

Mineral Industry Surveys

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PLATINUM-GROUP METALS IN OCTOBER 2008

According to Platts Metals Week, the average October prices of platinum, palladium, and rhodium dropped by 25%, 22%, and 45%, respectively, as compared with the average prices in September. The average price of ruthenium decreased by 13% and that of iridium fell by 2% over the same time period. Prices of platinum and palladium fell steadily throughout the month until October 27, when both prices rose owing to increased buying after Anglo Platinum Ltd. (Johannesburg, South Africa) closed the Turffontein shaft at its leading mine, Rustenburg, to investigate a fatality. In contrast, the price of rhodium fell continuously from the beginning to the end of the month. Over the course of single week, from October 13 to 17, the rhodium price plummeted by \$1,600 or 52%. From their high points of last spring, the average monthly prices of platinum, palladium, and rhodium have fallen by 55%, 61%, and 75% respectively. Analysts debated the reason for the extreme price drops, and suggested that the price drops were caused not only by the downturn in the automobile sector, but also by heavy investor selling in response to the global economic deterioration. Automobile sales in the United States were down for the eleventh consecutive month, the longest slide in 17 years. Auto sales in Europe were also down (Pavliwa, 2008). The prices of gold and platinum were near parity for the first time in 12 years as a result of the steep drop in platinum prices relative to gold prices over the past 3 months. In October, the platinum price was only 10% higher than that of gold, in contrast to the past 5 years, during which platinum prices have typically been at least double those of gold (Harvey, 2008).

MMC Norilsk Nickel (Moscow, Russia) offered to sell its 55.4% stake in the Stillwater Mining Co. (Billings, MT), which Norilsk has owned since 2003. The sales offer was made owing to Norilsk's economic problems (Falstad, 2008). North American Palladium (Toronto, Ontario, Canada) decided to temporarily close its Lac des Iles Mine as a result of falling platinum-group metal (PGM) prices. The mine was put on care-and-maintenance until future notice, and approximately 350 employees were laid off. North American Palladium planned to continue a feasibility study on the offset high-grade ore zone at Lac des Iles and to continue further exploration in the area (North American Palladium, 2008).

Xstrata plc (Zug, Switzerland) withdrew its takeover bid for the world's third-largest PGM producer, Lonmin plc (London, United Kingdom), citing financing uncertainties as a result of the global credit crisis (Onstad, 2008). Lonmin reported a 16% decrease in output for the year ended September 30, relative to that of the previous year. The decrease was caused by safety-related work stoppages, power shortages, and high levels of absenteeism (Johnson Matthey Plc, 2008c). Aquarius Platinum Ltd. (South Perth, Australia) cut its production target for 2009 by 4.2% to 17,900 kilograms (kg) of PGMs as a result of market uncertainty (Lourens, 2008).

Anglo Platinum reported production of 21,300 kg of platinum in the third quarter, a 12% increase relative to production in the previous quarter, and announced it would not reduce its output in response to lower PGM prices (Johnson Matthey Plc, 2008a). Wesizwe Platinum Ltd. (Johannesburg, South Africa) planned to proceed with its Frischgewaagd-Ledig project in South Africa. Production was expected to begin in 2011 and to reach full output of 10,900 kilograms per year (kg/yr) of PGMs in 2016. The project has an estimated mine life of 35 years and was planned to consist of an underground mine and a surface concentrator plant (Reuters, 2008). Platinum Australia Ltd. (West Perth, Australia) commissioned the Smokey Hills processing plant at its Smokey Hills Mine in South Africa, thus converting itself from an exploration to a production company (Platinum Australia, Ltd., 2008). Impala Platinum Holdings Ltd. (Johannesburg, South Africa) continued plans to purchase Mvelaphanda Resources and Northam Platinum, a merger that could create a company that would rival Anglo Platinum as the world's leading PGM producer (Johnson Matthey Plc, 2008b).

The Russian state Duma passed a bill that will end state control of PGM exports from Russia. The bill was expected to become law in about 4 months. Under the new law, the state company, Almazyruvelirexport, is expected to have a more limited role and to operate more on market principles (Johnson Matthey Plc, 2008d).

Sylvania Resources Ltd. (West Perth, Australia) announced plans to build two new chromium and platinum recovery plants at the Tweefontein and Doornbosch chromite mines in South Africa. Sylvania planned to recover PGM from chromite tailings

dumps, and expected an increase in production capacity to 3,520 kg/yr from 2,490 kg/yr of PGM by 2010. Sylvania planned to begin construction in third and fourth quarters of 2009; commissioning was planned for January 2010 (Sylvania Resources, Ltd., 2008).

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TABLE 1
PLATINUM-GROUP METALS PRICES¹

(Dollars per troy ounce)

	Platinum	Palladium	Rhodium	Iridium	Ruthenium
2007:					
Low/date	1,122.00 Jan. 8	322.00 Aug. 22	5,550.00 Jan. ²	400.00 Jan. and Feb. ²	375.00 Jul. ²
High/date	1,547.00 Dec. 27	385.00 Apr. 20	6,850.00 Dec. ²	450.00 Feb.—Dec. ²	870.00 Feb. ²
Average	1,308.40	357.34	6,203.09	444.43	573.74
2008:					
August:					
Low/date	1,328.00/19	283.00/19	3,950.00 ²	450.00 ²	300.00 ²
High/date	1,680.00/01	370.00/01	8,050.00/01	460.00 ²	305.00 ²
Average	1,492.52	318.29	6,245.24	451.90	302.62
September:					
Low/date	1,010.00/30	204.00/30	4,025.00/30	450.00 ²	290.00 ²
High/date	1,420.00/04	292.00/04	5,200.00/01	460.00 ²	300.00 ²
Average	1,217.43	248.81	4,459.52	458.10	298.10
October:					
Low/date	760.00/27	170.00 ²	1,600.00 ²	440.00 ²	230.00 ²
High/date	1,036.00/14	209.00/2	3,775.00/1	450.00 ²	290.00 ²
Average	917.13	193.30	2,456.52	446.96	260.65
Year-to-date:					
Low/date	760.00 Oct. 27	170.00 ²	1,600.00 Oct. ²	440.00 Oct. ²	230.00 Oct. ²
High/date	2,275.00 Mar. 4	585.00 Mar. 4	10,100.00 June 18	460.00 Aug. ²	440.00 Feb. and Mar. ²
Average	1,725.34	387.10	7,578.30	450.70	352.06

¹Quotes from Engelhard Industries.

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	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
		(thousands)		(thousands)		(thousands)		(thousands)		(thousands)		(thousands)
2007	621	\$20,100	65,900	\$2,620,000	3,940	\$145,000	10,200	\$330,000	206,000	\$504,000	58	\$964
2008:												
July	2	87	3,860	245,000	319	15,500	590	27,600	9,450	99,400	1	61
August	(2)	14	4,230	237,000	362	16,900	424	15,000	14,300	66,200	713	21,300
September:												
Algeria	--	--	--	--	--	--	--	--	32	94	--	--
Austria	--	--	--	--	--	--	1	95	--	--	--	--
Belgium	--	--	134	5,950	--	--	--	--	--	--	--	--
Bolivia	--	--	--	--	--	--	--	--	7 ³	89	--	--
Brazil	--	--	--	--	--	--	--	--	846 ³	4,990	--	--
Canada	(2)	13	--	--	(2)	21	46	1,990	64	2,480	(2)	25
Chile	--	--	--	--	--	--	--	--	268	13,400	--	--
China	--	--	--	--	--	--	3	138	39 ³	1,760	--	--
Colombia	--	--	--	--	136	4,490	--	--	19	457	--	--
France	--	--	--	--	--	--	--	--	(2)	3	--	--
Germany	--	--	165	6,540	116	5,450	326	7,120	93	7,230	--	--
Hong Kong	--	--	--	--	--	--	--	--	6	231	--	--
Israel	--	--	--	--	60	1,580	--	--	4	300	--	--
Italy	--	--	20	782	8	292	73	2,870	--	--	--	--
Japan	--	--	--	--	10	389	17 ³	795	1	28	--	--
Jordan	--	--	--	--	--	--	--	--	7 ³	94	--	--
Korea, Republic of	--	--	--	--	--	--	1	58	14	650	--	--
Mexico	--	--	--	--	4	155	--	--	37	1,410	--	--
Norway	--	--	16	660	--	--	--	--	--	--	--	--
Philippines	--	--	--	--	--	--	--	--	2	60	--	--
Russia	--	--	74	3,520	16	775	--	--	--	--	--	--
Saudi Arabia	--	--	--	--	--	--	--	--	10	425	--	--
South Africa	--	--	2,950	94,100	--	--	67	3,360	--	--	--	--
Switzerland	--	--	--	--	--	--	4	109	--	--	--	--
Taiwan	--	--	--	--	--	--	--	--	21	1,150	--	--
Thailand	--	--	--	--	--	--	4	263	242	9,180	--	--
United Kingdom	13	616	243	11,000	42	2,460	29	1,200	--	--	--	--
Venezuela	--	--	--	--	--	--	--	--	940 ³	64	--	--
Total	13	629	3,600	123,000	391	15,600	571	18,000	2,650	44,100	(2)	25
Year to date	192	6,280	37,400	2,090,000	2,710	139,000	5,850	252,000	77,800	528,000	728	22,200

-- Zero.

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

²Less than ½ unit.

³All or part of these data have been referred to the U.S. Census Bureau for verification.

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)
2007	101,000	\$1,120,000	11,600	\$129,000	3,410	\$41,900	23	\$192	48,700	\$655,000	16,600	\$2,650,000
2008:												
July	5,910	83,500	93	1,320	154	2,250	--	--	4,320	33,400	767	214,000
August	6,660	96,200	114	1,640	568	7,750	--	--	3,760	29,100	1,140	278,000
September:												
Belgium	310	2,510	--	--	--	--	--	--	190	1,560	138	37,300
Canada	--	--	222	2,790	--	--	--	--	--	--	--	--
China	--	--	27	519	--	--	--	--	--	--	--	--
Germany	2	11	12	96	7	169	--	--	1,990	14,100	44	6,510
Italy	387	7,030	12	109	--	--	--	--	--	--	41 ³	5,950
Japan	150	701	10	32	--	--	--	--	31	299	--	--
Netherlands	--	--	--	--	1	13	--	--	--	--	--	--
Norway	1,010	7,620	--	--	--	--	--	--	--	--	3	435
Russia	3,500	34,600	--	--	--	--	--	--	41	370	170	33,500
Singapore	--	--	--	--	--	--	--	--	65	308	--	--
South Africa	1,600	11,400	16	150	43	611	--	--	816	6,940	505	82,900
Switzerland	--	--	77	772	--	--	--	--	--	--	--	--
United Kingdom	649	5,130	87	873	29	482	--	--	757	7,060	7	1,010
Total	7,610	68,900	462	5,340	80	1,270	--	--	3,890	30,700	908	168,000
Year to date	73,000	952,000	4,290	66,700	2,070	29,800	11	101	36,200	339,000	10,100	2,290,000

-- Zero.

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

²Unwrought and other forms.

³All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

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

(Kilograms of 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	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
		(thousands)		(thousands)		(thousands)		(thousands)		(thousands)
2007	28,900	\$763,000	54,400	\$924,000	41,800	\$298,000	8,190	\$145,000	2,210	\$401,000
2008:										
July	867	43,800	4,800	123,000	1,980	13,800	723	9,280	331	40,900
August	633	19,700	1,810	59,400	1,760	10,500	1,690	24,300	33	9,080
September:										
Australia	3 ⁴	128	--	--	45	322	--	--	--	--
Austria	5	121	--	--	--	--	--	--	--	--
Belgium	2 ⁴	21	3 ⁴	200	1	8	--	--	--	--
Canada	23	704	79	2,490	255	2,370	--	--	(5)	24
China	75	4,240	13	45	39	98	--	--	62	2,820
Colombia	1	12	--	--	4	48	--	--	--	--
Costa Rica	6	151	--	--	--	--	--	--	--	--
Cyprus	61	2,360	--	--	1	3	--	--	--	--
Denmark	(5)	11	--	--	8	116	--	--	--	--
France	6 ⁴	195	--	--	94	618	1	3	--	--
Germany	264	9,470	227 ⁴	4,090	257	1,360	4	29	--	--
Hong Kong	3 ⁴	335	--	--	22 ⁴	393	--	--	--	--
India	26	1,530	--	--	9 ⁴	39	--	--	(5)	11
Ireland	23	693	--	--	6 ⁴	16	1	6	--	--
Israel	(5)	8	--	--	64	200	--	--	--	--
Italy	4	182	--	--	88	1,040	13	241	1	96
Japan	272	8,620	223	12,500	370	2,710	2	68	12	2,100
Korea, Republic of	143 ⁴	7,570	22	80	102 ⁴	542	--	--	--	--
Malaysia	(5)	11	--	--	2 ⁴	7	--	--	--	--
Mexico	10 ⁴	267	--	--	2	22	17 ⁴	469	(5)	12
Netherlands	1 ⁴	101	(5)	8	3	32	--	--	--	--
New Zealand	(5) ⁴	31	--	--	8 ⁴	114	--	--	--	--
Norway	6 ⁴	113	--	--	2	19	--	--	--	--
Singapore	--	--	--	--	2	36	162	1,250	--	--
South Africa	--	--	--	--	4	20	--	--	--	--
Spain	(5)	13	--	--	7	52	--	--	--	--
Sweden	4 ⁴	131	--	--	1	23	--	--	--	--
Switzerland	25 ⁴	1,010	--	--	25	301	--	--	--	--
Taiwan	6 ⁴	182	--	--	206	660	--	--	--	--
Thailand	(5) ⁴	28	--	--	2 ⁴	27	--	--	--	--
Turkey	--	--	--	--	13	23	--	--	--	--
United Arab Emirates	--	--	--	--	2	22	--	--	--	--
United Kingdom	82	2,220	1,660	46,900	325	1,820	25	217	--	--
Vietnam	3	92	--	--	(5)	6	--	--	--	--
Other	--	30	--	--	11	75	--	--	--	--
Total	1,050	40,600	2,230	66,300	1,980	13,100	225	2,280	75	5,060
Year to date	10,200	433,000	42,400	1,020,000	22,000	170,000	5,250	69,500	1,860	292,000

-- Zero.

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

²Unwrought and other forms.

³Gross weight.

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

⁵Less than ½ unit.

Source: U.S. Census Bureau.