

# South African Platinum Sector

## Back In Balance, But Hold Your Horses

Even though illegal strikes and mine and project closures have resulted in a balanced to deficit medium-term outlook, we highlight three reasons why a sustained beta-recovery is unlikely for the sector. Maintain preference for IMP (Buy). AMS (Sell) is our least favoured.

- **Market in balance** — We have updated our supply/demand outlook for platinum and now expect a balanced market during 2012-14, and deficit from 2015 onwards. This contrast to our long-held surplus market outlook. The change in outlook was mainly due to lower supply from SA, which in turn was due to a combination of illegal strike action, mine closures and capex delays.
- **Calling the bottom** — We believe SA platinum equities offer deep value on a P/BV basis (refer [Value Has Emerged, But Patience Required](#)), something well justified by 15-year low ROIC's. With the market back in balance, we do not expect multiples to go any lower and see upside in margins and valuations from here.
- **But upside will be capped** — We caution, however, that a sustained re-rating in margins and valuations may take longer this time around compared to previous occasions when margins and P/BV's reached their lows. This is as 1) previous P/BV and ROIC lows were achieved in predominantly deficit markets, compared to the past three-year's surpluses, 2) recently mothballed mines and projects can come back on stream when prices recover, and 3) auto catalyst recycling has become a more prominent and responsive driver of supply. The last two will likely put a cap on a sustained increase in prices and margins in the medium term.
- **Boring is better: Maintain preference for IMP** — As a result, we continue to prefer the less leveraged, quality companies rather than the leveraged ones. IMP (Buy) remain our preferred pick. AMS (Sell) and LON (Neutral) may see temporary margin expansion, but we question the sustainability given our argument above. *Company sections from page 21 onward are excerpts from recent notes that summarise our investment thesis on each company.*
- **SA labour issues a key downside risk** — In addition to the three issues mentioned above, continuing labour and union problems in SA remains a key downside risk to any meaningful pick-up in valuations in the near to medium term.

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Company	Ticker	Rating		Target Price		Current Year Earnings Estimates	
		Old	New	Old	New	Old	New
Anglo Amer Platinum	AMSJ.J	3	3	R400.00	R400.00	ZA¢365	ZA¢365
Aquarius Platinum	AQP.L	2	2	£0.40	£0.40	US¢2.3	US¢2.3
Impala Platinum	IMPJ.J	1	1	R180.00	R180.00	R8.98	R8.98
Lonmin	LMI.L	2	2	£6.53	£6.53	US¢1.2	US¢1.2
Northam Platinum	NHMJ.J	1	1	R36.00	R36.00	ZA¢121	ZA¢121
Royal Bafokeng	RBPJ.J	3	3	R45.00	R45.00	ZA¢100	ZA¢100

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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## Summary

Recent mine closures, capex delays and strike action in SA has eliminated 300k ounces and 400k ounces in supply for 2012 and 2013 respectively. This has largely eliminated our surplus outlook for platinum and we now forecast a balanced market for 2012-14, and a deficit market thereafter.

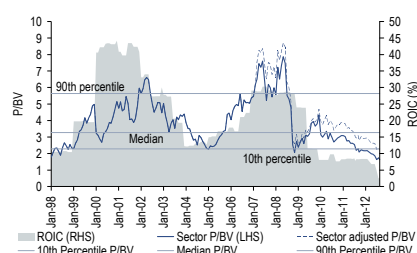
This, together with 15-year low P/BV and ROIC multiples suggest to us that the downside for the sector is now limited. We do expect an increase in P/BV and ROIC ratios from here.

Having said this, we expect the upside to be capped. This is mainly due to:

- **Cumulative surpluses:** We estimate that 1.2m ounces of surpluses were accumulated over the past three years. Destocking may put a cap on sustained higher prices in the near to medium term.
- **Supply side response vs. demand side pull:** Our newly forecast balance market is as a result of supply side response. Mothballed mines and projects can come back online when prices improve.
- **Recycling:** Recycling has become a more prominent and responsive source of supply. It formed 7% of demand in 2000, 18% in 2012. We expect this to continue to grow to 23% of demand by 2020.

As a result, we do not expect a beta-recovery for the sector, yet. In order to achieve a beta recovery, one needs a demand-side pull; something we continue to view as unlikely in the next 12 months. We continue to least prefer the leverage plays, especially AMS (Sell). We maintain our preference for unleveraged quality plays like IMP (Buy) and NHM (Buy).

Figure 1. Platinum sector historical P/BV and ROIC (adjusted)



Source: Citi Research

Figure 2. Citi mining valuation comparatives sheet (calendarised)

	RIC codes	Rating	Curr. price	TP	CY12e DY (%)	ETR (%)	Current P/DCF	P/E			EV/EBITDA			FCF yield (%)	
								2011	2012e	2013e	2011	2012e	2013e	2011	2012e
Rio Tinto	RIO.L	Buy	GBP 30.70	39.00	3.6	30.6	0.6	5.9	10.0	8.1	2.9	4.6	3.7	9.6	-4.9
Impala Platinum	IMP.J.J	Buy	ZAR 140.20	180.00	1.8	30.2	0.7	13.9	17.5	14.5	6.6	8.5	7.2	-0.2	1.0
Barrick gold	ABX.N	Buy	USD 39.46	50.00	1.9	28.6	1.1	8.5	9.7	8.5	5.9	7.4	6.2	0.9	-5.4
African Rainbow	ARIJ.J	Buy	ZAR 159.00	190.00	3.3	22.8	0.8	8.8	11.6	12.2	3.8	4.7	4.7	1.8	1.7
Exxaro	EXXJ.J	Buy	ZAR 160.28	180.00	5.4	17.7	0.8	7.0	8.3	8.2	10.1	11.8	12.4	12.8	0.0
Northam	NHMJ.J	Buy	ZAR 30.93	36.00	0.3	16.7	0.9	32.1	30.2	18.6	17.8	15.2	9.7	-7.6	-13.6
BHP Billiton	BLT.L	Buy	GBP 19.19	21.00	3.8	13.2	0.8	8.5	11.0	11.1	5.0	6.0	6.0	8.2	3.3
Lonmin	LMIL	Neutral	GBP 6.11	6.53	0.1	7.0	1.0	12.7	152.2	42.4	3.6	7.5	6.7	-9.9	-8.2
Aquarius	AQP.L	Neutral	GBP 0.38	0.40	0.0	4.9	0.8	16.4	-11.5	15.0	3.1	11.4	5.2	-12.1	5.1
Anglo American	AAL.L	Neutral	GBP 19.55	20.00	2.6	4.9	0.5	6.5	13.4	10.3	3.8	5.7	4.4	8.6	0.0
AngloGold Ashanti	ANGJ.J	Neutral	ZAR 281.39	290.00	1.5	4.6	1.7	10.2	10.8	10.7	5.0	5.3	4.8	10.0	4.5
Newcrest	NCM.AX	Neutral	AUD 26.47	26.00	1.5	-0.3	1.1	18.0	18.6	14.0	10.2	9.8	7.6	-3.3	-2.8
Newmont	NEM.N	Neutral	USD 52.00	49.00	2.6	-3.2	1.2	12.1	14.1	12.1	9.5	7.3	6.8	3.0	-2.2
Anglo Platinum	AMSJ.J	Sell	ZAR 435.10	400.00	0.0	-8.1	1.2	28.2	117.4	48.6	8.1	21.4	14.5	4.5	-0.2
RBPlat	RBPJ.J	Sell	ZAR 49.03	45.00	0.0	-8.2	1.3	25.9	48.2	33.2	9.4	14.5	11.6	-1.5	-4.2
Gold fields	GFIJ.J	Sell	ZAR 105.11	90.00	2.8	-11.6	1.8	9.2	10.4	10.7	3.8	4.5	4.3	8.3	7.4
Assore	ASRJ.J	Sell	ZAR 310.00	260.00	2.9	-13.3	1.2	8.9	10.5	12.4	6.4	8.0	9.2	5.0	7.2
Harmony	HARJ.J	Sell	ZAR 70.57	55.00	1.0	-21.1	1.7	16.7	16.2	19.0	8.6	6.6	5.7	0.6	4.7
Kumba Iron Ore	KIOJ.J	Sell	ZAR 496.93	350.00	7.2	-22.4	1.1	8.3	12.0	10.4	4.4	6.2	5.7	13.8	9.9
Randgold	RRSL	Sell	GBP 69.50	50.30	1.0	-26.7	1.3	27.4	20.6	15.6	17.0	13.0	9.5	1.1	0.0

Source: Powered by dataCentral, priced as at 12/09/2012

## Back in Balance

Recent mine closures, capex delays and strike action in SA has eliminated 300k and 400k ounces in supply for 2012 and 13 respectively. This has largely eliminated our surplus outlook for platinum and we now forecast a balanced market for 2012-14, deficit thereafter.

### Platinum market in balance in 2012-14, deficit thereafter

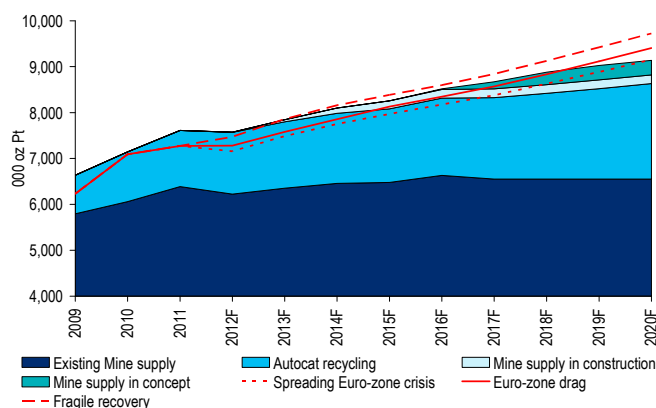
**Strikes, mine closures and project delays have pushed the platinum market in balance**

We have updated our supply/demand outlook for platinum and now expect a balanced market during FY12-14 and deficit from FY15 onwards. This contrasts to our previous 200-400k ounce p.a. surplus outlook for platinum. The change in our outlook was mainly due to lower supply from SA, which in turn was due to a combination of illegal strike action, mine closures and capex delays.

Excluding strikes, the impact of mine closures and capital delays have decreased SA's 2012-14 mine supply outlook by ~400k ounces p.a. since the start of the year. Strikes have thus far resulted in c.220k ounces of lost production in 2012.

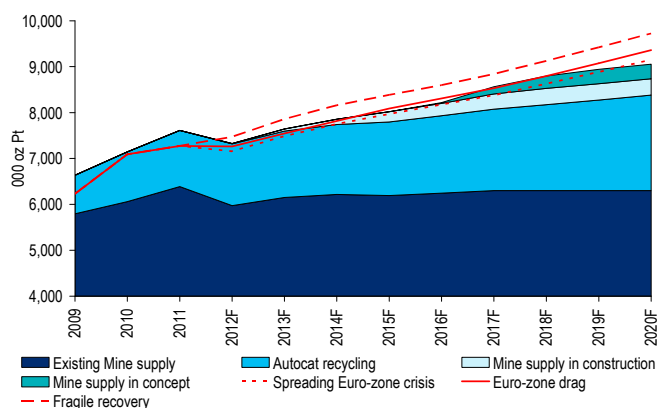
Our demand side outlook for platinum remains largely unchanged, with minor downgrades to our already depressed WE auto demand expectations. It is worth highlighting that this is the first time since October 2010 that we do not forecast a surplus market for platinum (refer [The Platinum-Palladium Dichotomy](#)).

Figure 3. Platinum supply-demand profile (old)



Source: Johnson Matthey, Citi Research

Figure 4. Platinum supply-demand profile (new)



Source: Johnson Matthey, Citi Research

Figure 5. Changes to our platinum supply outlook (000 ounces)

	2011	2012F	2013F	2014F	2015F
<b>Supply (000 ounces)</b>					
Southern Africa - New	5,195	4,719	4,896	5,067	5,192
Southern Africa - Old	5,195	4,967	5,097	5,312	5,427
% change	0.0%	-5.0%	-3.9%	-4.6%	-4.3%
Russia - New	835	815	798	767	752
Russia - Old	835	815	798	767	752
% change	0.0%	0.0%	0.0%	0.0%	0.0%
North America - New	350	325	381	376	371
North America - Old	350	325	381	376	371
% change	0.0%	0.0%	0.0%	0.0%	0.0%
Total mine supply - New	6,480	5,979	6,195	6,330	6,434
Total mine supply - Old	6,480	6,227	6,396	6,575	6,669
% change	0.0%	-4.0%	-3.1%	-3.7%	-3.5%
<b>Surplus/(Deficit) - New</b>	<b>430</b>	<b>63</b>	<b>98</b>	<b>36</b>	<b>-50</b>
<b>Surplus/(Deficit) - Old</b>	<b>430</b>	<b>293</b>	<b>264</b>	<b>243</b>	<b>141</b>
<b>% change</b>	<b>0.0%</b>	<b>-78.4%</b>	<b>-63.1%</b>	<b>-85.2%</b>	<b>-135.6%</b>

Source: Johnson Matthey, Citi Research

(Figure 6. CitiE Platinum supply-demand outlook (000 ounces)

	2007	2008	2009	2010	2011	2012F	2013F	2014F	2015F
<b>Demand</b>									
Auto catalysts									
Europe	2055	1970	970	1495	1465	1320	1325	1390	1443
North America	850	505	370	405	380	440	448	491	509
China	175	145	85	100	110	121	131	140	148
Japan	610	610	395	550	500	652	618	614	610
Rest of the world	455	420	365	525	650	696	726	756	780
<b>Total</b>	<b>4145</b>	<b>3650</b>	<b>2185</b>	<b>3075</b>	<b>3105</b>	<b>3229</b>	<b>3249</b>	<b>3391</b>	<b>3491</b>
<b>Jewellery</b>									
Europe	200	205	185	175	175	184	193	197	200
North America	225	200	135	175	185	194	204	210	216
China	1070	1060	2080	1650	1680	1764	1852	1908	1965
Japan	540	530	335	325	315	302	293	293	311
Rest of the world	75	65	75	90	125	123	120	120	123
Jewellery recycled	655	695	565	735	820	726	668	659	659
<b>Net jewellery demand</b>	<b>1455</b>	<b>1365</b>	<b>2245</b>	<b>1680</b>	<b>1660</b>	<b>1841</b>	<b>1995</b>	<b>2069</b>	<b>2156</b>
<b>Investment</b>									
Europe	195	105	385	140	155	16	43	37	37
North America	30	60	105	465	10	21	27	23	23
Japan	-60	385	160	45	250	25	40	28	28
Rest of the world	5	5	10	5	45	27	30	32	32
<b>Total</b>	<b>170</b>	<b>555</b>	<b>660</b>	<b>655</b>	<b>460</b>	<b>89</b>	<b>141</b>	<b>120</b>	<b>120</b>
<b>Industrial</b>									
Europe	350	335	290	326	398	408	419	435	451
North America	420	380	250	370	452	463	476	493	511
China	295	205	0	200	244	250	257	266	276
Japan	225	210	160	205	250	256	263	272	283
Rest of the world	555	595	440	580	707	725	745	772	800
<b>Total</b>	<b>1845</b>	<b>1725</b>	<b>1140</b>	<b>1681</b>	<b>2050</b>	<b>2103</b>	<b>2160</b>	<b>2238</b>	<b>2321</b>
<b>Total platinum demand</b>	<b>7615</b>	<b>7295</b>	<b>6230</b>	<b>7091</b>	<b>7275</b>	<b>7262</b>	<b>7544</b>	<b>7818</b>	<b>8087</b>
<b>Supply</b>									
<b>Mine supply</b>									
Southern Africa	5240	4695	4865	4915	5195	4719	4896	5067	5192
Russia	915	805	785	825	835	815	798	767	752
North America	325	325	260	210	350	325	381	376	371
Rest of world	120	115	115	110	100	120	120	120	120
<b>Total</b>	<b>6600</b>	<b>5940</b>	<b>6025</b>	<b>6060</b>	<b>6480</b>	<b>5979</b>	<b>6195</b>	<b>6330</b>	<b>6435</b>
<b>Auto catalyst recycling</b>									
Europe	215	385	299	375	445	417	450	468	487
North America	605	630	421	580	640	707	750	780	811
China	10	15	23	10	10	62	74	89	102
Japan	35	60	54	65	60	90	97	105	113
Rest of the world	70	45	44	55	70	70	76	82	89
<b>Total</b>	<b>935</b>	<b>1135</b>	<b>840</b>	<b>1085</b>	<b>1225</b>	<b>1346</b>	<b>1447</b>	<b>1524</b>	<b>1602</b>
<b>Total platinum supply</b>	<b>7535</b>	<b>7075</b>	<b>6865</b>	<b>7145</b>	<b>7705</b>	<b>7326</b>	<b>7642</b>	<b>7854</b>	<b>8037</b>
<b>Supply-demand surplus/(deficit)</b>	<b>-80</b>	<b>-220</b>	<b>635</b>	<b>54</b>	<b>430</b>	<b>63</b>	<b>98</b>	<b>36</b>	<b>-50</b>

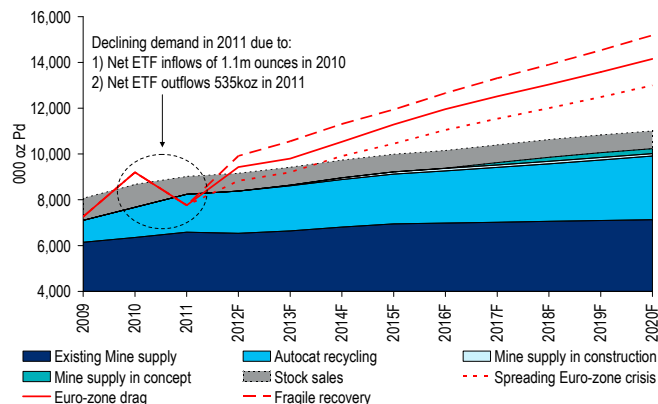
Source: Johnson Matthey, Citi Research

## Bullish outlook for palladium remain

### Growing deficit outlook for palladium maintained

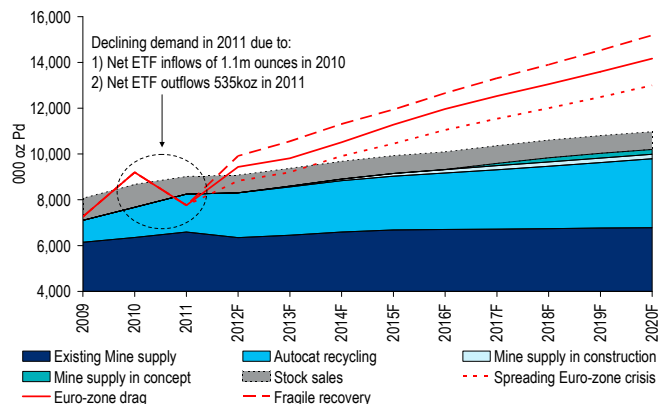
Our updated supply/demand outlook for palladium continues to suggest a growing deficit market. However, SA supply cuts have been somewhat offset by a lowered auto production outlook for China. Still, we forecast a 468k ounce deficit in 2012, rising to 579k ounces and 1,002k ounces in 2013 and 2014 respectively.

Figure 7. Palladium supply-demand profile (old)



Source: Johnson Matthey, Citi Research

Figure 8. Palladium supply-demand profile (new)



Source: Johnson Matthey, Citi Research

Figure 9. Changes to our palladium supply outlook (000 ounces)

	2011	2012F	2013F	2014F	2015F
<b>Supply (000 ounces)</b>					
Southern Africa - New	2,825	2,675	2,785	2,853	2,922
Southern Africa - Old	2,825	2,867	2,971	3,074	3,165
% change	0.0%	-6.7%	-6.3%	-7.2%	-7.7%
Russia - New	2,705	2,700	2,650	2,650	2,650
Russia - Old	2,705	2,700	2,650	2,650	2,650
% change	0.0%	0.0%	0.0%	0.0%	0.0%
North America - New	900	795	870	980	1,050
North America - Old	900	795	870	980	1,050
% change	0.0%	0.0%	0.0%	0.0%	0.0%
Rest of world - New	155	180	180	180	180
Rest of world - Old	155	180	180	180	180
% change	0.0%	0.0%	0.0%	0.0%	0.0%
Total mine supply - New	6,585	6,350	6,485	6,663	6,802
Total mine supply - Old	6,585	6,542	6,671	6,884	7,045
% change	0.0%	-2.9%	-2.8%	-3.2%	-3.4%
Russian stock piles - New	775	775	775	775	775
Russian stock piles - Old	775	775	775	775	775
% change	0.0%	0.0%	0.0%	0.0%	0.0%
Autocatalyst Recycling - New	1,655	1,844	1,974	2,072	2,173
Autocatalyst Recycling - Old	1,655	1,844	1,974	2,072	2,173
% change	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Surplus/(Deficit) - New</b>	<b>1,255</b>	<b>-468</b>	<b>-579</b>	<b>-1,002</b>	<b>-1,530</b>
<b>Surplus/(Deficit) - Old</b>	<b>1,255</b>	<b>-271</b>	<b>-378</b>	<b>-799</b>	<b>-1,291</b>
<b>% change</b>	<b>0.0%</b>	<b>73.1%</b>	<b>53.4%</b>	<b>25.4%</b>	<b>18.5%</b>

Source: Johnson Matthey, Citi Research

Figure 10. CitiE Palladium supply-demand outlook (000 ounces)

	2007	2008	2009	2010	2011	2012F	2013F	2014F	2015F
<b>Demand</b>									
<b>Auto catalysts</b>									
Europe	920	1005	995	1330	1440	1424	1530	1646	1869
North America	1695	1290	1020	1355	1475	1711	1756	2036	2185
China	325	390	685	1005	1115	1370	1552	1675	1878
Japan	820	885	590	820	665	806	784	777	776
Rest of the world	785	895	760	1070	1335	1498	1611	1723	1821
<b>Total</b>	<b>4545</b>	<b>4465</b>	<b>4050</b>	<b>5580</b>	<b>6030</b>	<b>6809</b>	<b>7233</b>	<b>7858</b>	<b>8528</b>
<b>Jewellery</b>									
Europe	40	45	50	65	60	63	66	67	69
North America	55	60	60	65	45	47	50	51	53
China	705	740	560	360	305	320	336	346	357
Japan	125	115	80	75	70	67	65	65	69
Rest of the world	25	25	25	30	25	25	24	24	25
Jewellery recycled	235	130	70	100	210	245	236	223	210
<b>Net jewellery demand</b>	<b>715</b>	<b>855</b>	<b>705</b>	<b>495</b>	<b>295</b>	<b>277</b>	<b>305</b>	<b>331</b>	<b>362</b>
<b>Investment</b>									
Europe	280	370	525	-5	-35	77	65	52	47
North America	-20	50	95	1090	-535	214	96	82	74
Japan	0	0	0	10	5	8	6	6	6
Rest of the world	0	0	5	0	0	0	0	0	0
<b>Total</b>	<b>260</b>	<b>420</b>	<b>625</b>	<b>1095</b>	<b>-565</b>	<b>299</b>	<b>167</b>	<b>140</b>	<b>126</b>
<b>Industrial</b>									
Europe	465	375	345	366	361	371	381	395	409
North America	565	515	480	503	496	509	523	542	562
China	435	320	320	312	308	316	325	337	349
Japan	635	625	610	610	602	618	635	658	682
Rest of the world	540	585	525	571	564	579	594	616	638
<b>Total</b>	<b>2325</b>	<b>2075</b>	<b>1885</b>	<b>2025</b>	<b>2000</b>	<b>2052</b>	<b>2107</b>	<b>2183</b>	<b>2264</b>
<b>Total palladium demand</b>	<b>7845</b>	<b>7815</b>	<b>7265</b>	<b>9195</b>	<b>7760</b>	<b>9437</b>	<b>9813</b>	<b>10512</b>	<b>11280</b>
<b>Supply</b>									
<b>Mine supply</b>									
Southern Africa	2900	2570	2550	2860	2825	2675	2785	2853	2922
Russia	3050	2700	2675	2720	2705	2700	2650	2650	2650
North America	990	910	755	590	900	795	870	980	1050
Rest of world	150	170	160	185	155	180	180	180	180
<b>Total</b>	<b>7090</b>	<b>6350</b>	<b>6140</b>	<b>6355</b>	<b>6585</b>	<b>6350</b>	<b>6485</b>	<b>6663</b>	<b>6802</b>
<b>Stock sales</b>									
Russia	1490	960	960	1000	775	775	775	775	775
<b>Total stock sales</b>	<b>1490</b>	<b>960</b>	<b>960</b>	<b>1000</b>	<b>775</b>	<b>775</b>	<b>775</b>	<b>775</b>	<b>775</b>
<b>Auto catalyst recycling</b>									
Europe	300	310	330	335	385	373	403	419	436
North America	35	75	55	80	70	84	91	98	106
China	590	660	480	790	1050	1208	1280	1331	1384
Japan	20	30	35	30	35	53	63	76	87
Rest of the world	70	65	65	75	115	127	137	148	159
<b>Total</b>	<b>1015</b>	<b>1140</b>	<b>965</b>	<b>1310</b>	<b>1655</b>	<b>1844</b>	<b>1974</b>	<b>2072</b>	<b>2173</b>
<b>Total palladium supply</b>	<b>9595</b>	<b>8450</b>	<b>8065</b>	<b>8665</b>	<b>9015</b>	<b>8969</b>	<b>9234</b>	<b>9510</b>	<b>9750</b>
<b>Supply-demand surplus/(deficit)</b>	<b>1750</b>	<b>635</b>	<b>800</b>	<b>-530</b>	<b>1255</b>	<b>-468</b>	<b>-579</b>	<b>-1002</b>	<b>-1531</b>

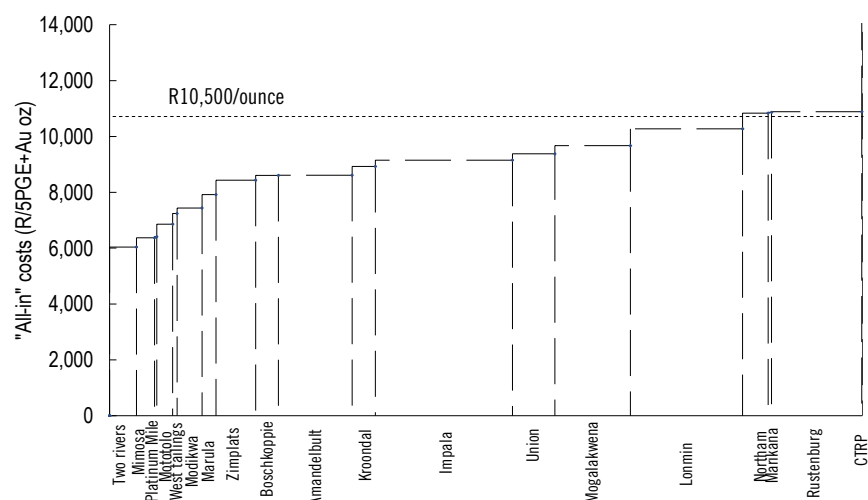
Source: Johnson Matthey, Citi Research

## Price outlook remains unchanged

With the market now in balance, we expect PGM prices to increase in line with our forecasts and to incentivise the 80<sup>th</sup> to 90<sup>th</sup> percentile of the “all-in” cost curve.



Figure 11. 2HCY12 All-in platinum cost curve (R/6E)



Source: Citi Research

**Destocking may cap a sustained re rating  
in the platinum price**

However, we caution that any significant re rating in prices (and margins) over and above our forecasts might be capped by destocking in the medium term. This is as we calculate a cumulative surplus (post investment demand) of 1.2m ounces Pt from 2009-2011.

Even though it is unclear where the surplus material went, we think it is likely that autocatalyst manufacturers may have increased stock levels during the low price environment.

As a result, our pricing outlook for platinum and palladium remains unchanged. We continue to expect the rand basket price (4E) to average R10,431/ounce in 2012 rising 9% to R11,342/ounce in 2013.

Figure 12. Citi input price assumptions

December year end	FY09	FY10	FY11	FY12e	FY13e	FY14e	FY15e	FY16e	LT real	LT Nominal
<b>US\$/oz</b>										
Platinum price	1,173	1,610	1,722	1,534	1,565	1,650	1,700	1,750	1,500	1,722
Palladium price	246	525	734	660	700	800	850	775	600	689
Rhodium price	1,444	2,678	2,000	1,336	1,250	1,350	1,500	1,800	2,250	2,582
Gold price	960	1,226	1,585	1,645	1,695	1,655	1,540	1,350	1,050	1,205
3PGE+Au basket price	907	1,348	1,441	1,409	1,483	1,513	1,526	1,494	1,295	1,486
ZAR/USD exchange rate	8.37	7.33	7.23	8.27	8.81	8.92	9.27	9.64	10.00	10.00
<b>R/oz</b>										
Platinum price	9,812	11,808	12,450	12,686	13,788	14,718	15,759	16,870	15,000	17,220
Palladium price	2,054	3,851	5,307	5,458	6,167	7,136	7,880	7,471	6,000	6,890
Rhodium price	12,077	19,633	14,460	11,049	11,013	12,042	13,905	17,352	22,500	25,820
Gold price	8,028	8,993	11,460	13,604	14,933	14,763	14,276	13,014	10,500	12,050
3PGE+Au basket price	7,589	9,884	10,418	10,431	11,342	12,257	13,221	13,968	12,690	14,568

Source: I-net, Bloomberg, Citi Research



## Calling the Bottom

A balanced market, together with 15-year low P/BV and ROIC multiples, suggest to us that the downside for the sector is now limited. We expect an increase in P/BV and ROIC ratios from here.

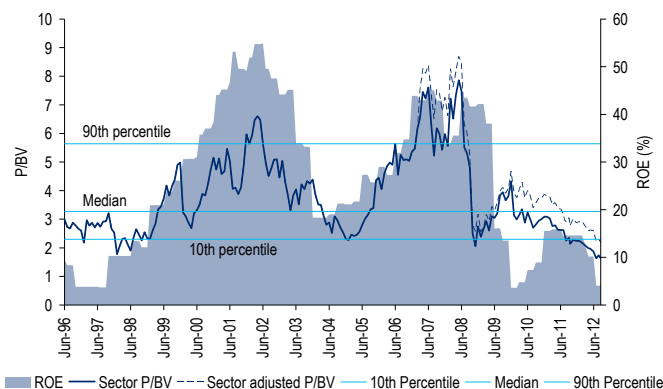
### ROE's, ROIC's and P/BV's at 15-year lows

15-year low P/BV's and a balanced market suggest valuations may have bottomed

As highlighted in our recent note [Value Has Emerged, But Patience Required](#), 23 May 2012, we believe SA platinum equities offer "deep value" on a P/BV basis, even after adjusting for the inflationary effect of equity raisings and rights issues on Book Values (see Appendixes I and II for detail). These low P/BV's are well justified by 15-year low ROICs in our view.

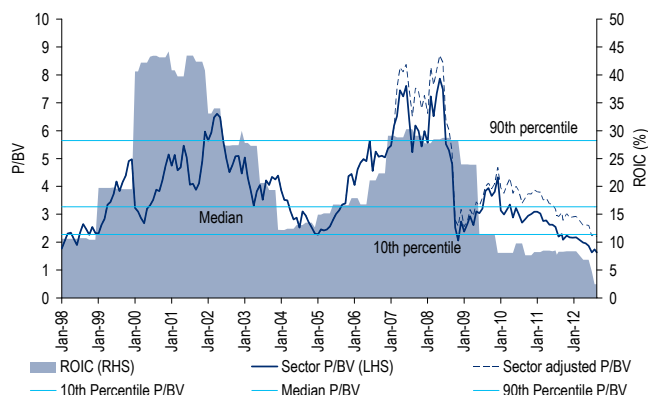
With the market now back in balance, we find it difficult to see how these multiples could get any lower and expect upside in margins and valuations from here.

Figure 13. Platinum sector historical "adjusted" P/BV and ROE



Source: INET, Bloomberg, Citi Research

Figure 14. Platinum sector historical "adjusted" P/BV and ROIC

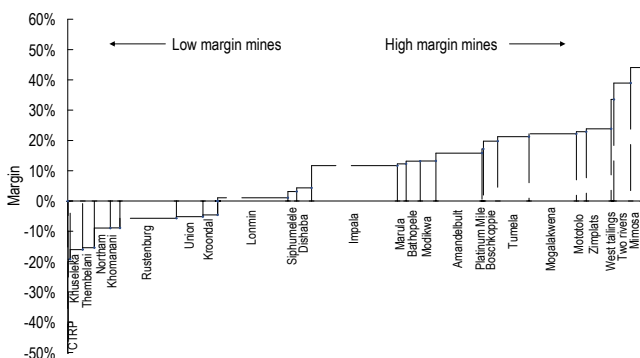


Source: INET, Bloomberg, Citi Research

The recent rally in PGM prices has provided some relief

Prices have already rallied 11% from R9,400/ounce (4E) to R10,450/ounce since the middle of August and following the tragic developments at LON's Marikana mine on 16 August 2012 (refer: [Lonmin – Ongoing Labour Challenges](#), 17 August). This rally has provided some relief for PGM producers. At the start of August 2012, we estimate that 30% of the industry was cash-burning after capex (Figure 15).

Figure 15. 2HCY12 FCF margin chart at spot less 10%\* (% , 6E)\*\*

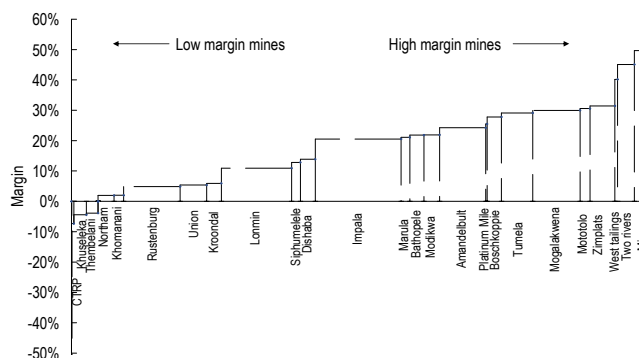


Source: Company reports, Citi Research

\* Basket price: R9,454/ounce

\*\* Including base metal credits

Figure 16. 2HCY12 FCF margin chart at spot\* (% , 6E)\*\*



Source: Company reports, Citi Research

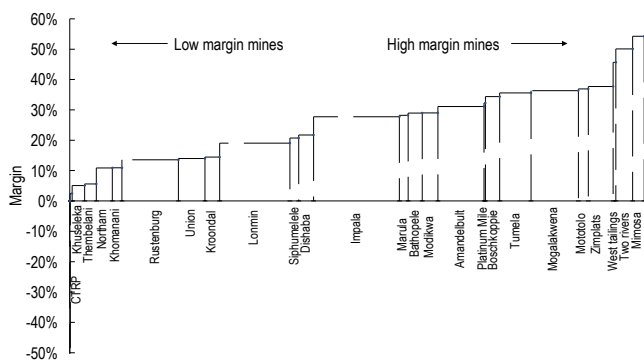
\* Basket price: R10,504/ounce

\*\* Including base metal credits

A continuation in the rally may see mothballed supply coming back

With the re-rating in prices, we estimate only 6% is cash burning at spot prices (Figure 16). We estimate a further 10% rally over the next six months would eliminate any cash-burning mines, and may be a catalyst for bringing mothballed mines and projects back online (Figure 17).

Figure 17. 2HCY12 FCF margin chart at spot plus 10%\* (% , 6E)\*\*

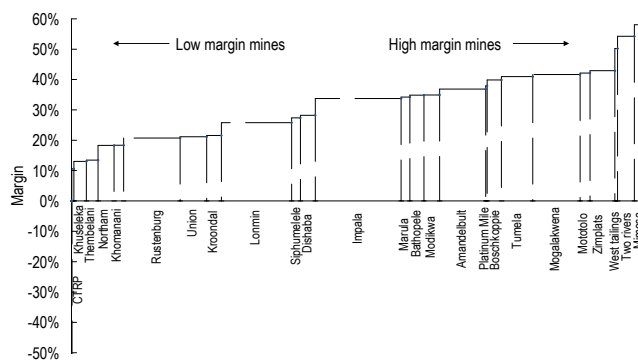


Source: Company reports, Citi Research

\* Basket price: R11,555/ounce

\*\* Including base metal credits

Figure 18. 2HCY12 FCF margin chart at spot plus 20%\* (% , 6E)\*\*



Source: Company reports, Citi Research

\* Basket price: R12,605/ounce

\*\* Including base metal credits

## Upside Capped

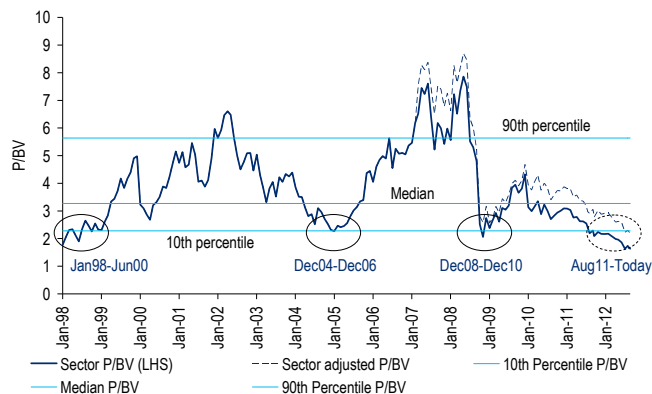
We highlight three reasons why investors should not expect a “beta” recovery for the sector.

### Recovery will be slower this time around

**We highlight three reasons why upside in prices and valuations may be capped in the medium term**

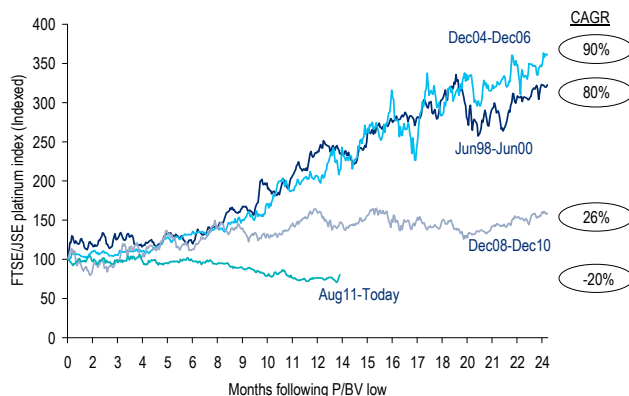
We continue to caution, however, that a re-rating in margins and valuations may take longer this time around compared to the three prior occasions when margins and P/BVs reached their 10<sup>th</sup> percentile levels (*Figures 19 and 20*). We highlight three reasons for a likely slower increase in margins and valuations below.

Figure 19. SA platinum sector historical P/BV



Source: Company reports, INET, Citi Research

Figure 20. Sector performance post historical P/BV lows

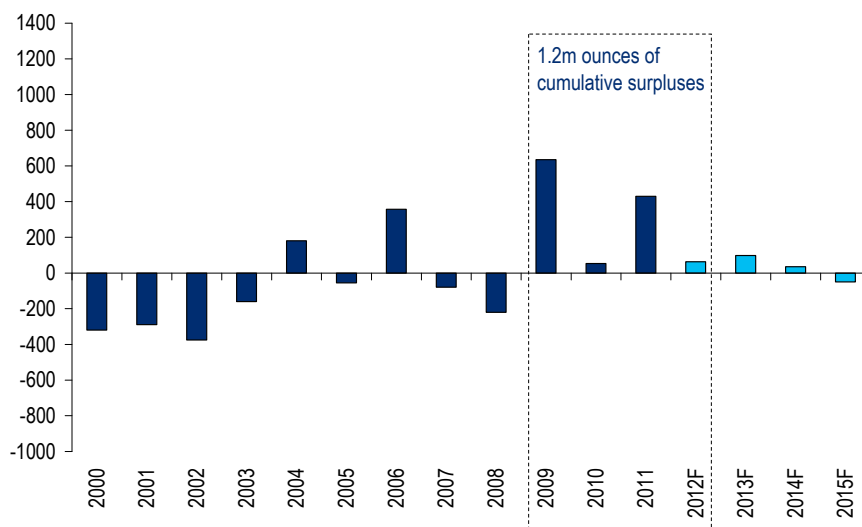


Source: INET, Citi Research

### 1. Cumulative surpluses

Previous P/BV and ROIC lows were achieved in predominantly deficit markets for platinum. Given three years of cumulative surpluses (CitiE: 1.2m ounces since 2009), we expect ROIC's (and subsequently P/BV's) to recover more slowly this time around.

Figure 21. Platinum supply-demand balance



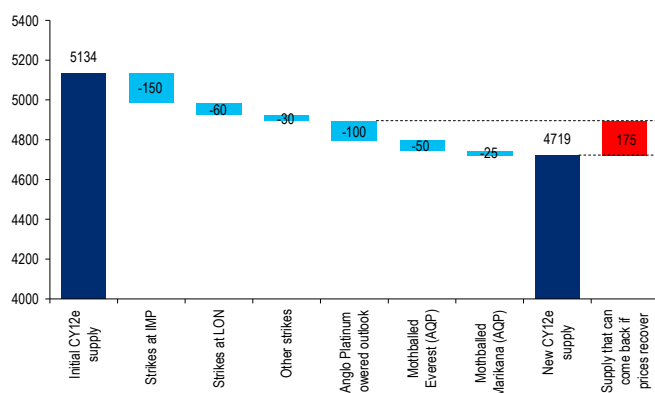
Source: Johnson Matthey, Citi Research

Even though it is difficult to judge where all this metal went, it is a fair assumption that some of it may lie in stock piles at auto catalyst manufacturers. As a result, we caution that these stocks may get drawn down when PGM prices rise, potentially putting a cap on prices and margins.

## 2. Mothballed supply can come back if prices rise

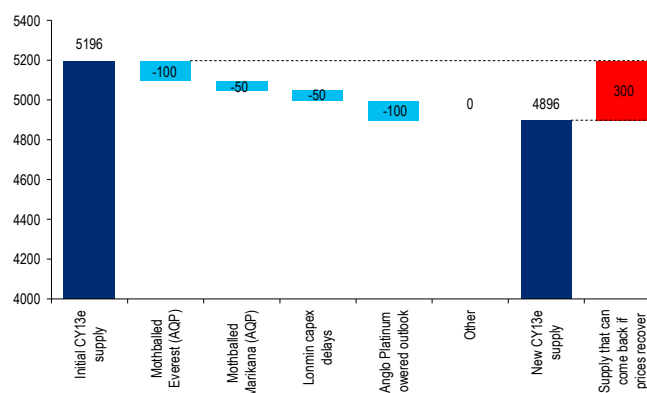
Our newly forecast balanced market was driven by supply cuts, rather than a demand side pull. Mothballed mines and projects can come back onstream when prices recover. This in turn may prevent a sustained increase in prices, margins and subsequently valuations.

Figure 22. Effect of mine closures, project delays and strikes on CY12e mine supply of platinum (000 ounces)



Source: Citi Research

Figure 23. Effect of mine closures and project delays on CY13e mine supply of platinum (000 ounces)

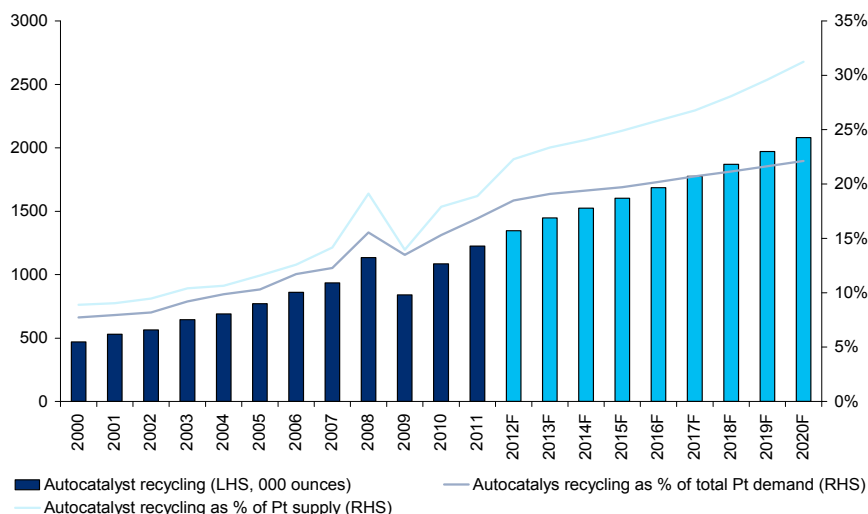


Source: Citi Research

## 3. Recycling has become a more prominent source of supply

Recycling has become a more prominent and responsive source of supply. It formed 7% of demand in 2000, 18% in 2012. We expect this to continue to grow to 23% of demand by 2020. A near-term re-rating in prices may result in more platinum being recycled. Again, this may cap prices.

Figure 24. Autocatalyst recycling is becoming a more prominent source of supply



Source: Johnson Matthey, Citi Research

**Beta recovery requires a demand-side pull, not supply-side cuts**

## What is needed for a sustained beta play?

In order to achieve a significant and sustained increase in ROIC's and P/BV's, we require either:

- A sharp and sustained improvement in WE auto demand; or
- Further supply-side response (particularly from AMS).

We expect the former to remain depressed for the next 12 months, while the latter has become less likely, for two reasons:

- Labour complexities: Recent events at LON's Marikana mine (refer [Ongoing Labour Challenges](#), 17 August) makes labour restructuring very sensitive and difficult in SA at this stage;
- False hope: The 11% re-rating in the rand-PGM basket price since the onset of the labour violence in SA may change the economics for restructuring for AMS. However, our view is that the recent rally only provides "false hope" and should not be seen as the basis for not undertaking significant restructuring at AMS. If this is the case, the sector (and in particular AMS) will likely continue to struggle into 2013.

## Boring is Better

We maintain our preference for the higher quality and undervalued IMP (Buy), even though it is least leveraged to rising PGM prices. We least favour leveraged AMS (Sell).

## Valuation

Maintain preference for low-leveraged, high quality plays like IMP

Even though AMS and LON are more leveraged to an increase in precious metal prices, we caution that sustained increases in rand-PGM prices may not occur, for the reasons mentioned earlier. As a result, we maintain our preference for the less-leveraged IMP; as well as attractive lower-cost, near-term growth through NHM. The latter has, however, outperformed the market handsomely of late and we only see another 15% upside from here.

Figure 25. Citi mining valuation comparatives sheet (calendarised)

	RIC codes	Rating	TP Curr.	Current price	TP	CY12e DY (%)	ETR* (%)	Current P/DCF	P/E			EV/EBITDA			FCF yield (%)	
									2011	2012e	2013e	2011	2012e	2013e	2011	2012e
Rio Tinto	RIO.L	Buy	GBP	30.70	39.00	3.6	30.6	0.6	5.9	10.0	8.1	2.9	4.6	3.7	9.6	-4.9
Impala Platinum	IMP.J.J	Buy	ZAR	140.20	180.00	1.8	30.2	0.7	13.9	17.5	14.5	6.6	8.5	7.2	-0.2	1.0
Barrick gold	ABX.N	Buy	USD	39.46	50.00	1.9	28.6	1.1	8.5	9.7	8.5	5.9	7.4	6.2	0.9	-5.4
African Rainbow	ARIJ.J	Buy	ZAR	159.00	190.00	3.3	22.8	0.8	8.8	11.6	12.2	3.8	4.7	4.7	1.8	1.7
Exxaro	EXXJ.J	Buy	ZAR	160.28	180.00	5.4	17.7	0.8	7.0	8.3	8.2	10.1	11.8	12.4	12.8	0.0
Northam	NHMJ.J	Buy	ZAR	30.93	36.00	0.3	16.7	0.9	32.1	30.2	18.6	17.8	15.2	9.7	-7.6	-13.6
BHP Billiton	BLT.L	Buy	GBP	19.19	21.00	3.8	13.2	0.8	8.5	11.0	11.1	5.0	6.0	6.0	8.2	3.3
Lonmin	LMIL	Neutral	GBP	6.11	6.53	0.1	7.0	1.0	12.7	152.2	42.4	3.6	7.5	6.7	-9.9	-8.2
Aquarius	AQP.L	Neutral	GBP	0.38	0.40	0.0	4.9	0.8	16.4	-11.5	15.0	3.1	11.4	5.2	-12.1	5.1
Anglo American	AAL.L	Neutral	GBP	19.55	20.00	2.6	4.9	0.5	6.5	13.4	10.3	3.8	5.7	4.4	8.6	0.0
AngloGold Ashanti	ANGJ.J	Neutral	ZAR	281.39	290.00	1.5	4.6	1.7	10.2	10.8	10.7	5.0	5.3	4.8	10.0	4.5
Newcrest	NCM.AX	Neutral	AUD	26.47	26.00	1.5	-0.3	1.1	18.0	18.6	14.0	10.2	9.8	7.6	-3.3	-2.8
Newmont	NEM.N	Neutral	USD	52.00	49.00	2.6	-3.2	1.2	12.1	14.1	12.1	9.5	7.3	6.8	3.0	-2.2
Anglo Platinum	AMSJ.J	Sell	ZAR	435.10	400.00	0.0	-8.1	1.2	28.2	117.4	48.6	8.1	21.4	14.5	4.5	-0.2
RBPlat	RBPJ.J	Sell	ZAR	49.03	45.00	0.0	-8.2	1.3	25.9	48.2	33.2	9.4	14.5	11.6	-1.5	-4.2
Gold fields	GFIJ.J	Sell	ZAR	105.11	90.00	2.8	-11.6	1.8	9.2	10.4	10.7	3.8	4.5	4.3	8.3	7.4
Assore	ASRJ.J	Sell	ZAR	310.00	260.00	2.9	-13.3	1.2	8.9	10.5	12.4	6.4	8.0	9.2	5.0	7.2
Harmony	HARJ.J	Sell	ZAR	70.57	55.00	1.0	-21.1	1.7	16.7	16.2	19.0	8.6	6.6	5.7	0.6	4.7
Kumba Iron Ore	KIOJ.J	Sell	ZAR	496.93	350.00	7.2	-22.4	1.1	8.3	12.0	10.4	4.4	6.2	5.7	13.8	9.9
Randgold	RRS.L	Sell	GBP	69.50	50.30	1.0	-26.7	1.3	27.4	20.6	15.6	17.0	13.0	9.5	1.1	0.0

Source: Citi Research, Powered by dataCentral, priced as at 12/09/2012

## Sensitivities

Figure 26. NPV sensitivity analysis (R/share)

	-15%	-10%	-5%	Spot*	5%	10%	15%	20%
AMS	20	111	201	272	384	474	565	656
IMP	80	101	121	141	161	182	202	223
LON	26	39	56	67	80	94	109	129
NHM	-3	6	14	22	30	37	44	52
RBP	-3	13	29	45	61	78	94	110
AQP	3.3	4.7	6.0	7.6	9.1	10.5	12.1	13.9

Source: Citi Research

\*Pt: \$1590/oz, Pd: \$660/oz, Rh: \$1100/oz, Au: \$1735/oz, R8.20/US\$

Figure 27. CY12e HEPS sensitivity analysis (SAC)

	-15%	-10%	-5%	Spot*	5%	10%	15%	20%
AMS	-567	-277	13	304	594	884	1175	1465
IMP	89	213	338	463	588	712	837	962
LON	-538	-337	-136	65	265	466	667	868
NHM	68	87	106	125	144	163	182	201
RBP	-63	-1	60	121	182	243	304	365
AQP	-319	-312	-304	-296	-288	-282	-275	-267

Source: Citi Research

\*Pt: \$1590/oz, Pd: \$660/oz, Rh: \$1100/oz, Au: \$1735/oz, R8.20/US\$

Figure 29. CY13e HEPS sensitivity analysis (SAC)

	-15%	-10%	-5%	Spot*	5%	10%	15%	20%
AMS	-1803	-1223	-644	-64	516	1096	1675	2255
IMP	332	473	613	754	894	1035	1175	1316
LON	-190	4	199	393	587	781	976	1170
NHM	-39	4	47	89	132	175	218	260
RBP	-136	-73	-10	53	116	179	242	305
AQP	7	12	17	23	28	34	39	44

Source: Citi Research

\*Pt: \$1590/oz, Pd: \$660/oz, Rh: \$1100/oz, Au: \$1735/oz, R8.20/US\$

Figure 28. CY12e PE sensitivity analysis

	-15%	-10%	-5%	Spot*	5%	10%	15%	20%
AMS	N/a	N/a	3292	141	72	48	36	29
IMP	160	67	42	31	24	20	17	15
LON	N/a	N/a	N/a	121	30	17	12	9
NHM	49	38	31	27	23	20	18	17
RBP	N/a	N/a	82	41	27	20	16	13
AQP	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a

Source: Citi Research

\*Pt: \$1590/oz, Pd: \$660/oz, Rh: \$1100/oz, Au: \$1735/oz, R8.20/US\$

Figure 30. CY13e PE sensitivity analysis

	-15%	-10%	-5%	Spot*	5%	10%	15%	20%
AMS	N/a	N/a	N/a	N/a	83	39	26	19
IMP	43	30	23	19	16	14	12	11
LON	N/a	1966	40	20	13	10	8	7
NHM	-85	832	71	37	25	19	15	13
RBP	N/a	N/a	N/a	93	42	28	20	16
AQP	70	41	29	21	17	14	13	11

Source: Citi Research

\*Pt: \$1590/oz, Pd: \$660/oz, Rh: \$1100/oz, Au: \$1735/oz, R8.20/US\$

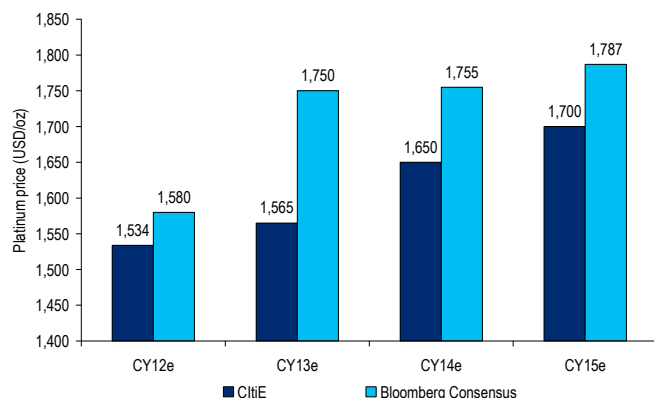
## Prices

Figure 31. Citi input price assumptions

December year end	FY09	FY10	FY11	FY12e	FY13e	FY14e	FY15e	FY16e	LT real	LT Nominal
<b>US\$/oz</b>										
Platinum price	1,173	1,610	1,722	1,534	1,565	1,650	1,700	1,750	1,500	1,722
Palladium price	246	525	734	660	700	800	850	775	600	689
Rhodium price	1,444	2,678	2,000	1,336	1,250	1,350	1,500	1,800	2,250	2,582
Gold price	960	1,226	1,585	1,645	1,695	1,655	1,540	1,350	1,050	1,205
3PGE+Au basket price	907	1,348	1,441	1,409	1,483	1,513	1,526	1,494	1,295	1,486
<b>R/oz</b>										
Platinum price	9,812	11,808	12,450	12,686	13,788	14,718	15,759	16,870	15,000	17,220
Palladium price	2,054	3,851	5,307	5,458	6,167	7,136	7,880	7,471	6,000	6,890
Rhodium price	12,077	19,633	14,460	11,049	11,013	12,042	13,905	17,352	22,500	25,820
Gold price	8,028	8,993	11,460	13,604	14,933	14,763	14,276	13,014	10,500	12,050
3PGE+Au basket price	7,589	9,884	10,418	10,431	11,342	12,257	13,221	13,968	12,690	14,568

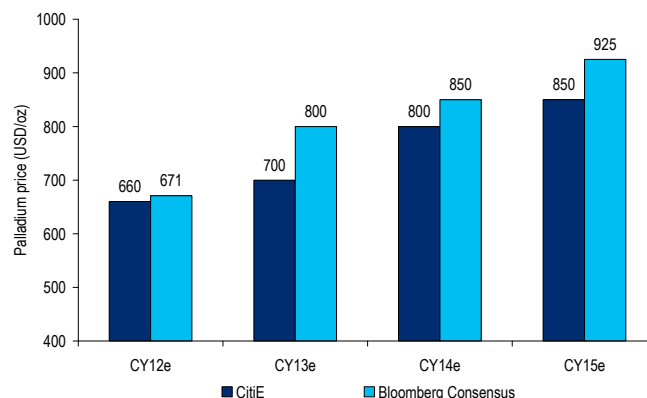
Source: I-net, Bloomberg, Citi Research

Figure 32. Platinum price – CitiE forecasts vs. consensus



Source: Bloomberg, Citi Research

Figure 33. Palladium price – CitiE forecasts vs. consensus



Source: Bloomberg, Citi Research



## Risks

Key downside risks to a recovery in valuations for SA platinum equities include: 1) lower-than-expected dollar metal prices, 2) a stronger-than-expected rand, 3) lower-than-expected operational delivery and 4) a continuation or deterioration of labour and union problems in SA.

Conversely, upside risks include: 1) higher-than-expected dollar PGM prices, 2) a weaker-than-expected rand, 3) better-than-expected operational delivery, and 4) a resolution to current strikes and labour issues in SA.

## Appendix I: Adjusting Book Value

The following section is an excerpt from [Value Conundrum](#), 12 July 2011.

### Questioning the Book

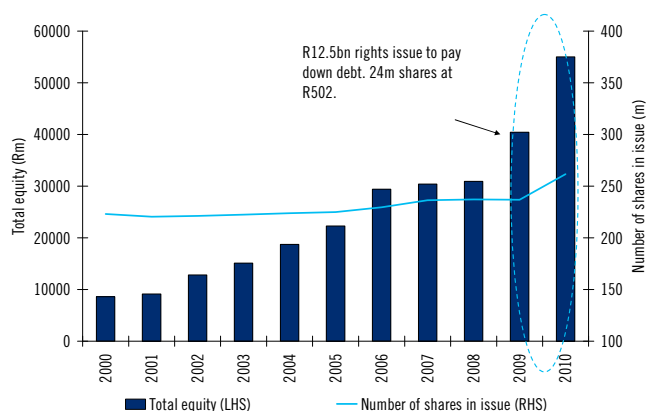
#### The sector's BV has been inflated

Even though at first glance it appears as if the sector (and especially AMS) offers good value, we caution that the denominator of the P/BV calculation has to be questioned. This is as all five of the SA platinum companies have done equity raisings and/or rights issues in the past four years, in most cases inflating their book values:

#### AMS's R502/share rights issue in 2010 inflated its BV by 28%

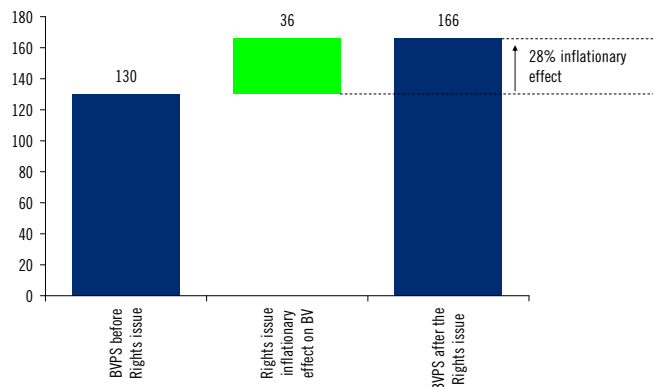
- **AMS:** During FY10 AMS had a R12.5bn rights issue, which consisted of 24m shares being issued at R502.18 per share. The rights issue proceeds were used to restructure its balance sheet by paying down high debt levels. Before the rights issue AMS had a book value per share of R130 which was inflated 28% to R166 by the rights issue.

Figure 34. AMS's historical equity evolution (Rm, 2000-2010)



Source: Company reports and Bloomberg

Figure 35. AMS's R12.5bn rights issue inflated its BV 28%

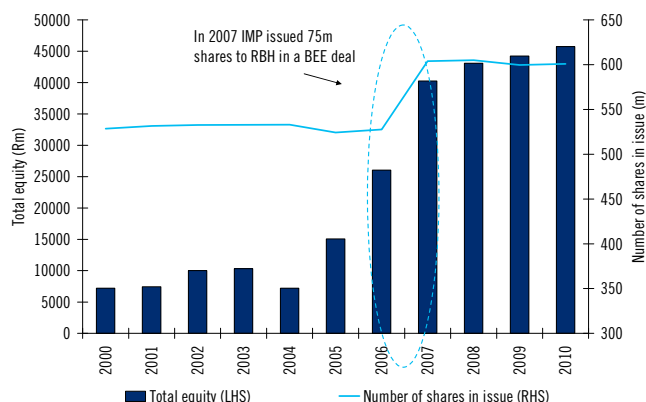


Source: Company reports

#### IMP's BEE deal with RBH in 2007 inflated its BV by 51%

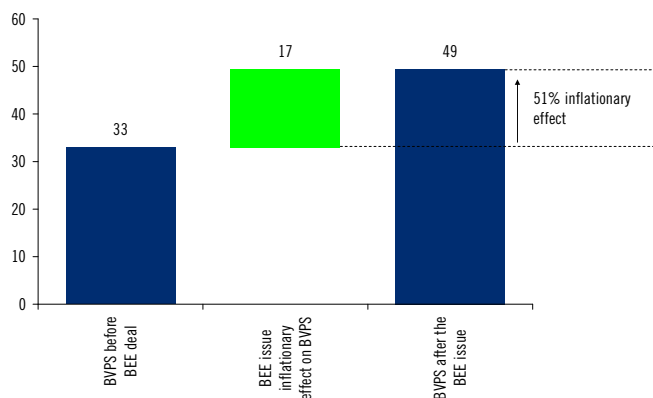
- **IMP:** During FY07 IMP issued 75m shares to RBH in a R12bn BEE deal. The share issue price of R166 was above IMP's book value per share of R33 at that stage, which resulted in a 51% increase in book value. Post the BEE deal IMP's book value was R49 per share.

Figure 36. IMP's historical equity evolution (Rm, 2000-2010)



Source: Company reports and Bloomberg

Figure 37. IMP's R12bn BEE share issue inflated its BV 51%

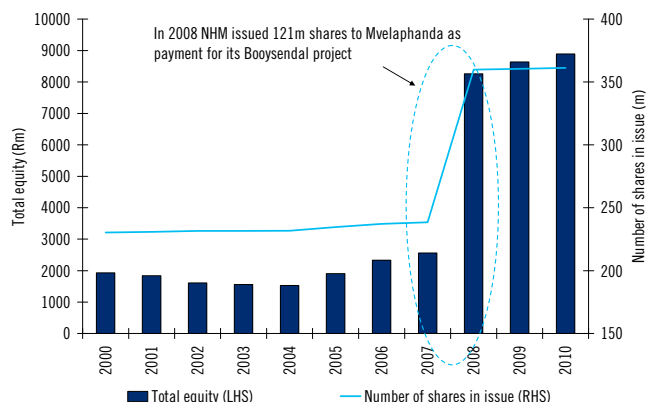


Source: Company reports

**NHM's Booyesendal transaction in 2008  
inflated its BV by 92%**

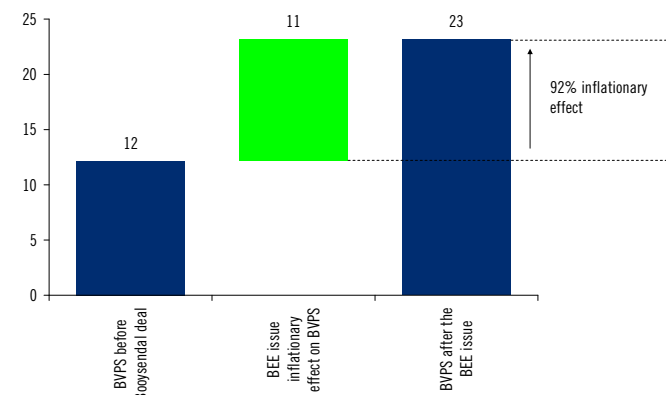
- **NHM:** During FY08 NHM issued 121m shares to Mvelaphanda as payment for its Booyesendal project (R5.5bn). The share issue price of R45.50 was above NHM's book value per share of R12 at that stage, which resulted in a 92% increase in book value. Post the share issue NHM's book value was R23 per share.

Figure 38. NHM's historical equity evolution (Rm, 2000-2010)



Source: Company reports and Bloomberg

Figure 39. NHM's Booyesendal deal inflated its BV 92%

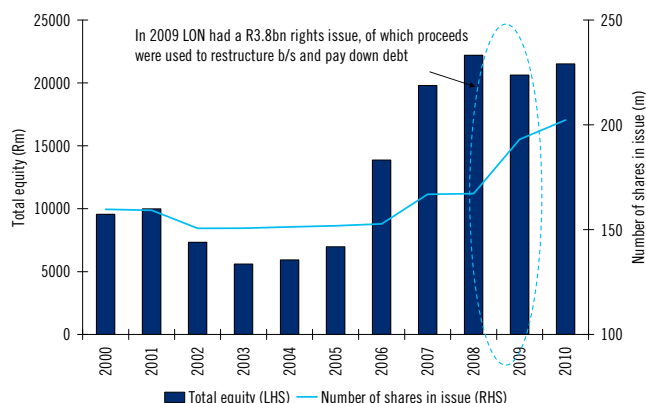


Source: Company reports

**LON's FY09 rights issue was below its  
BV and deflated BV by 4%**

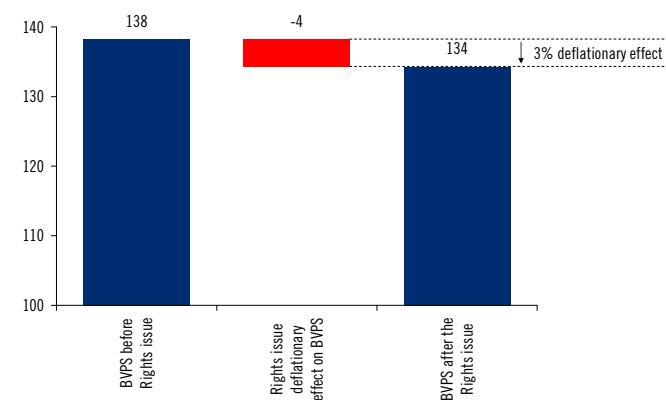
- **LON:** During FY09 LON had a R4bn rights issue, which consisted of 35m shares being issued at R113.04 per share. The rights issue proceeds were used to restructure its balance sheet by paying down high debt levels. Before the rights issue LON had a book value per share of R138 which was deflated 3% to R134 by the rights issue.

Figure 40. LON's historical equity evolution (Rm, 2000-2010)



Source: Company reports and Bloomberg

Figure 41. LON's rights issue had a -4% BV deflationary effect

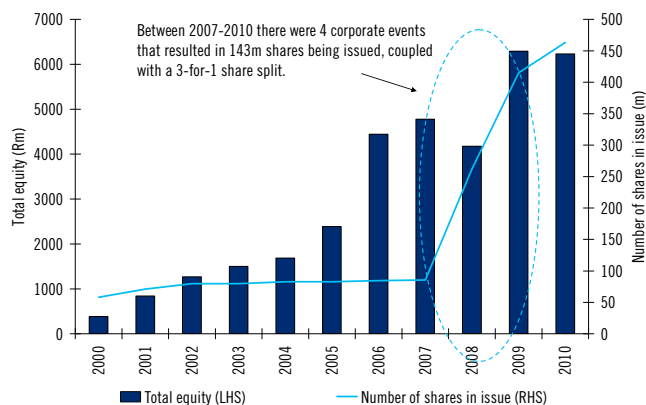


Source: Company reports

**An equity raising and rights issue in 2008  
inflated AQP's BV 6%**

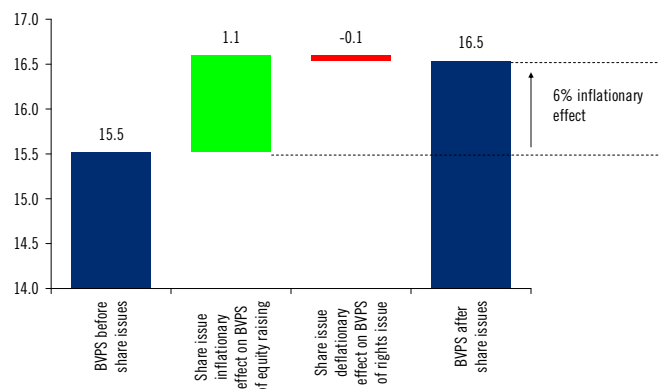
- **AQP:** During FY08 AQP had a 3-for-1 share split. In addition to the share split AQP had 1) a R1bn equity placement, which consisted of 46m shares being issued at R23 per share, and 2) a R660m rights issue of 41m shares at R15.89 per share. Before the share issues AQP had a book value per share of R15.50 which was inflated 6% to R16.50 by the share issues.

Figure 42. AQP's historical equity evolution (Rm, 2000-2010)



Source: Company reports and Bloomberg

Figure 43. AQP's share issue inflated its BV 6%

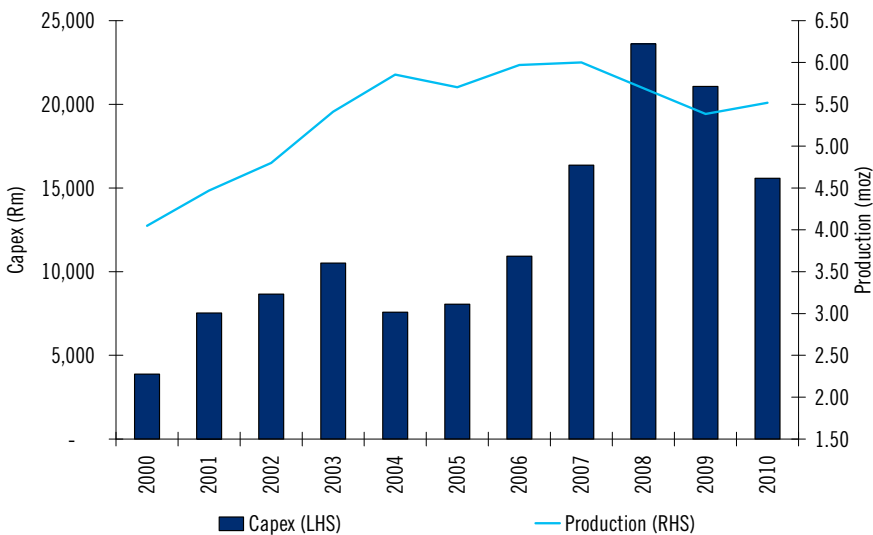


Source: Company reports

## Spiralling capex for no production benefit the culprit

Excluding BEE transactions, the main reason for equity raisings and rights issues over the past four years was a sharp increase in capex, for limited production benefit. Rising capex placed most companies on the back foot when prices declined during the global economic crisis. This was especially the case for AMS and LON.

Figure 44. SA platinum sector historical capex and platinum production

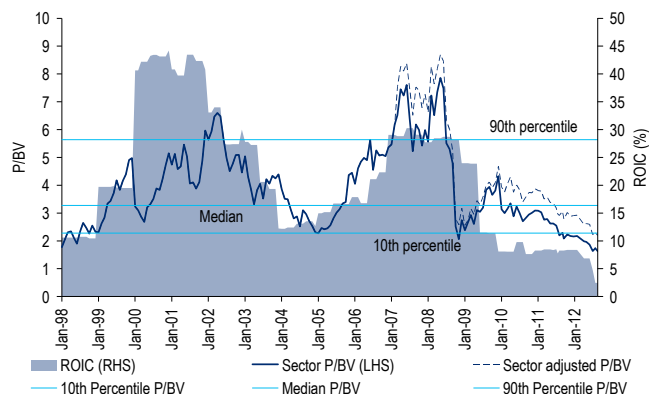


Source: Company Reports

## Appendix II: P/BV by Company

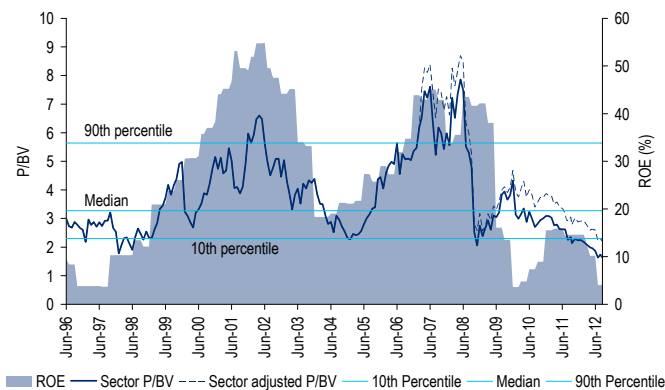
The following section provides P/BV, adjusted P/BV, ROIC and ROE by company.

Figure 45. Sector historical P/BV vs. ROIC (Jan 98 – Sept 12)



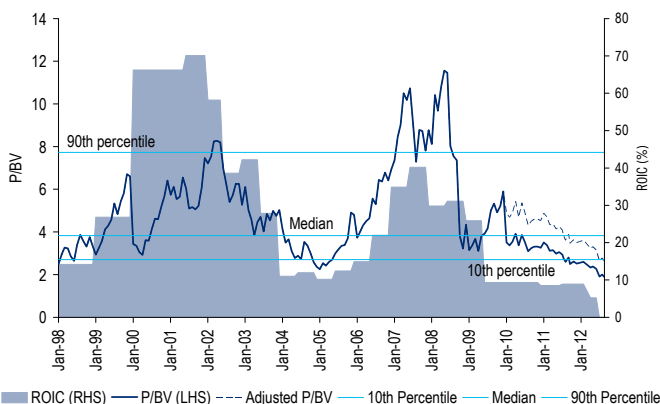
Source: INET, Bloomberg, Citi Research

Figure 46. Sector historical P/BV vs. ROE (Jun 96 – Sept 12)



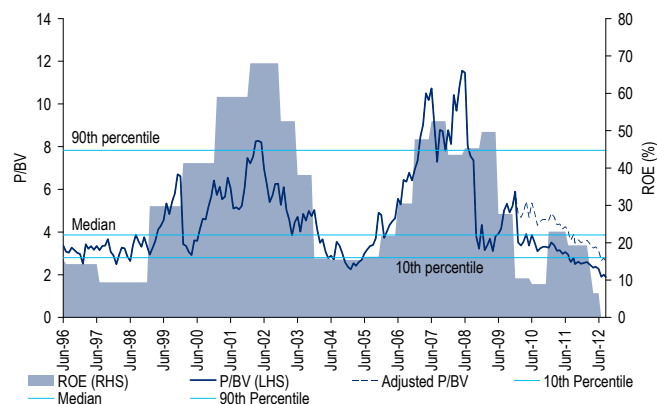
Source: INET, Bloomberg, Citi Research

Figure 47. AMS historical P/BV vs. ROIC (Jan 98 – Sept 12)



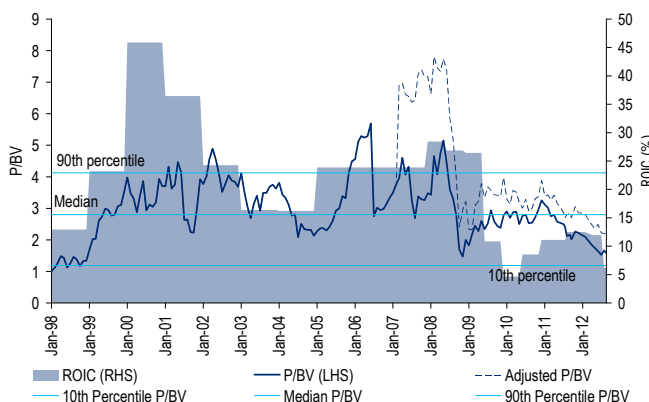
Source: INET, Bloomberg, Citi Research

Figure 48. AMS historical P/BV vs. ROE (Jun 96 – Sept 12)



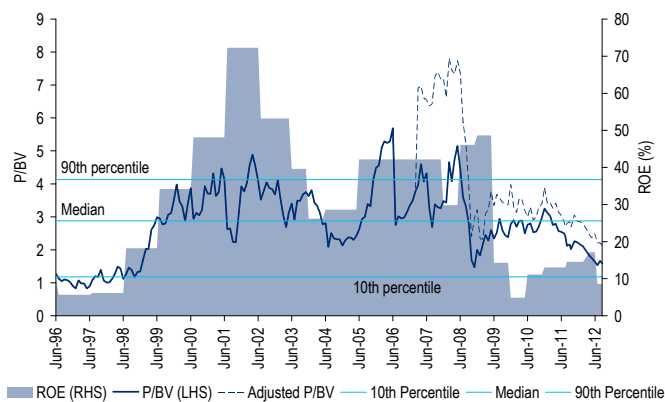
Source: INET, Bloomberg, Citi Research

Figure 49. IMP historical P/BV vs. ROIC (Jan 98 – Sept 12)



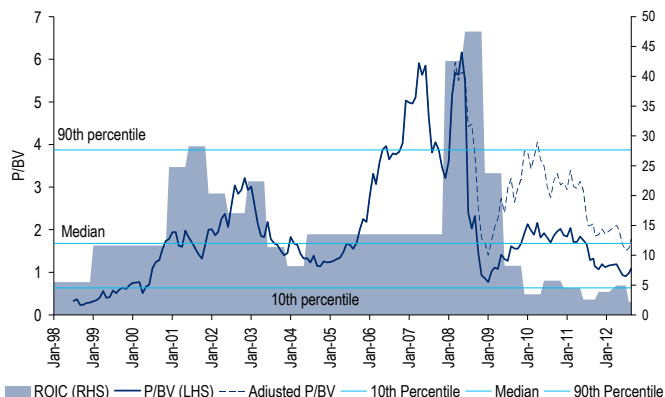
Source: INET, Bloomberg, Citi Research

Figure 50. IMP historical P/BV vs. ROE (Jun 96 – Sept 12)



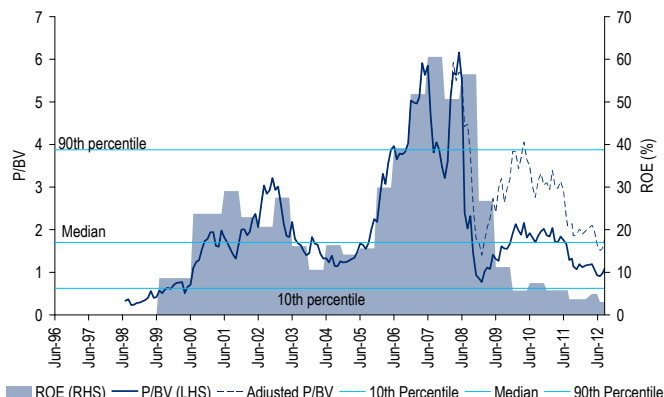
Source: INET, Bloomberg, Citi Research

Figure 51. NHM historical P/BV vs. ROIC (Jan 98 – Sept 12)



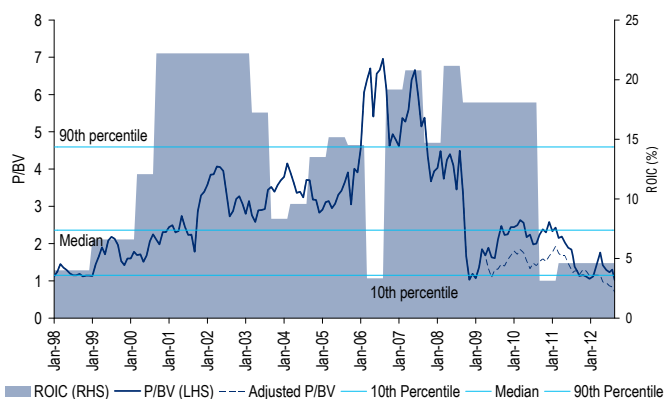
Source: INET, Bloomberg, Citi Research

Figure 52. NHM historical P/BV vs. ROE (Jun 96 – Sept 12)



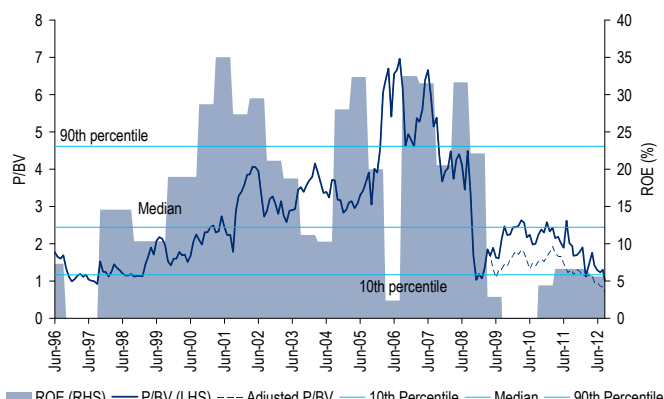
Source: INET, Bloomberg, Citi Research

Figure 53. LON historical P/BV vs. ROIC (Jan 98 – Sept 12)



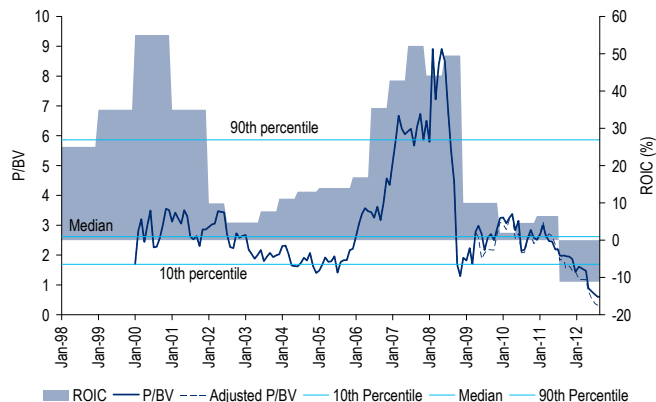
Source: INET, Bloomberg, Citi Research

Figure 54. LON historical P/BV vs. ROE (Jun 96 – Sept 12)



Source: INET, Bloomberg, Citi Research

Figure 55. AQP historical P/BV vs. ROIC (Jan 98 – Sept 12)



Source: INET, Bloomberg, Citi Research

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## Company Sections

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## Company Focus

### Anglo American Platinum Ltd (AMSJ.J) Strategic Review: Sensing Cold Feet\*

\*This is an excerpt from our 24 July 2012 note [Strategic Review: Sensing Cold Feet](#).

#### ■ Company Update

Johann Steyn  
+27-11-944-0087  
johann.steyn@citi.com

<b>Sell</b>	<b>3</b>
Price (12 Sep 12)	R417.50
Target price	R400.00
Expected share price return	-15.2%
Expected dividend yield	2.9%
<b>Expected total return</b>	<b>-12.3%</b>
Market Cap	R110,332M US\$13,115M

#### Price Performance (RIC: AMSJ.J, BB: AMS SJ)



- **Burning cash** – We estimate that 600k ounces (24%) of AMS's production is cash-burning after capex at spot prices (24 July 2012), and 100k ounces (4%) have negative operating margins (refer [page 25](#)).
- **Running out of balance sheet, quickly** – AMS is in a worse balance sheet position than the market appreciates, in our view. We estimate that it would likely have to restructure its balance sheet within the next 18-24 months if PGM prices decline by only another 15%; most likely through a rights issue (refer [Tiring Balance Sheets](#), 4 July 2012, and [page 25](#) of this note).
- **Urgent action required** – We think aggressive restructuring is therefore required. To date, we have been encouraged by remarks like: “We will remove unprofitable ounces from the market” and “we are reviewing...the shape and size of our portfolio”.
- **But sensing cold feet** – According to our numbers, these remarks imply that AMS will cut 500-600k ounces of cash burning (i.e. unprofitable) production. However, we sensed cold feet when asking management if cuts of this size would occur. We therefore caution that the restructuring may fall short of expectations and may only entail minor (100-200k ounces) cuts. This is not enough, in our view.
- **Proof is in the pudding: Sell, TP R400** – AMS's strategic review is the key upside risk to our bearish view on the stock. However, early indications make us wonder if the review will be extensive enough to fundamentally change the story for AMS. It finds itself in a very difficult situation. If it cuts production significantly it will probably send a negative signal to the market, and de-rate. If it does not, it will likely continue to struggle and may run out of balance sheet. This double-edged sword, together with a stretched valuation, suggests to us that the market is not yet fully appreciating the predicament AMS finds itself in. Maintain Sell, TP R400.

#### Anglo American Platinum Ltd (ZAR)

Year to 31 Dec	2010A	2011A	2012E	2013E	2014E
Sales (RM)	46,124.0	51,117.0	42,045.9	48,493.7	53,098.8
Net Income (RM)	4,930.0	3,566.0	954.1	2,337.0	3,074.0
Diluted EPS (¢)	1,935	1,363	365	895	1,177
Diluted EPS (Old) (¢)	1,935	1,363	365	895	1,177
PE (x)	21.1	30.0	112.0	45.7	34.7
EV/EBITDA (x)	10.6	8.7	20.4	13.6	11.8
DPS (¢)	665	699	0	298	471
Net Div Yield (%)	1.6	1.7	0.0	0.7	1.2

AMSJ.J: Fiscal year end 31-Dec						Price: R409.12; TP: R400.00; Market Cap: R110,332m; Recomm: Sell					
Profit & Loss (Rm)	2010	2011	2012E	2013E	2014E	Valuation ratios	2010	2011	2012E	2013E	2014E
Sales revenue	46,124	51,117	42,046	48,494	53,099	PE (x)	21.1	30.0	nm	45.7	34.7
Cost of sales	-37,991	-42,562	-39,391	-44,537	-47,990	PB (x)	1.9	1.9	1.9	1.8	1.8
Gross profit	8,133	8,555	2,655	3,957	5,109	EV/EBITDA (x)	10.6	8.7	20.4	13.6	11.8
Gross Margin (%)	17.6	16.7	6.3	8.2	9.6	FCF yield (%)	2.3	4.7	-0.2	-0.7	1.5
EBITDA (Adj)	11,194	12,492	5,362	8,136	9,384	Dividend yield (%)	1.6	1.7	0.0	0.7	1.2
EBITDA Margin (Adj) (%)	24.3	24.4	12.8	16.8	17.7	Payout ratio (%)	34	51	0	33	40
Depreciation	-4,321	-4,527	-4,622	-4,685	-4,832	ROE (%)	23.2	6.5	-0.4	4.1	5.2
Amortisation	0	0	0	0	0	Cashflow (Rm)	2010	2011	2012E	2013E	2014E
EBIT (Adj)	6,873	7,965	740	3,451	4,552	EBITDA	11,194	12,492	5,362	8,136	9,384
EBIT Margin (Adj) (%)	14.9	15.6	1.8	7.1	8.6	Working capital	-582	527	906	-2,479	-1,015
Net interest	-70	0	-138	-100	-100	Other	-282	-707	812	-1,098	-1,456
Associates	-426	-479	-481	0	0	Operating cashflow	10,330	12,312	7,080	4,559	6,913
Non-op/Except	6,035	-825	-202	-37	-92	Capex	-7,960	-7,228	-7,331	-5,332	-5,332
Pre-tax profit	12,412	6,661	-81	3,315	4,360	Net acq/disposals	743	140	270	370	370
Tax	-2,197	-2,974	-126	-961	-1,264	Other	176	-1,069	-426	0	0
Extraord./Min.Int./Pref.div.	-157	-96	-16	-17	-22	Investing cashflow	-7,041	-8,157	-7,487	-4,962	-4,962
Reported net profit	10,058	3,591	-223	2,337	3,074	Dividends paid	0	-3,116	-767	-779	-1,230
Net Margin (%)	21.8	7.0	-0.5	4.8	5.8	Financing cashflow	-4,188	-4,393	3,890	-779	-1,230
Core NPAT	4,930	3,566	954	2,337	3,074	Net change in cash	-899	-238	3,484	-1,181	722
Per share data	2010	2011	2012E	2013E	2014E	FCF ex aquisns & explorn	3,113	5,224	20	-402	1,952
Reported EPS (¢)	3,947	1,373	-85	895	1,177						
Core EPS (¢)	1,935	1,363	365	895	1,177						
DPS (¢)	665	699	0	298	471						
CFPS (¢)	4,054	4,706	2,712	1,746	2,648						
FCFPS (¢)	930	1,943	-96	-296	606						
BVPS (¢)	21,412	21,666	21,530	22,274	23,131						
Wtd avg ord shares (m)	255	262	261	261	261						
Wtd avg diluted shares (m)	255	262	261	261	261						
Growth rates	2010	2011	2012E	2013E	2014E						
Sales revenue (%)	25.7	10.8	-17.7	15.3	9.5						
EBIT (Adj) (%)	646.3	15.9	-90.7	366.4	31.9						
Core NPAT (%)	594.4	-27.7	-73.2	144.9	31.5						
Core EPS (%)	548.6	-29.6	-73.2	144.9	31.5						
Balance Sheet (Rm)	2010	2011	2012E	2013E	2014E						
Cash & cash equiv.	2,534	2,296	5,780	4,599	5,321						
Accounts receivables	2,988	3,066	4,527	4,838	5,310						
Inventory	12,558	12,525	11,318	14,030	15,399						
Net fixed & other tangibles	57,500	61,439	62,883	63,529	64,029						
Goodwill & intangibles	0	0	0	0	0						
Financial & other assets	8,221	8,276	8,068	8,068	8,068						
Total assets	83,801	87,602	92,576	95,064	98,126						
Accounts payable	6,190	6,762	7,923	8,466	9,292						
Short-term debt	22	5,019	2,602	2,602	2,602						
Long-term debt	6,622	939	8,267	8,267	8,267						
Provisions & other liab	15,949	17,817	17,198	17,198	17,198						
Total liabilities	28,783	30,537	35,990	36,533	37,359						
Shareholders' equity	54,558	56,684	56,214	58,159	60,395						
Minority interests	460	381	372	372	372						
Total equity	55,018	57,065	56,586	58,531	60,767						
Net debt	4,110	3,662	5,089	6,270	5,548						
Net debt to equity (%)	7.5	6.4	9.0	10.7	9.1						

For further data queries on Citi's full coverage universe please contact Citi Research Data Services at CitiRsch.DataServices.Global@citi.com  
For definitions of the items in this table, please click [here](#).

## Proof is in the Pudding

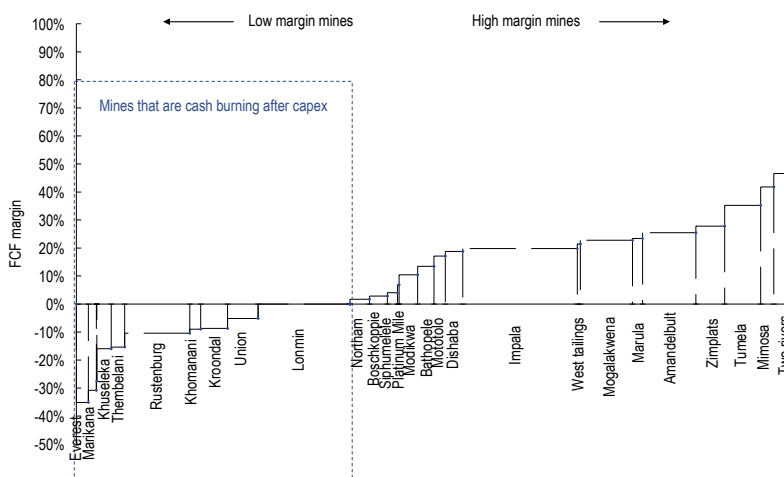
AMS is going through tough times. At spot prices (24 July 2012), 24% of its mines were cash-burning. Urgent restructuring is needed to prevent running out of balance sheet in our view. We believe 400-600k ounces of production needs to be cut.

As highlighted in our note [Tiring Balance Sheets](#), 4 July 2012, we estimate that 30% of the SA platinum industry is cash-burning after capex at spot prices (24 July 2012). This bleak situation is due to depressed auto demand from Western Europe, while margins are further depressed by rising labour demands and safety stoppages in SA.

Excluding LON, all the remaining cash-burning production belongs to AMS

Excluding LON, all of this production belongs to AMS; either directly or through its JV partnerships. In fact, we estimate that 24% (600k ounces) of AMS's production will be cash-burning after capex at spot prices.

Figure 56. SA platinum sector 2H12E FCF margin chart\*, including base metal credits (% , 6E)



Source: Citi Research estimates

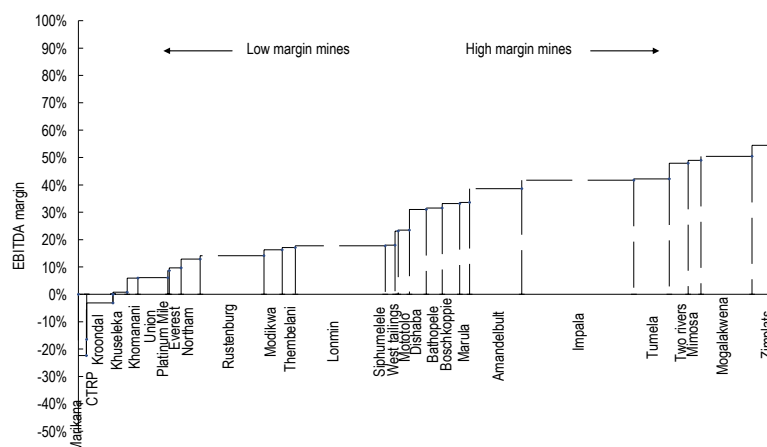
\*Based on spot prices – Pt: \$1,425/oz, Pd: \$575/oz, Rh: \$1,250/oz, Cu: \$7,500/t, Ni: \$16,500/t, R8.15/\$

We also estimate that 8% of industry production has negative operating margins at spot prices. Again, most of these mines belong to AMS, including Marikana (AQP/AMS), Kroondal (AQP/AMS) and Khuseleka (AMS).

We estimate 500k ounces needs to be cut to bring the market back in balance within the medium term. This would need to come from AMS

The depressed conditions have already forced AQP to close its Marikana and Everest mines, and RBP to delay capital programmes. Despite these cuts, we still estimate a c.300k ounce surplus market for 2012/13 (please refer [Precious Metals Update - Growing surplus, despite SA supply cuts](#), 16 July 2012). This only adds to our estimated +1.0m ounces of cumulative surpluses over the past three years. As a result, we estimate that another c.500k ounce of supply cuts are needed to get the market back in balance in the medium-term. As is evident from Figure 57 above, these cuts would need to come from AMS.

Figure 57. SA platinum sector 2H12E EBITDA margin chart\*, including base metal credits (% 6E)



Source: Citi Research estimates

\*Based on spot prices – Pt: \$1,425/oz, Pd: \$575/oz, Rh: \$1,250/oz, Cu: \$7,500/t, Ni: \$16,500/t, R8.15/\$

## Running out of balance sheet, quickly

AMS may run out of balance sheet if  
prices fall another 15%

The situation has already taken its toll on company balance sheets, including that of AMS. As a result, AMS recently decided to suspend its interim dividend. We view this as prudent, given that our cash flow analysis suggests it may run out of balance sheet if prices decline another 10-15% and if significant restructuring does not happen soon.

If spot prices prevail (24 July 2012), we estimate that AMS (in its current form) will not need any balance sheet restructuring in the next 18-24 months. This is mainly due to the R12.5bn rights issue and balance sheet restructuring in 2010. Thanks to this, AMS has total debt facilities of R25bn, R6.0bn of which have already been drawn (Figure 59). If spot prices prevail, we estimate AMS would have to draw down a further ~R6.0bn of debt, which would place it at a debt/equity ratio of 28% and net debt/EBITDA ratio of 2.85x, close to the generally accepted covenant ratio of 3.0x.

Figure 58. AMS debt facilities (Rm)

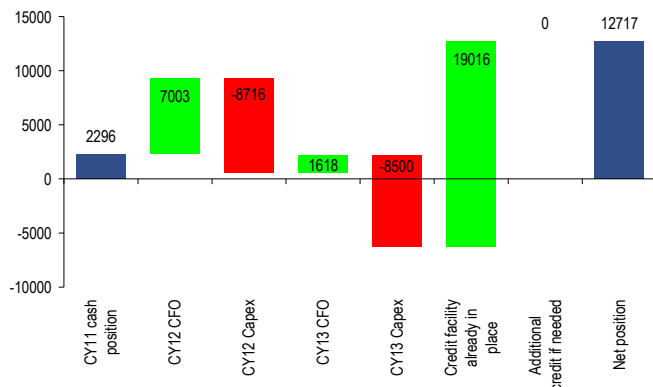
Debt facilities (as at 31-12-2011)			
Committed	Facility amount	Utilized amount	Available Funds
ABSA bank Ltd	2,000		
Anglo American SA Finance Ltd	6,100	4,996	
Credit Agricole Corp&investment bank	0		
FirstRand bank Ltd	2,857	500	
Nedbank Ltd	4,462	462	
Standard Bank Ltd	4,000		
Standard Chartered Bank Ltd	750		
	<b>20,169</b>	<b>5,958</b>	<b>14,211</b>
<b>Uncommitted - callable on demand</b>			
Anglo American SA Finance Ltd	2,500		
Investec Bank Ltd	400		
Citibank	405		
Old Mutual Specialised Finance Ltd	1,500		
	<b>4,805</b>	<b>0</b>	<b>4,805</b>
<b>Total</b>	<b>24,974</b>	<b>5,958</b>	<b>19,0166</b>

Source: Company reports, Citi Research

**Balance sheet restructuring may entail another rights issue**

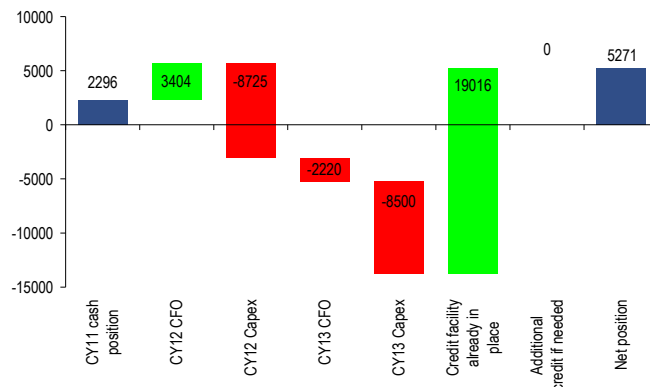
However, if prices decline another 15% in rand-terms, we caution that AMS may run into balance sheet problems (even without paying dividends). As shown in Figure 59, we estimate AMS would have to draw ~R15bn of its remaining R19bn facilities if this scenario occurs. This would raise its debt/equity ratio to 44% and net debt/EBITDA to 4.5x, well beyond normal covenant ratios. As a result, we do not think AMS would be able to access the remaining part of its facilities to this extent. Another equity raising or rights issue would therefore be likely, in our view.

Figure 59. AMS CY12E/13E cash flow at spot (Rm)



Source: Company reports, Citi Research estimates

Figure 60. AMS CY12E/13E cash flow at spot less 15% (Rm)



Source: Company reports, Citi Research estimates

## Urgent action required

**AMS will not have the luxury of “riding out” these difficult times, in our view**

We therefore think that urgent, and significant, action is required to protect shareholders from the latter scenario. In our conversations with investors, we have picked up that there is a view that AMS can “ride out” these difficult times by waiting for other industry participants (mostly AQP and LON) to take strain and close production.

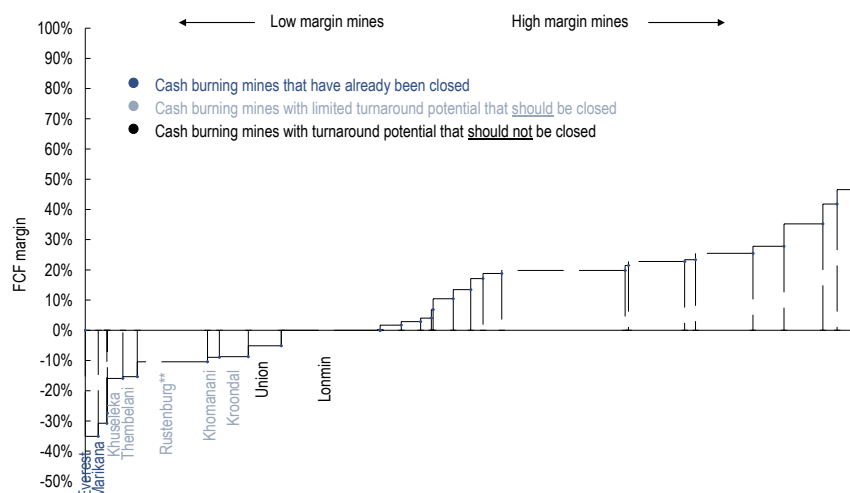
In our view (and supported by the analysis above), this is not the case; the sooner AMS acts, the better.

We maintain that an improvement in PGM prices is unlikely to come from improving macroeconomic conditions over the next 12-24 months. Recent supply cuts by AQP have also done little to move prices, supportive of our long-held view of cumulative surpluses over the past three years.

**We believe restructuring has become an urgent priority**

As a result, we estimate that a further 500k ounces (Pt) of cuts are needed. Mines that we argue should be closed in this environment include Khuseleka (AMS), Thembelani (AMS), Khomanani (AMS) and Kroondal (AQP/AMS), given their cash-burning nature and low turnaround potential.

Figure 61. SA platinum sector 2H12E FCF margin chart\*, including base metal credits (% , 6E)



Source: Citi Research estimates

\*Based on spot prices – Pt: \$1,425/oz, Pd: \$575/oz, Rh: \$1,250/oz, Cu: \$7,500/t, Ni: \$16,500/t, R8.15/\$

\*\*Includes Khuseleka, Thembelani, Khomanani, Siphumelele and Bathopele

## Encouraging early signs

Recent top management reshuffling was encouraging and a step in the right direction, in our view (please refer: [Positive Change at the Top](#), 19 July 2012). This, together with remarks like: “We will remove unprofitable ounces from the market” and “we are reviewing...the shape and size of our portfolio...” are encouraging in our view.

## Sensing cold feet

According to our analysis (Figure 57), these remarks imply that AMS will cut 500-600k ounces of cash burning (i.e. unprofitable) production. However, when challenging management on this, we got the sense that these levels of production cuts are unlikely. As a result, there is risk that AMS’s strategic review may again fall short of market expectations and of what we believe it will take to fundamentally get itself (and the industry) back on track.

The ability to execute on the “shape and size” argument to any significant extent is also questionable. It is unlikely that AMS will find any willing buyers for its high-cost assets in the current environment, so closures may be the only way to restructure. Challenges to closing any significant amount of production include:

- **The need for Merensky:** AMS’s Rustenburg mines, although high-cost and cash-burning, is an important source of Merensky for its smelters. Even though it has claimed before that it can treat near 100% UG2 ore through its concentrators and smelters, we wonder if this is indeed the case.
- **Labour:** We estimate that closing Khuseleka, Thembelani and Khomanani would entail retrenching about 8,000-12,000 people. Given the 18,000 people retrenched in 2009/10, AMS might find it difficult to convince the government and unions that more restructuring is needed.

Early signs suggest that the restructuring may not be as extensive as what we believe it should be



- **BEE credentials:** As far as we know, part of AMS's BEE credentials were obtained at mine-site in Rustenburg. Closing these mines, without additional BEE deals, may compromise its BEE credentials. However, during its results presentation, AMS stated that this will not be a hurdle at all.

**Its stretched valuation suggests that the market is not fully appreciating the predicament AMS finds itself in.**

### **The proof is in the pudding: Maintain Sell, TP R400**

AMS's strategic review is the key upside risk to our bearish view on the stock. However, early indications make us wonder if the review will be extensive enough to fundamentally change the story for AMS.

We believe it finds itself in a very difficult situation. If it cuts production significantly it will probably send a negative signal to the market, and de-rate. If it does not, it will likely continue to struggle and may run out of balance sheet.

This double-edged sword, together with a stretched valuation, to us suggests the market is not fully appreciating the predicament AMS finds itself in. Maintain Sell, TP R400.

# Valuation and Risks

## Valuation

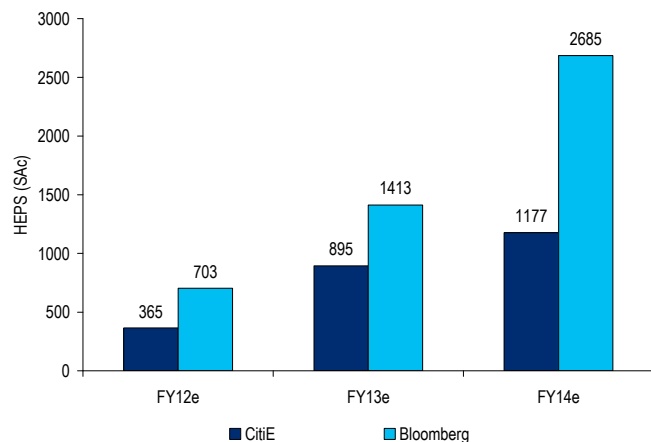
AMS's strategic review is the key upside risk to our bearish view on the stock. However, early indications make us wonder if the review will be extensive enough to fundamentally change the story for AMS. We believe it finds itself in a very difficult situation. If it cuts production significantly it will probably send a negative signal to the market, and de-rate. If it does not, it will likely continue to struggle and may run out of balance sheet. This double-edged sword, together with a stretched valuation, suggests to us that the market is not yet fully appreciating the predicament it finds itself in. Maintain Sell, TP R400.

Figure 62. Operational and earnings outlook for AMS

	FY11a	FY12e	FY13e	FY14e
Production (koz) - new	2410	2397	2574	2600
Production (koz) - old	2410	2397	2574	2600
% change	0%	0%	0%	0%
Cash costs (R/oz) - new	13552	15301	16519	18126
Cash costs (R/oz) - old	13552	15301	16519	18126
% change	0%	0%	0%	0%
Earnings (SAc) - new	1363	365	895	1177
Earnings (SAc) - old	1363	365	895	1177
% change	0%	0%	0%	0%

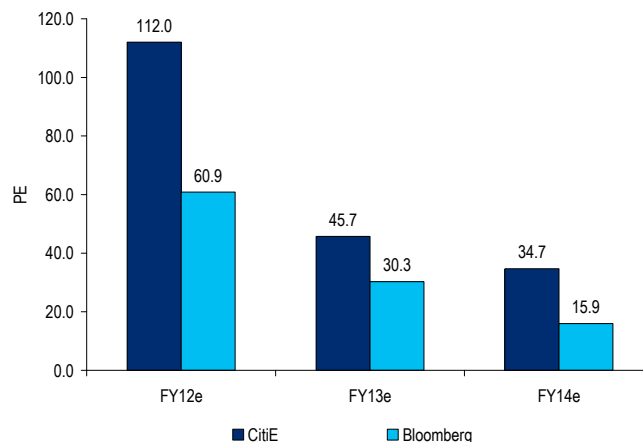
Source: Company reports, Citi Research

Figure 63. AMS CitiE HEPS forecasts vs consensus



Source: Bloomberg, Citi Research

Figure 64. AMS CitiE PE vs consensus



Source: Bloomberg, Citi Research

## Risks

Our valuation of AMS is exposed to macroeconomic developments affecting PGM prices and exchange rates, operational risks that might affect volumes and input costs, and political and regulatory risks that might affect costs and the company's reputation.

- **Macroeconomic risks:** Our valuation on AMS is highly dependent on input assumptions of the platinum, palladium and rhodium prices, as well as the rand-dollar exchange rate. Upside risks to our view include higher-than-expected PGM prices and a weaker-than-expected rand.

- **Operational risks:** We base our production and cost outlook for AMS's individual mines on management guidance and by applying our discretion to management's guidance and targets. The main upside risk to our view is the platinum market moving into deficit, in which case AMS will be able to expand production above the current 2.5m ounce (Pt) level.

## Company Focus

### Impala Platinum (IMPJ.J)

#### New Boss, New Outlook, New Numbers – Buy Rating Remains\*

\*This is an excerpt from our 24 August 2012 note [New Boss, New Outlook, New Numbers – Buy Rating Remains](#).

#### ■ Company Update

Johann Steyn  
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<b>Buy</b>	<b>1</b>
Price (11 Sep 12)	R140.20
Target price	R180.00
Expected share price return	28.4%
Expected dividend yield	4.8%
<b>Expected total return</b>	<b>33.2%</b>
Market Cap	R88,566M US\$10,826M

#### Price Performance (RIC: IMPJ.J, BB: IMP SJ)



- FY12 was hampered by safety stoppages, illegal strikes and lower third-party material. A fresh outlook on its safety strategy and the rollout of Merensky shafts resulted in a decrease in our target price and earnings estimates. Yet, we believe value remains. Buy, TP R180.**
- New boss, new numbers** – As new CEO, Mr. Goodlace 1) reset expectations for the Lease area, 2) pulled the trigger on the development of Leeuwkop, and 3) identified improvements in safety and labour relations as two key issues he wants resolved during his tenure as CEO.
- Trimming the Lease** – A delay in the ramp-up of Merensky shafts at the Lease and the closure of 40,000 UG2 ounces at 14-shaft resulted in a lowering of our medium-term production outlook for the Lease. We also decreased our steady state assumptions from 1.0m ounces by FY16 to 950,000 ounces by FY17. This change had a negative 4% impact on our valuation (details page 34).
- Pulling the trigger on Leeuwkop** – IMP's board approved an initial R1.4bn of R9.8bn in capex for Phase I of Leeuwkop, estimated to produce 145,000 ounces by 2026 at R500/t. Benchmarking this project relative to peers, the capex estimate seems fair, while unit cost assumptions appear too favourable. We estimate an NPV of R2.0bn for Leeuwkop (details pages 34-35).
- Focus on safety** – IMP has identified four best practices to implement in FY13-14 at a combined cost of about R350m. Seen in context, these initiatives will add R115/ounce (Pt) or 1% to unit costs over the next two years (details pages 35-36)
- Maintain Buy, TP R180** – As highlighted in our recent note [Hospital Pass](#), 13 August 2012, we believe current industry dynamics are playing into IMP's favour. Its low cost asset base allows it to spend capex to access high-yielding Merensky ounces, while peers are cutting back. This should put IMP in an even stronger margin position relative to its peers; something not adequately reflected by the market, in our view. Buy, TP R180.

#### Impala Platinum (ZAR)

Year to 30 Jun	2011A	2012A	2013E	2014E	2015E
Sales (RM)	32,771.7	27,593.0	32,212.8	36,545.3	40,491.1
Net Income (RM)	6,638.6	4,151.1	5,445.4	6,295.5	7,064.2
Diluted EPS (R)	11.05	6.85	8.98	10.39	11.65
Diluted EPS (Old) (R)	11.05	6.85	8.98	10.39	11.65
PE (x)	11.5	18.5	14.1	12.2	10.9
EV/EBITDA (x)	5.6	8.8	6.9	6.0	5.2
DPS (R)	5.70	1.95	3.10	3.58	4.02
Net Div Yield (%)	4.5	1.5	2.4	2.8	3.2

IMPJ.J: Fiscal year end 30-Jun						Price: R126.99; TP: R180.00; Market Cap: R80,221m; Recomm: Buy					
Profit & Loss (Rm)	2011	2012	2013E	2014E	2015E	Valuation ratios	2011	2012	2013E	2014E	2015E
Sales revenue	32,772	27,593	32,213	36,545	40,491	PE (x)	11.5	18.5	14.1	12.2	10.9
Cost of sales	-21,490	-20,641	-22,807	-25,950	-28,638	PB (x)	1.7	1.6	1.5	1.4	1.3
Gross profit	11,282	6,952	9,405	10,596	11,853	EV/EBITDA (x)	5.6	8.8	6.9	6.0	5.2
Gross Margin (%)	34.4	25.2	29.2	29.0	29.3	FCF yield (%)	2.5	-2.9	5.1	3.0	4.9
<b>EBITDA (Adj)</b>	<b>12,009</b>	<b>7,964</b>	<b>10,409</b>	<b>11,869</b>	<b>13,337</b>	Dividend yield (%)	4.5	1.5	2.4	2.8	3.2
EBITDA Margin (Adj) (%)	36.6	28.9	32.3	32.5	32.9	Payout ratio (%)	52	29	34	34	34
Depreciation	-1,372	-1,708	-1,630	-1,964	-2,226	ROE (%)	13.7	8.6	10.5	11.2	11.7
Amortisation	0	0	0	0	0	Cashflow (Rm)					
<b>EBIT (Adj)</b>	<b>10,637</b>	<b>6,256</b>	<b>8,779</b>	<b>9,905</b>	<b>11,112</b>	EBITDA	12,009	7,964	10,409	11,869	13,337
EBIT Margin (Adj) (%)	32.5	22.7	27.3	27.1	27.4	Working capital	-371	-1,133	3,824	-462	0
Net interest	-187	9	0	0	0	Other	-4,452	-1,853	-3,294	-3,565	-3,997
Associates	238	117	0	0	0	Operating cashflow					
Non-op/Except	-1,487	-132	-897	-975	-1,091	Capex	-5,293	-7,232	-6,990	-5,539	-5,547
<b>Pre-tax profit</b>	<b>9,201</b>	<b>6,250</b>	<b>7,882</b>	<b>8,930</b>	<b>10,020</b>	Net acq/disposals	-55	17	70	70	70
Tax	-2,751	-1,951	-2,397	-2,590	-2,906	Other	1,636	457	0	0	0
Extraord./Min.Int./Pref.div.	-172	-119	-39	-45	-50	Investing cashflow					
<b>Reported net profit</b>	<b>6,278</b>	<b>4,180</b>	<b>5,445</b>	<b>6,296</b>	<b>7,064</b>	Dividends paid	-2,519	-3,364	-1,878	-2,171	-2,436
Net Margin (%)	19.2	15.1	16.9	17.2	17.4	Financing cashflow					
Core NPAT	6,639	4,151	5,445	6,296	7,064	Net change in cash	345	-3,959	2,142	202	1,427
Per share data						FCF ex acquisitions & explorn					
Reported EPS (R)	10.45	6.90	8.98	10.39	11.65		1,838	-2,237	4,019	2,373	3,863
Core EPS (R)	11.05	6.85	8.98	10.39	11.65						
DPS (R)	5.70	1.95	3.10	3.58	4.02						
CFPS (R)	11.96	8.21	18.05	12.94	15.41						
FCFPS (R)	3.15	-3.72	6.51	3.80	6.26						
BVPS (R)	75.29	79.42	85.24	91.95	99.47						
Wtd avg ord shares (m)	601	606	606	606	606						
Wtd avg diluted shares (m)	601	606	606	606	606						
Growth rates											
Sales revenue (%)	30.4	-15.8	16.7	13.4	10.8						
EBIT (Adj) (%)	46.8	-41.2	40.3	12.8	12.2						
Core NPAT (%)	40.7	-37.5	31.2	15.6	12.2						
Core EPS (%)	40.5	-38.0	31.1	15.6	12.2						
Balance Sheet (Rm)											
Cash & cash equiv.	4,542	587	2,729	2,931	4,358						
Accounts receivables	4,783	5,414	5,042	5,653	5,653						
Inventory	5,471	7,081	4,260	4,776	4,776						
Net fixed & other tangibles	37,431	44,463	49,823	53,398	56,720						
Goodwill & intangibles	1,018	1,018	1,018	1,018	1,018						
Financial & other assets	14,359	13,458	13,458	13,458	13,458						
<b>Total assets</b>	<b>67,604</b>	<b>72,021</b>	<b>76,330</b>	<b>81,234</b>	<b>85,982</b>						
Accounts payable	5,656	4,858	5,489	6,154	6,154						
Short-term debt	144	121	121	121	121						
Long-term debt	1,698	2,882	2,882	2,882	2,882						
Provisions & other liab	10,496	11,685	11,685	11,685	11,685						
<b>Total liabilities</b>	<b>17,994</b>	<b>19,546</b>	<b>20,177</b>	<b>20,842</b>	<b>20,842</b>						
Shareholders' equity	47,563	50,168	53,846	58,085	62,833						
Minority interests	2,047	2,307	2,307	2,307	2,307						
<b>Total equity</b>	<b>49,610</b>	<b>52,475</b>	<b>56,153</b>	<b>60,392</b>	<b>65,140</b>						
<b>Net debt</b>	<b>-2,700</b>	<b>2,416</b>	<b>274</b>	<b>72</b>	<b>-1,355</b>						
Net debt to equity (%)	-5.4	4.6	0.5	0.1	-2.1						

For further data queries on Citi's full coverage universe please contact Citi Research Data Services at CitiRsch.DataServices.Global@citi.com  
For definitions of the items in this table, please click [here](#).

## Starting afresh

IMP's FY12 was not normal. Section 54 safety stoppages in 1H, a two-month illegal strike in 2H, and a 22% decrease in third party material, were the main contributors to a 38% and 21% decrease in HEPS and production respectively. Costs rose 24% to R13,450/ounce; likely to normalise to R13,473/ounce in FY13E. Mr. Goodlace's fresh look at IMP safety strategy and the rollout of its Merensky shafts at the Lease resulted in a decrease in our target price and earnings estimates for IMP. Yet, the company remains "best-in-class" and undervalued in our view.

## New boss, new outlook, new numbers

### Trimming the Lease

The outlook for the lease was lowered due to the following reasons:

- Delay in ramp-up of the new Merensky shafts: The ramp-up of all three the new Merensky shafts have been delayed by 1-2 years. We highlight the old and new ramp up profiles in *Figures 1* and *2* below.
- Suspension of UG2 mining at 14-shaft: About 40,000 ounces (Pt) of UG2 mining has been stopped at 14-shaft as it was deemed unprofitable and unsafe.
- Lowered steady-state outlook: The effect of the two points above resulted in steady state production for the Lease being lowered from 1.0m ounces, to 950,000 ounces, only by FY17 (previously FY16). We view this as conservative guidance and would be very surprised if IMP cannot deliver on it.

Figure 65. Old ramp up schedule of IMP's Merensky shafts (000 Pt ounces)

Shaft	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
20-Shaft	0	0	60	90	110	140	150	150	150	150
16-Shaft	0	0	30	70	100	130	150	185	185	185
17-Shaft	0	0	0	0	0	50	100	150	180	180
Total new Merensky	0	0	90	160	210	320	400	485	515	515
% Merensky	40	40	41	45	49	50	50	50	50	50

Source: Company reports, Citi Research

Figure 66. New ramp up schedule of IMP's Merensky shafts (000 Pt ounces)

Shaft	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
20-Shaft	0	0	25	50	75	100	100	125	125	125
16-Shaft	0	0	0	15	30	90	150	180	180	180
17-Shaft	0	0	0	0	0	0	50	100	150	180
Total new Merensky	0	0	25	65	105	190	300	405	455	485
% Merensky	40	43	45	47	49	50	50	50	50	50

Source: Company reports, Citi Research

## Pulling the trigger on Leeuwkop

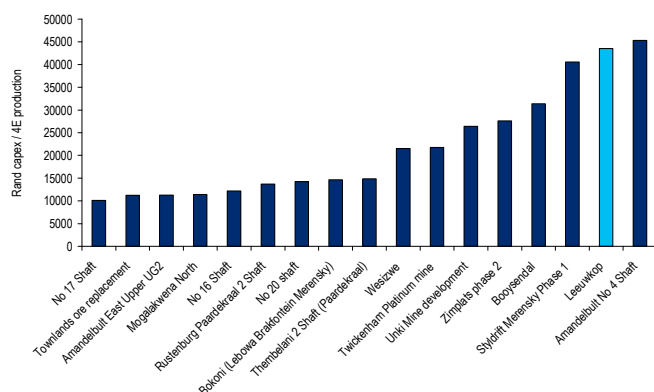
IMP's board approved an initial R1.4bn for phase I of Leeuwkop, restricted to R261m for FY13. The initial R261m will be spent on the shaft development to 330m. However, IMP highlights that the project can be stopped if market conditions deteriorate.

In total, IMP estimates that Leeuwkop will cost R9.8bn in capex (real), will produce 145,000 ounces (Pt) at steady state by 2026 at unit costs of about R500/t (real). The project currently has 83Mt of resources at a grade of 5.3 g/t (4E) equating to about 8.7m ounces of Platinum. Assuming a 50% reserve:resource conversion rate, the mine life will be 30 years.

Benchmarking this project relative to peers, the capex estimate seems fair, while we caution that unit cost assumptions appear too favourable (*Figures 3 and 4*).

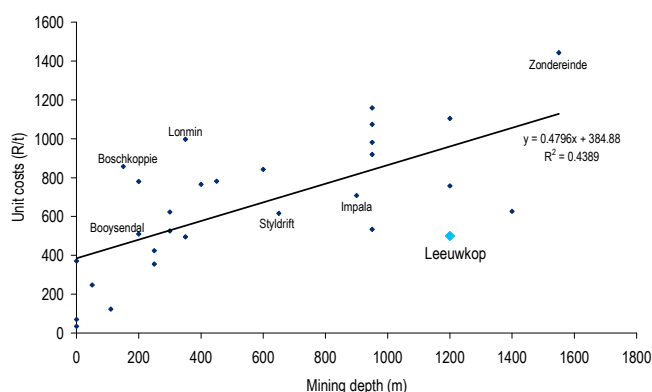
Plugging these numbers into our model, we estimate an NPV of R2.0bn for Leeuwkop on our PGM price assumptions.

**Figure 67. Relative capex per new ounce of annual production (R/oz, 4E)**



Source: Company reports, Citi Research

**Figure 68. Relative R/t unit costs vs. mine depth**



Source: Company reports, Citi Research

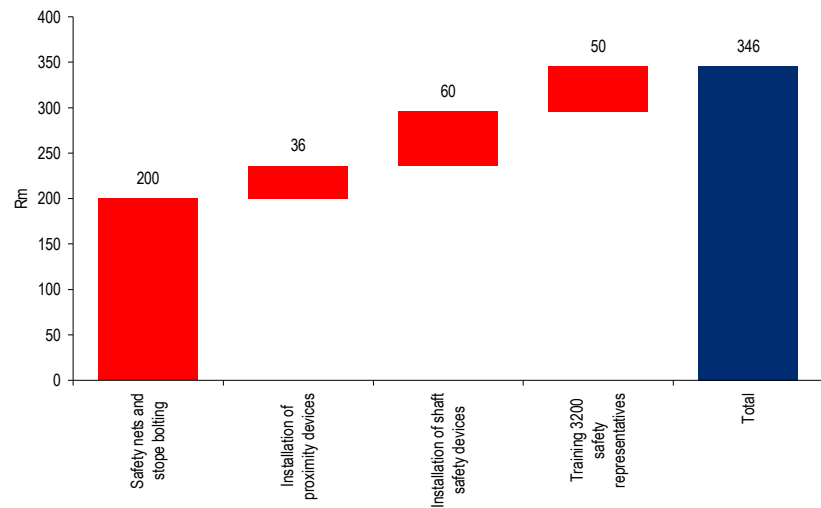
## The cost of safety

Mr. Goodlace highlighted significantly improvements in safety and labour relations as two of the key issues he would like to resolve during his tenure as CEO of IMP. He has already identified four best practices he wants implemented, at a combined cost of about R350m over the next two years.

- Implement safety nets and stope bolting at all mines at a cost of R200m in FY13
- Installation of proximity devices on trackless mobile machinery at 11 and 12-shafts at a cost of R36m;
- Installation of shaft safety devices totaling R60m in FY13 and 14 combined;
- Training an additional 3200 safety representatives by 2014 at an estimated cost (CitiE) of R50m.



Figure 69. FY13-14 combined cost impact of safety initiatives



Source: Company reports, Citi Research

Seen in context, this is a small price to pay. Combined, these initiatives will only add R115/ounce (Pt) or 1% to unit costs over the next two years. If one incident can be prevented through these initiatives, it would have been money well spent in our view.

# Valuation and Risks

## Valuation

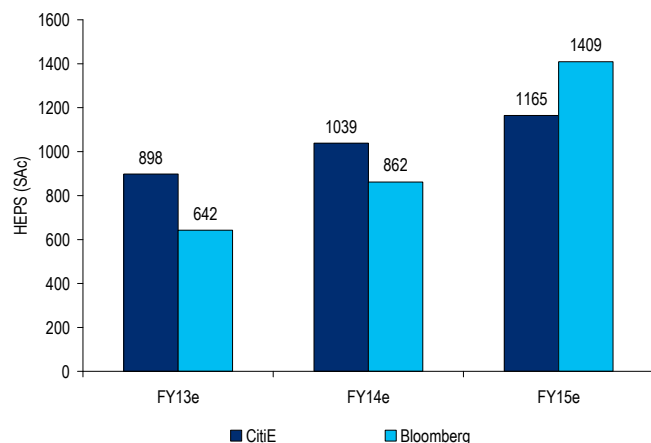
As highlighted in our note [Hospital Pass](#), we believe the current industry dynamics of protecting balance sheets through production cuts and capital delays are playing into IMP's favour. Its low-cost asset base (although having experienced a tough FY12 due to Section 54 stoppages and illegal strikes) allows it to continue spending capex to access high-yielding Merensky ounces, while peers are cutting back. This should put IMP in an even stronger margin position relative to its peers when market conditions improve; something not adequately reflected by the market, in our view.

Figure 70. Operational and earnings outlook for IMP

	FY12a	FY13e	FY14e	FY15e
Production (koz) - new	1448	1548	1707	1779
Production (koz) - old	1448	1548	1707	1779
%change	0%	0%	0%	0%
Cash costs (R/oz) - new	13450	13473	14360	14793
Cash costs (R/oz) - old	13450	13473	14360	14793
% change	0%	0%	0%	0%
Earnings (SAc) - new	685	898	1039	1165
Earnings (SAc) - old	685	898	1039	1165
% change	0%	0%	0%	0%

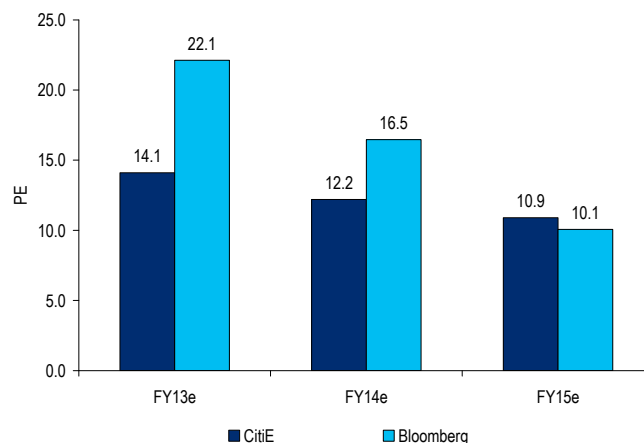
Source: Company reports, Citi Research

Figure 71. IMP CitiE HEPS forecasts vs consensus



Source: Bloomberg, Citi Research

Figure 72. IMP CitiE PE vs consensus



Source: Bloomberg, Citi Research

## Risks

Our valuation of IMP is exposed to macroeconomic developments affecting PGM prices and exchange rates, operational risks that might affect volumes and input costs, and political and regulatory risks that might affect costs and the company's reputation.

- **Macroeconomic risks:** Our valuation on IMP is highly dependent on input assumptions of the platinum, palladium and rhodium prices, as well as the rand-dollar exchange rate. Downside risks to our view include lower-than-expected PGM prices and a stronger-than-expected rand.

- **Operational risks:** We base our production and cost outlook for IMP's individual mines on management guidance and by applying our discretion to management's guidance and targets. The main downside risk to our view is that significantly more capex would be required in order to sustain current production levels than that assumed in our valuation model. Other operational risks include IMP failing to ramp up its Merensky shafts on time and a deterioration in the political conditions in Zimbabwe that could prevent further growth for IMP in this country (note that we only include Zimplats phase II into our valuation).
- **Political and regulatory risks:** IMP's operations and future projects are based in SA and Zimbabwe. The company is subsequently exposed to government and regulatory-related risks in these countries. Specific risks include higher-than-expected royalties, production delays from government intervention and labour unrest.

## Company Focus

## Lonmin PLC (LMI.L) Any Rights Issue Would Need To Be Big\*

\*This is an excerpt from our 22 August 2012 note [Any Rights Issue Would Need To Be Big](#).

### Company Update

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<b>Neutral</b>	<b>2</b>
Price (11 Sep 12)	£6.11
Target price	£6.53
Expected share price return	6.9%
Expected dividend yield	0.0%
<b>Expected total return</b>	<b>6.9%</b>
Market Cap	£1,238M US\$1,990M

### Price Performance (RIC: LMI.L, BB: LMI LN)



- **How big would it be** – Following the recent announcement that Lonmin may approach the equity capital markets (see [Rights Issue: No Surprise, Long Awaited Catalyst?](#), 21 August), if it does do a rights issue, the key questions would be: 1) how big would it be, and 2) at what discount. We address these issues below.
- **It needs to be big** – Our conversations with investors suggest that some expect a rather small rights issue, e.g. less than \$400m. We caution however, that a rights issue of this size may be insufficient and may do more harm than good, for the following reasons: 1) it would likely only kick the can down the road and may result in another recapitalisation down the line if PGM prices don't improve (or deteriorate), or if further labour or operational issues are encountered; 2) it may be insufficient to allow LON to reinstate its capex strategy of growing production to drive down unit costs; and 3) without reinstating this strategy, LON may find it difficult to convince shareholders to participate in a rights issue and therefore it may require a larger-than-expected discount.
- **There needs to be a carrot** – In order to get investors involved, we believe LON would need to do a rights issue sizeable enough to allow it to reinstate its old strategy, while protecting it from a potential deterioration in either PGM prices and/or labour and operational conditions in SA. Without reinstating its old strategy, LON will remain a high-cost, marginal company at the mercy of PGM prices in our view. Judging by how this has played out over the past three years, this may not be an optimal long-term strategy.
- **Boring is better, we prefer IMP** – We rate LON Neutral on valuation grounds with a target price of R85 (£6.53). Even though LON may provide leverage from here if PGM prices recover, we maintain our preference for Impala within the SA platinum sector.

### Lonmin PLC (USD)

Year to 30 Sep	2010A	2011A	2012E	2013E	2014E
Sales (\$M)	1,579.3	1,975.2	1,522.5	1,660.2	1,747.2
Profit Before Tax (\$M)	231.1	296.8	32.1	68.2	83.3
Diluted EPS (¢)	67.7	103.1	1.2	22.0	26.6
Diluted EPS (Old) (¢)	67.7	103.1	1.2	22.0	26.6
PE (x)	12.6	8.3	698.5	38.7	32.1
EV/EBITDA (x)	3.1	2.3	6.2	5.5	5.5
DPS (¢)	15.0	26.1	0.6	1.6	4.7
Net Div Yield (%)	1.8	3.1	0.1	0.2	0.5

LMI.L: Fiscal year end 30-Sep						Price: £5.30; TP: £6.53; Market Cap: £1,074m; Recomm: Neutral					
Profit & Loss (US\$m)	2010	2011	2012E	2013E	2014E	Valuation ratios	2010	2011	2012E	2013E	2014E
Sales revenue	1,579.3	1,975.2	1,522.5	1,660.2	1,747.2	PE (x)	12.6	8.3	nm	38.7	32.1
Cost of sales	-1,207.2	-1,557.9	-1,351.4	-1,442.5	-1,510.9	PB (x)	0.6	0.6	0.6	0.6	0.6
Gross profit	372.1	417.4	171.0	217.7	236.3	EV/EBITDA (x)	3.1	2.3	6.2	5.5	5.5
Gross Margin (%)	23.6	21.1	11.2	13.1	13.5	FCF yield (%)	20.8	-11.2	-11.8	-2.2	-1.0
EBITDA (Adj)	342.1	414.4	166.3	214.7	233.3	Dividend yield (%)	1.8	3.1	0.1	0.2	0.5
EBITDA Margin (Adj) (%)	21.7	21.0	10.9	12.9	13.4	Payout ratio (%)	22	25	53	7	18
Depreciation	-122.0	-122.3	-113.0	-118.9	-118.0	ROE (%)	5.1	7.4	0.1	1.5	1.8
Amortisation	0	0	0	0	0	Cashflow (US\$m)	2010	2011	2012E	2013E	2014E
EBIT (Adj)	220.1	292.1	53.3	95.8	115.3	EBITDA	342.1	414.4	166.3	214.7	233.3
EBIT Margin (Adj) (%)	13.9	14.8	3.5	5.8	6.6	Working capital	218.0	-319.0	47.8	19.2	29.6
Net interest	11.0	-5.3	-21.2	-27.5	-32.0	Other	-54.8	-95.4	19.2	-28.1	-36.5
Associates	0	0	0	0	0	Operating cashflow	505.3	0.0	233.4	205.7	226.4
Non-op/Except	0	10.0	0	0	0	Capex	-164.0	-194.1	-438.3	-243.5	-244.0
Pre-tax profit	231.1	296.8	32.1	68.2	83.3	Net acq/disposals	285.0	0	0	0	0
Tax	-79.3	-56.6	-32.6	-16.4	-20.7	Other	-10.0	-10.0	-10.0	-10.0	-10.0
Extraord./Min.Int./Pref.div.	-21.1	-31.0	3.0	-7.1	-8.6	Investing cashflow	111.0	-204.1	-448.3	-253.5	-254.0
Reported net profit	130.7	209.2	2.5	44.7	53.9	Dividends paid	-22.0	-53.0	-30.5	-3.2	-5.4
Net Margin (%)	8.3	10.6	0.2	2.7	3.1	Financing cashflow	333.0	-320.5	220.5	96.8	124.6
Core NPAT	130.7	209.2	2.5	44.7	53.9	Net change in cash	949.3	-524.6	5.6	49.0	97.0
Per share data	2010	2011	2012E	2013E	2014E	FCF ex acquisns & explorn	616.3	-204.1	-214.9	-47.7	-27.6
Reported EPS (¢)	67.7	103.1	1.2	22.0	26.6						
Core EPS (¢)	67.7	103.1	1.2	22.0	26.6						
DPS (¢)	15.0	26.1	0.6	1.6	4.7						
CFPS (¢)	261.8	0.0	115.0	101.4	111.5						
FCFPS (¢)	176.8	-95.6	-100.9	-18.6	-8.7						
BVPS (¢)	1,400.5	1,443.8	1,460.3	1,488.6	1,521.3						
Wtd avg ord shares (m)	193	203	203	203	203						
Wtd avg diluted shares (m)	193	203	203	203	203						
Growth rates	2010	2011	2012E	2013E	2014E						
Sales revenue (%)	48.7	25.1	-22.9	9.0	5.2						
EBIT (Adj) (%)	332.0	32.7	-81.8	79.8	20.4						
Core NPAT (%)	223.0	60.0	-98.8	nm	20.6						
Core EPS (%)	214.8	52.1	-98.8	nm	20.6						
Balance Sheet (US\$m)	2010	2011	2012E	2013E	2014E						
Cash & cash equiv.	143.3	76.0	105.8	119.4	160.2						
Accounts receivables	414.0	154.0	101.7	108.8	117.6						
Inventory	396.0	384.0	479.7	513.1	554.7						
Net fixed & other tangibles	2,199.0	2,567.0	2,888.8	3,013.4	3,139.4						
Goodwill & intangibles	113.0	113.0	113.0	113.0	113.0						
Financial & other assets	1,553.0	1,568.0	1,585.0	1,585.0	1,585.0						
Total assets	4,818.3	4,862.0	5,274.0	5,452.7	5,669.9						
Accounts payable	381.0	354.0	315.5	336.9	357.7						
Short-term debt	66.0	10.0	215.0	215.0	215.0						
Long-term debt	457.0	300.0	358.0	458.0	588.0						
Provisions & other liab	838.0	856.0	1,019.0	1,019.0	1,019.0						
Total liabilities	1,742.0	1,520.0	1,907.5	2,028.9	2,179.7						
Shareholders' equity	2,703.3	2,931.0	2,964.4	3,021.8	3,088.2						
Minority interests	373.0	411.0	402.0	402.0	402.0						
Total equity	3,076.3	3,342.0	3,366.4	3,423.8	3,490.2						
Net debt	379.7	234.0	467.2	553.6	642.8						
Net debt to equity (%)	12.3	7.0	13.9	16.2	18.4						

For further data queries on Citi's full coverage universe please contact Citi Research Data Services at CitiRsch.DataServices.Global@citi.com  
For definitions of the items in this table, please click [here](#).

## Evasive reaction\*

\*Excerpt from “Hospital Pass”

### Protecting its wickets

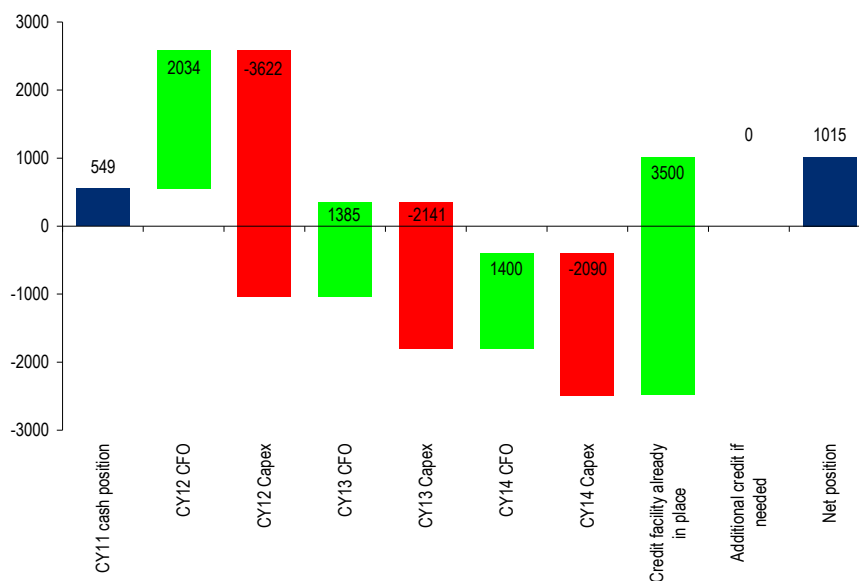
LON's recent announcement that it will be delaying capital and growth ambitions was in line with our thinking, as highlighted previously in [Steering the Ship through Stormy Waters](#) and [Tiring Balance Sheets](#).

Under its new strategy, we now expect FY12, 13 and 14 production to level off at 750,000 ounces (Pt) down from our previous 750,000, 796,000, and 862,000 ounces respectively.

The main reason for delaying its capital programme is to protect its vulnerable balance sheet. Following this action, our cash flow analysis suggests that it will save about R700m on its balance sheet over the next 18 months.

Even so, its decision to cut/delay capex only buys them time, in our view. If spot prices prevail, we believe LON still risks having to recapitalise its balance sheet, potentially through a rights issue.

Figure 73. LON CY12E/13E cash flow\* - after restructuring



Source: Citi Research

\*Pt: \$1590/oz, Pd: \$660/oz, Rh: \$1100/oz, Au: \$1735/oz, R8.20/US\$

## Valuation and Risks

### Valuation

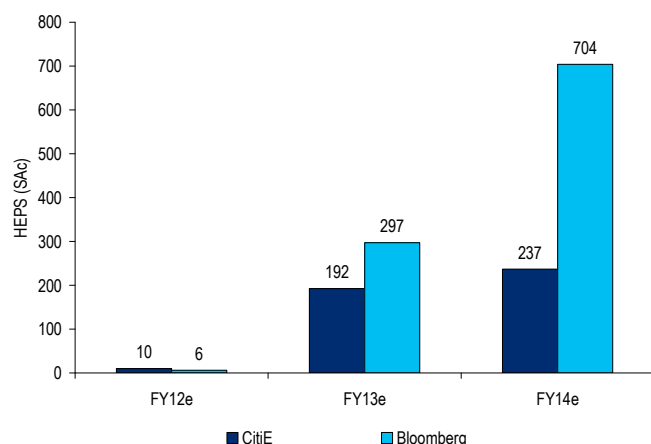
We rate LON Neutral on valuation grounds with a target price of R85. Even though LON may provide leverage from here if PGM prices recover, we maintain our preference for Impala within the SA platinum sector.

Figure 74. Operational and earnings outlook for LON

	FY11a	FY12e	FY13e	FY14e
Production (Pt koz)	722	700	750	760
Cash costs (USD/Pt oz)	2046	1847	1880	1954
HEPS (SAc)	719	10	192	237

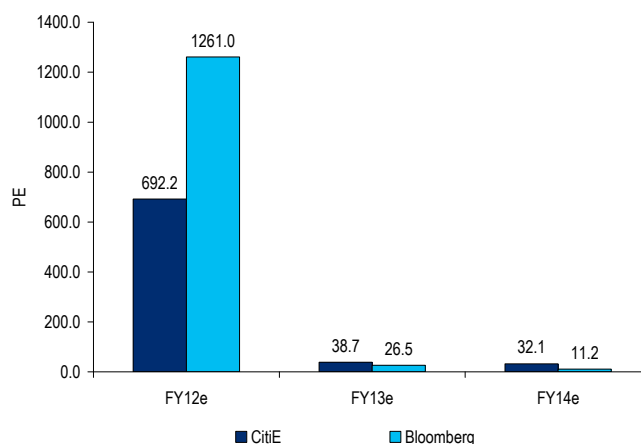
Source: Company reports, Citi Research

Figure 75. LON CitiE HEPS forecasts vs consensus



Source: Bloomberg, Citi Research

Figure 76. LON CitiE PE vs consensus



Source: Bloomberg, Citi Research

### Risks

Key downside risks include: 1) lower-than-expected dollar metal prices, 2) a stronger-than-expected rand, 3) lower-than-expected operational delivery and 4) a continuation or deterioration of labour and union problems in SA.

Conversely, upside risks include: 1) higher-than-expected dollar PGM prices, 2) a weaker-than-expected rand, 3) better-than-expected operational delivery, and 4) a resolution to current strikes and labour issues in SA.

## Company Focus

### ■ Company Update

**Johann Steyn**  
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johann.steyn@citi.com

<b>Buy</b>	<b>1</b>
Price (11 Sep 12)	R30.93
Target price	R36.00
Expected share price return	16.4%
Expected dividend yield	0.4%
<b>Expected total return</b>	<b>16.8%</b>
Market Cap	R11,831M US\$1,446M

### Price Performance (RIC: NHMJ.J, BB: NHM SJ)



## Northam Platinum (NHMJ.J) Back On Track, but Need the Notes – Buy\*

\*This is an excerpt from our 27 August 2012 note [Back On Track, but Need the Notes - Buy](#).

NHM delivered a strong FY12 result in difficult conditions, increasing production 15% y-o-y. Booyssendal remains on track and within budget. A rise in FY13e capex has, however, made it essential that NHM succeeds in its efforts to raise additional debt in our view. Maintain Buy, TP R36.

- **HEPS in-line** — HEPS of 81c was in line with guidance and CitiE. Included in this number was a 30koz inventory build (due to the smelter run out) and 12koz of lower secondary materials processed. We expect the inventory build to unwind in 1H13.
- **Zondereinde on the mend** — Zondereinde posted an encouraging result. Production increased 15% to 288,675 ounces (4E) while costs stabilised at R283,934/kg. This performance should ease market concerns that “*it won’t improve from FY11’s 250,000 ounces*” and supports our bullish view on the stock as highlighted in [Unloved and Undervalued - Buy](#), 21 November 2011.
- **Booyssendal progressing well** — Also encouraging was good progress at Booyssendal, which remains on schedule for first production in 2H13 at total capex of R4.0bn (2.5bn of which has already been spent). We expect a further R500m in working capital to be spent during the ramp-up in FY14.
- **Financing: Need the Notes** — An additional R42m capex on the smelter rebuild in FY13, and R210m for the feasibility of alternative smelter technologies, has placed more pressure on our cash flow analysis for NHM than previously expected in [Tiring Balance Sheets](#), 4 July 2012. If spot prices prevail, and if AQP does not follow through with the R1.2bn purchase of Booyssendal South, then we think it is essential that NHM succeeds in its pursuit of raising R2.0bn additional notes.
- **Maintain Buy, TP R36** — We maintain that NHM provides superior near-term production and earnings growth relative to peers, all of which will likely be funded internally and debt financing. Its market value does not fully reflect this, in our view. Maintain Buy, TP R36.

### Northam Platinum (ZAR)

Year to 30 Jun	2011A	2012A	2013E	2014E	2015E
Sales (RM)	3,570.5	3,683.2	4,612.0	6,520.5	7,203.8
Net Income (RM)	324.3	308.7	461.9	806.4	948.1
Diluted EPS (¢)	90	81	121	211	248
Diluted EPS (Old) (¢)	90	81	121	211	248
PE (x)	32.6	36.2	24.2	13.8	11.8
EV/EBITDA (x)	18.6	19.8	11.9	7.6	6.8
DPS (¢)	21	5	12	20	24
Net Div Yield (%)	0.7	0.2	0.4	0.7	0.8



NHMJ.J: Fiscal year end 30-Jun						Price: R29.19; TP: R36.00; Market Cap: R11,165m; Recomm: Buy					
Profit & Loss (Rm)	2011	2012	2013E	2014E	2015E	Valuation ratios	2011	2012	2013E	2014E	2015E
Sales revenue	3,570	3,683	4,612	6,520	7,204	PE (x)	32.6	36.2	24.2	13.8	11.8
Cost of sales	-3,186	-3,345	-3,892	-5,288	-5,825	PB (x)	1.1	1.1	1.0	0.8	0.7
Gross profit	385	338	720	1,233	1,378	EV/EBITDA (x)	18.6	19.8	11.9	7.6	6.8
Gross Margin (%)	10.8	9.2	15.6	18.9	19.1	FCF yield (%)	-1.6	-14.1	-14.7	-0.2	4.0
EBITDA (Adj)	533	528	1,017	1,713	1,938	Dividend yield (%)	0.7	0.2	0.4	0.7	0.8
EBITDA Margin (Adj) (%)	14.9	14.3	22.1	26.3	26.9	Payout ratio (%)	24	6	10	10	10
Depreciation	-148	-190	-297	-480	-559	ROE (%)	3.7	3.0	4.2	6.5	6.6
Amortisation	0	0	0	0	0	Cashflow (Rm)	2011	2012	2013E	2014E	2015E
EBIT (Adj)	385	338	720	1,233	1,379	EBITDA	533	528	1,017	1,713	1,938
EBIT Margin (Adj) (%)	10.8	9.2	15.6	18.9	19.1	Working capital	234	-90	-451	-220	0
Net interest	86	54	-70	-97	-45	Other	18	0	-258	-426	-431
Associates	7	17	0	0	0	Operating cashflow	785	438	308	1,067	1,507
Non-op/Except	53	43	0	0	0	Capex	-957	-2,009	-1,950	-1,094	-1,064
Pre-tax profit	531	452	651	1,136	1,335	Net acq/disposals	-29	10	0	0	0
Tax	-182	-142	-189	-329	-387	Other	773	-11	0	0	0
Extraord./Min.Int./Pref.div.	0	0	0	0	0	Investing cashflow	-213	-2,010	-1,950	-1,094	-1,064
Reported net profit	349	311	462	806	948	Dividends paid	-90	-57	-44	-78	0
Net Margin (%)	9.8	8.4	10.0	12.4	13.2	Financing cashflow	-61	-20	1,959	-278	-195
Core NPAT	324	309	462	806	948	Net change in cash	510	-1,592	317	-304	248
Per share data	2011	2012	2013E	2014E	2015E	FCF ex acquisns & explorn	-201	-1,560	-1,642	-27	443
Reported EPS (¢)	96	81	121	211	248						
Core EPS (¢)	90	81	121	211	248						
DPS (¢)	21	5	12	20	24						
CFPS (¢)	217	115	81	279	394						
FCFPS (¢)	-48	-411	-429	-7	116						
BVPS (¢)	2,717	2,723	3,017	3,478	4,035						
Wtd avg ord shares (m)	362	382	382	382	382						
Wtd avg diluted shares (m)	362	382	382	382	382						
Growth rates	2011	2012	2013E	2014E	2015E						
Sales revenue (%)	-9.5	3.2	25.2	41.4	10.5						
EBIT (Adj) (%)	-51.0	-12.2	113.1	71.2	11.9						
Core NPAT (%)	-49.3	-4.8	49.6	74.6	17.6						
Core EPS (%)	-49.4	-9.9	49.6	74.6	17.6						
Balance Sheet (Rm)	2011	2012	2013E	2014E	2015E						
Cash & cash equiv.	1,698	105	422	117	365						
Accounts receivables	411	303	328	451	451						
Inventory	605	811	769	1,059	1,059						
Net fixed & other tangibles	3,436	6,403	8,056	8,669	9,174						
Goodwill & intangibles	5,706	4,537	5,257	6,490	7,869						
Financial & other assets	61	84	71	71	71						
Total assets	11,917	12,244	14,904	16,859	18,989						
Accounts payable	972	981	513	706	706						
Short-term debt	84	96	96	96	96						
Long-term debt	0	0	0	0	0						
Provisions & other liab	758	753	2,753	2,753	2,753						
Total liabilities	1,814	1,831	3,362	3,555	3,555						
Shareholders' equity	10,103	10,413	11,541	13,303	15,434						
Minority interests	0	0	0	0	0						
Total equity	10,103	10,413	11,541	13,303	15,434						
Net debt	-1,614	-9	-325	-21	-268						
Net debt to equity (%)	-16.0	-0.1	-2.8	-0.2	-1.7						

For further data queries on Citi's full coverage universe please contact Citi Research Data Services at CitiRsch.DataServices.Global@citi.com  
For definitions of the items in this table, please click [here](#).

## Solid performance

NHM reported an encouraging FY12 result in a challenging environment. Production increased 15% to 288,675 ounces (4E) while costs stabilised at R283,934/kilogramme. This performance should ease market concerns that Zondereinde will “*not improve from FY11’s 250,000 ounces*” and supports our bullish view on the stock.

Also encouraging was the good progress made at Booyssendal, which is still on schedule to start first production in 2H13 at total capex (nominal) of R4.0bn (2.5bn of which has already been spent). This is in line with the 2010 real capex guidance of R3.6bn initially provided by NHM. We expect a further R500m in working capital to be spent during the ramp up in FY14.e maintain that NHM provides superior near-term earnings growth within the SA platinum sector, all of which will most likely be funded internally and through debt financing. Its market value does not fully reflect this, in our view. Maintain Buy, TP R36.

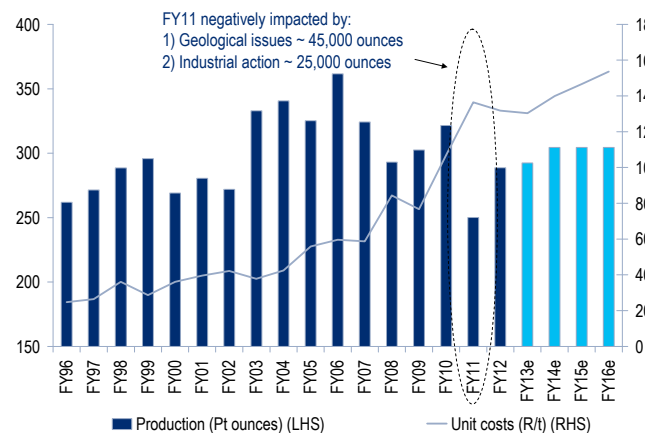
## Zondereinde on the mend

**We expect Zondereinde to produce 290,000 ounces in FY13, and 305,000 ounces in FY14**

We were encouraged by the good progress made at Zondereinde. Despite challenging geological conditions at the West and North Western areas of the mine, both volumes and grades improved significantly from FY11’s lows (*Figure 1*). Our steady state assumptions of 290,000 ounces for Zondereinde seem conservative, and we believe risks are to the upside of our numbers if NHM management can continue the encouraging momentum.

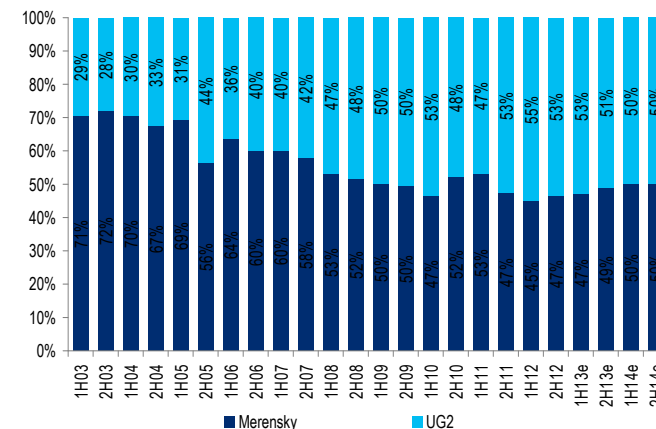
We expect Zondereinde to produce 290,000 ounces in FY13, at Merensky:UG2 ratio of 48:52 and average grade of 5.17g/t.

**Figure 77. Historical and future production and costs for Zondereinde (000 ounces, R/t)**



Source: Company reports, Citi Research

**Figure 78. NHM UG2 vs. Merensky split**



Source: Company reports, Citi Research

## Booyssendal on track

**Booyssendal on schedule and within budget**

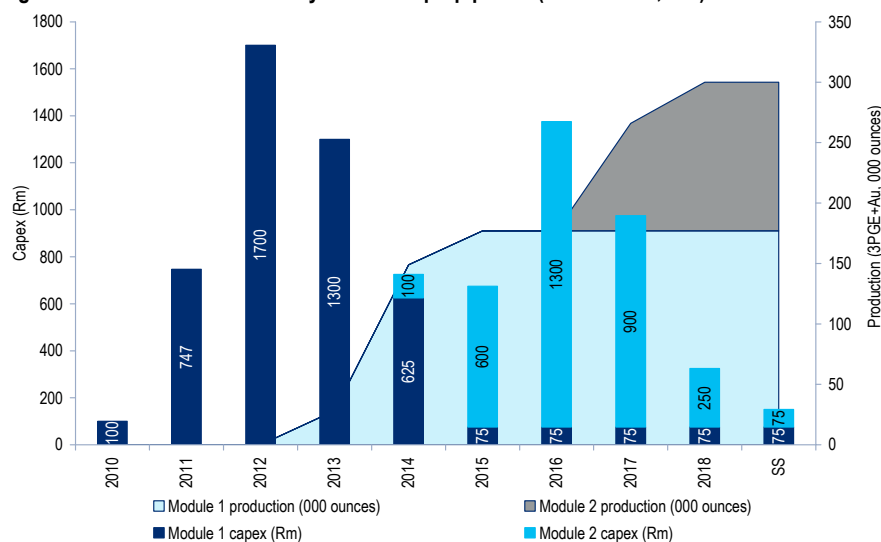
NHM reported good progress at Booyssendal. Near 4,700 metres of underground development has been completed and the reverse decline system has been connected with the on-reef declines. The project remains on track for first production in 2H13 with a further R1.3bn in capex in FY13 and R700m in FY14. We expect first production in 2H13 and steady state production of 167,000 ounces (4E) by FY15 at unit costs of R570/t (2012 real).

**Key downside to project is Eskom failing to deliver on time**

The main downside risk to the schedule being met is a two month delay in the installation of the Eskom power line due to illegal land invasions. A High Court order was sought and granted and installation should recommence from 30 August 2012.

Even though we model Phase 2 in our valuation (to take total production to 277,000 ounces by 2017 with an additional R3.0bn in capex), NHM recently highlighted that Phase 2 is still constrained by the lack of electricity allocation. The company will only know by 2015 whether or not it will receive an additional allocation in order to proceed with Phase 2.

**Figure 79. Citi Research est: Booyesendal ramp-up profile ('000 ounces, Rm)**



Source: Company Reports, Citi Research

**Additional funding essential if both spot prices prevail...**

**...and if AQP pulls out of Booyesendal South deal**

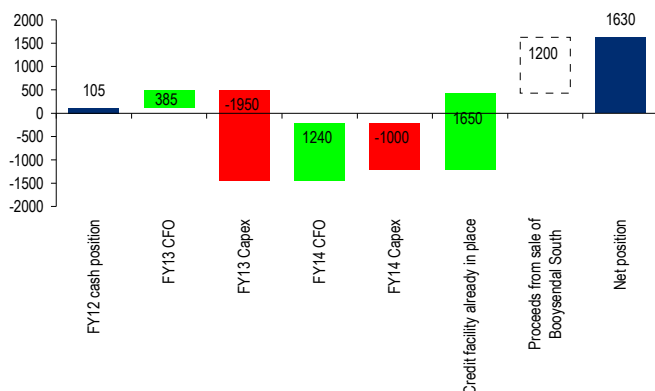
## Funding: Need the Notes

Our updated cash flow analysis suggests that NHM will need additional funding (over and above the R1.6bn debt facilities already in place) if spot prices prevail and if AQP does not proceed with the R1.2bn purchase of Booyesendal South. The deterioration in cash flow outlook since our 4 July 2012 note [Tiring Balance Sheets](#) is mainly due to higher FY13 capex expectations, in turn due to a R42m rebuild of the Zondereinde smelter and R210m for the feasibility of alternative smelter technologies.

To this extent, NHM is in the process of negotiating an additional R2.0bn domestic medium-term note programme (refer [Two positives and a negative – Maintain Buy](#), 6 August 2012).

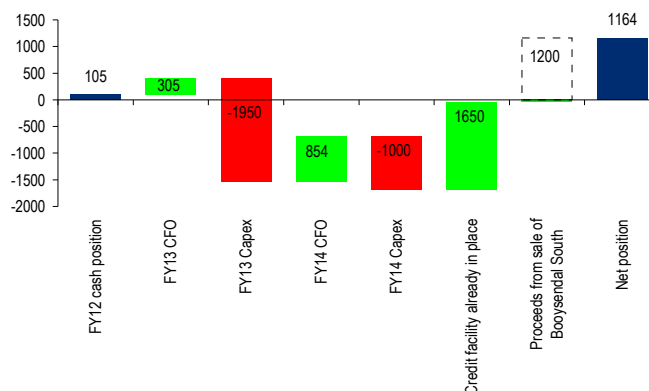
If our PGM price expectations realise, NHM should be able to meet all its medium-term commitments without the need of additional debt. However, we view it as prudent to access more debt, given the uncertain macro economic outlook and uncertain labour environment in South Africa.

Figure 80. NHM FY13e-14e cash flow analysis at CitiE prices (Rm)



Source: Citi Research

Figure 81. NHM FY13e-14e cash flow analysis at spot prices\* (Rm)



Source: Citi Research

\*Pt: \$1,540/oz, Pd: \$650/oz, Rh: \$1,100/oz, Au: \$1,660/oz, \$:R = 8.42

## BEE update

NHM reminded shareholders that both Afripalm Resources and Mvelaphanda Holdings have been required to dispose of a significant portion of their holdings in NHM. This is as the significant decrease in NHM's share price has resulted in these holders breaching the covenants contained in the BEE financing agreement, in which they pledged the NHM shares as security. The potential decrease in NHM's BEE status could be from 26% to 16%.

The DMR has required Northam to urgently restore its BEE shareholding to a minimum of 26%. To this extent, NHM has proposed a new BEE transaction to regain its 26% BEE status before 2014. The proposal is to create a new class of ordinary shares (A shares) to be issued to one or more BEE trusts. In essence it implies that there will be no short-term dilution to existing shareholders; but, dilution (of c.10%) will eventually happen.

# Valuation and Risks

## Valuation

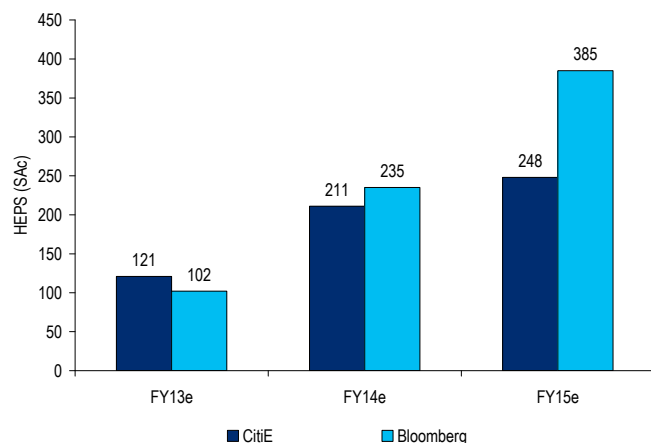
We maintain that NHM provides superior near-term production and earnings growth relative to peers, all of which will likely be funded internally and debt financing. Its market value does not fully reflect this, in our view. Maintain Buy, TP R36.

Figure 82. Operational and earnings outlook for NHM

	FY12a	FY13e	FY14e	FY15e
Production (000 ounces) - new	289	320	453	482
Production (000 ounces) - old	289	320	453	482
% change	0%	0%	0%	0%
Cash costs (USD/oz) - new	1137	1010	981	988
Cash costs (USD/ounce) - old	1137	1010	981	988
% change	0%	0%	0%	0%
Cash costs (R/oz) - new	14,550	14,442	14,498	15,017
Cash costs (R/oz) - old	14,550	14,442	14,498	15,017
% change	0%	0%	0%	0%
Earnings (SAc) - new	81	121	211	248
Earnings (SAc) - old	81	121	211	248
% change	0%	0%	0%	0%

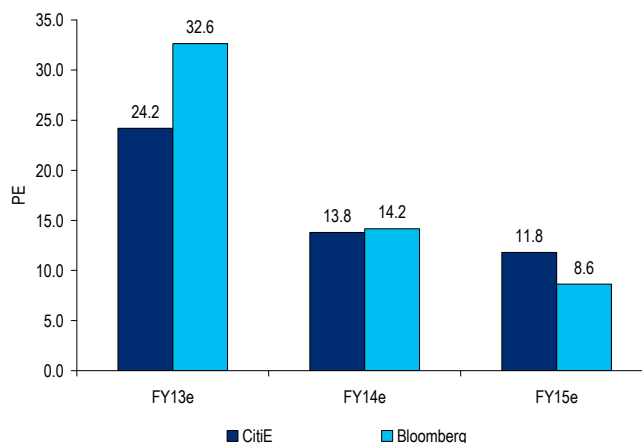
Source: Company reports, Citi Research

Figure 83. NHM CitiE HEPS forecasts vs consensus



Source: Bloomberg, Citi Research

Figure 84. NHM CitiE PE vs consensus



Source: Bloomberg, Citi Research

## Risks

Our valuation of NHM is exposed to macroeconomic developments affecting PGM prices and exchange rates, operational risks that might affect volumes and input costs, and political and regulatory risks that might affect costs and the company's reputation. As a junior platinum mining company with attractive low-cost growth potential, our valuation of NHM is also exposed to corporate activity risk.

**Macroeconomic risks:** Our valuation on NHM is highly dependent on input assumptions of the platinum, palladium and rhodium prices, as well as the rand-dollar exchange rate. Downside risks to our view include lower-than-expected PGM prices and a stronger-than-expected rand. Conversely, upside risks to our view include higher-than-expected PGM prices and a weaker-than-expected rand.

**Operational risks:** We base our production and cost outlook for NHM's individual mines on management guidance and by applying our discretion to management's

guidance and targets. The main operational downside risks to our view are: 1) a significant delay in the ramp-up of Booysendal; 2) significant escalation in capex requirements for Booysendal; and 3) further unforeseen geological complexities at its Zondereinde mine.

**Political and regulatory risks:** IMP's operations and future projects are based in SA and Zimbabwe. The company is subsequently exposed to government and regulatory-related risks in these countries. Specific risks include higher-than-expected royalties, production delays from government intervention and labour unrest.

## Company Focus

## Royal Bafokeng Platinum (RBPJ.J) Tough Decisions Needed\*

\*This is an excerpt from our 21 August 2012 note [Tough Decisions Needed – Downgrade to Sell](#).

### ■ Company Update

**Johann Steyn**  
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<b>Sell</b>	<b>3</b>
Price (11 Sep 12)	R49.03
Target price	R45.00
Expected share price return	-8.2%
Expected dividend yield	0.0%
<b>Expected total return</b>	<b>-8.2%</b>
Market Cap	R8,117M US\$992M

### Price Performance (RIC: RBPJ.J, BB: RBP SJ)



All operating parameters deteriorated significantly y-o-y. We are particularly concerned about costs. We estimate RBP needs to reduce headcount by 17% to get costs under control. Sell, TP R45.

- **1H12 was tough** – Normalised HEPS decreased 51% y-o-y to 62c. This was as a combination of lower metal prices, lower volumes, lower grades and spiralling costs took a toll during 1H12.
- **Boschkoppie: Tough decisions needed** – Production decreased 10% to 128,847 ounces (4E) due to a 6% decrease in head grade and 3% lower volumes. The combination of these resulted in costs spiralling 19% to R11,606/ounce (Pt). Adding to the rise in costs was a 5% increase in labour to 6,744 heads. We find this odd given that 1) labour already forms ~60% of its total costs, and 2) it wants to embark on a right-sizing strategy before end FY12. We maintain that a 17% cut (1,150 heads) is needed to right-size its cost base to that of its peers (i.e. to get labour at 50% of total costs).
- **Styltdrift: Lowering estimates** – Styltdrift's optimisation study resulted in 1) an 18-month delay to steady state, 2) 107,000 ounce p.a. lower production in FY16 and 17, and 3) a 12% reduction in reserves. Incorporating these changes, our NPV for Styltdrift decreases R330m to R2.46bn.
- **Sell, TP R45** – We recently downgraded our target price from R52 to R45 on weaker operating assumptions for Boschkopie and lowered estimates for Styltdrift. The former also resulted in a cut to our FY12-14e earnings expectations. We maintain that significant headcount reductions are needed at Boschkopie, something management suggests is on the cards, but is against the trend observed over the past year. Excluding the potential of corporate action, we view RBP as overvalued. Sell, TP R45.

### Royal Bafokeng Platinum (ZAR)

Year to 31 Dec	2010A	2011A	2012E	2013E	2014E
Sales (RM)	2,106.1	2,975.3	3,033.4	3,422.0	3,862.4
Net Income (RM)	271.3	273.9	164.5	242.1	335.8
Diluted EPS (¢)	192	167	100	148	205
Diluted EPS (Old) (¢)	192	167	100	148	205
PE (x)	23.8	27.4	45.6	31.0	22.4
EV/EBITDA (x)	10.7	9.5	13.9	11.1	10.0
DPS (¢)	0	0	0	0	0
Net Div Yield (%)	0.0	0.0	0.0	0.0	0.0

RBPJ.J: Fiscal year end 31-Dec						Price: R45.76; TP: R45.00; Market Cap: R7,575m; Recomm: Sell					
Profit & Loss (Rm)	2010	2011	2012E	2013E	2014E	Valuation ratios	2010	2011	2012E	2013E	2014E
Sales revenue	2,106	2,975	3,033	3,422	3,862	PE (x)	23.8	27.4	45.6	31.0	22.4
Cost of sales	-1,217	-1,842	-2,158	-2,282	-2,460	PB (x)	0.7	0.7	0.7	0.7	0.6
Gross profit	889	1,133	875	1,140	1,402	EV/EBITDA (x)	10.7	9.5	13.9	11.1	10.0
Gross Margin (%)	42.2	38.1	28.9	33.3	36.3	FCF yield (%)	1.0	-1.6	-4.5	-13.6	-24.7
<b>EBITDA (Adj)</b>	<b>830</b>	<b>1,084</b>	<b>758</b>	<b>1,016</b>	<b>1,271</b>	Dividend yield (%)	0	0.0	0.0	0.0	0.0
EBITDA Margin (Adj) (%)	39.4	36.4	25.0	29.7	32.9	Payout ratio (%)	0	0	0	0	0
Depreciation	-373	-518	-490	-600	-600	ROE (%)	35.7	2.5	1.5	2.2	2.9
Amortisation	0	0	0	0	0	Cashflow (Rm)					
<b>EBIT (Adj)</b>	<b>457</b>	<b>565</b>	<b>268</b>	<b>416</b>	<b>671</b>	EBITDA	823	1,051	758	1,016	1,271
EBIT Margin (Adj) (%)	21.7	19.0	8.8	12.2	17.4	Working capital	-51	-94	226	197	181
Net interest	3	58	0	-25	-125	Other	13	69	-67	-124	-262
Associates	0	0	0	0	0	<b>Operating cashflow</b>	<b>785</b>	<b>1,025</b>	<b>917</b>	<b>1,090</b>	<b>1,189</b>
Non-op/Except	2,886	-14	-37	-50	-73	Capex	-719	-1,147	-1,255	-2,111	-3,044
<b>Pre-tax profit</b>	<b>3,339</b>	<b>576</b>	<b>232</b>	<b>341</b>	<b>473</b>	Net acq/disposals	0	0	0	0	0
Tax	-172	-164	-67	-99	-137	Other	-162	-5	0	0	0
Extraord./Min.Int./Pref.div.	-2	-138	0	0	0	<b>Investing cashflow</b>	<b>-880</b>	<b>-1,151</b>	<b>-1,255</b>	<b>-2,111</b>	<b>-3,044</b>
<b>Reported net profit</b>	<b>3,166</b>	<b>274</b>	<b>165</b>	<b>242</b>	<b>336</b>	Dividends paid	0	0	0	0	0
Net Margin (%)	150.3	9.2	5.4	7.1	8.7	<b>Financing cashflow</b>	<b>943</b>	<b>326</b>	<b>0</b>	<b>500</b>	<b>2,000</b>
Core NPAT	271	274	165	242	336	<b>Net change in cash</b>	<b>847</b>	<b>200</b>	<b>-338</b>	<b>-521</b>	<b>145</b>
Per share data						FCF ex acquisitions & explorn	66	-121	-338	-1,021	-1,854
Reported EPS (¢)	2,241	167	100	148	205						
Core EPS (¢)	192	167	100	148	205						
DPS (¢)	0	0	0	0	0						
CFPS (¢)	556	625	558	664	725						
FCFPS (¢)	47	-74	-206	-622	-1,130						
BVPS (¢)	6,686	6,890	6,533	6,849	7,219						
Wtd avg ord shares (m)	141	164	164	164	164						
Wtd avg diluted shares (m)	141	164	164	164	164						
Growth rates											
Sales revenue (%)	82.4	41.3	2.0	12.8	12.9						
EBIT (Adj) (%)	146.3	23.8	-52.5	55.2	61.1						
Core NPAT (%)	320.9	1.0	-39.9	47.1	38.7						
Core EPS (%)	118.0	-13.1	-39.9	47.1	38.7						
Balance Sheet (Rm)											
Cash & cash equiv.	899	1,099	762	241	386						
Accounts receivables	1,047	996	607	684	772						
Inventory	48	31	31	31	31						
Net fixed & other tangibles	7,441	8,126	8,891	10,401	12,845						
Goodwill & intangibles	8,760	8,976	8,976	8,976	8,976						
Financial & other assets	256	265	265	265	265						
<b>Total assets</b>	<b>18,451</b>	<b>19,493</b>	<b>19,531</b>	<b>20,598</b>	<b>23,276</b>						
Accounts payable	415	240	863	913	984						
Short-term debt	0	0	0	0	0						
Long-term debt	0	0	0	500	2,500						
Provisions & other liab	3,684	4,116	4,116	4,116	4,116						
<b>Total liabilities</b>	<b>4,099</b>	<b>4,355</b>	<b>4,979</b>	<b>5,528</b>	<b>7,600</b>						
Shareholders' equity	10,944	11,278	10,693	11,211	11,817						
Minority interests	3,407	3,859	3,859	3,859	3,859						
<b>Total equity</b>	<b>14,352</b>	<b>15,137</b>	<b>14,552</b>	<b>15,070</b>	<b>15,676</b>						
<b>Net debt</b>	<b>-899</b>	<b>-1,099</b>	<b>-762</b>	<b>259</b>	<b>2,114</b>						
Net debt to equity (%)	-6.3	-7.3	-5.2	1.7	13.5						

For further data queries on Citi's full coverage universe please contact Citi Research Data Services at CitiRsch.DataServices.Global@citi.com  
For definitions of the items in this table, please click [here](#).



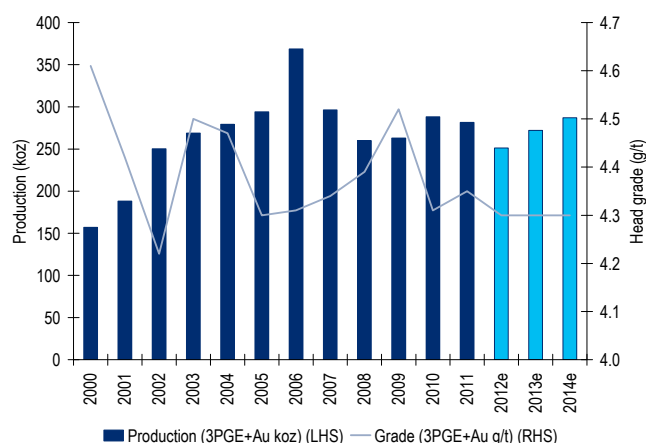
# RBP: More is needed

## Overview of current strategy

RBP's strategy is based on achieving and maintaining production of ~300k ounces at Boschkoppie, while developing and ramping up Styldrift Phase I by FY18 (previously FY17). More specifically:

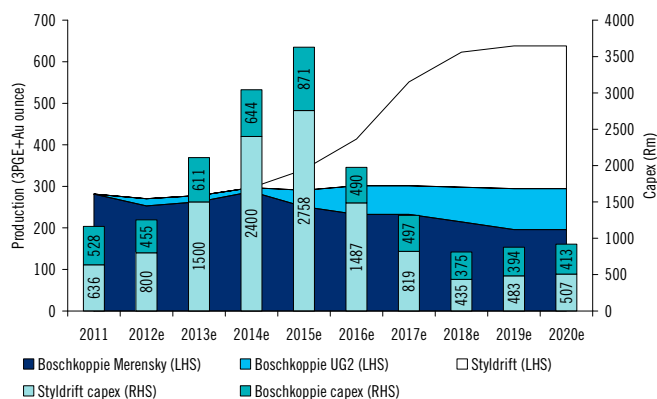
- **Boschkoppie:** RBP aims to maintain production from Boschkoppie at ~300k ounces pa. It aims to achieve this by expanding its UG2 concentrating capacity in order to offset the effect of a declining Merensky profile. It also hired consultants to advise on improved drilling and mining practices in an attempt to improve mining efficiency and reduce costs.
- **Styldrift:** Styldrift Phase I is in development phase. RBP aims to reach 277k ounce (4E) steady state production by end FY18. It is also considering further longer-term expansion through Styldrift II, although still very early stage.

Figure 85. Boschkoppie 2000-2014e production and grade profile



Source: Company reports, Citi Research

Figure 86. Styldrift and Boschkoppie production and capex profile



Source: Company reports, Citi Research

## Too tame

**A more aggressive strategy is needed to reduce costs at Boschkoppie, in our view**

In principle, we agree with RBP's strategy. We agree that it should 1) expand UG2 processing capacity at Boschkoppie, 2) develop and grow through Styldrift, and 3) attempt to improve efficiency at Boschkoppie. However, we believe more can be done in the way it attempts the last mentioned.

Figure 87. Assessment of RBP's strategy vs. CIRA view

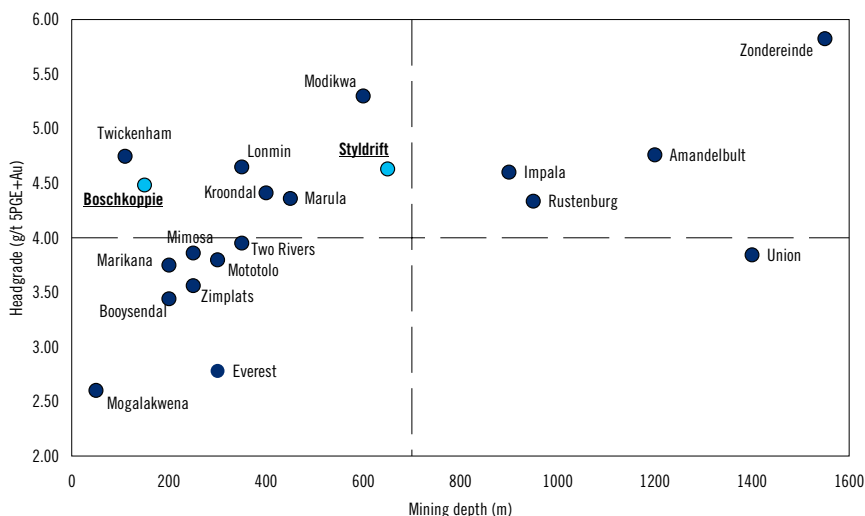
Mine	Strategy				Relative to Citi	Comment
	Sell	Shut	Transform	Reduce capex		
Boschkoppie			Citi	RBP		
Styldrift					RBP/Citi	

Source: Company reports, Citi Research

**Boschkoppie is fundamentally a good mine...**

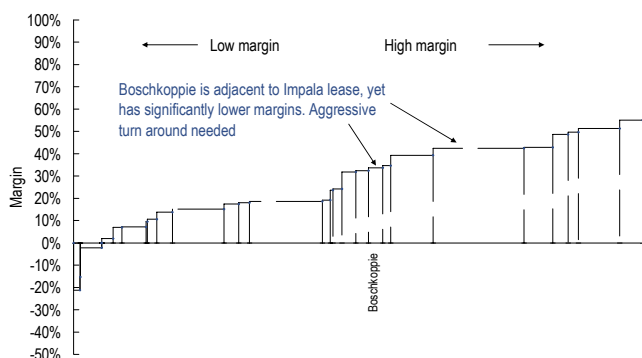
Boschkoppie is one of the shallowest and highest grade mines in the SA platinum sector (Figure 4). It has all the ingredients to be one of the highest-margin and most cash-generative assets in the sector. Yet it is not (Figure 5 and 6).

Figure 88. SA platinum mine comparative head-grades and mining depths (5PGE+Au, m)



Source: Company Reports and Citi Research

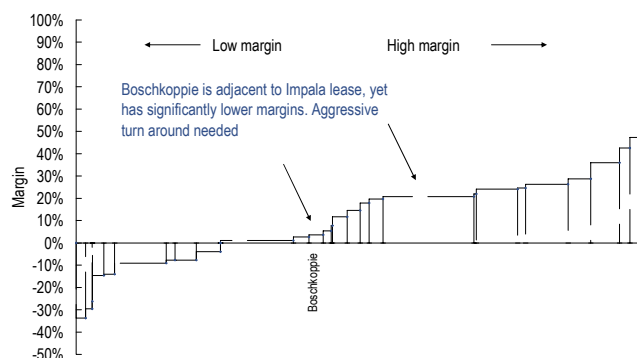
Figure 89. RBP 2H CY12E EBITDA margin chart\* (R/ounce, based on 10 January 2012 spot commodity prices)



Source: Citi Investment Research and Analysis

\*Including the effect of individual mine prill splits and base metal credits

Figure 90. RBP 2H CY12E FCF margin chart\* (R/ounce, based on 10 January 2012 spot commodity prices)



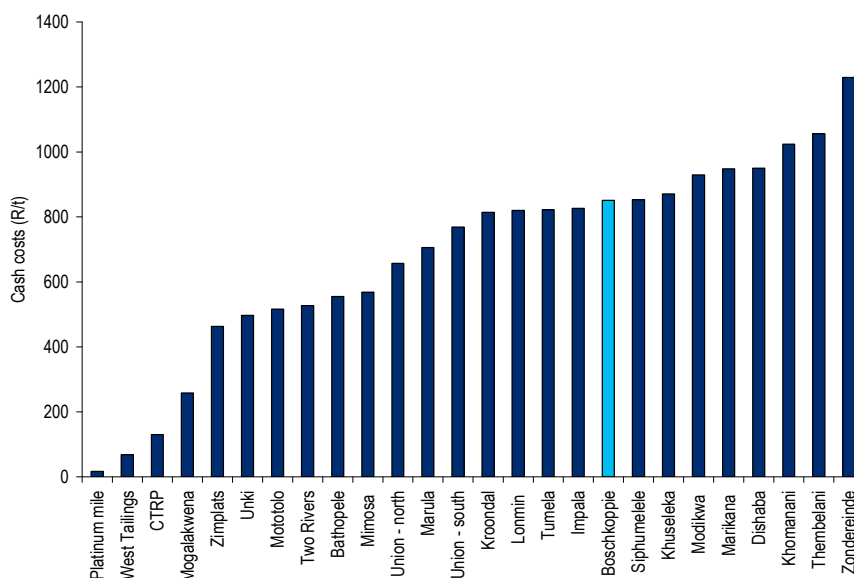
Source: Citi Investment Research and Analysis

\*Including the effect of individual mine prill splits and base metal credits

The problem we see for Boschkoppie is exposed when looking at the relative rand-per-tonne unit costs of the sector. Even though it is one of the shallowest mines, it is one of the most costly mines on a rand-per-tonne basis (Figure 93).

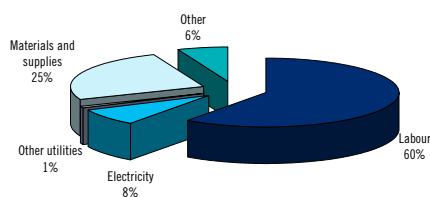
This disconnection can be explained by assessing its cost split relative to its peers. Labour costs form 60% of RBP's total costs compared to 49% average for the sector (Figures 94-99).

Figure 91. 1H12 Cash costs (R/t)



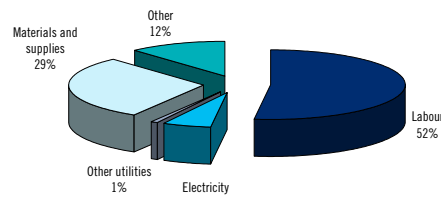
Source: Company reports, Citi Research

Figure 92. RBP cost breakdown



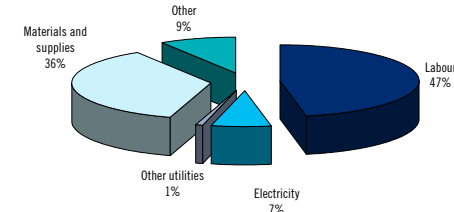
Source: Company Reports

Figure 93. AMS cost breakdown



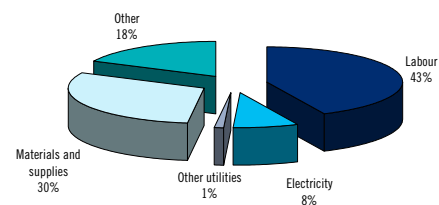
Source: Company Reports

Figure 94. IMP cost breakdown



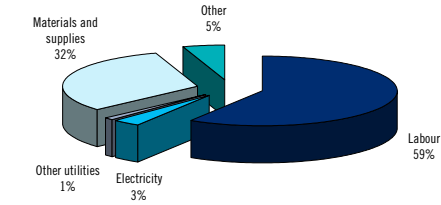
Source: Company Reports

Figure 95. NHM cost breakdown



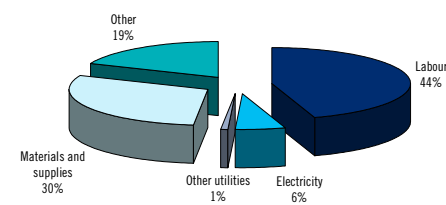
Source: Company Reports

Figure 96. LON cost breakdown



Source: Company Reports

Figure 97. AQP cost breakdown



Source: Company Reports

**We believe a more aggressive approach by management could unlock full potential**

As a result, we believe that RBP's current attempts at improving drilling patterns and mining practices are classic examples of the 80/20 principle. In our view, it is currently focusing on 80% of the effort that will only drive 20% of the result. We think RBP should rather seek the 20% of the effort that will drive 80% of the result. We believe right-sizing to a more appropriate labour complement would be the answer to this problem. We maintain that significant headcount reductions are needed at Boschkoppe, something management suggests is on the cards, but is

confusingly against the trend observed over the past year. Excluding the potential of corporate action, we view RBP as overvalued. Sell, TP R45.

# Valuation and Risks

## Valuation

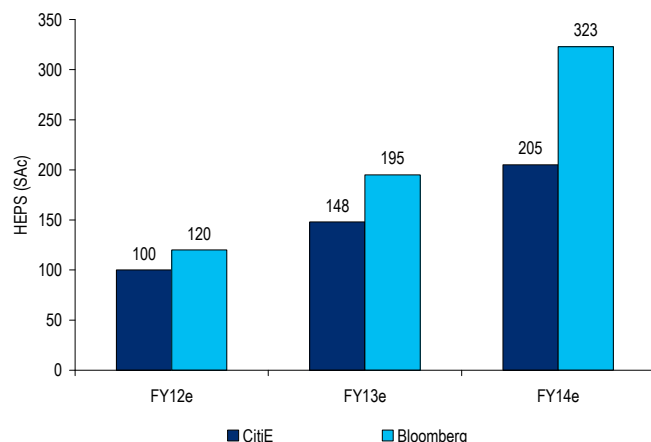
We maintain that significant headcount reductions are needed at Boschkoppie, something management suggests is on the cards, but is confusingly against the trend observed over the past year. Excluding the potential of corporate action, we view RBP as overvalued. Sell, TP R45.

Figure 98. Operational and earnings outlook for RBP

	FY11a	FY12e	FY13e	FY14e
Production (koz) - new	282	271	278	297
Production (koz) - old	282	271	278	297
% change	0%	0%	0%	0%
Cash costs (R/oz) - new	9863	11962	12328	12988
Cash costs (R/oz) - old	9863	11962	12328	12988
% change	0%	0%	0%	0%
Earnings (SAC) - new	167	100	148	205
Earnings (SAC) - old	167	100	148	205
% change	0%	0%	0%	0%

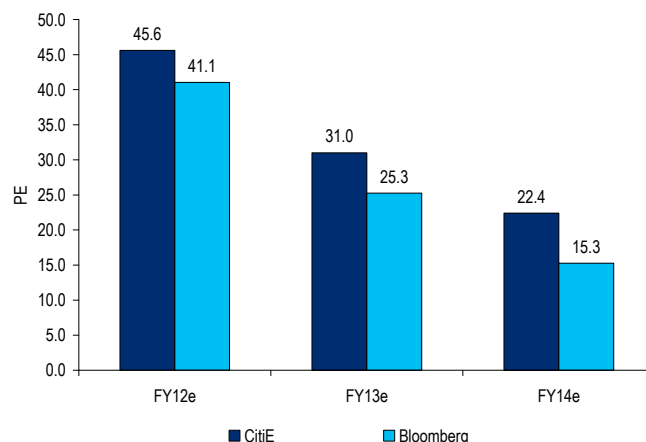
Source: Company reports, Citi Research

Figure 99. RBP CitiE HEPS forecasts vs consensus



Source: Bloomberg, Citi Research

Figure 100. RBP CitiE PE vs consensus



Source: Bloomberg, Citi Research

## Risks

Our valuation of RBP is exposed to macroeconomic developments affecting PGM prices and exchange rates, operational risks that might affect volumes and input costs, and political and regulatory risks that might affect costs and the company's reputation. As a mid-tier platinum mining company with attractive low-cost growth potential, our valuation of RBP is also exposed to corporate activity risk.

- **Macroeconomic risks:** Our valuation of RBP is highly dependent on input assumptions of the platinum, palladium and rhodium prices, as well as the rand-dollar exchange rate. Downside risks to our view include lower-than-expected PGM prices and a stronger-than-expected rand. Conversely, upside risks to our view include higher-than-expected PGM prices and a weaker-than-expected rand.
- **Operational risks:** We base our production and cost outlook for RBP's individual mines on management guidance and by applying our discretion to management's guidance and targets. The main operational downside risks to our

view are 1) a significant delay in the ramp-up of Styldrift, 2) significant escalation in capex requirements for Styldrift, and 3) unforeseen operational disappointments at its Boschkoppie mine.

- **Political and regulatory risks:** RBP's operations and future projects are based in SA. The company is consequently exposed to government and regulatory-related risks in this country. Specific risks include higher-than-expected royalties, production delays from government intervention, and labour unrest.
- **Corporate activity risk:** Given that RBP is strategically well-positioned to partake in the future consolidation of the SA platinum industry, the main upside risk to our view is a potential buy-out of its existing assets and/or projects.
- **Dilution risk:** We forecast a R4-5bn funding gap for RBP over the next five years. We believe that part of this gap would likely be funded through equity and therefore caution on dilution risk.

## Company Focus

## Aquarius Platinum Ltd (AQP.L) FY13 will be challenging as well, dilution risk high\*

This is an excerpt from our 8 August 2012 note *FY13 will be challenging as well, dilution risk high*.

### ■ Company Update

#### Jon H Bergtheil

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<b>Neutral</b>	<b>2</b>
Price (11 Sep 12)	£0.38
Target price	£0.40
Expected share price return	4.9%
Expected dividend yield	0.0%
<b>Expected total return</b>	<b>4.9%</b>
Market Cap	£180M
	US\$290M

#### Price Performance (RIC: AQP.L, BB: AQP LN)



- **Larger than expected loss** – AQP reported a headline loss of -32.8c for FY12 vs. our -29c. Even though production was largely in line with Citi estimates, weaker-than-expected unit costs contributed to the miss.
- **Operationally weaker** – Production of 411,398 ounces (4E) were in line with Citi estimates. Unit costs increased 21% y-o-y to USD1,131/ounce, 12% above our USD1,013/ounce expectations. The higher-than-expected costs were mainly due to 1) underperformance of its concentrators, 2) problems experienced with the implementation of the underground hanging wall safety support regime, and 3) a significant increase in Section 54 stoppages, especially towards the end of 1H12.
- **Mine closures** – The effect mine closures (Marikana and Everest) will only reflect in FY13. No outlook was provided for FY13.
- **Booyseendal** – AQP also highlighted that it would need to arrange additional finance if it will proceed with the R1.2bn acquisition of Booyseendal South. This is in line with what we highlighted in our note *Tiring Balance Sheets*, 4 July 2012. We doubt whether AQP will be able to raise additional debt (given its R2.0bn “out of the money” convertible bond) and view a rights issue as likely. Either that, or AQP will have to delay or abandon its Booyseendal aspirations.
- **Maintain Neutral, TP £0.40 (R5.60)** – Even though AQP appears inexpensive on an NPV basis, we caution that the likelihood of a rights issue may continue to weigh on its valuation in the near term. Also, a further downside risk to AQP’s valuation would be if AMS decides to close Kroondal in its upcoming strategic review. As such, we maintain our Neutral rating, TP £0.40 (R5.60).

#### Aquarius Platinum Ltd (USD)

Year to 30 Jun	2011A	2012A	2013E	2014E	2015E
Sales (\$M)	667.6	477.5	390.4	422.0	548.0
Net Income (\$M)	97.1	-61.0	10.9	27.4	43.0
Diluted EPS (¢)	21.0	-13.1	2.3	5.8	9.1
Diluted EPS (Old) (¢)	21.0	-13.1	2.3	5.8	9.1
PE (x)	2.7	-4.3	24.3	9.7	6.2
EV/EBITDA (x)	1.1	103.0	6.1	4.1	2.4
DPS (¢)	4.0	0.0	0.0	0.0	0.0
Net Div Yield (%)	7.1	0.0	0.0	0.0	0.0

AQP.L: Fiscal year end 30-Jun						Price:£0.35; TP:£0.40; # Shares: 473m; Market Cap: A\$255m; Recomm: Neutral					
Profit & Loss (US\$m)						Comdty & FX Forecasts					
	2012	2013E	2014E	2015E	2016E		2012	2013E	2014E	2015E	2016E
Sales revenue	477.5	390.4	422.0	548.0	640.3	Platinum price (US\$/oz)	1,634.5	1,538.8	1,607.5	1,675.0	1,725.0
Cost of sales	-531.2	-347.9	-362.2	-475.1	-548.9	Palladium price (US\$/oz)	685.5	681.3	750.0	825.0	812.5
<b>EBITDA</b>	<b>3.7</b>	<b>71.6</b>	<b>97.1</b>	<b>129.2</b>	<b>154.6</b>	Rhodium price (US\$/oz)	1,624.3	1,262.5	1,300.0	1,425.0	1,650.0
Depreciation/Amortization	-60.4	-41.0	-49.2	-68.4	-75.2	USDZAR (analyst) (x)	8.1	8.8	9.0	9.1	9.5
<b>EBIT</b>	<b>-56.7</b>	<b>30.6</b>	<b>47.8</b>	<b>60.8</b>	<b>79.5</b>	<b>Long Term Forecasts</b>					
Net interest	-34.0	-19.3	-10.1	-3.5	3.4	Platinum Price (US\$/oz)					1,500.0
<b>Earnings before tax</b>	<b>-90.7</b>	<b>11.2</b>	<b>37.8</b>	<b>57.4</b>	<b>82.8</b>	Palladium Price (US\$/oz)					600.0
Tax	29.7	-0.3	-10.4	-14.4	-22.8	Rhodium Price (US\$/oz)					na
Exceptional/Other	0	-20.0	0	0	0	USDZAR average					10.00
<b>Reported net profit</b>	<b>-61.0</b>	<b>-9.1</b>	<b>27.4</b>	<b>43.0</b>	<b>60.1</b>						
Core NPAT	-61.0	10.9	27.4	43.0	60.1	<b>Production Volumes</b>	<b>2012</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>	<b>2016E</b>
<b>Balance Sheet (US\$m)</b>	<b>2012</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>	<b>2016E</b>	Total Production (koz)	413.5	341.6	349.2	444.6	515.8
Cash & cash equiv.	180.0	176.6	203.0	316.9	330.7	<b>Production Costs</b>	<b>2012</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>	<b>2016E</b>
Net fixed & other tangibles	803.0	796.9	781.1	746.5	705.8	Platinum C1 (R/oz)	8,491.4	7,676.9	7,767.5	8,326.2	8,697.8
<b>Total assets</b>	<b>1201.2</b>	<b>1188.8</b>	<b>1206.1</b>	<b>1342.2</b>	<b>1324.0</b>	Cash Cost (US\$/oz)	1,052.9	869.9	867.9	915.0	918.0
Short-term debt	33.4	33.4	33.4	33.4	33.4						
Long-term debt	266.0	226.0	206.0	206.0	106.0	<b>Earnings Sensitivity</b>	<b>2012</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>	<b>2016E</b>
<b>Total liabilities</b>	<b>522.8</b>	<b>450.2</b>	<b>432.4</b>	<b>453.9</b>	<b>355.1</b>	EPS%Δ/10% ZARUSD (%)	0.0	0.0	0.0	0.0	0.0
Shareholders' equity	678.5	738.6	773.7	888.4	968.9	EPS%Δ/10% Platinum (%)	-10.6	-129.1	99.3	98.2	75.5
<b>Total equity</b>	<b>678.5</b>	<b>738.6</b>	<b>773.7</b>	<b>888.4</b>	<b>968.9</b>	EPS%Δ/10% Palladium (%)	-2.5	0.0	0.0	0.0	0.0
<b>Net debt</b>	<b>119.4</b>	<b>82.9</b>	<b>36.5</b>	<b>-77.5</b>	<b>-191.3</b>	EPS%Δ/10% Rhodium (%)	-1.7	0.0	0.0	0.0	0.0

<b>Cashflow (US\$m)</b>	<b>2012</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>	<b>2016E</b>
<b>Operating cashflow</b>	<b>97.8</b>	<b>85.5</b>	<b>83.8</b>	<b>156.8</b>	<b>152.2</b>
Capex	-119.5	-35.0	-33.4	-33.8	-34.4
Net acq/disposals	0	0	0	0	0
Exploration exp/Other	-10.2	-4.0	-4.0	-4.0	-4.0
<b>FCF ex acqns &amp; explor exp</b>	<b>-32.0</b>	<b>46.6</b>	<b>46.4</b>	<b>118.9</b>	<b>113.8</b>
<b>Net change in cash</b>	<b>-50.5</b>	<b>6.6</b>	<b>26.4</b>	<b>118.9</b>	<b>13.8</b>

<b>Per share data</b>	<b>2012</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>	<b>2016E</b>
Reported EPS (¢)	-13.1	-1.9	5.8	9.1	12.8
Core EPS (¢)	-13.1	2.3	5.8	9.1	12.8
DPS (¢)	0	0	0	0	0
CFPS (¢)	20.9	18.2	17.8	33.4	32.4
BVPS (¢)	145.4	157.2	164.6	189.0	206.1
Wtd avg ord shares (m)	467	470	470	470	470
Wtd avg diluted shares (m)	467	470	470	470	470

#### Reserves & Resources

#### Reserves

#### Resource

Amount	Grd.((g/t))	Amount	Grd.((g/t))
17.5	3.17	41.2	4.08

Total (moz)

<b>Valuation ratios</b>	<b>2012</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>	<b>2016E</b>	<b>Valuation</b>		
PE (x)	-4.3	24.3	9.7	6.2	4.4	WACC (%)		12.0
EV/EBIT (x)	-6.7	14.3	8.3	5.2	2.5			
EV/EBITDA (x)	nm	6.1	4.1	2.4	1.3	<b>NPV Valuation</b>	<b>US\$m</b>	<b>£/sh.</b>
FCF yield (%)	-8.3	19.1	19.1	46.5	44.6	Kroondal	197.3	0.26
Dividend yield (%)	0	0	0	0	0	Marikana	10.2	0.01
Payout ratio (%)	0	0	0	0	0	Everest	8.6	0.01
<b>Operating performance</b>	<b>2012</b>	<b>2013E</b>	<b>2014E</b>	<b>2015E</b>	<b>2016E</b>	Mimosa	222.8	0.30
EBITDA margin (%)	0.8	18.3	23.0	23.6	24.1	OtherOps	82.2	0.11
Operating ROE (%)	-8.0	1.5	3.6	5.2	6.5	Corporate	-29.1	-0.04
Operating ROIC (%)	-2.7	3.2	3.9	4.9	6.1	Net (debt)/cash	-120.4	-0.16
Net debt to equity (%)	17.6	11.2	4.7	-8.7	-19.7	<b>Total</b>	<b>371.5</b>	<b>0.50</b>
Debt to total capital (%)	30.6	26.0	23.6	21.2	12.6			

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# Valuation and Risks

## Valuation

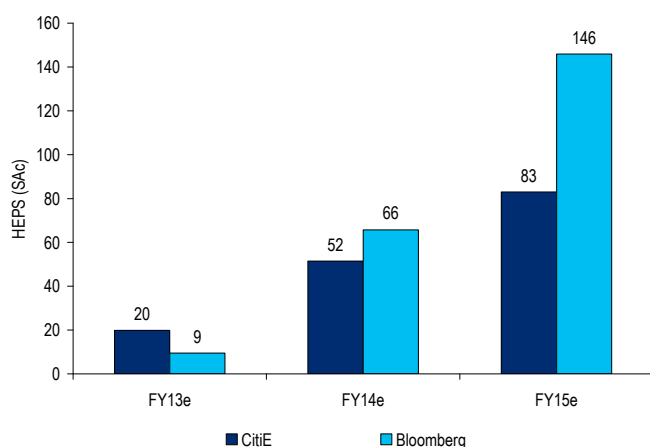
Even though AQP appears inexpensive on an NPV basis, we caution that the likelihood of a rights issue may continue to weigh on its valuation in the near term. Also, a further downside risk to AQP's valuation would be if AMS decides to close Kroondal in its upcoming strategic review. As such, we maintain a Neutral view, TP £0.41 (R5.60).

Figure 101. Operational and earnings outlook for AQP

	FY12a	FY13e	FY14e	FY15e
Production (4E koz)	413	342	349	445
Cash costs (USD/4E oz)	1105	898	896	915
HEPS (SAc)	-16	20	52	83

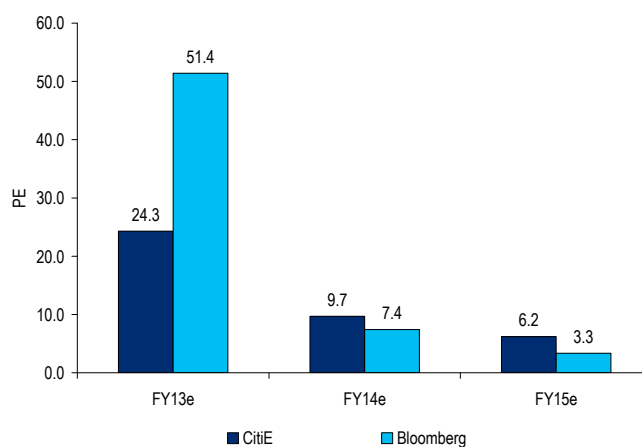
Source: Company reports, Citi Research

Figure 102. AQP CitiE HEPS forecasts vs consensus



Source: Bloomberg, Citi Research

Figure 103. AQP CitiE PE vs consensus



Source: Bloomberg, Citi Research

## Risks

Key downside risks include: 1) lower-than-expected dollar metal prices, 2) a stronger-than-expected rand, 3) lower-than-expected operational delivery and 4) a continuation or deterioration of labour and union problems in SA.

Conversely, upside risks include: 1) higher-than-expected dollar PGM prices, 2) a weaker-than-expected rand, 3) better-than-expected operational delivery, and 4) a resolution to current strikes and labour issues in SA.

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## Company Narratives

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## Anglo American Platinum Ltd

### Company description

Anglo Platinum (AMS) is the world's largest platinum producer, with 41% global market share. The company holds 17 operating assets located in South Africa. The Rustenburg and Amandelbult assets currently make up 43% of AMS's production and constitute 39% of AMS's NAV, on our estimates. AMS holds a strategically important open pit mine, Mogalakwena, which currently forms only 13% of production, but 23% of our NAV estimate.

### Investment strategy

We rate AMS Sell. We see limited volume expansion opportunities for AMS and believe the risks to the achievement of its cost targets are skewed to the downside. This is as all the low-hanging fruit (labour reductions) has now been picked and significant on-the-ground operational improvements are required going forward. With limited catalysts from here, we view the stock as fully priced at current levels.

### Valuation

Our target price for AMS is R400. We derive our valuation by applying a nominal WACC of 11.9% (beta 1.0, ERP 5.0%, RFR 8.5%), and discounting cash flows over the life of the group's individual assets. We apply a 10% premium to our valuation of AMS relative to its peers to account for its strategic advantage due to its control of 55% of sector reserves.

### Risks

Our valuation of AMS is exposed to macroeconomic developments affecting PGM prices and exchange rates, operational risks that might affect volumes and input costs, and political and regulatory risks that might affect costs and the company's reputation.

**Macroeconomic risks:** Our valuation on AMS is highly dependent on input assumptions of the platinum, palladium, and rhodium prices, as well as the rand-dollar exchange rate. Upside risks to our view include higher-than-expected PGM prices and a weaker-than-expected rand. Conversely, downside risks to our view include lower-than-expected PGM prices and a stronger-than-expected rand.

**Operational risks:** We base our production and cost outlook for AMS's individual mines on management guidance and by applying our discretion to management's guidance and targets. The main downside risk to our view is that significantly more capex would be required in order to sustain current production levels than that assumed in our valuation model. We also caution downside risk to our generally favorable cost assumptions, given the inflationary environment AMS operates in. The main upside risk to our view is the platinum market moving into deficit, in which case AMS would be able to expand production above the current 2.5m ounce (Pt) level.

**Political and regulatory risks:** The company is subsequently exposed to government and regulatory-related risks in those countries it operates in. Specific risks include higher-than-expected royalties, production delays from government intervention and labour unrest.

If the impact from any of these factors proves to be more negative than we anticipate, the stock will likely have difficulty achieving our financial and price targets. However, if any of these factors proves to have less of an effect than we anticipate, the stock could materially outperform our target.

## Impala Platinum

### Company description

Impala Platinum (IMP) is the world's second-largest platinum producer, with a 30% global market share. The company is based primarily in South Africa, from which it currently sources 89% of its production. The 11% balance is sourced from its operations in Zimbabwe. In the longer term, Zimbabwe offers strategic low-cost growth potential for IMP, but this is constrained at present by unstable political conditions.

### Investment strategy

We rate IMP Buy. We consider IMP to have been the best-in-class SA platinum company over the past 10 years. Despite the near-term operational challenges facing the company, we believe little has changed. Going forward, we think IMP's favourable position on the cost curve and longer-term low-cost growth optionality should continue to drive superior economic value creation.

### Valuation

Our target price for IMP is R180/share. We value IMP based on a sum-of-the-parts discounted cash flow (DCF) analysis. Our model uses a nominal WACC of 11.9% (beta 1.0, ERP 5.0%, RFR 8.5%) and discounts forecast cash flows over the life of the group's individual assets. We apply a 1.0x P/DCF exit multiple as we do not expect near- to medium-term PGM prices to rise substantially above our long-term price assumptions.

### Risks

Our valuation of IMP is exposed to macroeconomic developments affecting PGM prices and exchange rates, operational risks that might affect volumes and input costs, and political and regulatory risks that might affect costs and the company's reputation.

**Macroeconomic risks:** Our valuation on IMP is highly dependent on input assumptions of the platinum, palladium, and rhodium prices, as well as the rand-dollar exchange rate. Downside risks to our view include lower-than-expected PGM prices and a stronger-than-expected rand.

**Operational risks:** We base our production and cost outlook for IMP's individual mines on management guidance and by applying our discretion to management's guidance and targets. The main downside risk to our view is that significantly more capex would be required in order to sustain current production levels than that assumed in our valuation model. Other operational risks include IMP failing to ramp up its Merensky shafts on time, and a deterioration in the political conditions in Zimbabwe that could prevent further growth for IMP in this country (note that we only include Zimplats phase II into our valuation).

**Political and regulatory risks:** IMP's operations and future projects are based in SA and Zimbabwe. The company is subsequently exposed to government and

regulatory-related risks in these countries. Specific risks include higher-than-expected royalties, production delays from government intervention and labour unrest.

If the impact from any of these factors proves to be more negative than we anticipate, the stock will likely have difficulty achieving our financial and price targets. However, if any of these factors proves to have less of an effect than we anticipate, the stock could materially outperform our target.

## Lonmin PLC

### Company description

Lonmin is the world's third-largest primary producer of PGMs. Platinum production is expected to be in the region of 750koz in 2012. Lonmin's operations are located in South Africa.

### Investment strategy

We rate Lonmin Neutral. We think that management is steadily gaining market confidence following a consistently improving trend in operational efficiency. However, a strong SA rand is tending to offset the recent strength in the US\$ price of platinum. The entire industry is facing cost challenges.

### Valuation

Our target price for Lonmin is £6.53. We value Lonmin based on a sum-of-the-parts discounted cash flow (DCF) analysis. Our model uses a nominal WACC of 9% and discounts forecast cash flows over the life of the group's individual assets. Our target price for Lonmin is £6.53. We value Lonmin based on a sum-of-the-parts discounted cash flow (DCF) analysis. Our model uses a nominal WACC of 9% and discounts forecast cash flows over the life of the group's individual assets. We apply a 1.10 P/NPV multiple to our £5.94 NPV, a slight premium to the 1.0x which we use for South African listed platinum producers, as Lonmin has always commanded a premium for its London listing. However, we do not consider this premium to be a permanent feature for Lonmin.

### Risks

Our valuation of LON is exposed to macroeconomic developments affecting PGM prices and exchange rates, operational risks that might affect volumes and input costs, and political and regulatory risks that might affect costs and the company's reputation.

**Macroeconomic risks:** Our valuation of LON is highly dependent on input assumptions for platinum, palladium, and rhodium prices, as well as the rand-dollar exchange rate. Upside risks to our view include higher-than-expected PGM prices and a weaker-than-expected rand. Conversely, downside risks to our view include lower-than-expected PGM prices and a stronger-than-expected rand.

**Operational risks:** We base our production and cost outlook for LON's individual mines on management guidance and by applying our discretion to management's guidance and targets. The main downside risk to our view is that significantly more capex is required in order to sustain current production levels than that assumed in our valuation model. We also caution downside risk to our generally favorable cost assumptions, given the inflationary environment in which LON operates. The main

upside risk to our view is the platinum market moving into deficit, in which case LON might be able to expand production above our forecast levels.

**Political and regulatory risks:** LON's operations and future projects are based in SA. The company is subsequently exposed to government and regulatory-related risks in SA. Specific risks include higher-than-expected royalties, production delays from government intervention and labour unrest.

If the impact from any of these factors proves to be more negative than we anticipate, the stock will likely have difficulty achieving our financial and price targets. However, if any of these factors proves to have less of an effect than we anticipate, the stock could materially outperform our target

## Northam Platinum

### Company description

Northam Platinum (NHM) currently holds one operating asset in South Africa (SA) called Zondereinde, which produces approximately 330,000 ounces (4E) under normal conditions (although it is currently facing operational difficulties). The company holds a strategic low-cost project, Booysendal, that is likely to nearly double NHM's production over the next 5 to 6 years.

### Investment strategy

We rate NHM Buy. We believe NHM is uniquely positioned as a low-cost, low-capex, medium-term growth story in a fundamentally attractive PGM market. Its current market valuation does not reflect the full upside potential, in our view.

### Valuation

Our target price for NHM is R36. We value NHM based on a sum-of-the-parts discounted cash flow (DCF) analysis. Our model uses a nominal WACC of 11.9% (beta 1.0, ERP 5.0%, RFR 8.5%) and discounts forecast cash flows over the life of the group's individual assets. We apply a 1.0x P/DCF exit multiple as we do not expect near- to medium-term PGM prices to rise substantially above our long-term price assumptions.

### Risks

Our valuation of NHM is exposed to macroeconomic developments affecting PGM prices and exchange rates, operational risks that might affect volumes and input costs, and political and regulatory risks that might affect costs and the company's reputation. Given NHM's position as a junior platinum mining company with what we see as attractive low-cost growth potential, our valuation is also exposed to corporate activity risk.

## Royal Bafokeng Platinum

### Company description

RBP is a mid-tier platinum company listed on the JSE. It currently has one operating mine called Boschkoppie and is in the process of developing a greenfield project called Styldrift. RBP is 57% owned by Royal Bafokeng Platinum Holdings, 13% by Anglo Platinum and has 30% free float.

## Investment strategy

We rate RBP Sell. It has a highly cash-generative existing asset base, an attractive low-cost growth project through Styldrift, and is geographically well-located to partake in industry consolidation. However on valuation grounds, we believe all this is currently priced in.

## Valuation

We value RBP on a sum-of-the parts DCF basis. We apply a R-nominal WACC of 11.9% (ERP 5%, RFR 8.5%, beta 1.0) to discount the future cash flows from its individual assets over their operational lives. In deriving our R45 TP, we apply a 1.2x P/DCF exit multiple to our valuation of RBP. This represents a 20% premium to our 1.0x benchmark multiple for the SA platinum sector, which is mainly to account for RBP's superior strategic position within the SA platinum space. We believe that this position provides RBP with significant future value-enhancing optionality, something that is not accounted for in our DCF of its current operations. Our valuation is net of cash, investments, and corporate and exploration costs.

## Risks

Upside risks include a weaker-than-expected rand, stronger-than-expected PGM prices, a better-than-expected operational performance at Boschkopie, and Styldrift coming online earlier and under budget. Other risks include corporate activity and dilution risk given the need to fund the projected funding gap over the next five years. These risks could impede the share price from reaching our target price.

## Aquarius Platinum Ltd

### Company description

Aquarius Platinum has interests in five operations. Operations and projects are located on both the Bushveld Complex in South Africa and the Great Dyke in Zimbabwe. The primary operation is at Kroondal, one of the lowest-cost and most efficient PGM producers in the world. In Zimbabwe, AQP holds a 50% interest in the Mimosa Mine, arguably the lowest-cost primary PGM mine in the world. Mimosa has a mine life in excess of 30 years. AQP recently put its Marikana and Everest mines on care and maintenance.

### Investment strategy

We rate AQP Neutral. AQP has been forced to put two mines on care and maintenance as operating and capital costs are on the rise, and PGM prices have been weakening, hence we believe the stock lacks near-term catalysts. In the long term, we think Aquarius should benefit from a structurally supportive outlook for PGM prices.

### Valuation

Our £0.40 target price is based on our NPV valuation, given the current uncertainty over the macro outlook and likelihood of depressed earnings near term. Our base case NPV for the stock of £0.50 is derived from a DCF model that assumes a discount rate for the UK listing of 9% (in line with that which we use for its closest UK peer). We set our target price at 0.8x NPV. We set this level in recognition of the fact that most of the larger diversified mining groups are trading at discount greater than 20% to NPV. We also take into account the high risk of expropriation of a key asset, Mimosa, in Zimbabwe and so we use a larger discount for AQP than for platinum peers.



## Risks

Aquarius faces risks given that group earnings are all generated from a single commodity and mining is limited to one region. That said, the group generally has lowest costs among the South African PGM producers. All its mining is done using efficient mechanised mining via the use of contractors. This reduces exposure risks. Further, Aquarius does not operate its own downstream activities, with a life-of-mine offtake agreement with Impala taking care of smelting and refining capacity.

Key risks to Aquarius failing to achieve our projected earnings, cash flows and target price relate to the following:

**Rand strength.** A stronger-than-expected rand would continue to depress rand-denominated cash flows.

**Cost pressures.** Although Aquarius uses contractors to do all the mining and therefore has limited exposure to wage costs, cost pressures continue to be a feature in the industry.

**Geopolitical exposure.** Mining is limited to one region, Southern Africa. Aquarius has considerable investment at Mimosa in Zimbabwe. Any further deterioration in the political situation there and/or inability to expand the production assets could be a big problem for the company.

However, if the impact of these risk factors is less negative than we currently anticipate, then the share price could exceed our target price.

Notes

**Notes**

## Appendix A-1

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