



# Mineral Industry Surveys

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## PLATINUM-GROUP METALS IN DECEMBER 2016

The Engelhard average December price for platinum decreased by 4%, and prices for palladium, iridium, and rhodium increased slightly compared with average November prices (table 1, fig. 1). The average monthly price for ruthenium was unchanged during the same period.

Stillwater Mining Co. (Colorado), the only domestic platinum-group metals (PGM) mining company, announced that it had entered into an agreement with Sibanye Gold Ltd. (South Africa) whereby Sibanye will acquire Stillwater for an aggregate value of \$2.2 billion. The transaction was subject to shareholder and regulatory approval and was expected to take place in the second quarter of 2017. Stillwater would be a wholly owned subsidiary of Sibanye Gold (Stillwater Mining Co., 2016). Sibanye has also purchased PGM mining assets in South Africa, including Anglo American Platinum Ltd.'s (South Africa) Rustenburg mining operations, as well Aquarius Platinum Ltd. (South Africa) as a wholly-owned subsidiary. The Aquarius purchase included as a 50% stake in the Kroondal

operations in South Africa and a 50% stake in the Mimosa Mine in Zimbabwe (Blamey, 2016).

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### References Cited

- Blamey, Andy, 2016, South Africa's Sibanye Gold to acquire US PGMs miner Stillwater: Platts Metals Daily, v. 5, no. 243, December 9, p. 15.  
Stillwater Mining Co., 2016, Sibanye to acquire Stillwater Mining Co. for \$2.2 billion: Littleton, CO, Stillwater Mining Co. news release, December 9. (Accessed December 14, 2016, at: <http://investorrelations.stillwatermining.com/phoenix.zhtml?c=99837&p=irol-newsArticle&ID=2228709>.)

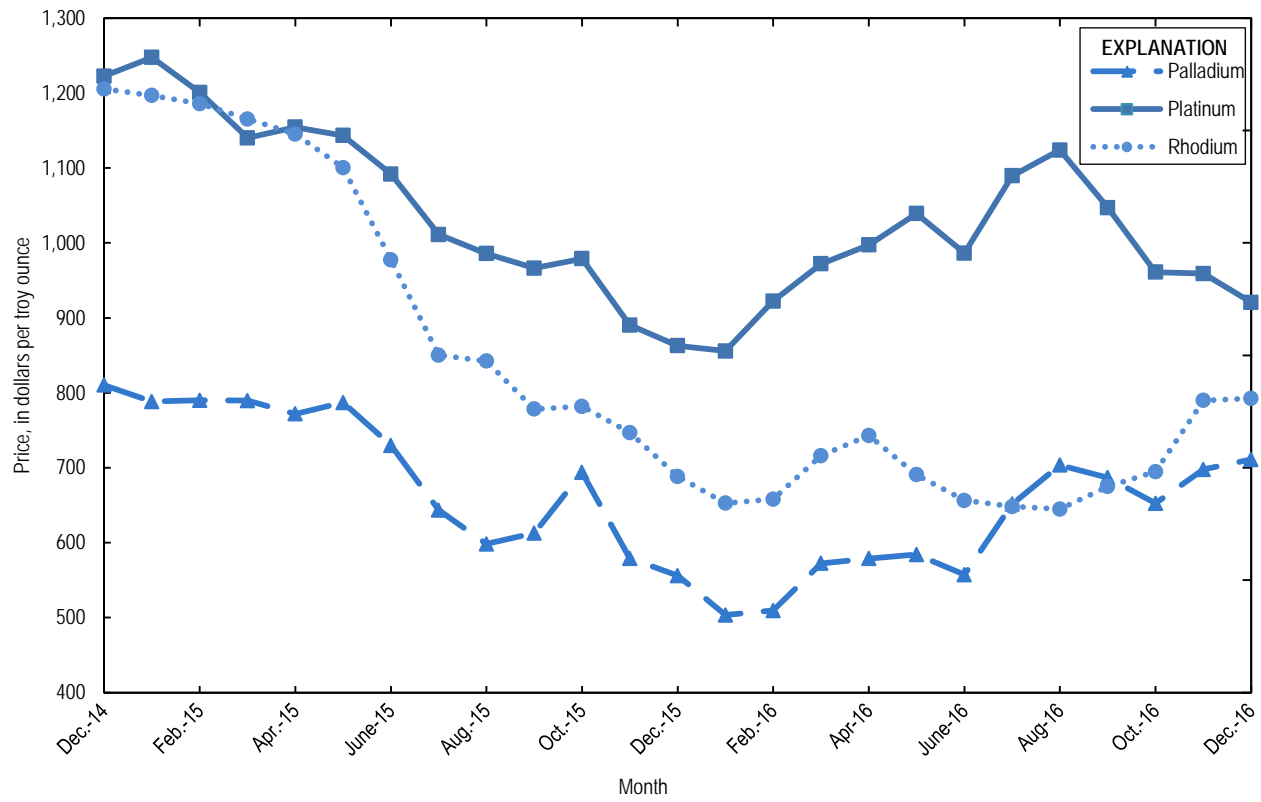


Figure 1. Engelhard monthly palladium, platinum, and rhodium prices for December 2014 through December 2016. Source: Platts Metals Week.

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

(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. <sup>2</sup>	40.00 July–Aug. <sup>2</sup>
High/date	1,289.00 Jan. 21	834.00 Mar. 3	1,245.00 Jan. 2 and 5	575.00 Jan.–June <sup>2</sup>	58.00 Jan. <sup>2</sup>
Average	1,056.09	694.99	954.90	544.19	47.63
2016:					
November:					
Low/date	913.00/28	620.00/4	740.00/1	685.00 <sup>2</sup>	42.00 <sup>2</sup>
High/date	1,016.00/9	774.00/30	825.00/10	700.00 <sup>2</sup>	42.00 <sup>2</sup>
Average	959.00	697.85	789.75	694.00	42.00
December:					
Low/date	900.00/29	658.00/23	765.00/30	700.00 <sup>2</sup>	42.00 <sup>2</sup>
High/date	946.00/7	771.00/1	850.00/15 and 16	700.00 <sup>2</sup>	42.00 <sup>2</sup>
Average	920.70	711.03	792.50	700.00	42.00
January–December:					
Low/date	816.00 Jan. 21	473.00 Jan. 12	625.00 July 29–Aug. <sup>2</sup>	525.00 Jan.–May. <sup>2</sup>	42.00 Jan.–Dec. <sup>2</sup>
High/date	1,184.00 Aug. 10	771.00 Dec. 1	850.00 Dec. 15 and 16	700.00 Nov. <sup>2</sup> –Dec. <sup>2</sup>	42.00 Jan.–Dec. <sup>2</sup>
Average	989.52	617.39	696.84	586.90	42.00

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

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

Source: Platts Metals Week.

TABLE 2  
U.S. IMPORTS FOR CONSUMPTION OF PLATINUM METAL, BY COUNTRY<sup>1</sup>

(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	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
		(thousands)		(thousands)		(thousands)		(thousands)		(thousands)		(thousands)
2015	820	\$24,100	30,000	\$1,040,000	4,700	\$166,000	5,960	\$197,000	123,000	\$899,000	1,210	\$43,500
2016:												
October	2	82	1,490	49,200	503	16,400	596	17,800	2,600	73,600	11	378
November	4	106	2,680	84,100	503	15,900	842	28,800	5,420	74,000	126	4,280
December:												
Australia	--	--	--	--	--	--	--	--	36	1,130	23	780
Belgium	--	--	33	1,000	--	--	--	--	--	--	--	--
Brazil	--	--	--	--	--	--	--	--	152	2,400	--	--
Canada	4	115	--	--	(2)	10	11	324	13,100	9,770	71	2,470
China	--	--	--	--	75	2,310	4	173	159	3,560	--	--
Colombia	--	--	--	--	132	3,600	--	--	2	29	--	--
Czech Republic	--	--	--	--	--	--	19	653	--	--	--	--
Egypt	--	--	--	--	--	--	--	--	67	1,670	--	--
France	--	--	--	--	--	--	(2)	6	61	1,760	--	--
Germany	--	--	376	12,400	104	3,600	587	19,300	168	9,900	(2)	20
India	--	--	--	--	--	--	--	--	--	--	--	--
Italy	--	--	232	6,920	--	--	1	19	--	--	--	--
Japan	--	--	12	353	2	88	(2)	3	209	5,320	--	--
Malaysia	--	--	--	--	--	--	--	--	138	1,890	--	--
Mexico	--	--	--	--	2	74	--	--	245	7,420	--	--
Norway	--	--	202	6,110	--	--	--	--	--	--	--	--
Singapore	--	--	--	--	(2)	3	7	264	173	5,630	--	--
South Africa	156	5,020	1,370	42,100	--	--	--	--	--	--	--	--
Switzerland	--	--	--	--	--	--	64	1,860	--	--	--	--
Taiwan	--	--	--	--	--	--	--	--	99	2,290	--	--
United Kingdom	--	--	110	3,770	(2)	6	5	190	627	13,200	(2)	5
Venezuela	--	--	--	--	--	--	--	--	--	--	--	--
Other	--	--	15	451	(2)	13	2	77	98	1,030	1	18
Total	159	5,140	2,360	73,000	315	9,710	700	22,800	15,400	67,000	95	3,300
January–December	418	12,600	27,500	872,000	4,970	161,000	8,600	278,000	159,000	820,000	924	31,900

-- Zero.

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

<sup>2</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF PLATINUM-GROUP METALS, BY COUNTRY<sup>1</sup>

(Kilograms metal content, unless otherwise specified)

Period and country	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)
2015	75,700	\$1,650,000	9,600	\$228,000	1,010	\$17,400	8	\$59	8,230	\$14,600	10,600	\$336,000
2016:												
October	5,660	125,000	1,260	29,500	131	2,600	--	--	525	1,050	924	19,500
November	5,960	120,000	632	17,200	83	1,910	--	--	1,540	2,730	779	17,700
December:												
Austria	--	--	107	2,530	--	--	--	--	--	--	69	1,710
Belgium	9	188	--	--	--	--	--	--	--	--	--	--
Canada	186	6,530	91	3,270	--	--	--	--	--	--	--	--
China	--	--	--	--	--	--	--	--	--	--	13	407
Germany	2	51	134	3,640	--	--	--	--	253	481	9	250
Japan	136	1,220	(3)	4	55	1,200	--	--	--	--	--	--
Italy	380	9,110	1	45	--	--	--	--	--	--	22	568
Norway	233	5,690	--	--	--	--	--	--	--	--	16	373
Russia	3,390	80,600	1,210	27,500	1	15	--	--	--	--	87	2,060
South Africa	1,690	37,900	127	2,680	41	864	--	--	196	376	412	9,560
United Kingdom	281	6,830	23	295	31	682	--	--	109	171	1	57
Other	15	341	7	200	--	--	--	--	--	--	1	19
Total	6,320	148,000	1,700	40,200	128	2,760	--	--	557	1,030	631	15,000
January–December	76,500	1,340,000	12,300	275,000	1,300	23,000	27	159	8,410	14,500	10,700	229,000

-- 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 4  
U.S. EXPORTS OF PLATINUM-GROUP METALS, BY COUNTRY<sup>1</sup>

(Kilograms metal content, unless otherwise specified)

Period and country	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)
2015	14,400	\$469,000	246,000	\$886,000	23,000	\$458,000	781	\$13,800	759	\$25,800
2016:										
October	1,390	36,900	15,000	69,100	1,130	19,400	46	463	47	1,310
November	844	26,600	14,700	57,100	1,310	21,100	42	804	79	1,710
December:										
Argentina	60	1,830	--	--	--	--	--	--	--	--
Australia	3	97	--	--	6	154	3	102	--	--
Belgium	--	--	2,230	2,170	--	--	--	--	--	--
Brazil	6	173	--	--	5	11	--	--	--	--
Canada	23	742	67	7	152	3,000	--	--	(4)	7
China	8	173	--	--	385	8,140	--	--	36	868
France	1	31	--	--	25	186	--	--	--	--
Germany	444	13,400	1,260	5,350	93	1,670	4	45	18	727
Hong Kong	5	132	--	--	41	851	7	76	--	--
India	76	2,490	5	172	2	10	--	--	(4)	9
Ireland	7	162	--	--	20	130	--	--	--	--
Italy	(4)	13	--	--	2	41	--	--	--	--
Japan	352	10,300	21,500	5,450	24	99	2	45	--	--
Korea, Republic of	2	39	--	--	33	299	--	--	(4)	10
Luxembourg	--	--	--	--	341	7,720	--	--	--	--
Mexico	14	513	--	--	8	122	--	--	--	--
South Africa	--	--	770	7,960	--	--	--	--	--	--
Switzerland	2	37	520	8,050	6	146	--	--	--	--
Taiwan	7	227	--	--	111	1,230	2	36	--	--
United Kingdom	30	746	2,690	34,800	35	805	7	156	--	--
Other	7	188	--	--	129	1,540	1	35	--	--
Total	1,050	31,300	29,000	63,900	1,420	26,100	26	495	54	1,620
January–December	14,200	423,000	273,000	705,000	17,500	272,000	736	11,300	795	19,600

-- 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>Less than ½ unit.

Source: U.S. Census Bureau.