

Supply and Demand Tables

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Supply figures are estimates of sales by the mines of primary pgm.

With the exception of the autocatalyst sector, **demand** estimates are net figures, demand in each sector being total purchases by consumers less any sales back to the market. Thus, annual totals represent the amount of primary metal that is acquired by consumers in a particular year.

From 1996, consumption in China is incorporated into our figures for the **Rest of the World** region. We continue to exclude the CIS from our demand estimates.

Movements in stocks in a given year reflect changes in stocks held by fabricators, dealers, banks and depositories but excluding stocks held by primary refiners and final consumers. A positive figure indicates an increase in stocks; a negative figure indicates a rundown in stocks.

Gross autocatalyst demand is purchases of pgm by the auto industry for manufacture of catalytic converters. **Autocatalyst recovery** is pgm recovered from scrapped catalytic converters and is allocated to the region in which the converter was scrapped.

Investment: small refers to the long-term holding of metal in the form of coins, and bars weighing 10 oz or less. **Investment: large** is in the form of 500 g and 1 kg bars in Japan and includes platinum held on account for subscribers to accumulation plans.

Platinum Supply and Demand

'000 oz	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Supply										
South Africa	3,360	3,160	3,370	3,390	3,700	3,680	3,900	3,800	4,100	4,440
Russia	680	1,010	1,280	1,220	900	1,300	540	1,100	1,300	950
North America	220	220	240	240	240	285	270	285	340	355
Others	130	140	100	130	120	135	160	105	110	135
Total Supply	4,390	4,530	4,990	4,980	4,960	5,400	4,870	5,290	5,850	5,880
Demand By Application										
Autocatalyst: gross	1,685	1,870	1,850	1,880	1,830	1,800	1,610	1,890	2,530	2,520
recovery	(255)	(290)	(320)	(350)	(370)	(405)	(420)	(470)	(530)	(570)
Chemical	180	190	215	230	235	280	320	295	285	300
Electrical	165	185	240	275	305	300	370	455	385	385
Glass	80	160	225	255	265	220	200	255	290	260
Investment: small	125	155	75	110	180	210	90	40	50	50
large	180	240	270	130	60	105	90	(100)	40	40
Jewellery	1,615	1,740	1,810	1,990	2,160	2,430	2,880	2,830	2,550	2,780
Petroleum	105	90	120	185	170	125	115	110	130	135
Other	165	190	225	255	295	305	335	375	460	470
	4,045	4,530	4,710	4,960	5,130	5,370	5,590	5,680	6,190	6,370
Western Sales to China	20	50	130	-	-	-	-	-	-	-
Total Demand	4,065	4,580	4,840	4,960	5,130	5,370	5,590	5,680	6,190	6,370
Movements in Stocks	325	(50)	150	20	(170)	30	(720)	(390)	(340)	(490)
	4,390	4,530	4,990	4,980	4,960	5,400	4,870	5,290	5,850	5,880
Demand By Region										
Europe	895	935	880	840	875	910	995	1,150	1,500	1,675
Japan	1,975	2,145	2,215	2,005	1,885	1,795	1,820	1,410	1,280	1,365
North America	760	940	1,015	1,180	1,250	1,325	1,080	1,225	1,290	995
Rest of the World	415	510	600	935	1,120	1,340	1,695	1,895	2,120	2,335
	4,045	4,530	4,710	4,960	5,130	5,370	5,590	5,680	6,190	6,370
Western Sales to China	20	50	130	-	-	-	-	-	-	-
Total Demand	4,065	4,580	4,840	4,960	5,130	5,370	5,590	5,680	6,190	6,370



Platinum Demand by Application: Regions

'000 oz	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Europe										
Autocatalyst: gross	610	605	560	515	510	545	560	680	1,065	1,250
recovery	(5)	(10)	(15)	(20)	(25)	(30)	(30)	(40)	(70)	(90)
Chemical	40	50	55	60	70	60	80	100	95	105
Electrical	20	25	25	25	45	45	70	80	65	65
Glass	15	30	35	40	20	25	20	20	15	10
Investment: small	25	45	10	5	5	5	5	0	0	0
Jewellery	105	100	120	125	150	160	185	190	170	170
Petroleum	25	25	15	15	15	15	15	15	15	15
Other	60	65	75	75	85	85	90	105	145	150
Totals	895	935	880	840	875	910	995	1,150	1,500	1,675
Japan										
Autocatalyst: gross	320	290	270	245	255	240	250	290	345	410
recovery	(50)	(45)	(40)	(50)	(50)	(55)	(60)	(60)	(55)	(60)
Chemical	15	15	20	20	20	20	20	20	25	30
Electrical	45	45	45	45	65	55	75	90	80	80
Glass	30	80	105	80	85	80	65	65	85	80
Investment: small	55	40	35	25	25	25	20	5	5	5
large	180	240	270	130	60	105	90	(100)	40	40
Jewellery	1,350	1,450	1,480	1,480	1,390	1,290	1,320	1,060	710	735
Petroleum	10	5	5	5	5	5	5	5	5	5
Other	20	25	25	25	30	30	35	35	40	40
Totals	1,975	2,145	2,215	2,005	1,885	1,795	1,820	1,410	1,280	1,365
North America										
Autocatalyst: gross	600	790	820	850	800	775	535	620	795	480
recovery	(200)	(230)	(260)	(275)	(290)	(310)	(315)	(350)	(370)	(380)
Chemical	75	65	70	80	80	80	95	100	100	85
Electrical	65	75	115	130	100	105	120	145	120	120
Glass	15	20	25	30	45	20	25	50	30	35
Investment: small	40	65	25	75	145	175	60	35	45	45
Jewellery	45	55	65	90	160	270	330	380	280	310
Petroleum	40	5	40	60	50	40	40	35	40	45
Other	80	95	115	140	160	170	190	210	250	255
Totals	760	940	1,015	1,180	1,250	1,325	1,080	1,225	1,290	995
Rest of the World										
Autocatalyst: gross	155	185	200	270	265	240	265	300	325	380
recovery	0	(5)	(5)	(5)	(5)	(10)	(15)	(20)	(35)	(40)
Chemical	50	60	70	70	65	120	125	75	65	80
Electrical	35	40	55	75	95	95	105	140	120	120
Glass	20	30	60	105	115	95	90	120	160	135
Investment: small	5	5	5	5	5	5	5	0	0	0
Jewellery	115	135	145	295	460	710	1,045	1,200	1,390	1,565
Petroleum	30	55	60	105	100	65	55	55	70	70
Other	5	5	10	15	20	20	20	25	25	25
Totals	415	510	600	935	1,120	1,340	1,695	1,895	2,120	2,335

Palladium Supply and Demand

'000 oz	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Supply										
South Africa	1,395	1,500	1,600	1,690	1,810	1,820	1,870	1,860	2,010	2,190
Russia	2,400	3,300	4,200	5,600	4,800	5,800	5,400	5,200	4,340	1,600
North America	415	410	470	455	545	660	630	635	830	970
Others	70	70	70	95	95	120	160	105	120	150
Total Supply	4,280	5,280	6,340	7,840	7,250	8,400	8,060	7,800	7,300	4,910
Demand By Application										
Autocatalyst: gross	705	975	1,800	2,360	3,200	4,890	5,880	5,640	5,090	3,160
recovery	(100)	(105)	(110)	(145)	(160)	(175)	(195)	(230)	(280)	(370)
Chemical	190	185	210	240	240	230	240	255	255	255
Dental	1,210	1,265	1,290	1,320	1,350	1,230	1,110	820	720	730
Electronics	2,015	2,230	2,620	2,020	2,550	2,075	1,990	2,160	710	750
Jewellery	210	205	200	215	260	235	235	255	230	265
Other	35	115	110	140	140	115	110	60	65	90
Total Demand	4,265	4,870	6,120	6,150	7,580	8,600	9,370	8,960	6,790	4,880
Movements in Stocks	15	410	220	1,690	(330)	(200)	(1,310)	(1,160)	510	30
	4,280	5,280	6,340	7,840	7,250	8,400	8,060	7,800	7,300	4,910
Demand By Region										
Europe	680	885	1,340	1,525	1,840	1,985	2,095	2,410	2,005	1,640
Japan	1,990	2,200	2,445	1,885	2,350	2,215	2,205	2,105	1,380	1,300
North America	1,295	1,430	1,960	2,185	2,675	3,690	4,255	3,445	2,525	970
Rest of the World	300	355	375	555	715	710	815	1,000	880	970
Total Demand	4,265	4,870	6,120	6,150	7,580	8,600	9,370	8,960	6,790	4,880



Palladium Demand by Application: Regions

'000 oz	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Europe										
Autocatalyst: gross	115	260	650	860	1,100	1,370	1,530	1,900	1,730	1,410
recovery	0	0	0	(5)	(5)	(5)	(10)	(15)	(30)	(45)
Chemical	65	60	65	65	70	65	65	95	70	70
Dental	265	255	250	255	260	210	180	100	50	45
Electronics	210	255	325	300	340	270	255	265	130	110
Jewellery	35	30	30	30	50	50	50	45	35	35
Other	(10)	25	20	20	25	25	25	20	20	15
Totals	680	885	1,340	1,525	1,840	1,985	2,095	2,410	2,005	1,640
Japan										
Autocatalyst: gross	90	125	145	180	245	480	600	510	505	490
recovery	(30)	(30)	(25)	(30)	(45)	(50)	(55)	(50)	(40)	(40)
Chemical	20	20	20	20	20	20	20	20	20	20
Dental	500	550	580	600	620	590	545	470	470	480
Electronics	1,280	1,400	1,600	990	1,390	1,060	980	990	275	170
Jewellery	120	120	115	115	110	105	105	150	140	170
Other	10	15	10	10	10	10	10	15	10	10
Totals	1,990	2,200	2,445	1,885	2,350	2,215	2,205	2,105	1,380	1,300
North America										
Autocatalyst: gross	450	525	950	1,230	1,680	2,820	3,490	2,805	2,375	760
recovery	(70)	(75)	(85)	(110)	(105)	(115)	(125)	(155)	(200)	(260)
Chemical	65	60	70	70	70	70	75	65	75	75
Dental	400	410	410	410	415	390	350	230	190	195
Electronics	420	450	545	490	550	460	405	485	70	155
Jewellery	5	5	5	5	10	10	10	10	0	0
Other	25	55	65	90	55	55	50	5	15	45
Totals	1,295	1,430	1,960	2,185	2,675	3,690	4,255	3,445	2,525	970
Rest of the World										
Autocatalyst: gross	50	65	55	90	175	220	260	425	480	500
recovery	0	0	0	0	(5)	(5)	(5)	(10)	(10)	(25)
Chemical	40	45	55	85	80	75	80	75	90	90
Dental	45	50	50	55	55	40	35	20	10	10
Electronics	105	125	150	240	270	285	350	420	235	315
Jewellery	50	50	50	65	90	70	70	50	55	60
Other	10	20	15	20	50	25	25	20	20	20
Totals	300	355	375	555	715	710	815	1,000	880	970



Rhodium Supply and Demand

'000 oz	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Supply										
South Africa	278	330	342	359	377	400	410	457	452	483
Russia	80	80	80	110	240	110	65	290	125	65
North America	17	15	13	5	16	16	18	17	23	26
Others	1	1	1	2	3	4	8	3	4	7
Total Supply	376	426	436	476	636	530	501	767	604	581
Demand By Application										
Autocatalyst: gross	356	379	464	424	418	483	509	793	567	574
recovery	(25)	(34)	(37)	(45)	(49)	(57)	(65)	(79)	(89)	(99)
Chemical	11	10	13	21	36	31	34	39	44	40
Electrical	9	8	8	9	9	6	6	7	6	6
Glass	3	14	17	53	43	34	35	42	39	37
Other	12	11	9	9	10	10	9	10	10	10
Total Demand	366	388	474	471	467	507	528	812	577	568
Movements in Stocks	10	38	(38)	5	169	23	(27)	(45)	27	13
	376	426	436	476	636	530	501	767	604	581
Demand By Region										
Europe	127	129	139	154	165	175	178	199	201	205
Japan	68	68	59	64	70	75	84	153	109	142
North America	127	139	224	170	137	177	167	332	133	83
Rest of the World	44	52	52	83	95	80	99	128	134	138
Total Demand	366	388	474	471	467	507	528	812	577	568

