

Mineral Industry Surveys

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PLATINUM-GROUP METALS IN SEPTEMBER 2009

According to Platts Metals Week (2009a-e), the average September prices of platinum and palladium increased by 4% and 6%, respectively, compared with the average prices in August. The average monthly price of rhodium decreased slightly, and prices of ruthenium and iridium remained unchanged over the same time period. Both platinum and palladium reached their highest daily prices of 2009 in September. The prices of platinum and palladium increased from the beginning to the middle of the month, and then tapered off. The increase was the result of good physical demand from both industrial and investment consumers. The prices of iridium, rhodium, and ruthenium remained constant throughout the entire month.

Jubilee Platinum plc (Johannesburg, South Africa), an exploration and development company, curtailed operations at its nickel-platinum-copper projects in Madagascar. The projects were ended as a result of their speculative nature and their high cash cost (Swanepoel, 2009). Magma Metals Ltd. (West Perth, Western Australia, Australia) reported an open-pit indicated-inferred resource at Thunder Bay North in Ontario, Canada, of 7.33 million metric tons grading at 2.31 grams per ton (g/t) platinum and palladium. The underground resource at Thunder Bay was 850,000 metric tons at 2.89 g/t platinum and palladium. A scoping study was scheduled to begin in December 2009 (Magma Metals Ltd., 2009).

U.S. automaker General Motors Inc. (Detroit, MI) began a program in 2007 to put drivers behind the wheels of hydrogen fuel-cell-powered Chevrolet Equinoxes. The 116 cars in the program were driven more than 1 million miles by September 2009. Fuel cells in the test cars contain platinum as a catalyst and convert hydrogen to electrical power emitting only water vapor. The fuel-cell-powered cars contained a 93-kilowatt

hydrogen fuel cell and a 33-volt nickel-metal hydride battery (Consumer Reports, 2009). The German Government announced plans to build 1,000 hydrogen filling stations in Germany by 2015. Several automakers called on energy companies to build an international network of hydrogen filling stations. The automakers estimated that hundreds of thousands of fuel-cell-powered vehicles could be on the road within the next few years (Ewing, 2009).

ETF holdings of palladium reached an all-time high of 32,100 kilograms (Johnson Matthey Plc, 2009).

References Cited

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TABLE 1
PLATINUM-GROUP METALS PRICES¹

(Dollars per troy ounce)

	Platinum	Palladium	Rhodium	Iridium	Ruthenium
2008:					
Low/date	760.00 Oct. 27	167.00 Dec. 5	1,000.00 Nov. ²	400.00 Dec. ²	120.00 Dec. ²
High/date	2,275.00 Mar. 4	585.00 Mar. 4	10,100.00 Jun. 18	460.00 Aug. ²	440.00 Feb. and Mar. ²
Average	1,578.26	355.12	6,533.57	448.34	324.60
2009:					
August:					
Low/date	1,223.00/3	270.00 ²	1,650.00 ²	420.00 ²	95.00 ²
High/date	1,280.00/5 and 6	293.00/31	1,700.00 ²	420.00 ²	95.00 ²
Average	1,248.24	278.38	1,671.67	420.00	95.00
September:					
Low/date	1,213.00/2	285.00/2	1,650.00 ²	420.00 ²	95.00 ²
High/date	1,343.00/18	306.00/18	1,650.00 ²	420.00 ²	95.00 ²
Average	1,294.71	295.86	1,650.00	420.00	95.00
Year-to-date:					
Low/date	920.00 Jan. 15	182.00 Jan. ²	1,050.00 Jan. ²	420.00 Jan.–Sep. ²	75.00 Feb. ²
High/date	1,343.00 Sep. 18	306.00 Sep. 18	1,725.00 Jul. 28	430.00 Jan. ²	100.00 Jan. 2
Average	1,144.92	236.91	1,394.83	420.53	89.82

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 (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
2008	212	\$7,210	45,700	\$2,330,000	4,040	\$177,000	7,180	\$282,000	92,200	\$593,000	734	\$22,400
2009:												
June	3	97	2,810	108,000	379	13,300	687	22,900	10,100	17,400	257	10,600
July	(2)	3	2,590	98,100	218	6,680	412	10,500	8,510	44,400	80	3,100
August:												
Australia	--	--	--	--	(2)	4	--	--	--	--	(2) ³	6
Belgium	--	--	15	571	--	--	--	--	--	--	--	--
Brazil	--	--	--	--	--	--	(2)	11	59	2,190	--	--
Canada	(2)	11	--	--	--	--	39 ³	1,260	62	2,820	125	5,190
China	--	--	--	--	--	--	--	--	187	1,570	--	--
Colombia	--	--	--	--	144	4,290	--	--	18 ³	205	--	--
France	--	--	--	--	--	--	--	--	25	994	--	--
Germany	--	--	71	2,940	519	21,300	290 ³	6,990	18,400 ³	10,600	--	--
Israel	--	--	--	--	6	169	--	--	7	144	--	--
Italy	--	--	25	1,000	--	--	21	1,000	--	--	--	--
Japan	--	--	--	--	1	16	(2) ³	2	5,040 ³	3,810	--	--
Korea, Republic of	--	--	--	--	--	--	--	--	22	455	--	--
Mexico	--	--	--	--	3	88	--	--	19	1,340	--	--
Norway	--	--	48	1,820	--	--	--	--	--	--	--	--
Philippines	--	--	--	--	--	--	--	--	9	176	--	--
Russia	--	--	48	1,800	--	--	--	--	--	--	--	--
South Africa	1	19	3,480	132,000	--	--	25	983	--	--	--	--
Taiwan	--	--	--	--	--	--	--	--	35	308	--	--
United Kingdom	--	--	1,050	41,700	5	204	26	969	16	461	--	--
Other	--	--	--	--	(2)	28	2	41	1,010 ³	50	--	--
Total	1	30	4,740	181,000	679	26,100	404	11,300	24,900	25,100	125	5,190
Year to date	10	252	22,400	808,000	2,570	84,500	4,100	113,000	69,000	208,000	496	19,900

-- 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)
2008	114,000	\$1,270,000	6,810	\$85,500	2,550	\$36,600	11	\$101	49,800	\$426,000	12,600	\$2,470,000
2009:												
June	2,210	17,600	566	4,810	106	1,340	60	495	1,430	3,810	771	33,000
July	2,910	24,100	230	2,010	72	918	--	--	2,490	6,680	708	32,700
August:												
Belgium	29	230	--	--	1 ³	9	--	--	--	--	52	2,770
Canada	--	--	--	--	--	--	--	--	--	--	(4)	4
Germany	8 ³	43	175 ³	1,600	8 ³	141	--	--	109	280	69 ³	3,640
Italy	115	1,010	7	66	--	--	--	--	--	--	(4) ³	50
Japan	62	200	13 ³	112	--	--	--	--	--	--	--	--
Netherlands	--	--	--	--	52 ³	936	--	--	--	--	--	--
New Zealand	--	--	2 ³	58	--	--	--	--	--	--	--	--
Norway	439	3,950	--	--	--	--	--	--	--	--	6	257
Philippines	2 ³	4	--	--	--	--	--	--	--	--	--	--
Russia	534	4,520	539	4,810	--	--	--	--	37	99	66	3,170
South Africa	1,400	11,600	317	2,740	56	742	--	--	573	1,590	774	36,500
Switzerland	--	--	349 ³	3,180	--	--	--	--	--	--	--	--
United Kingdom	469 ³	4,160	147	1,310	86 ³	1,160	--	--	572	1,490	5	285
Total	3,060	25,800	1,550	13,900	202	2,990	--	--	1,290	3,460	974	46,700
Year to date	26,200	189,000	6,060	46,700	928	12,800	68	551	14,600	35,700	6,810	269,000

-- 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.

⁴Less than ½ unit.

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 (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
2008	15,600	\$570,000	54,700	\$1,190,000	26,400	\$197,000	6,450	\$80,600	1,980	\$302,000
2009:										
June	1,330	44,900	4,450	72,100	2,390	17,000	126	2,580	52	2,740
July	777	24,100	2,460	32,100	1,780	13,900	337	3,350	223	9,540
August:										
Australia	(4)	22	--	--	41	515	--	--	--	--
Belgium	1 ⁵	7	--	--	(4) ⁵	5	--	--	--	--
Brazil	40	1,450	--	--	--	--	--	--	--	--
Canada	30	1,110	--	--	340	2,520	1 ⁵	19	--	--
China	35	1,340	--	--	161	730	31	224	52	3,630
Denmark	47	1,680	--	--	5 ⁵	121	--	--	--	--
France	2 ⁵	37	--	--	2 ⁵	18	--	--	--	--
Germany	281 ⁵	9,840	213 ⁵	3,140	183 ⁵	1,670	79	1,150	(4) ⁵	17
Hong Kong	6 ⁵	226	--	--	61 ⁵	689	--	--	--	--
India	30	1,170	2 ⁵	16	10	68	--	--	(4) ⁵	30
Ireland	9 ⁵	308	--	--	2 ⁵	42	--	--	--	--
Israel	4 ⁵	56	--	--	197 ⁵	519	--	--	--	--
Italy	154	6,080	2	100	22 ⁵	197	2	29	--	--
Japan	17	452	28	763	240	1,960	--	--	--	--
Korea, Republic of	5	123	--	--	50 ⁵	365	--	--	--	--
Mexico	17 ⁵	625	--	--	156 ⁵	229	--	--	(4) ⁵	8
Netherlands	(4) ⁵	53	--	--	6 ⁵	35	--	--	--	--
New Zealand	--	--	--	--	8 ⁵	140	--	--	--	--
Norway	--	--	--	--	16 ⁵	223	--	--	--	--
Philippines	(4) ⁵	27	--	--	(4) ⁵	6	--	--	--	--
Singapore	(4) ⁵	5	--	--	14 ⁵	35	325	1,330	--	--
South Africa	--	--	651 ⁵	2,330	14 ⁵	27	--	--	--	--
Sweden	1 ⁵	46	--	--	1	8	--	--	--	--
Switzerland	5	129	--	--	329 ⁵	2,880	(4) ⁵	3	4	165
Taiwan	3 ⁵	121	--	--	163 ⁵	727	1	26	--	--
Thailand	(4) ⁵	74	--	--	7	75	--	--	--	--
United Kingdom	131	3,170	776	17,100	200 ⁵	1,700	10	91	--	--
Other	8 ⁵	146	--	--	32 ⁵	219	--	--	--	--
Total	826	28,300	1,670	23,400	2,260	15,700	450	2,870	57	3,850
Year to date	11,300	359,000	21,200	323,000	19,400	138,000	1,610	19,900	713	31,300

-- 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.

⁵All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.