimplats Holdings Ltd., 2018).

Research and Development News

In June, Oak Ridge National Laboratory (ORNL) announced initial production of ruthenium-96 for a research project being performed at Brookhaven National Laboratory. This represented the first production of enriched ruthenium in the United States since 1983. The U.S. stockpile of stable isotopes, such as ruthenium-96, has decreased over the years and been completely depleted for some isotopes. Stable isotopes are used by industrial users, the medical field, and in national security applications (Oak Ridge National Laboratory, 2018).

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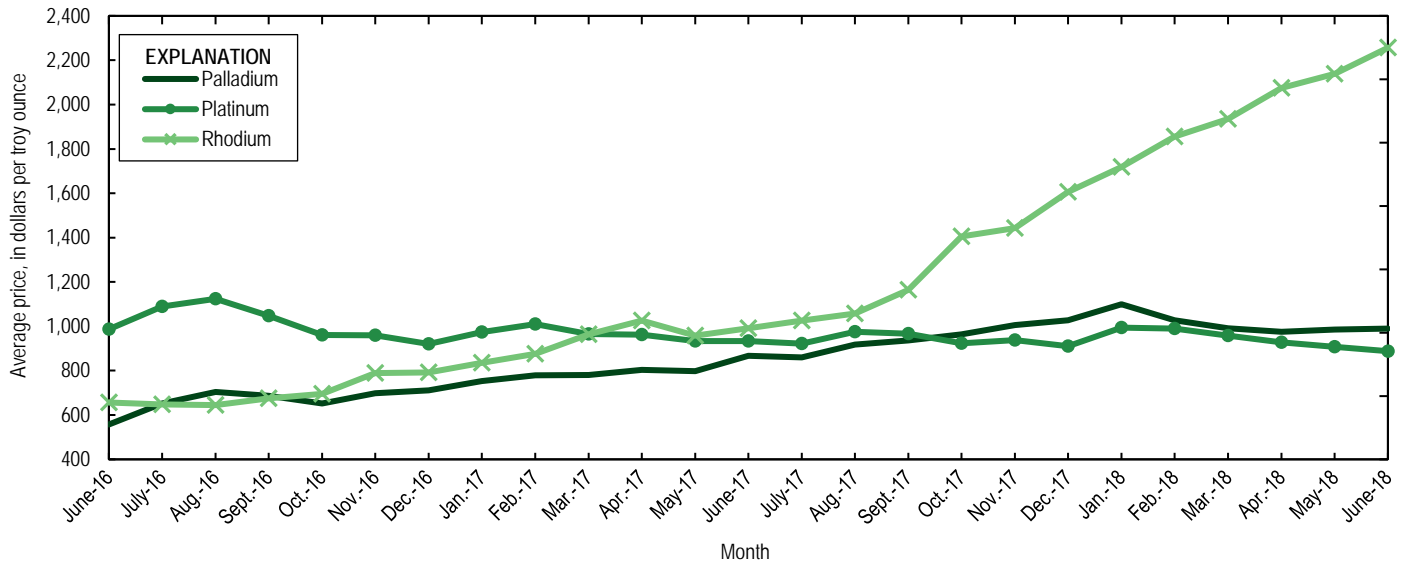


Figure 1. Engelhard unfabricated average monthly prices for palladium, platinum, and rhodium from June 2016 through June 2018. Source: Platts Metals Week.

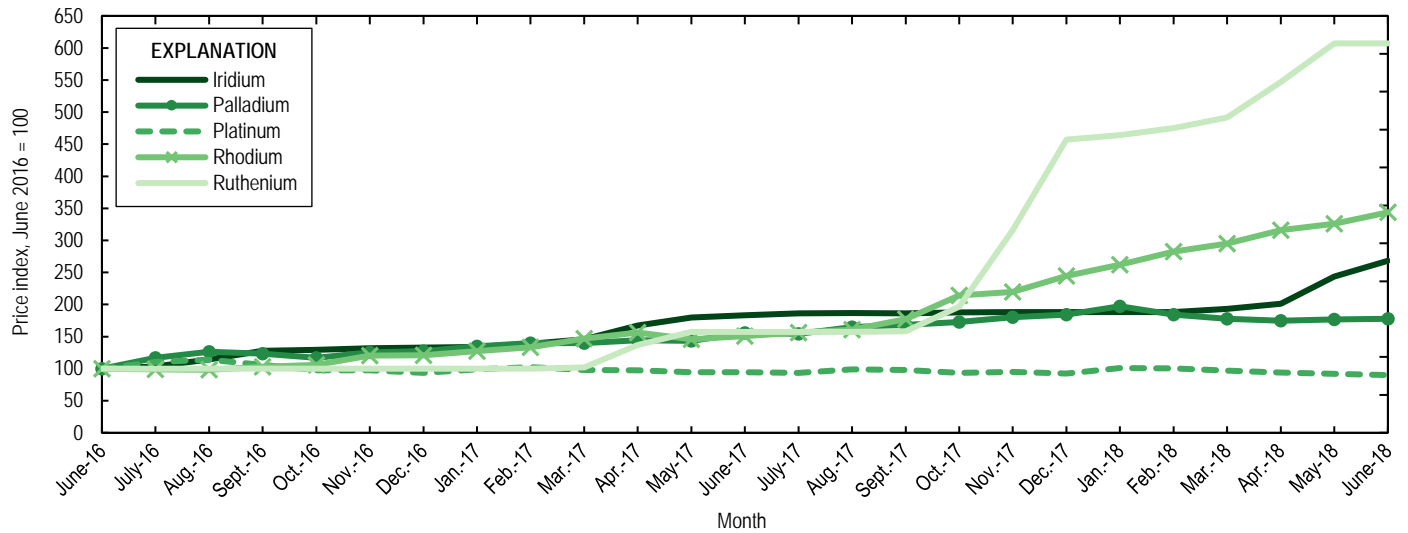


Figure 2. Indexed Engelhard unfabricated average monthly prices for iridium, palladium, platinum, rhodium, and ruthenium from June 2016 to June 2018. Prices are indexed to June 2016. Source: Platts Metals Week.

TABLE 1
U.S. SALIENT PLATINUM-GROUP METALS STATISTICS¹

(Kilograms metal content, unless otherwise specified)

	2017	2018			
	January– December	April	May	June	January– June
Mine production:²					
Platinum	3,980	344	344	344	2,060
Palladium	13,600	1,200	1,200	1,200	7,180
Total	17,600	1,540	1,540	1,540	9,240
Imports for consumption:³					
Platinum	416,000	8,110	7,060	8,050	51,400
Palladium	86,000	5,710	8,390	8,310	44,200
Iridium	1,420	65	141	66	501
Osmium	856	--	25	--	25
Ruthenium	14,500	1,560	1,360	1,310	9,390
Rhodium	11,600	1,320	1,250	1,170	7,620
Total	530,000	16,800	18,200	18,900	113,000
Exports:³					
Platinum	211,000	6,620	3,250	3,020	23,800
Palladium	52,300	5,740	5,410	5,480	29,900
Iridium, osmium, ruthenium	939	94	90	260	1,290
Rhodium	844	416	352	491	2,100
Total	266,000	12,900	9,100	9,240	57,100
Price, average (dollars per troy ounce):⁴					
Palladium	874.30	974.81	984.77	990.00	1,011.20
Platinum	951.23	927.05	907.64	887.90	944.07
Iridium	908.35	1,057.62	1,280.45	1,410.71	1,123.96
Rhodium	1,112.59	2,075.48	2,137.95	2,256.19	1,996.63
Ruthenium	76.86	229.76	255.00	255.00	223.44

-- Zero.

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

²Data estimated based on publicly reported quarterly data.

³Source: U.S. Census Bureau.

⁴Source: Platts Metals Week.

TABLE 2
PLATINUM-GROUP METALS PRICES¹

(Dollars per troy ounce)

	Palladium	Platinum	Iridium	Rhodium	Ruthenium
2017:					
Low:					
Price	710.00	880.00	700.00	765.00	42.00
Date	Jan. 3	Dec. 13	Jan. ²	Jan. 3	Jan.–Mar. ²
High:					
Price	1,062.00	1,035.00	990.00	1,725.00	195.00
Date	Dec. 28	Feb. 27	Aug. ² and Oct.–Dec. ²	Dec. ²	Dec. ²
Average	874.30	951.23	908.35	1,112.59	76.86
2018:					
May:					
Low:					
Price	957.00	887.00	1,150.00	2,025.00	255.00
Date	May 1	May 18	May 1 and 2	(2)	(2)
High:					
Price	1,010.00	929.00	1,385.00	2,260.00	255.00
Date	May 14	May 11	(2)	May 31	(2)
Average	984.77	907.64	1,280.45	2,137.95	255.00
June:					
Low:					
Price	944.00	854.00	1,385.00	2,240.00	255.00
Date	June 26	June 29	June 1	June 1	(2)
High:					
Price	1,033.00	912.00	1,420.00	2,260.00	255.00
Date	June 7	June 14	(2)	(2)	(2)
Average	990.00	887.90	1,410.71	2,256.19	255.00
January–June:					
Low:					
Price	914.00	854.00	990.00	1,700.00	195.00
Date	Apr. 6	June 29	Jan.–Feb. ²	Jan. ²	Jan. ² , Feb. 1 and 2
High:					
Price	1,134.00	1,023.00	1,420.00	2,260.00	255.00
Date	Jan. 15	Jan. 25	June ²	May 31 and June ²	Apr. 30 and May–June ²
Average	1,011.20	944.07	1,123.96	1,996.63	223.44

¹Quotes from Engelhard.

²Occurred multiple days in month(s) listed.

Source: Platts Metals Week.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF PLATINUM METAL, BY COUNTRY OR LOCALITY¹

(Kilograms metal content, unless otherwise specified)

Country or locality	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)
2017:												
January–December	1,580	\$49,000	39,300	\$1,200,000	3,530	\$113,000	8,040	\$255,000	363,000	\$1,050,000	837	\$27,600
2018:												
April	14	382	4,380	134,000	307	9,600	981	31,600	2,400	73,200	18	588
May	19	655	3,220	93,800	337	10,700	468	15,900	2,960	93,200	56	1,770
June: ²												
Algeria	--	--	--	--	--	--	--	--	114	3,260	--	--
Australia	--	--	--	--	--	--	--	--	61	1,440	(3)	8
Bahrain	--	--	--	--	--	--	--	--	97	3,010	--	--
Belgium	--	--	359	10,400	--	--	201	7,800	79	2,700	--	--
Brazil	--	--	--	--	--	--	--	--	54	3,030	--	--
Canada	2	56	--	--	--	--	59	1,780	576	20,200	26	816
China	--	--	--	--	--	--	--	--	486	3,400	--	--
France	--	--	--	--	--	--	17	514	91	2,760	--	--
Germany	--	--	396	11,800	82	2,610	74	2,050	630	25,000	--	--
Italy	--	--	109	3,220	--	--	--	--	34	1,110	--	--
Japan	--	--	9	262	(3)	6	3	62	157	6,470	--	--
Malaysia	--	--	--	--	--	--	--	--	44	997	--	--
Mexico	3	122	--	--	--	--	--	--	190	6,200	--	--
Norway	--	--	101	2,930	31	994	--	--	--	--	--	--
Qatar	--	--	--	--	--	--	--	--	158	6,700	--	--
Saudi Arabia	--	--	--	--	--	--	--	--	563	16,100	--	--
Singapore	--	--	--	--	(3)	11	16	663	182	5,570	--	--
South Africa	--	--	2,350	67,200	104	3,010	--	--	--	--	(3)	19
Switzerland	--	--	30	874	--	--	79	2,450	--	--	--	--
United Kingdom	--	--	78	2,000	2	81	19	586	213	7,120	2	44
Other ²	--	--	1	15	17	450	5	74	145	3,820	--	--
Total	5	177	3,440	98,700	237	7,160	472	16,000	3,880	119,000	29	887
January–June	159	5,020	22,400	686,000	1,660	54,000	4,440	149,000	22,400	562,000	318	10,800

-- Zero.

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

²The 20 countries with the greatest total platinum imports are listed. All others are included in the "Other" category.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF PLATINUM-GROUP METALS, BY COUNTRY OR LOCALITY¹

(Kilograms metal content, unless otherwise specified)

Country or locality	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)
2017:												
January–December	75,000	\$2,080,000	11,000	\$320,000	1,420	\$38,100	856	\$1,740	14,500	\$34,200	11,600	\$386,000
2018:												
April	4,820	155,000	886	34,500	65	1,820	--	--	1,560	9,070	1,320	81,500
May	7,480	242,000	911	32,000	141	5,150	25	136	1,360	9,240	1,250	81,400
June:												
Belgium	37	1,140	--	--	--	--	--	--	--	--	99	5,840
Canada	--	--	422	16,500	--	--	--	--	--	--	1	14
Germany	433	14,500	3	39	17	543	--	--	141	1,250	151	11,400
Italy	255	8,180	3	26	--	--	--	--	--	--	42	2,990
Japan	132	2,070	1	25	(3)	4	--	--	--	--	4	346
Mexico	2	15	--	--	--	--	--	--	--	--	--	--
Norway	187	6,050	--	--	--	--	--	--	--	--	--	--
Russia	3,260	103,000	326	10,600	11	320	--	--	--	--	80	5,280
South Africa	2,600	87,700	331	9,390	13	405	--	--	665	3,830	468	30,700
Switzerland	--	--	318	10,100	--	--	--	--	--	--	--	--
United Kingdom	--	--	2	113	25	892	--	--	508	4,090	320	23,300
Total	6,910	222,000	1,410	46,900	66	2,160	--	--	1,310	9,170	1,170	79,900
January–June	38,400	1,280,000	5,730	207,000	501	16,200	25	136	9,390	62,100	7,620	454,000

-- 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 5
U.S. EXPORTS OF PLATINUM-GROUP METALS, BY COUNTRY OR LOCALITY¹

(Kilograms metal content, unless otherwise specified)

Country or locality	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)
2017:										
January–December	16,700	\$494,000	195,000	\$679,000	52,300	\$888,000	939	\$11,700	844	\$30,700
2018:										
April	1,710	53,400	4,910	36,900	5,740	137,000	94	1,480	416	13,200
May	1,420	46,000	1,830	47,600	5,410	118,000	90	960	352	12,100
June: ⁴										
Australia	17	289	--	--	8	160	14	234	--	--
Belgium	172	4,940	169	5,300	33	422	--	--	21	1,260
Brazil	1	39	--	--	214	6,910	--	--	--	--
Canada	8	276	8	231	118	2,690	--	--	(5)	3
China	8	249	--	--	366	11,400	69	939	37	2,220
France	1	12	--	--	48	386	5	51	--	--
Germany	440	13,700	128	3,970	1,970	34,400	(5)	3	1	33
Hong Kong	23	670	--	--	55	911	6	67	--	--
Ireland	26	767	--	--	11	240	--	--	--	--
Israel	1	26	--	--	186	1,660	--	--	--	--
Italy	5	262	183	6,330	255	8,340	--	--	3	106
Japan	21	612	116	3,640	457	12,600	36	420	16	1,130
Korea, Republic of	3	48	--	--	31	218	--	--	(5)	4
Mexico	9	298	--	--	23	244	--	--	--	--
Singapore	101	2,960	--	--	1	17	--	--	25	1,670
South Africa	--	--	35	1,100	--	--	--	--	358	5,660
Switzerland	4	73	368	9,570	1,380	22,800	100	2,020	--	--
Taiwan	1	35	--	--	148	4,800	14	143	--	--
Thailand	4	157	--	--	58	376	--	--	--	--
United Kingdom	230	7,730	913	29,600	80	2,290	13	308	32	1,500
Other ⁴	20	355	--	--	40	589	4	23	--	--
Total	1,090	33,500	1,920	59,700	5,480	112,000	260	4,210	491	13,600
January–June	8,270	263,000	15,600	322,000	29,900	619,000	1,290	25,200	2,100	71,700

-- Zero.

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

²Unwrought and other forms.

³Gross weight.

⁴The 20 countries with the greatest total platinum-group metal exports are listed. All others are included in the "Other" category.

⁵Less than ½ unit.

Source: U.S. Census Bureau.