

# Mineral Industry Surveys

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**For information, contact:**

Sheryl A. Singerling, PGM Commodity Specialist  
National Minerals Information Center  
U.S. Geological Survey  
989 National Center  
Reston, VA 20192  
Telephone: (703) 648-4954, Fax: (703) 648-7757  
Email: [ssingerling@usgs.gov](mailto:ssingerling@usgs.gov)

Benjamin N. Bryden (Data)  
Telephone: (703) 648-7953  
Fax: (703) 648-7975  
Email: [bbryden@usgs.gov](mailto:bbryden@usgs.gov)

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

## PLATINUM-GROUP METALS IN OCTOBER 2018

Imports for consumption of platinum-group metals (PGMs), including waste and scrap, were 20,700 kilograms (kg) in October 2018, representing increases of 16% and 7% compared with imports in September 2018 and October 2017, respectively. The leading import sources for PGMs into the United States were, in descending order, South Africa, Germany, and Russia (tables 3, 4). For January through October 2018, imports of palladium, platinum, and PGM scrap were 75,700 kg, 49,500 kg, and 34,200 kg, increases of 20%, 13%, and a decrease of 90%, respectively, compared with imports in the similar period in 2017.

**Prices**

Compared with the prior month, the Engelhard average October prices increased by 7% and 3% for palladium and platinum, respectively, and increased slightly for iridium, rhodium, and ruthenium. Compared with October 2017, the October 2018 average prices increased by 226%, 79%, 50%, and 13% for ruthenium, rhodium, iridium, and palladium, respectively. The price of platinum decreased by 10% (figs. 1, 2; tables 1, 2). On October 23, palladium reached its highest price in decades reportedly owing to concerns over a limited supply of the metal as well as an increased demand for it in gasoline-powered vehicle catalytic converters (Perez and Rowling, 2018).

**Government and Legislation**

On October 31, the U.S. Securities and Exchange Commission (SEC) announced that it will adopt amendments to the Securities Act of 1933 and the Securities Exchange Act of 1934. These amendments will require companies with mining properties that file SEC reports to disclose more comprehensive information on their mining properties to investors (U.S. Securities and Exchange Commission, 2018).

**References Cited**

- Perez, Marvin, and Rowling, Rupert, 2018, Palladium reaches record on mounting concerns over tight supply: Bloomberg [New York, NY], October 22. (Accessed December 14, 2018, at <https://www.bloomberg.com/news/articles/2018-10-22/palladium-nears-record-after-hedge-funds-piled-in-amid-shortages>.)
- U.S. Securities and Exchange Commission, 2018, SEC adopts rules to modernize property disclosures required for mining registrants: Washington, DC, U.S. Securities and Exchange Commission press release, October 31. (Accessed December 14, 2018, at <https://www.sec.gov/news/press-release/2018-248>.)

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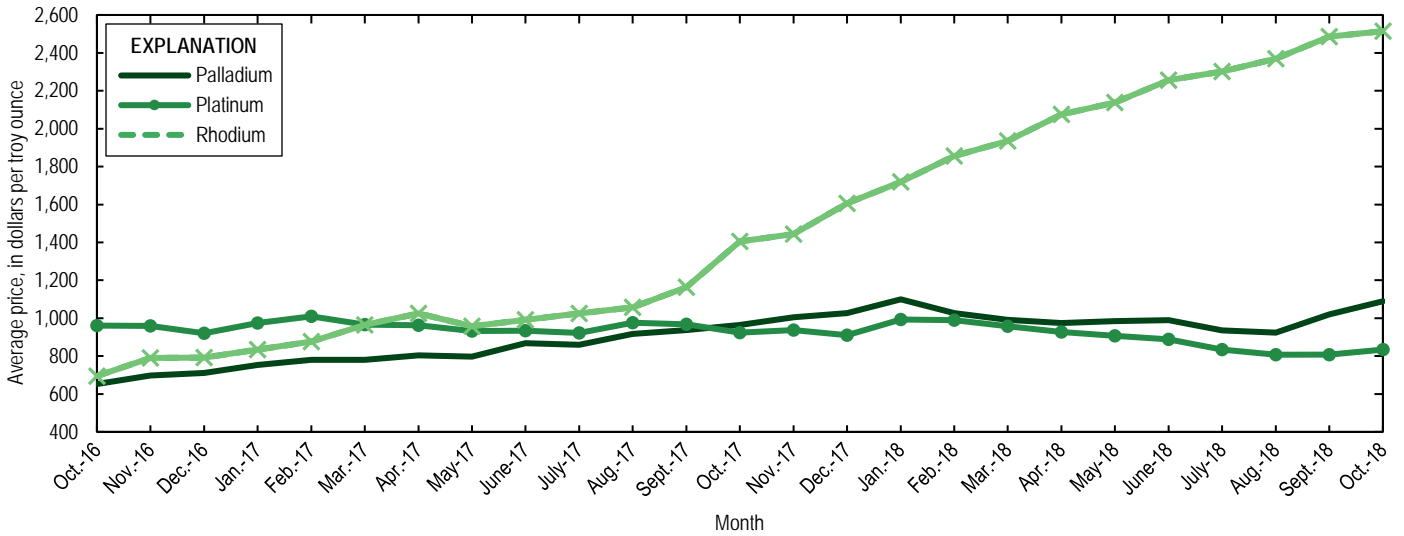


Figure 1. Engelhard unfabricated average monthly prices for palladium, platinum, and rhodium from October 2016 through October 2018. Source: Platts Metals Week.

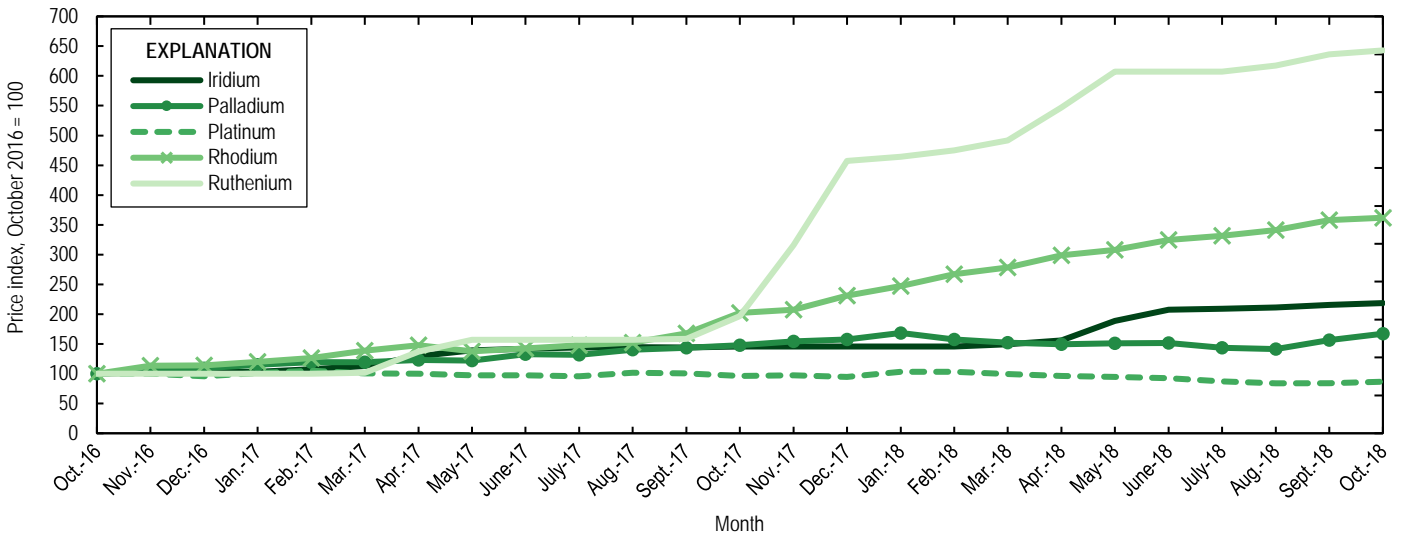


Figure 2. Indexed Engelhard unfabricated average monthly prices for iridium, palladium, platinum, rhodium, and ruthenium from October 2016 through October 2018. Prices are indexed to October 2016. Source: Platts Metals Week.

TABLE 1  
U.S. SALIENT PLATINUM-GROUP METALS STATISTICS<sup>1</sup>

(Kilograms metal content, unless otherwise specified)

	2017		2018		
	January– December	August	September	October	January– October
<b>Mine production:<sup>2</sup></b>					
Platinum	3,980	330	330	330	3,040
Palladium	13,600	1,110	1,110	1,110	10,400
Total	17,600	1,440	1,440	1,440	13,500
<b>Imports for consumption:<sup>3</sup></b>					
Platinum	416,000 <sup>4</sup>	8,280	7,200	8,600	83,700
Palladium	86,000	6,570	7,640	8,950	75,700
Iridium	1,420	86	129	96	851
Osmium	856	--	--	--	25
Ruthenium	14,500	679	1,570	1,910	14,800
Rhodium	11,600	848	1,320	1,100	12,000
Total	530,000	16,500	17,900	20,700	187,000
<b>Exports:<sup>3</sup></b>					
Platinum	211,000	8,740	3,460	6,100	44,400
Palladium	52,300	5,560	3,640	1,880	46,500
Iridium, osmium, ruthenium	939	307	403	209	2,280
Rhodium	844	418	118	571	3,390
Total	266,000	15,000	7,620	8,770	96,500
<b>Price, average (dollars per troy ounce):<sup>5</sup></b>					
Palladium	874.30	924.17	1,019.68	1,089.52	1,003.59
Platinum	951.23	807.91	807.84	833.57	894.88
Iridium	908.35	1,435.65	1,463.42	1,485.00	1,254.93
Rhodium	1,112.59	2,369.78	2,486.32	2,514.35	2,165.26
Ruthenium	76.86	259.35	267.11	270.00	239.21

-- Zero.

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

<sup>2</sup>Data estimated based on publicly reported quarterly data.

<sup>3</sup>Source: U.S. Census Bureau.

<sup>4</sup>All or part of these data have been referred to the U.S. Census Bureau for verification.

<sup>5</sup>Source: Platts Metals Week.

TABLE 2  
PLATINUM-GROUP METALS PRICES<sup>1</sup>

(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. <sup>2</sup>	Jan. 3	Jan.–Mar. <sup>2</sup>
High:					
Price	1,062.00	1,035.00	990.00	1,725.00	195.00
Date	Dec. 28	Feb. 27	Aug. <sup>2</sup> and Oct.–Dec. <sup>2</sup>	Dec. <sup>2</sup>	Dec. <sup>2</sup>
Average	874.30	951.23	908.35	1,112.59	76.86
2018:					
September:					
Low:					
Price	972.00	775.00	1,450.00	2,400.00	265.00
Date	Sep. 4	Sep. 4	(2)	(2)	(2)
High:					
Price	1,099.00	833.00	1,485.00	2,590.00	270.00
Date	Sep. 28	Sep. 24	(2)	(2)	(2)
Average	1,019.68	807.84	1,463.42	2,486.32	267.11
October:					
Low:					
Price	1,055.00	817.00	1,485.00	2,425.00	270.00
Date	Oct. 3	Oct. 8	(2)	(2)	(2)
High:					
Price	1,147.00	848.00	1,485.00	2,590.00	270.00
Date	Oct. 23	Oct. 15	(2)	(2)	(2)
Average	1,089.52	833.57	1,485.00	2,514.35	270.00
January–October:					
Low:					
Price	854.00	775.00	990.00	1,700.00	195.00
Date	Aug. 15	Sep. 4	Jan.–Feb. <sup>2</sup>	Jan. <sup>2</sup>	Jan. <sup>2</sup> , Feb. 1 and 2
High:					
Price	1,147.00	1,023.00	1,485.00	2,590.00	270.00
Date	Oct. 23	Jan. 25	Sep.–Oct. <sup>2</sup>	Sep.–Oct. <sup>2</sup>	Sep.–Oct. <sup>2</sup>
Average	994.04	901.69	1,229.37	2,126.47	235.79

<sup>1</sup>Quotes from Engelhard.

<sup>2</sup>Occurred multiple days in month(s) listed.

Source: Platts Metals Week.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF PLATINUM METAL, BY COUNTRY OR LOCALITY<sup>1</sup>

(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 <sup>2</sup>	\$1,050,000 <sup>2</sup>	837	\$27,600
2018:												
August	762	19,400	2,980	81,000	182	5,670	823	24,500	3,440	100,000	97	2,680
September	27	808	3,620	94,800	235	6,560	1,330	38,100	1,830	53,300	150	4,360
October: <sup>3</sup>												
Australia	--	--	--	--	--	--	(4)	13	98	1,820	48	1,380
Belgium	--	--	51	1,420	--	--	--	--	8	267	--	--
Brazil	--	--	--	--	--	--	--	--	144	6,440	--	--
Canada	8	229	--	--	--	--	33	916	773	6,290	54	1,520
China	--	--	--	--	--	--	--	--	19	1,570	--	--
Colombia	--	--	--	--	28	850	--	--	6	107	--	--
France	--	--	--	--	--	--	7	209	574	1,180	--	--
Germany	21	583	702	20,000	93	3,150	313	9,800	426	12,500	47	1,690
Italy	--	--	363	9,800	--	--	--	--	118	3,900	--	--
Japan	--	--	--	--	105	2,820	6	106	203	6,270	--	--
Malaysia	--	--	--	--	--	--	--	--	26	558	--	--
Mexico	--	--	--	--	--	--	--	--	225	7,540	--	--
New Zealand	--	--	--	--	--	--	--	--	33	1,070	--	--
Nigeria	--	--	--	--	--	--	--	--	25	704	--	--
Norway	--	--	132	3,510	--	--	--	--	--	--	--	--
Russia	--	--	100	2,630	--	--	--	--	--	--	--	--
Singapore	--	--	--	--	158	7,110	16	433	123	3,890	--	--
South Africa	--	--	1,830	47,800	--	--	14	379	--	--	--	--
Switzerland	--	--	45	1,210	--	--	733	20,400	--	--	--	--
United Kingdom	--	--	40	1,020	1	55	20	562	745	17,000	--	--
Other	--	--	--	--	10	343	1	23	78	1,920	--	--
Total	29	811	3,270	87,400	396	14,300	1,140	32,800	3,620	73,000	149	4,580
January–October	979	26,100	36,800	1,080,000	2,720	88,700	8,110	256,000	34,200	870,000	891	27,400

-- Zero.

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

<sup>2</sup>All or part of these data have been referred to the U.S. Census Bureau for verification.

<sup>3</sup>The 20 countries and (or) localities with the greatest total platinum imports are listed. All others are included in the "Other" category.

<sup>4</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 4  
U.S. IMPORTS FOR CONSUMPTION OF PLATINUM-GROUP METALS, BY COUNTRY OR LOCALITY<sup>1</sup>

(Kilograms metal content, unless otherwise specified)

Country or locality	Unwrought palladium		Palladium, other		Iridium <sup>2</sup>		Osmium <sup>2</sup>		Ruthenium <sup>2</sup>		Rhodium <sup>2</sup>	
	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:												
August	5,450	165,000	1,130	34,200	86	3,100	--	--	679	5,410	848	62,100
September	6,730	208,000	915	31,400	129	5,680	--	--	1,570	12,900	1,320	99,800
October:												
Belgium	--	--	--	--	--	--	--	--	--	--	3	260
Canada	--	--	487	18,600	--	--	--	--	--	--	2	66
Germany	1,840	66,100	--	--	22	1,070	--	--	72	638	253	20,900
Italy	391	14,100	(3)	9	--	--	--	--	--	--	35	2,890
Japan	203	1,890	--	--	--	--	--	--	--	--	--	--
Norway	186	6,340	--	--	--	--	--	--	--	--	14	1,220
Russia	3,290	111,000	103	3,610	--	--	--	--	--	--	82	6,260
South Africa	2,330	78,400	--	--	68	3,130	--	--	569	4,680	504	39,400
Switzerland	--	--	9	319	--	--	--	--	--	--	--	--
Taiwan	72	1,680	--	--	--	--	--	--	--	--	--	--
United Kingdom	38	1,310	5	204	6	258	--	--	1,270	10,900	209	17,000
Total	8,350	281,000	603	22,800	96	4,450	--	--	1,910	16,200	1,100	88,000
January–October	66,300	2,160,000	9,470	332,000	851	30,800	25	136	14,800	106,000	12,000	785,000

-- Zero.

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

<sup>2</sup>Unwrought and other forms.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 5  
U.S. EXPORTS OF PLATINUM-GROUP METALS, BY COUNTRY OR LOCALITY<sup>1</sup>

(Kilograms metal content, unless otherwise specified)

Country or locality	Platinum <sup>2</sup>		Platinum waste and scrap		Palladium <sup>2</sup>		Iridium, osmium and ruthenium <sup>2,3</sup>		Rhodium <sup>2</sup>	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
2017:										
January–December	16,700	\$494,000	195,000 <sup>4</sup>	\$679,000 <sup>4</sup>	52,300	\$888,000	939	\$11,700	844	\$30,700
2018:										
August	2,790	68,900	5,950	103,000	5,560	102,000	307	4,640	418	14,900
September	1,940	60,700	1,520	28,000	3,640	59,700	403	3,760	118	8,950
October: <sup>5</sup>										
Australia	3	137	--	--	7	130	19	175	--	--
Belgium	32	850	2,270	11,200	--	--	--	--	19	1,040
Canada	10	342	27	818	578	19,200	--	--	(6)	6
China	23	729	--	--	19	420	1	3	4	303
Costa Rica	41	506	--	--	69	385	--	--	--	--
France	14	473	--	--	64	507	7	34	--	--
Germany	427	12,500	574	15,800	168	1,560	26	1,260	57	1,690
Hong Kong	3	86	--	--	100	1,450	4	43	--	--
India	8	199	--	--	27	926	--	--	--	--
Ireland	48	1,360	--	--	26	221	1	3	--	--
Israel	(6)	4	--	--	304	2,220	--	--	--	--
Italy	12	366	146	5,270	10	379	24	550	4	230
Japan	3	99	293	10,400	244	7,550	122	1,380	61	5,640
Korea, Republic of	1	25	--	--	113	2,520	--	--	--	--
Mexico	17	510	--	--	32	290	--	--	(6)	16
South Africa	--	--	11	340	1	4	--	--	423	7,450
Switzerland	1	31	440	7,540	3	100	--	--	--	--
Taiwan	7	187	--	--	53	1,000	--	--	--	--
Thailand	2	49	2	50	6	161	--	--	--	--
United Kingdom	1,220	42,200	463	16,800	40	1,080	5	40	4	281
Other	16	445	--	--	16	359	--	--	--	--
Total	1,880	61,200	4,220	68,200	1,880	40,400	209	3,490	571	16,700
January–October	15,700	477,000	28,700	563,000	46,500	936,000	2,280	39,100	3,390	119,000

-- Zero.

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

<sup>2</sup>Unwrought and other forms.

<sup>3</sup>Gross weight.

<sup>4</sup>All or part of these data have been referred to the U.S. Census Bureau for verification.

<sup>5</sup>The 20 countries and (or) localities with the greatest total platinum-group metal exports are listed. All others are included in the "Other" category.

<sup>6</sup>Less than ½ unit.

Source: U.S. Census Bureau.