

Equities

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South African Platinum Sector

Steering the Ship through Stormy Waters

The platinum market is in surplus and company margins are depressed. A bailout from improving macro conditions is unlikely. Identifying and executing the correct strategy should drive value from here forward. We believe IMP is on the right path, AMS and LON not.

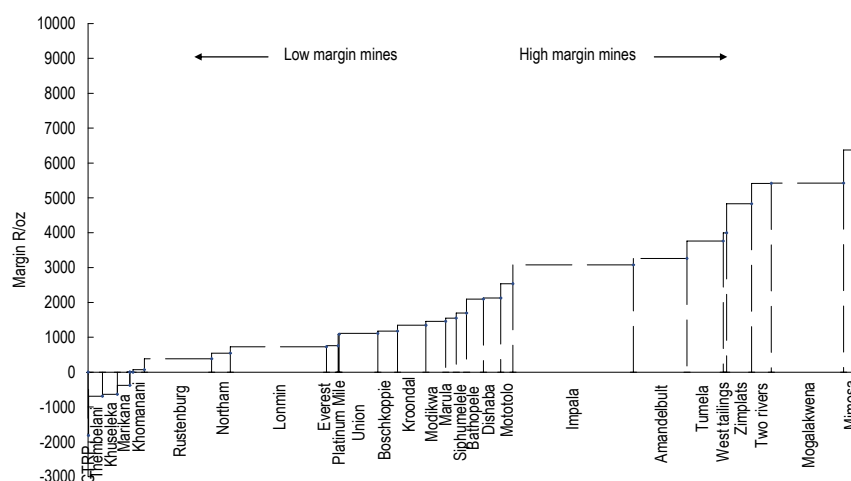
- **Tough times** — The platinum market is in surplus and will remain in surplus over the medium term, in our view. Depressed margins are unlikely to expand as we expect the rand basket price to rise only inline with unit costs. Production is unlikely to increase meaningfully despite rising capex; a situation that is exacerbated by increasing safety related production stoppages.
- **Stress testing strategies** — Going about business-as-usual in this environment can be costly and a revision of strategies is essential, in our view. In this note, we stress tested individual company strategies. We applied our newly developed “margin model” (Figure 1 below) in order to determine what action a company could take by mine in order to deliver best returns for shareholders.
- **Calibrating the compass** — Based on this assessment, we believe IMP (Buy) and NHM (Buy) are on the right path. We question the relevance of AMS (Sell) and LON’s (Neutral) strategies and believe more can be done to unlock value for shareholders. We also highlight differences we have with the strategies of RBP and AQP.

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Figure 1. SA platinum sector 1HCY12 FCF margin chart, incl. base metal credits (R/ounce, 6E)



Source: Citi Investment Research and Analysis

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

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Summary

The platinum market is in surplus. Rand PGM prices are not providing a high enough hurdle rate to incentivise new production. Unit costs are escalating, mainly due to above inflation wage increases and falling labour productivity. The situation is exacerbated by increasing safety related production stoppages, which is putting pressure on production despite rising capital budgets.

We believe this environment is likely to prevail for the next 12-24 months. Unlocking value for shareholders will be challenging. Defining and executing the right strategy will be paramount.

Stress testing strategies

In this note, we define what we believe optimal strategies are for each company in this environment. We used our newly developed margin model to determine where companies could potentially 1) sell mines, 2) close down production, 3) embark on operational transformation, 4) reduce capex and abolish growth plans, 5) do business as usual, 6) increase capex and grow, and 7) embark on M&A.

We compared the outcome of this analysis to existing strategies, identified similarities and dissimilarities, and recommended remedial action in some instances.

Calibrating the compass

Based on this assessment, we believe that:

- We believe IMP and NHM have good strategies. Successful execution is more important than questioning the relevance of their strategies.
- We question AMS's strategy. We believe that more can be done to unlock value for shareholders. The primary focus should shift to increasing margins, in our view. As such, we believe the company should consider closing cash burning shafts and replacing their production with high margin ounces from Mogalakwena and Unki over time.
- We also question LON's focus on growth. In our view, its low margin assets and thin balance sheet do not warrant rising capex. Focus should be on margin, not size. Rightsizing Marikana for lower production may be more applicable.
- We have some disagreement with the strategies of AQP and RBP as highlighted on pages 20-26 below.

Inline with our recommendation

The outcome of this assessment is inline with our preference for IMP (Buy) and NHM (Buy). We favour AMS (Sell) and LON (Neutral) the least.

Figure 2. Citi mining valuation comparatives sheet (calendarised)

	TP Curr.	Rating	Current price	TP	% upside	CY11e DY (%)	ETR* (%)	Current P/DCF	P/E			EV/EBITDA			FCF yield (%)	
									2010	2011	2012e	2010	2011	2012e	2011	2012e
Barrick gold	USD	Buy	48.34	78.00	61.4	1.0	62.4	1.9	14.4	10.0	9.2	9.1	6.3	5.9	-0.6	5.7
Northam	ZAR	Buy	30.71	45.00	46.5	1.0	47.6	0.7	20.7	22.8	15.0	12.7	13.5	9.4	-11.0	-11.2
Rio Tinto	GBP	Buy	35.61	49.00	37.6	2.3	39.9	0.7	7.6	6.6	7.2	4.0	3.1	2.9	9.9	8.8
Impala Platinum	ZAR	Buy	166.90	220.00	31.8	3.9	35.7	0.6	15.8	13.0	12.6	7.9	6.5	6.5	3.3	4.5
African Rainbow	ZAR	Buy	174.03	230.00	32.2	3.4	35.6	0.8	13.3	9.9	9.4	5.3	4.2	4.1	2.8	6.1
Assore	ZAR	Buy	211.65	280.00	32.3	2.9	35.2	0.8	9.6	7.0	7.3	6.1	4.5	4.7	6.4	10.6
Anglo American	GBP	Buy	25.71	33.00	28.4	1.9	30.3	0.7	9.9	8.6	8.2	5.5	4.5	3.9	17.2	8.7
Xstrata	GBP	Buy	10.63	13.50	27.0	1.8	28.8	0.5	9.3	8.5	8.2	5.8	5.1	5.0	0.8	3.6
Newmont	USD	Buy	63.39	80.00	26.2	1.9	28.1	1.9	13.7	13.5	12.9	6.6	6.0	6.1	5.6	3.3
Exxaro	ZAR	Buy	175.09	215.00	22.8	4.5	27.3	1.1	10.9	6.9	5.1	14.0	8.0	4.8	4.8	10.4
Aquarius	AUD	Buy	2.55	3.05	19.6	2.0	21.6	0.9	15.7	19.3	21.3	6.4	7.6	8.3	-4.1	3.2
Newcrest	AUD	Buy	32.00	38.00	18.8	1.5	20.2	1.5	22.1	21.2	16.1	15.9	11.6	8.9	-1.8	1.4
Randgold	GBP	Buy	71.15	84.16	18.3	0.7	19.0	1.3	71.5	26.9	16.5	47.8	16.4	9.6	0.4	5.8
RBPlat	ZAR	Buy	55.45	65.00	17.2	0.0	17.2	1.0	25.9	18.3	16.3	11.7	8.8	8.3	-5.0	-11.2
BHP Billiton	GBP	Buy	20.45	23.00	12.5	3.5	15.9	0.7	10.0	8.3	8.7	5.9	5.2	5.2	8.2	4.7
Lonmin	GBP	Neutral	9.70	11.05	13.9	1.8	15.7	0.9	18.7	13.9	14.0	6.3	5.2	4.8	-3.0	6.9
AngloGold Ashanti	ZAR	Neutral	352.00	360.00	2.3	1.1	3.4	1.8	-9.2	12.1	10.5	13.5	6.0	5.1	7.1	7.1
Anglo Platinum	ZAR	Sell	550.00	550.00	0.0	1.8	1.8	1.1	25.5	22.1	21.0	12.6	10.6	9.6	2.0	2.0
Kumba Iron Ore	ZAR	Sell	522.47	450.00	-13.9	9.6	-4.2	1.5	10.5	8.3	8.8	6.0	4.4	4.7	12.3	13.6
Gold fields	ZAR	Sell	127.01	115.00	-9.5	2.7	-6.8	1.8	20.0	10.9	9.0	6.7	4.4	4.0	10.3	12.2
Harmony	ZAR	Sell	96.94	85.00	-12.3	0.0	-12.3	1.8	73.4	25.9	18.1	17.8	9.7	6.1	1.8	7.3

Source: Powered by dataCentral. dataCentral is CIRA's proprietary database, which includes Citi estimates, data from company reports and feeds from Reuters, Datastream, First Call, IBES and Toyo Keizai. Priced 13 Jan 2012.

Tough times

The SA platinum sector is going through difficult times. A bailout from improving macro conditions is unlikely.

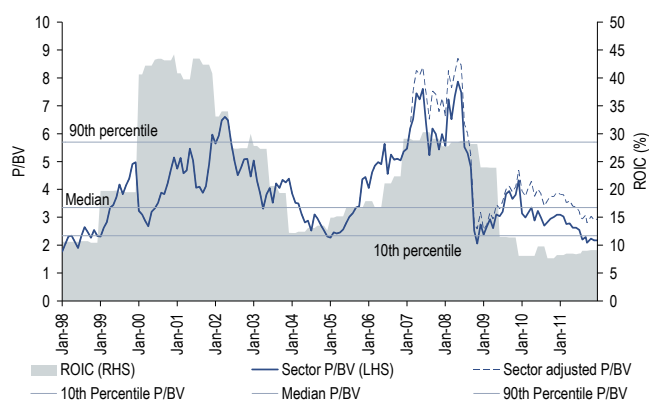
Depressed margins

The SA platinum sector faces a situation of low prices, rising inflation and stagnant (at best) production

The SA platinum sector finds itself in a situation where the platinum market is in surplus and margins depressed. ROIC's are averaging a mere 9%, which is 3% below WACC and well below the 20% median level over the past 10 years.

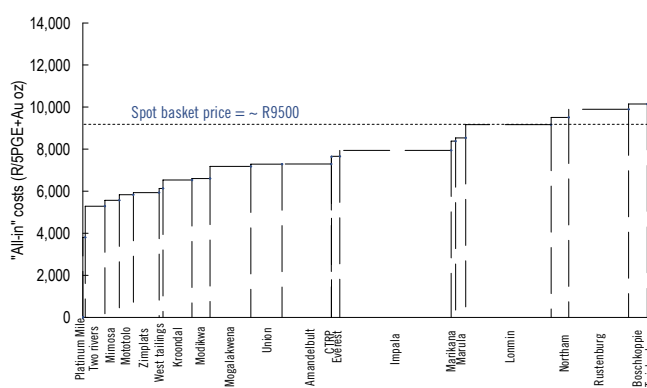
We estimate that 20-30% of the industry is free cash flow negative at current spot prices. Prices are also not high enough to incentivise new production, unless a new project is positioned in Q1 of the cost curve (e.g. Zimplats, Unki, Mogalakwena).

Figure 3. SA platinum sector historic ROIC (%) and P/BV



Source: Citi Investment Research and Analysis, INET

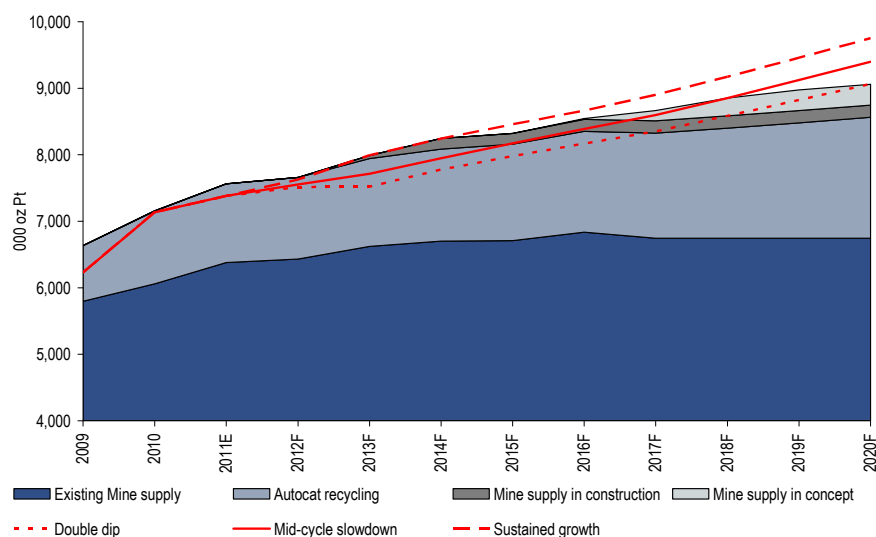
Figure 4. 1H11 5PGE+Au "All-in" cost curve (R/ounce)



Source: Citi Investment Research and Analysis

Our medium-term surplus market outlook for platinum implies that this situation is likely to prevail for another 12-24 months, at least.

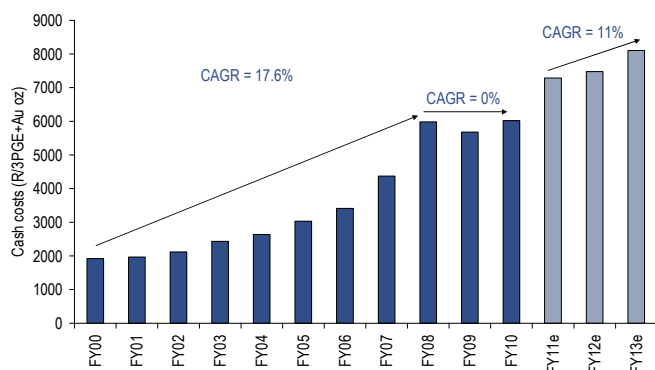
Figure 5. CIRA platinum supply-demand outlook (000 oz)



Source: Citi Investment Research and Analysis, Johnson Matthey

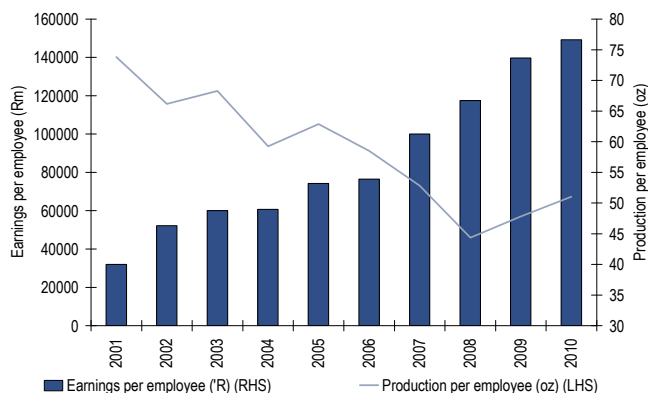
Unit cash costs are again escalating at +10% p.a., mainly due to above-inflation wage increases and falling labour productivity.

Figure 6. SA platinum sector 2000-2014e unit cost inflation (R/ounce, Pt)



Source: Citi Investment Research and Analysis, company reports

Figure 7. Wage increases vs. labour productivity 2000-2010 (Rm, ounce)



Source: Citi Investment Research and Analysis, Chamber of Mines

The situation is exacerbated by increasing safety related production stoppages, which is putting pressure on production despite rising capital budgets.

Don't bet on a macroeconomic bailout

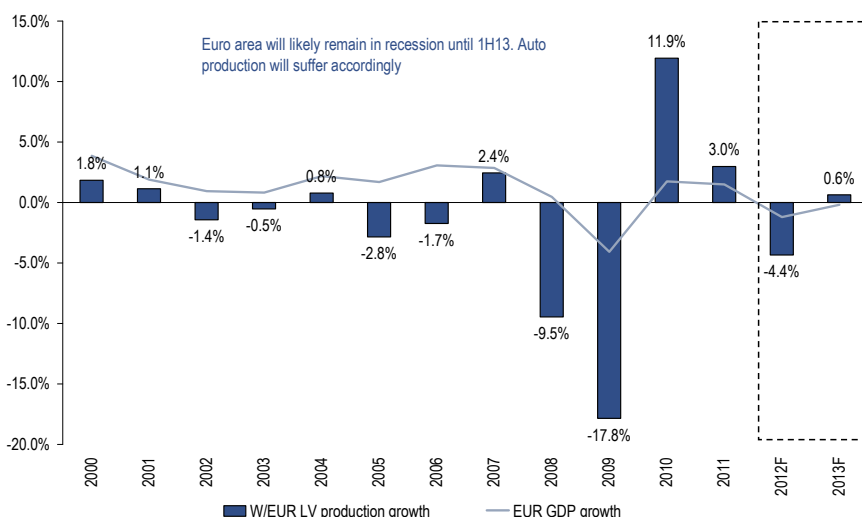
A bailout by improved macro conditions is unlikely

Finding a positive catalyst for the sector in this environment is difficult. Complex and continuing Sovereign debt issues in the Euro area imply that a rescue by improved macro economic conditions is unlikely.

Individual company strategies and successful execution should drive outperformance

Rather, we believe that individual company strategies and successful execution thereof will become even more important for delivering shareholder value and outperformance.

Figure 8. Historic EUR GDP growth vs Western Europe light vehicle production growth (%)



Source: Citi Investment Research and Analysis, EUROSTATS

Stress testing strategies

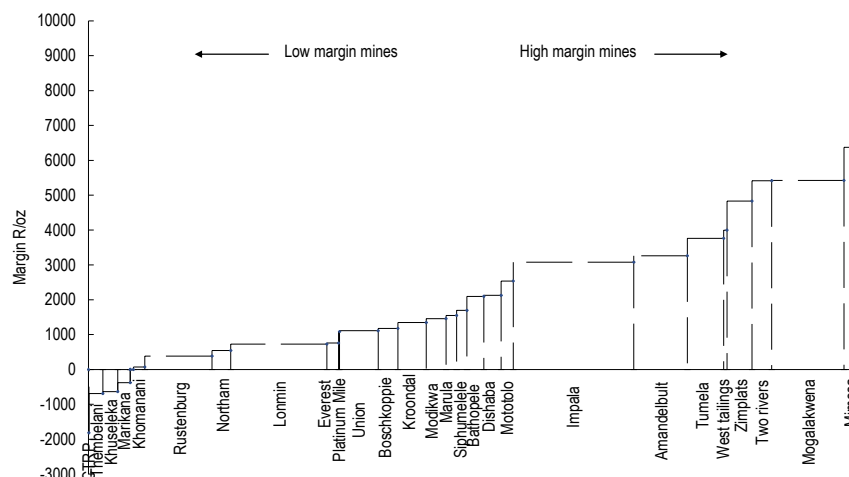
We used our newly developed “margin model” to stress test the strategies of SA platinum companies.

All about increasing margins

We have developed a new margin model and present the outcome in Figures 7 and 8.

We have developed a new “margin chart” which assesses the EBITDA and free cash flow (FCF) margins for each of the mines in the SA platinum sector taking into account the impact of individual mine prill splits and base metal credits. Below, we present the 1HCY12e FCF margin chart based on spot commodity prices as at 10 January 2012 (platinum USD1461/ounce, palladium USD630/ounce, rhodium USD1,350/ounce, gold USD1,634/ounce, copper USD7,640/t, nickel USD19,425/t, R/USD 8.10)

Figure 9. SA platinum sector 1HCY12E FCF margin chart* (R/ounce, based on 10 January 2012 spot commodity prices)



Source: Citi Investment Research and Analysis

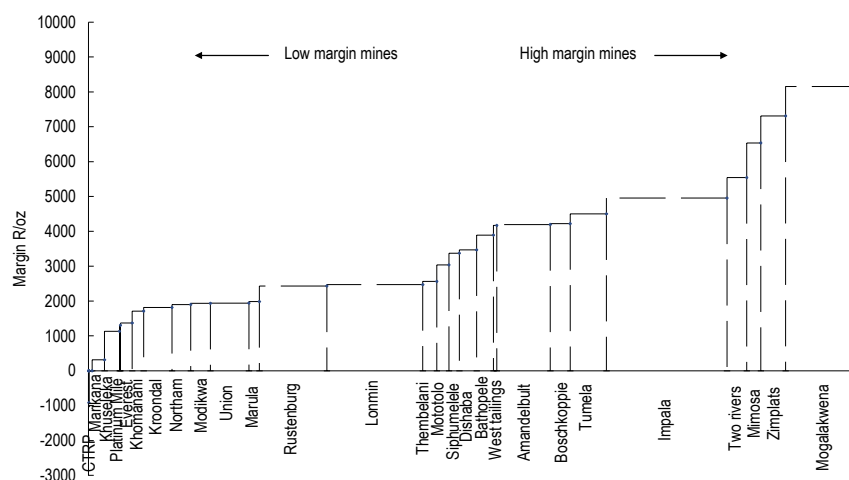
*Including the effect of individual mine prill splits and base metal credits

We estimate that ~340k ounces of production is currently cash burning, mainly AMS and AQP mines

We estimate ~340k ounces of production is currently burning cash (*Figure 9*), most notably mines owned by AMS and AQP. NHM and LON appear to be near break-even at current prices. Most of IMP's mines (Impala, Zimplats, Mimosa, Two rivers) look favourably positioned on our margin chart, as does AMS's Mogalakwena mine (given high base metal credits).

The relative positions of these mines remain broadly unchanged when considering the EBITDA margin chart (*Figure 10*). Low cost and currently capital intensive mines (or projects) like Mogalakwena, Impala Lease and Zimplats appear even more favourably on our EBITDA margin chart compared to the FCF margin chart.

Figure 10. SA platinum sector 1HCY12E 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

We used our margin model and charts to stress test individual company strategies by mine

In the following section, we assessed each company's strategy and compared it to what we believe the most optimal strategy for shareholders is. We did this by evaluating the position of individual mines on our margin chart; we then suggest potentially beneficial strategies that the companies could consider for each mine. These potential strategies were grouped into seven categories:

- **Sell:** Mine is non-core and/or cash burning and may have a potential suitor.
- **Close down production:** Mine is cash burning and has limited turnaround potential.
- **Embark on operational transformation:** Mine is performing non-optimally and there are levers to pull in order to improve operational efficiency.
- **Reduce capital spend and abolish growth ambitions:** Mine is not generating (and unlikely to generate in future) sufficient cash to justify current capital budgets.
- **Continue with business as usual:** Mine operating satisfactory and no changes are required.
- **Increase capital expenditure and grow:** Mine has low-cost and profitable growth potential and the company has a strong enough balance sheet to fund rising capex demands.
- **Consider M&A:** Value adding synergies exist with target/suitor. Company has sufficient balance sheet strength to embark on M&A.

We compared the outcome of this analysis to existing strategies and identified similarities and dissimilarities. We also considered how companies might be able improve their strategies in order to unlock more value for shareholders.

Calibrating the compass

We believe IMP and NHM are on the right path, AMS and LON not.

IMP and NHM on track

Based on this assessment, we conclude that:

- IMP and NHM have good strategies. Successful execution is more important than questioning the relevance of their strategies, in our view.
- We question AMS's strategy. We believe that more can be done to increase margins. It should consider closing high-cost shafts and replacing their production with high margin ounces from Mogalakwena and Unki over time, in our view.

Figure 11. Comparison of each company's strategy by mine vs. Citi's view

Mine	Strategy							Relative to Citi	Comment
	Sell	Close	Transform	Reduce capex	Business as usual	Grow	M&A		
Anglo American Platinum	Bathopele		AMS/Citi	AMS/Citi				✓	
	Khomanani	Citi	AMS	AMS				✗	Is cash burning with limited turnaround potential
	Thembelani	Citi	AMS	AMS				✗	Is cash burning with limited turnaround potential
	Khuseleka	Citi	AMS	AMS				✗	Is cash burning with limited turnaround potential
	Siphumelele		AMS/Citi	AMS/Citi				✓	
	Tumela				AMS/Citi			✓	
	Dishaba				AMS/Citi			✓	
	Union				AMS/Citi			✓	
	Mogalakwena					AMS/Citi		✓	Even though correct, AMS should ramp up more aggressively
	Twickenham	AMS/Citi						✓	
	Unki					AMS/Citi		✓	
	Modikwa				AMS/Citi			✓	
	Kroondal				AMS/Citi			✓	
	Marikana	Citi	Citi		AMS			✗	Currently at break even. In danger of worse.
	Mototolo				AMS/Citi			✓	
	WLTR				AMS/Citi			✓	
Implats	Impala lease		IMP/Citi				Citi	✓	Correct, we recommend acquiring neighbouring RBPlat at right price
	Marula				IMP/Citi			✓	
	Two Rivers				IMP/Citi			✓	
	Zimplats					IMP/Citi		✓	Grow, but lock in more commitment from Zimbabwe Government
	Mimosa				IMP/Citi			✓	
Lonmin	Marikana			Citi		LON		✗	Tight balance sheet demand capex cuts
	Pandora				LON/Citi			✓	Small contribution
NHM	Zondereinde		NHM/Citi					✓	
	Booyssendal					NHM/Citi	Citi	✓	Long-term synergies exist between Booyssendal and AQP's Everest
RBPlat	Boschkoppie		Citi		RBP			✗	Current transformation efforts not aggressive enough
	Styldrift					RBP/Citi		✓	
Aquarius	Kroondal				Citi/AQP			✓	Flagship Mine
	Marikana	Citi			AQP			✗	Currently at break even. In danger of worse.
	Everest			Citi	AQP			✗	Contain Capex spend
	Mimosa				Citi/AQP			✓	Business as usual, politics permitting
	Blue Ridge		AQP	Citi				✗	Contain Capex spend, given current auto&economic environment

Source: Citi Investment Research and Analysis, company reports

- We also question LON's focus on growth. Its low margin assets and thin balance sheet do not warrant rising capex, in our view. Focus should be on margin, not size. Rightsizing Marikana for lower production may be more applicable.
- We have some disagreement with the strategies of AQP and RBP as highlighted on pages 20-26.

We provide more detail on each company in the following sections.

Anglo American Platinum: Between a rock and a hard place

We question AMS's strategy. We believe more can be done to unlock value for shareholders. We believe it may benefit from closing cash burning shafts and replacing production with high margin ounces from Mogalakwena and Unki over time.

Overview of current strategy

Focused on capital efficiency

AMS's strategy is based on managing capital spend in order to meet rising PGM demand (estimated at 4% p.a. by AMS) and improve its overall market share while spending as little as possible capital. In essence, it sequences its growth opportunities on the basis of capital efficiency. The five opportunities as described by AMS in order of capital priority are:

- **Rustenburg UG2 optimisation (near term):** AMS has historically extracted mainly Merensky reef at Rustenburg, now leaving the opportunity to go back and mine the shallow UG2 ore body. Given the shallow nature of Rustenburg's remaining UG2, it should (in theory) be beneficial from a capital and operating cost point of view to focus on this reef going forward.
- **Mogalakwena (near term):** As an open pit mine with extensive reserves and resources, Mogalakwena has the potential to become a substantial low-cost mine within AMS's stable, should market conditions allow. AMS claims that it has improved its capacity to process the difficult Platreef ore, and that community issues are being resolved.
- **Unki (near to medium term):** Unki is a low-cost mine in Zimbabwe with significant reserves and significant ramp-up potential in the longer term. Its phase I is in ramp-up and will likely achieve steady state production of 141 ounces (4E) by 2013. Further longer-term expansion potential exists.
- **Eastern Limb (medium term):** AMS has an extensive undeveloped footprint on the Eastern Limb. Projects such as Twickenham, der Brochen and Ga-Pasha provide AMS with production flexibility in the medium to longer-term.
- **Western Limb deep shafts (longer term):** AMS has multiple deep shaft opportunities on the Western Limb. Even though these projects are currently marginal to uneconomical, AMS believes that PGM prices would likely prove these projects feasible in 10-20 year's time. Opportunities 1-4 above provide AMS with the flexibility to wait for prices to move higher before committing to these higher capex and higher opex projects.

Below, we assess how this strategy compares to what we believe the optimal strategy for AMS's shareholders is.

Focus should be on margin, not size

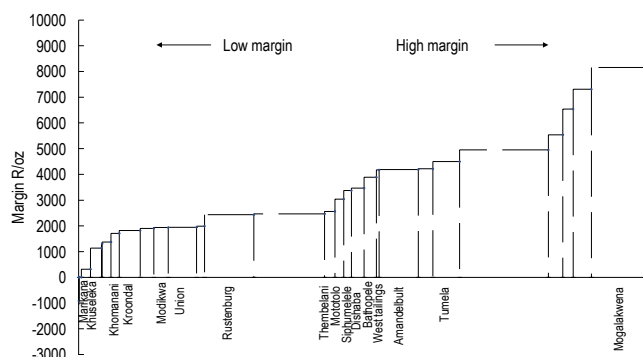
Strategy not optimal and based on overly optimistic outlook on the market

We believe that AMS's strategy is not optimal for shareholders and is based on an overly optimistic outlook on the platinum industry (4% p.a. growth in demand). In our view, it should seek to improve margin, even at the expense of size.

More can be done to reduce costs and improve margins.

It finds itself in the unique position of having good quality, high margin operations like Mogalakwena and Amandulbult while four of its other operations are burning cash at current rand prices (*Figure 13*). These include Thembelani, Khuseleka, Khomanani, and Marikana. This dispersion of assets, together with its relative size in the industry, puts it in a predicament. It cannot ramp-up its best asset, Mogalakwena, without pushing the currently cash burning assets further off the cost curve.

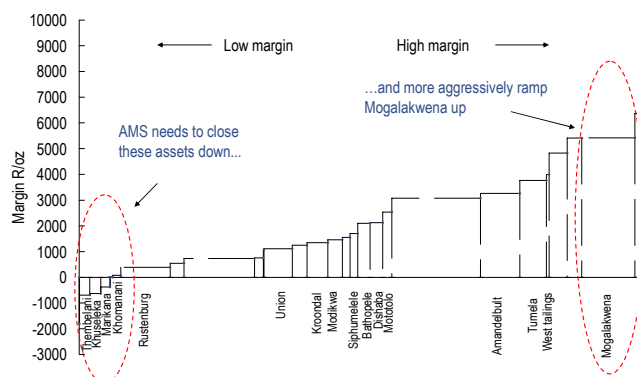
Figure 12. AMS 1HCY12E EBITDA margin chart* (R/ounce, based on 10 January 2012 spot commodity prices)



Source: Citi Investment Research and Analysis

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

Figure 13. AMS 1HCY12E 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

Figure 14. Assessment of AMS's strategy vs. CIRA view

Mine	Strategy					Relative to Citi	Comment
	Sell	Close	Transform	Reduce capex	Business as usual		
Bathopele			AMS/Citi	AMS/Citi		✓	
Khomanani		Citi	AMS	AMS		✗	Is cash burning with limited turnaround potential
Thembelani		Citi	AMS	AMS		✗	Is cash burning with limited turnaround potential
Khuseleka		Citi	AMS	AMS		✗	Is cash burning with limited turnaround potential
Siphumelele			AMS/Citi	AMS/Citi		✓	
Tumela					AMS/Citi	✓	
Dishaba					AMS/Citi	✓	
Union					AMS/Citi	✓	
Mogalakwena					AMS/Citi	✓	Even though correct, AMS should ramp up more aggressively
Twickenham		AMS/Citi				✓	
Unki					AMS/Citi	✓	
Modikwa					AMS/Citi	✓	
Kroondal					AMS/Citi	✓	
Marikana	Citi	Citi			AMS	✗	Currently at break even. In danger of worse.
Mototolo					AMS/Citi	✓	
WLTR					AMS/Citi	✓	

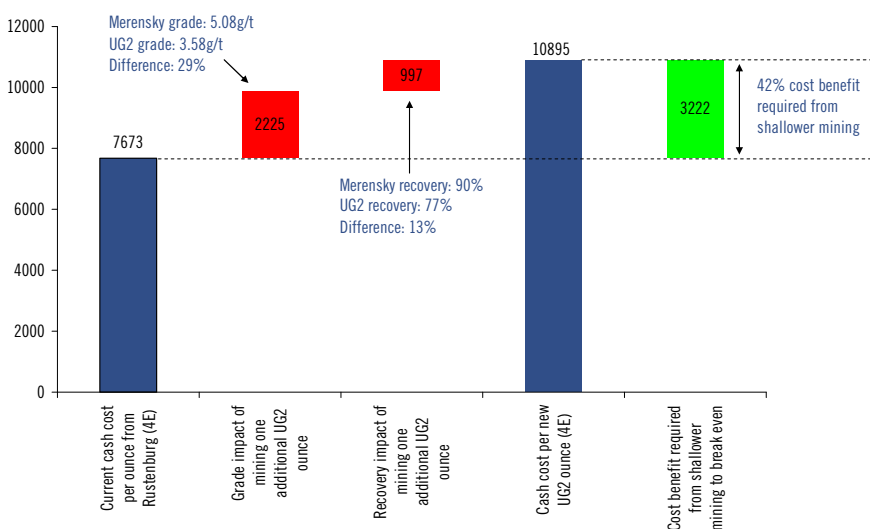
Source: Citi Investment Research and Analysis, company reports

We therefore believe the focus should be on margin rather than size. We believe AMS will benefit from closing low margin and cash burning assets Khomanani, Thembelani and Khuseleka.

Mining lower grade and shallower UG2 ounces not the answer, in our view

Attempting to turn around these assets (AMS's current strategy) by mining more UG2 ore is unlikely to yield results. This is as Rustenburg's UG2 ore is 29% lower in grade than its Merensky ore (Merensky 5.08g/t vs. UG2 3.59g/t, 4E) and typically achieves 13% lower recoveries (Merensky 90% recovery vs. UG2 77%). This implies that a 42% operating cost benefit is required in order to justify mining one additional ounce of shallower UG2 vs. deeper Merensky (Figure 15).

Figure 15. Estimated cost benefit required to justify mining one additional ounce of shallower UG2 at Rustenburg (R/ounce, 3PGE+Au)



Source: Citi Investment Research and Analysis

The additional benefit of closing these shafts would be that AMS could focus on replacing these ounces by more aggressively ramping up production at high-margin mines like Mogalakwena and Unki.

A potential sale of its stake in Marikana would also make sense, in our view.

Impala Platinum: On track

IMP has a strong strategy, in our view. Successful execution is more important than questioning the relevance of their strategies.

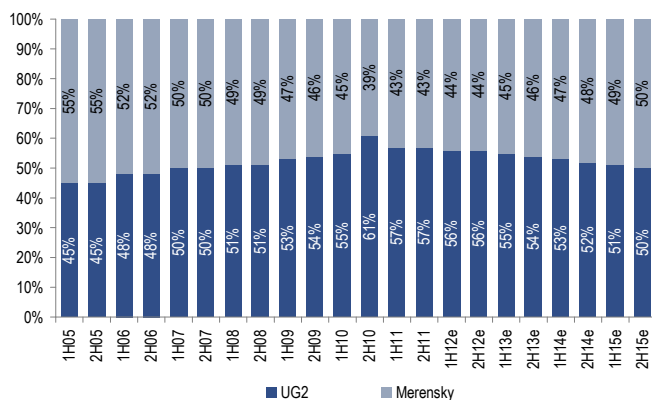
Overview of current strategy

IMP's strategy is based on developing and ramping up new Merensky shafts at its Impala lease area in order to:

- Improve yield by moving back to a 50:50 Merensky vs. UG2 split from the current 43:57 split
- Maintain competitive cost curve position
- Maintain production from the lease at 1.0m ounces

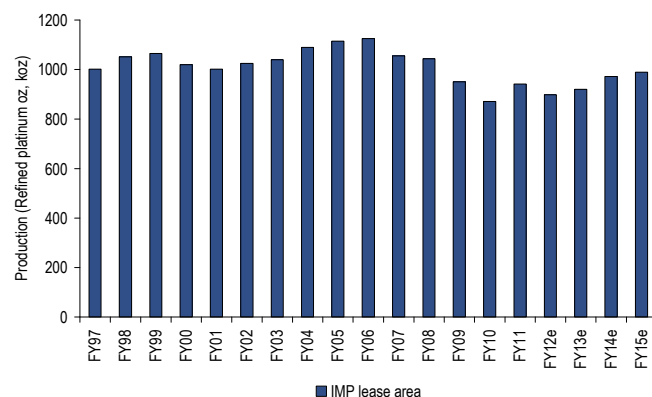
It also aims to be modularly expanding Zimplats operations, pending political conditions.

Figure 16. IMP lease Merensky:UG2 split



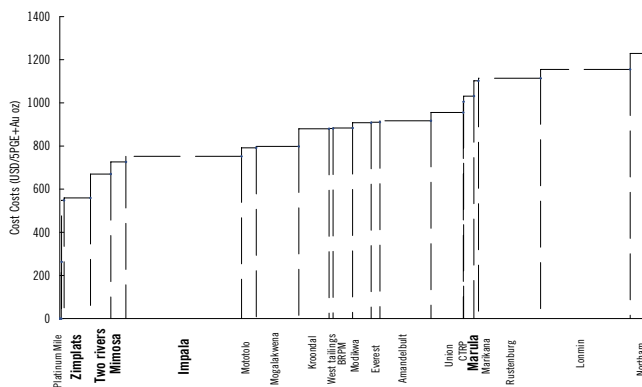
Source: Citi Investment Research and Analysis, Company reports

Figure 18. IMP lease historical and future production ('000 ounces, Pt)



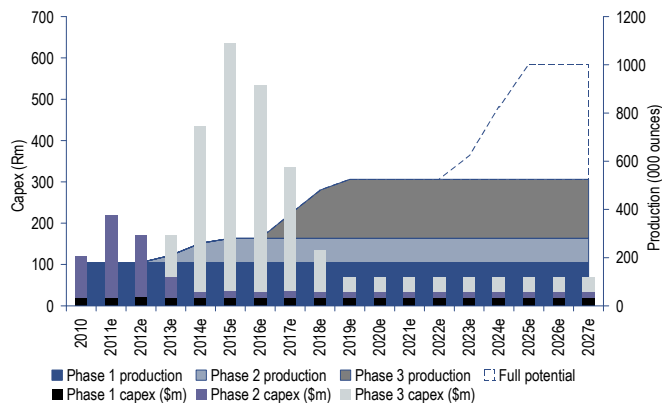
Source: Citi Investment Research and Analysis, company reports

Figure 17. IMP's favourable position on the cost curve (1HCY11 cash cost curve, 5PGE+Au)



Source: Citi Investment Research and Analysis

Figure 19. Zimplats rampup potential ('000 ounces, Pt)



Source: Citi Investment Research and Analysis, company reports

Full marks

IMP's strategy seems well focused

We find it difficult to differ with IMP's strategy and believe it is well focused at all its operations. We believe successful execution from here is more important than contemplating whether or not they are on the right path.

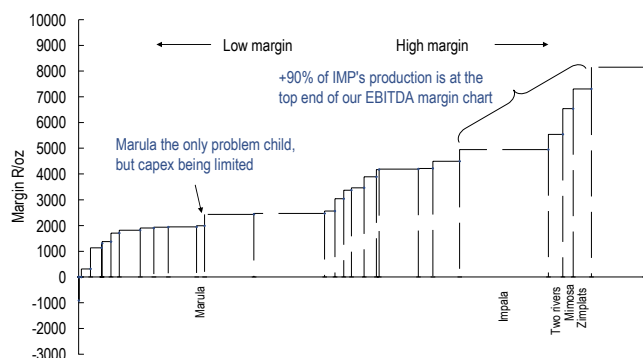
It can fully fund capex for the Lease's turnaround and Zimplats' growth through CFO, and still generate excess cash

All of IMP's assets are favourably positioned on our margin charts, both on an EBITDA and FCF basis (*Figure 20 and Figure 21*). It is also channelling capex to its core operations, i.e. the Impala lease area and Zimplats, which we see as solid strategy. The high-grade and low-cost nature of these assets make them fully self funded (and generating excess cash), even during currently high capex programmes and in a depressed PGM price environment.

It therefore has a significant competitive advantage relative to AMS and LON in this environment

This, in our view, provides IMP with a significant competitive advantage relative to AMS and LON. It can continue to execute its capital programme to 1) turnaround the lease area by developing new Merensky shafts, 2) expand Zimplats, and 3) even consider M&A within the Bushveld complex (e.g. RBP, as reported in the press) all while their peers will likely have to focus on closing cash-burning assets and reduce capital budgets.

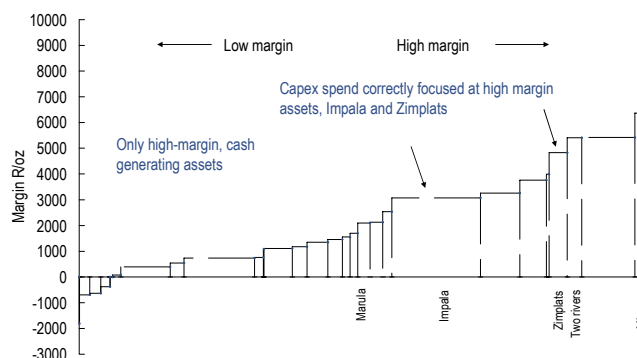
Figure 20. IMP 1HCY12E EBITDA margin chart* (R/ounce, based on 10 January 2012 spot commodity prices)



Source: Citi Investment Research and Analysis

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

Figure 21. IMP 1HCY12E 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

Figure 22. Assessment of IMP's strategy vs. CIRA view

Mine	Strategy							Relative to Citi	Comment
	Sell	Shut	Transform	Reduce capex	Business as usual	Grow	M&A		
Impala lease			IMP/Citi				Citi	✓	Correct, we recommend acquiring neighbouring RBPlat at right price
Marula					IMP/Citi			✓	
Two Rivers					IMP/Citi			✓	
Zimplats						IMP/Citi		✓	Grow, but lock in more commitment from Zimbabwe Government
Mimosa					IMP/Citi			✓	

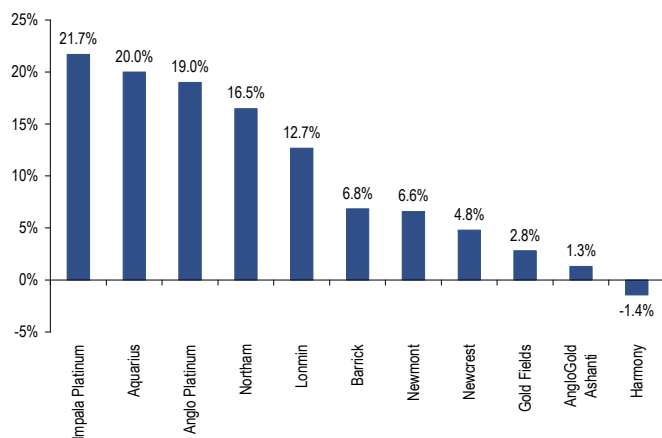
Source: Citi Investment Research and Analysis, company reports

With its current strategy, IMP will likely emerge even stronger than before from the currently depressed PGM price environment

As a result, we believe IMP is well positioned to emerge even stronger from this low price environment and likely to increase its competitive advantage relative to its peers. IMP has been the “best in class” PGM company over the past decade from a ROIC and total return to shareholders perspective. Their current strategy will ensure they remain “best in class” in the coming decade, in our view.

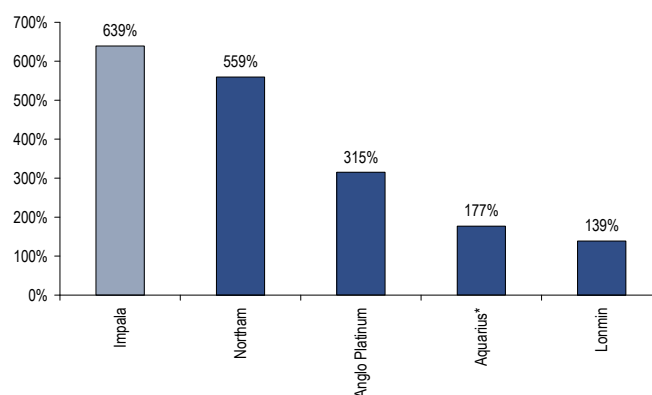
For longer-term investors who believe in an eventual recovery in PGM prices, this is the equity we recommend Buying at these levels.

Figure 23. SA platinum sector relative ROIC (% , 1998-2010)



Source: CIRA, company data, Bloomberg

Figure 24. Relative total return to shareholders, 2000-2011



Source: CIRA, company data, Bloomberg

*Since 2004

We see additional upside to IMP’s existing strategy were it to succeed in acquiring RBP (as is its stated intention, if at the right price) when AMS’s veto right expires at the end of 2012. If it can achieve this, IMP would 1) become the world’s largest producer of PGMs, while 2) further improving its position on the cost curve by filling its 1.0m ounce Lease concentrator with lower cost ounces from Boschkoppe and Styldrift.

Lonmin: Haunted by its past

We disagree with LON's focus on growth. Its low margin assets and thin balance sheet do not warrant rising capex, in our view. Focus should be on margin, not size. Rightsizing Marikana for lower production may be more applicable.

Overview of current strategy

Attempting to recover from its past

LON's platinum production rose from 757k ounces in 2002 to 903k ounces in 2003 and remained above 900k ounces until the 951k ounces it produced in 2006. At that point the difficulties with mechanised mining began to impact LON and 2007 production fell below 800k ounces and then 2008 production fell below 700k ounces.

During the period of production decline from 2006 to 2008, the platinum price rose from R6,453/ounce to R17,000/ounce and the cost of the 'lost ounces' ballooned. Naturally, the correct strategy was to regain those lost ounces at all costs and LON set about a strategy of moving from fully mechanised mining at the new shafts to conventional and hybrid mining. Initially, almost any level of opex and capex was warranted in order to recover those high-margin ounces.

The new management set about this very effectively and turned the production around. In the process, LON's sights were set at recovering production back to the levels of 2002, given the high-margin incentive.

Times have changed, though, with the platinum price falling to R8,000/ounce in 2008 and then recovering to a substandard level (relative to the previous high) of R13,000/ounce in 2011 before declining to its current R12,000/ounce.

This trend should have caused a review of the cost-benefit of committing the last dollar of capex to the last marginal ounce. To be fair to LON, recent comments have indicated the group backing off the previous near-term target of 850k ounces but LON has still not backed off the longer term projection of 950k ounces.

When asked what platinum price assumption is being used to justify the capex spend to get to that 950k ounces, the LON answer is that the assumption is not based on dollars per ounce but is based on the concept that the world needs the metal and in the medium term that means the industry will warrant a healthy margin to deliver the metal.

As a very long-term observation, we agree, but LON has got production, capex and balance sheet decisions to make in the more short term in the light of the currently constrained margins.

Walking on thin ice

The past should not determine LON's future

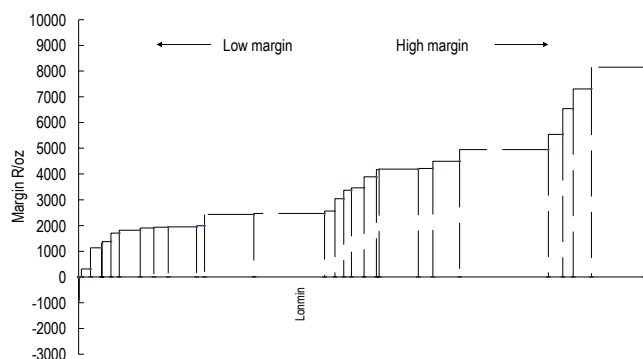
We think LON management should ignore LON's past. If this was once a producer of more than 900k ounces p.a. that cannot become the future benchmark simply because of the past. Shareholders will want LON to conduct rigorous cost-benefit analysis and returns in capital involved in the next 20k ounces of growth, and the 20k after that and the 20k after that.

Focus should return to increasing margins, not ounces...

The important equation is to decide at what level there is a maximum return to shareholders at the current rand basket price (as that is the best guide to the future) and equally importantly to examine downside sensitivities in terms of ROIC.

LON has lived on a promise to shareholders to recover from the mechanisation setback and to aim to get back to the 'Old LON' in terms of production targets. However, shareholders have moved on and will likely not be shocked to hear LON say "We are cutting manpower and capex and aiming for more modest production levels".

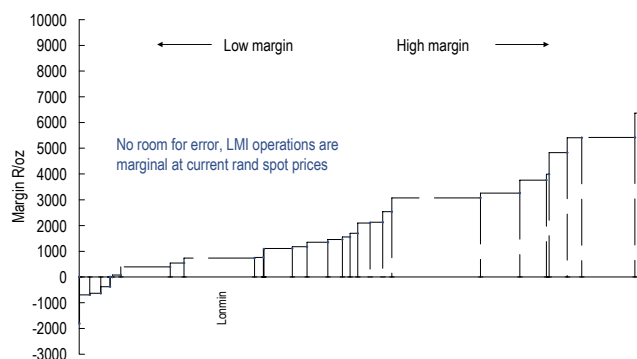
Figure 25. LON 1HCY12E EBITDA margin chart* (R/ounce, based on 10 January 2012 spot commodity prices)



Source: Citi Investment Research and Analysis

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

Figure 26. LON 1HCY12E 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

...especially given LON's high cost position and thin balance sheet

The mechanisation setback is a long-distant memory and current management has done a good job of recovering from the mistakes of the past. That effort of the past few years, though, cannot remain the mantra for the future.

There is a new game in town in the industry and it is called "Oversupply and the need to rebalance industry supply and demand". Therefore, the industry mindset cannot be focused on 'more ounces' and that cannot become the mantra of specific companies either.

To be fair to LON, it has expressly noted that this is its plan with the comment in the recent annual report that "We will retain flexibility around our capital expenditure plans and we will moderate the pace of capacity expansion if the environment dictates".

Figure 27. Assessment of LON's strategy vs. CIRA view

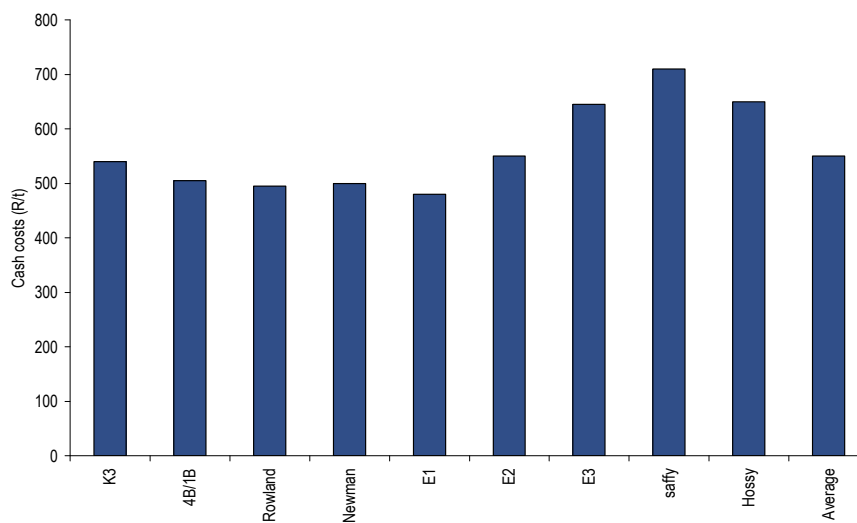
Mine	Strategy							Relative to Citi	Comment
	Sell	Shut	Transform	Reduce capex	Business as usual	Grow	M&A		
Lommin									
Marikana				Citi		LON		✗	Tight balance sheet demand capex cuts
Pandora					LON/Citi			✓	Small contribution

Source: Citi Investment Research and Analysis, company reports

Groups like AMS have many independent operations around which they can make decisions to cull the most expensive in the interests of improving ROIC. This is not as easy for LON as its Marikana operations produce 96% of its ounces.

Furthermore, as per the bar graph below, it is LON's newer shafts which have the higher cost levels so closing a high cost shaft is likely not an option. What is an option is to examine current capex plans involved in expansion and rigorously apply the statement above made in the annual accounts.

Figure 28. LON shaft production costs (R/t excluding central costs)



Source: Citi Investment Research and Analysis, Company reports

Northam Platinum: Execution essential

NHM has the correct strategy, in our view. Successful execution is paramount.

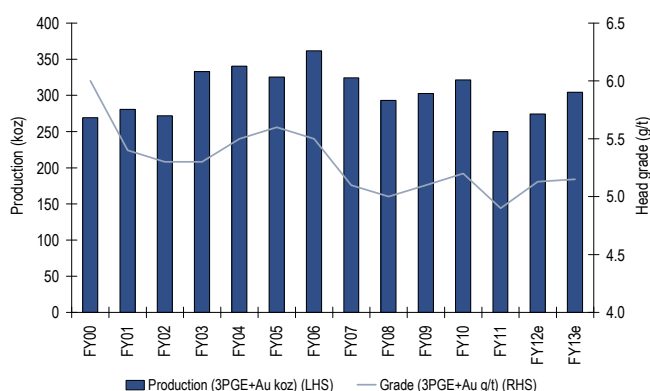
Overview of current strategy

Turnaround Zondereinde, grow Booysendal

NHM's strategy is based on turning around its Zondereinde mine from current operational difficulties, while developing and ramping up Booysendal Phase I to steady state by 2HCY13.

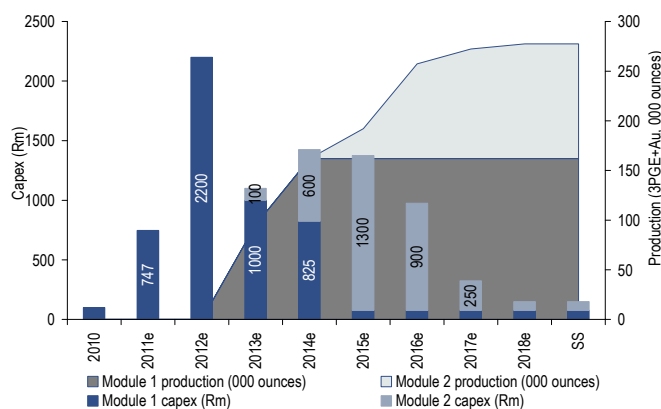
- **Zondereinde:** Zondereinde was historically a low-cost, highly cash generative mine. The negative effect of its depth (+1700m) was well offset by its high-grade ore. In 2010, the mine ran into difficulties. Difficult geology on the Eastern-end of the mine resulted in ~15% of the mine's production having to be relocated from the East to the West. Re-development on the West of the mine is ongoing and should take another 12-18 months to complete. Production levels will remain below the mines 300-320k ounce capacity during this period.
- **Booysendal:** Booysendal Phase I is in development phase. NHM aims to reach 167,000 ounce (4E) steady state production by end 2013. Further expansion through Phase II remains constrained by a lack of electricity allocation.

Figure 29. Zondereinde 2000-2013e production and grade



Source: Citi Investment Research and Analysis, Company reports

Figure 30. Booysendal's expected production and capex profile



Source: Citi Investment Research and Analysis, company reports

Execution is the key to success

A successful turnaround of Zondereinde is key

We see little else that NHM can do and we therefore agree with its strategy. The emphasis from here forward is on execution, both in terms of the turnaround of Zondereinde and the development and ramp-up of Booysendal.

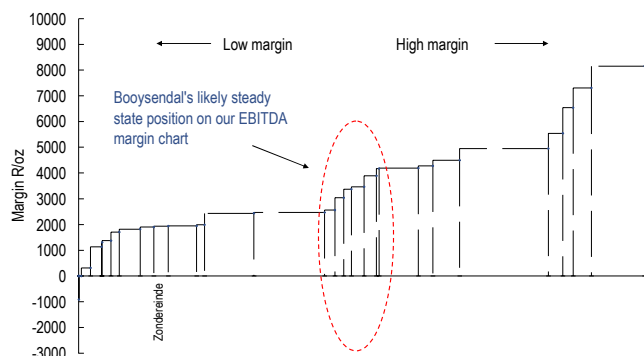
Time to start looking at Booysendal Phase II

The only addition to NHM's strategy we think would be beneficial is more transparency on the longer term plans with Booysendal. At this stage, there is no feasibility study for Phase II and the easy explanation is that the development of Phase II would be constrained by electricity.

However, most of SA's electricity problems should be solved by 2015/16 and we struggle to see how Booysendal Phase II would not be able to get allocation. Also, with the recent sale of Booysendal South to AQP, NHM gained the advantage of accessing excess electricity allocation currently held by Everest.

As a result, we believe there is scope for NHM to push forward on Phase II in a more determined fashion. We also believe that additional synergies exist between Booyssendal and AQP's Everest mine. Potential synergies should not be ignored.

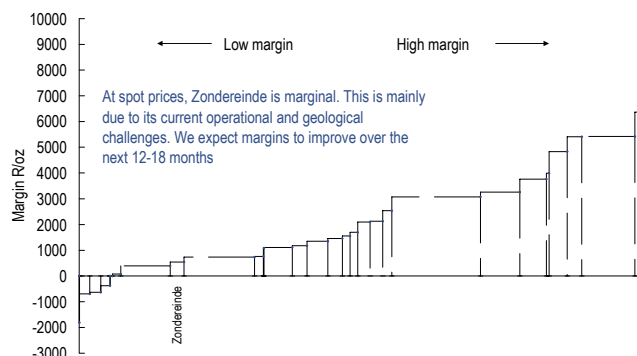
Figure 31. NHM 1HCY12E EBITDA margin chart* (R/ounce, based on 10 January 2012 spot commodity prices)



Source: Citi Investment Research and Analysis

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

Figure 32. NHM 1HCY12E 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

Figure 33. Assessment of NHM's strategy vs. CIRA view

Mine	Strategy							Relative to Citi	Comment
	Sell	Shut	Transform	Reduce capex	Business as usual	Grow	M&A		
Zondereinde			NHM/Citi					✓	
Booyssendal						NHM/Citi	Citi	✓	Long-term synergies exist between Booyssendal and AQP's Everest

Source: Citi Investment Research and Analysis, company reports

Royal Bafokeng Platinum: More needed

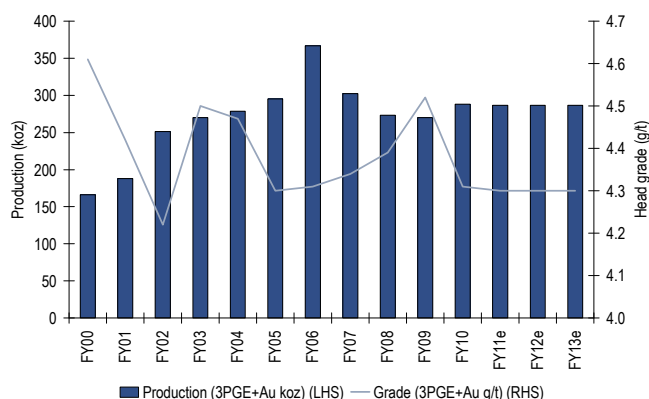
Even though we agree with RBP's strategy in principle, we believe more can be done to unlock value for shareholders through more focused cost reduction at Boschkoppie.

Overview of current strategy

RBP's strategy is based on maintaining production at Boschkoppie at ~300k ounces p.a. while developing and ramping up Styldrift Phase I by 2017. More specifically:

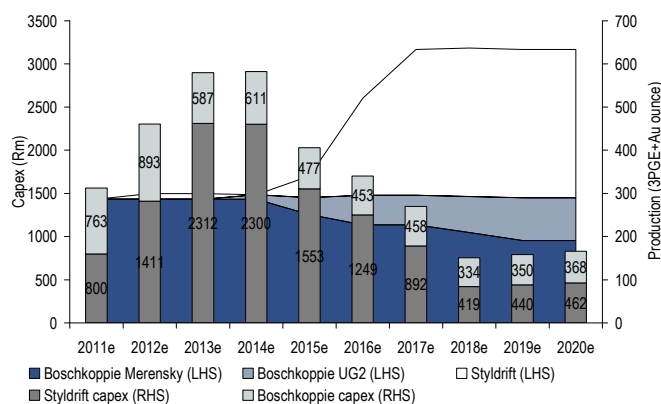
- **Boschkoppie:** RBP aims to maintain production from Boschkoppie at ~300k ounces p.a. It aims to achieve this by expanding its UG2 concentrating capacity in order to offset the effect of a declining Merensky profile. It also hired consultants to advise on improved drilling and mining practices in 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 2017. It is also considering further longer-term expansion through Styldrift II, although still very early stage.

Figure 34. Boschkoppie 2000-2013e production and grade profile



Source: Citi Investment Research and Analysis, company reports

Figure 35. Styldrift and Boschkoppie production and capex profile



Source: Citi Investment Research and Analysis, company reports

Too tame

A more aggressive strategy is needed to reduce costs at Boschkoppie

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 36. Assessment of RBP's strategy vs. CIRA view

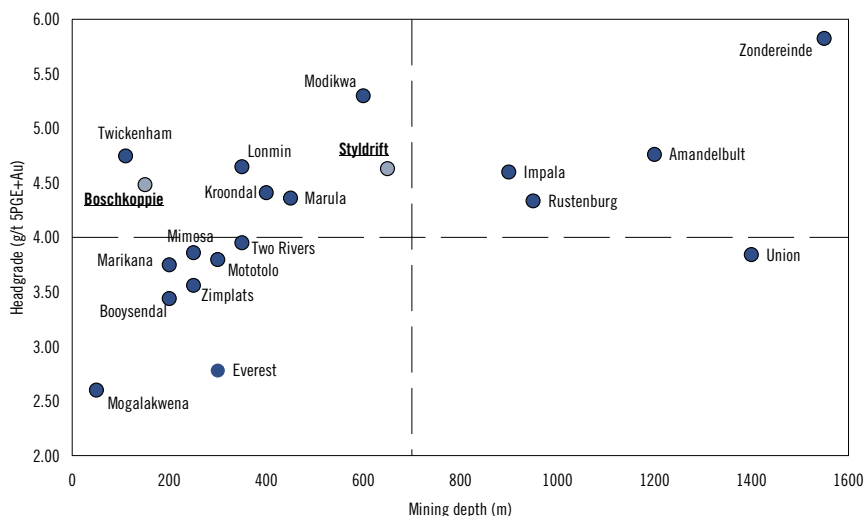
Mine	Strategy							Relative to Citi	Comment
	Sell	Shut	Transform	Reduce capex	Business as usual	Grow	M&A		
RBP/at	Boschkoppie		Citi		RBP			✗	Current transformation efforts not aggressive enough
	Styldrift					RBP/Citi		✓	

Source: Citi Investment Research and Analysis, company reports

Boschkoppie is fundamentally a good mine...

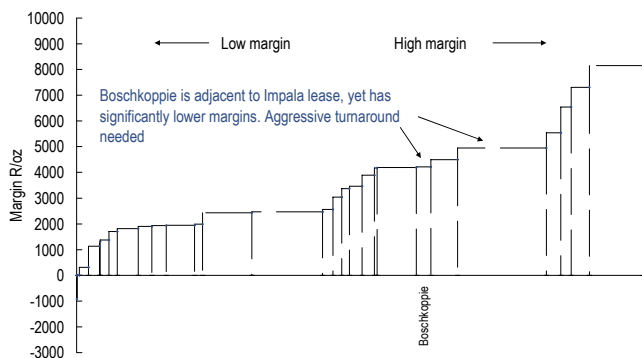
Boschkoppie is one of the shallowest and highest grade mines in the SA platinum sector (*Figure 37*). It has all the ingredients to be one of the highest margin and most cash generative assets in the sector. Yet it is not (*Figure 38 and Figure 39*).

Figure 37. SA platinum mine comparative head-grades and mining depths (5PGE+Au, m)



Source: Company Reports and CIRA Estimates

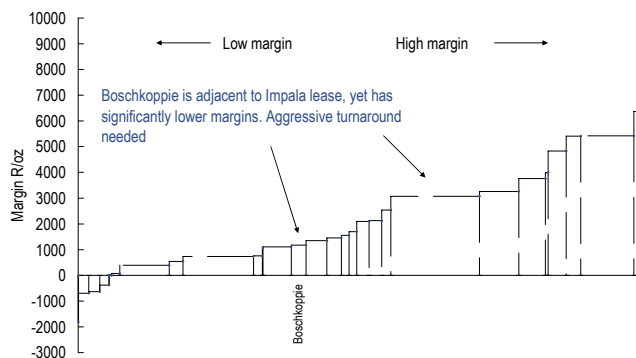
Figure 38. RBP 1HCY12E EBITDA margin chart* (R/ounce, based on 10 January 2012 spot commodity prices)



Source: Citi Investment Research and Analysis

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

Figure 39. RBP 1HCY12E FCF margin chart* (R/ounce, based on 10 January 2012 spot commodity prices)



Source: Citi Investment Research and Analysis

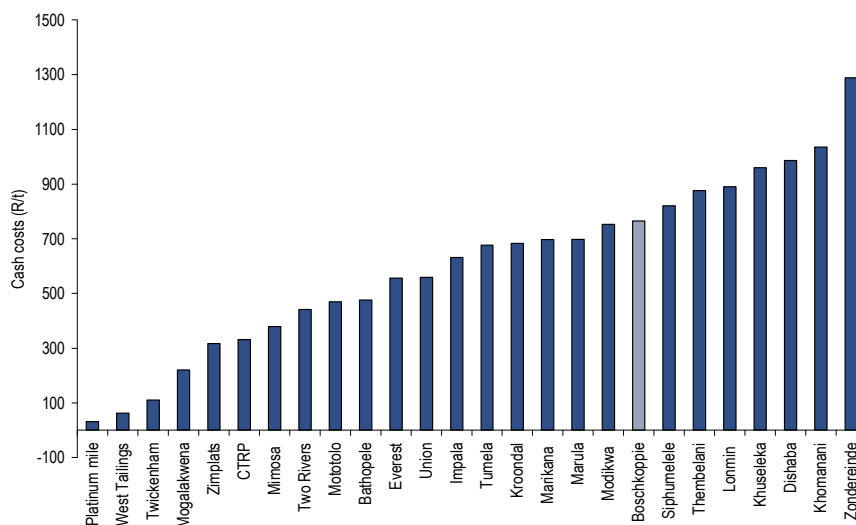
*Including the effect of individual mine prill splits and base metal credits

The problem we see for Boschkopie 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 40*).

This disconnection can be explained by assessing its cost split relative to its peers. Labour costs form 63% of RBP's total costs compared to 49% average for the sector (*Figure 41 to Figure 46*).

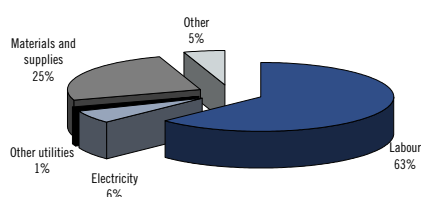
...but rates badly on paper relative to its peers

Figure 40. 1H11 Cash costs (R/t)



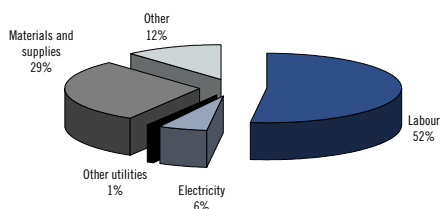
Source: Citi Investment Research and Analysis, Company reports

Figure 41. RBP cost breakdown



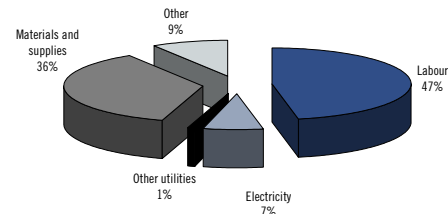
Source: Company Reports

Figure 42. AMS cost breakdown



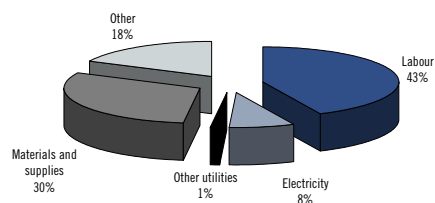
Source: Company Reports

Figure 43. IMP cost breakdown



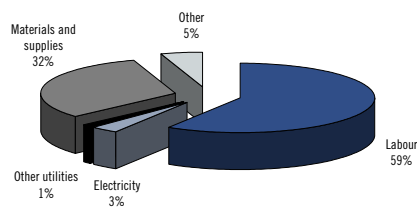
Source: Company Reports

Figure 44. NHM cost breakdown



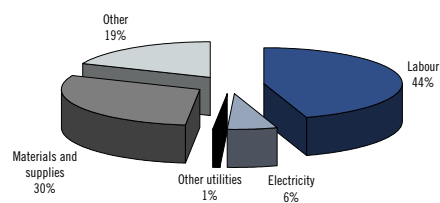
Source: Company Reports

Figure 45. LON cost breakdown



Source: Company Reports

Figure 46. 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. 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.

Aquarius Platinum: Worrying Marikana

We believe AQP can do more to unlock value for shareholders. Closing marginal Marikana would be the first step in the right direction, in our view.

Overview of current strategy

EBITDA highly skewed towards Mimosa and Kroondal

Because of AQP's four operating mines, it has more flexibility than UK peer LON in the event of deteriorating PGM prices.

It's hard to judge whether AQP has the determination to do this because past actions of this nature have been forced on it, as in the case of the Blue Ridge mine, which was put on care and maintenance not so much because of deteriorating PGM prices but because of deteriorating mine-specific economics.

AQP initially noted that the mine had been placed on care and maintenance with the intention of redeveloping it and argued that the new mine would be larger and more robust than originally planned. Since then, AQP has cancelled its plans to re-open Blue Ridge.

AQP's problem is that the biggest contributor to EBITDA in 2012 is likely to be the Mimosa mine in Zimbabwe (48% of EBITDA), a mine located in a currently challenging political geography. Its next biggest contributor, Kroondal, is calculated by Citi to produce 39% of group EBITDA in 2012.

The other 13% of EBITDA is split between two mines (Marikana, 1% and Everest, 8%) and two tailings treatment operations producing the remaining 4% of EBITDA. It is a group therefore very heavily skewed towards Mimosa and Kroondal. The question arises as to what the group's policy should be towards the Marikana operations (contributing only 1%, and with a high cost of R9,190/4E ounce) as well as the matter of whether the Blue Ridge mine really should be redeveloped and re-commissioned.

Remedial Action

Marikana

Closing Marikana could be an option to be considered

We expect Marikana to have negative EBITDA of \$3.7m in 2012. If we are to expect a sharp upturn in the global auto sector in the near term and a resultant sharp rise in PGM prices, then this temporary problem is no cause for concern. However, there is a very serious risk that the auto sector remains sluggish for some time and that Marikana remaining in production becomes an untenable proposition, especially if the rand strengthens. Closing a mine is never an easy option, given closure and re-opening costs but if there is a mine in the AQP stable which might warrant it, we believe it is Marikana.

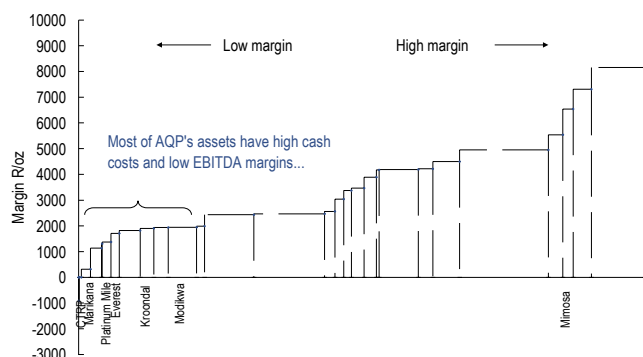
Blue Ridge

AQP should stick to its plan of not contemplating the re-opening of this mine, in our view.

Do we really want to be re-opening mines in the current auto and economic environment? AQP needs to re-think this aim and provide clarity to the market about whether it intends to throw more money at this project in these difficult times.

An AQP clustered around a remarkable low-cost Mimosa mine (shareholders will have to take their risks with the politics) and a viable Kroondal mine and a reasonable Everest mine would be a robust group in the current environment. We believe a group that includes Marikana and a re-opened Blue Ridge is not a robust group in the current climate.

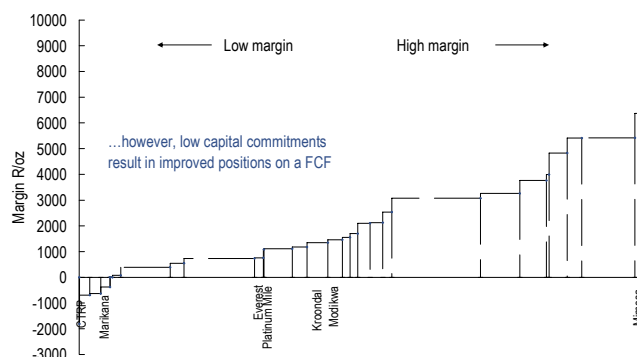
Figure 47. AQP 1HCY12E EBITDA margin chart* (R/ounce, based on 10 January 2012 spot commodity prices)



Source: Citi Investment Research and Analysis

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

Figure 48. AQP 1HCY12E 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

Figure 49. Assessment of AQP's strategy vs. CIRA view

Mine	Strategy					Relative to		Comment
	Sell	Close	Transform	Reduce capex	Business as usual	Grow	M&A	
Kroondal					Citi/AQP			✓ Flagship Mine
Marikana		Citi			AQP			✗ Currently at break even. In danger of worse.
Everest				Citi	AQP			✗ Contain Capex spend
Mimosa					Citi/AQP			✓ Business as usual, politics permitting
Blue Ridge			AQP	Citi				✗ Contain Capex spend, given current auto&economic environment

Source: Citi Investment Research and Analysis, company reports

Figure 50. Comparative mining company valuations (calendarised)

	Rating & risk	Price (US\$)	Historic P/E		Forward P/E		EV/ EBITDA			FCF yield		Div Yld		P/B		ROE	
			2009	2010	2012E	2013E	2011	2012E	2013E	2011	2012E	2011	2012E	2010	2011	2010	2011
Platinum																	
Aquarius Platinum	1	2.7	130	16	21.8	10.7	7.8	8.5	5.2	-4%	3%	2%	1%	1.5	1.5	1%	1%
Lonmin	2	14.9	-59	19	14.0	8.9	5.2	4.8	3.3	-3%	7%	2%	2%	1.1	1.0	6%	8%
Anglo American Platinum	3	67.6	184	28	21.0	16.7	11.9	9.6	8.0	2%	2%	2%	2%	2.6	2.5	23%	10%
Impala Platinum	1	20.5	19	18	12.6	10.5	7.5	6.5	5.4	3%	4%	3%	4%	2.3	2.1	12%	14%
Northam Platinum	1	3.8	18	23	15.0	9.0	15.4	9.4	5.8	-11%	-11%	1%	2%	1.2	1.1	5%	4%
Royal Bafokeng	1	6.8	-5	29	16.3	13.7	9.6	8.3	7.9	-5%	-11%	0%	0%	0.8	0.8	36%	4%
Gold																	
AngloGold Ashanti	2	43.3	-306	-9	10.5	7.3	6.0	5.1	3.5	7%	7%	1%	1%	3.9	3.2	6%	35%
Gold fields	3	15.6	32	20	9.0	7.1	4.4	4.0	3.3	10%	12%	3%	3%	1.6	1.9	8%	16%
Harmony Gold Mng	3	11.9	56	73	18.1	12.6	9.7	6.1	4.4	2%	7%	0%	0%	1.2	1.2	1%	4%
Barrick Gold	1	48.3	25	14	9.2	11.7	6.3	5.9	6.8	-1%	6%	1%	1%	2.4	1.5	19%	19%
Newmont Mining	1	63.4	24	14	12.9	19.4	6.0	6.1	7.8	6%	3%	2%	2%	2.3	2.1	19%	16%
Newcrest Mining	1	33.0	22	20	16.1	10.2	11.6	8.9	6.0	-2%	1%	1%	2%	2.0	1.7	10%	9%
Randgold Resourc	1	109.0	128	71	16.5	10.1	16.4	9.6	5.7	0%	6%	1%	1%	5.5	4.8	8%	19%
Diversified miners																	
BHP Billiton	1	31.3	15	10	8.7	8.0	5.1	5.2	4.8	8%	5%	3%	4%	3.2	3.0	38%	39%
Rio Tinto	1	54.6	16	8	7.2	6.2	3.1	3.0	2.4	10%	9%	2%	3%	1.8	1.5	28%	24%
Anglo American	1	39.4	19	10	8.2	7.0	4.5	3.9	3.1	17%	9%	2%	2%	1.4	1.1	22%	25%
Xstrata	1	16.3	16	9	8.2	6.3	5.1	5.0	4.0	1%	4%	2%	3%	1.2	1.0	13%	13%
Kumba Iron Ore	3	64.2	24	12	8.8	8.4	4.9	4.7	4.6	12%	14%	9%	9%	11.7	9.1	132%	109%
Exxaro	1	21.5	25	12	5.1	4.6	9.0	4.8	3.8	5%	10%	4%	7%	3.5	2.6	35%	40%
African Rainbow	1	21.4	19	15	9.4	7.6	4.9	4.1	3.3	3%	6%	3%	4%	1.9	1.7	14%	16%
Assore Limited	1	26.0	11	11	7.3	7.1	5.2	4.7	4.3	6%	11%	3%	4%	2.7	2.1	28%	30%
Copper																	
Freeport McMoran	2	42.0	14	9	11.2	8.4	4.3	4.7	3.7	11%	5%	4%	2%	3.2	2.5	46%	32%
Southern Copper Corp	2	33.2	30	18	16.9	16.1	7.6	9.1	8.3	7%	4%	6%	3%	7.3	6.8	40%	56%
Antofagasta	3	19.9	29	20	12.6	10.4	5.6	4.9	4.4	9%	10%	5%	5%	3.2	3.2	18%	20%
Kazakhmys	1	16.1	14	6	5.3	4.6	1.7	1.5	1.1	6%	1%	2%	3%	1.1	0.9	20%	14%
Jiangxi Copper	1	2.3	18	9	7.1	7.1	5.8	4.8	4.3	13%	15%	2%	2%	1.5	1.3	18%	17%
FST Quantum Minerals	2	22.0	17	12	18.8	12.5	7.5	7.5	5.6	-6%	-9%	1%	1%	3.4	2.7	-5%	17%
Grupo Mexico	2	2.9	25	14	13.2	12.1	5.0	6.0	5.3	8%	7%	5%	4%	3.8	3.3	30%	36%
Ferrous																	
Siderurgica Naci	2	9.2	9	10	12.3	12.5	5.1	5.7	5.8	5%	-4%	4%	2%	3.2	3.3	38%	65%
ENRC	1	11.2	14	7	6.4	6.1	3.8	3.8	3.5	3%	-3%	3%	3%	1.5	1.2	25%	21%
Fortescue Metals	1	4.8	32	12	7.6	6.8	5.4	5.8	5.4	-7%	-17%	2%	2%	7.6	4.7	51%	62%
Cliffs Natural	1	70.3	66	10	6.0	6.4	4.4	4.5	4.3	8%	14%	1%	2%	2.5	1.7	32%	35%
Coal																	
Whitehaven Coal	1	5.8	38	43	13.9	8.3	15.5	8.0	4.7	-2%	7%	2%	3%	2.6	2.6	7%	6%
Bumi Resources	1	0.3	28	15	7.7	5.0	6.8	3.5	2.1	16%	22%	2%	3%	5.1	2.6	28%	24%
Adaro Energy	1	0.2	15	24	6.2	5.7	4.8	3.8	3.2	5%	15%	1%	3%	3.0	2.4	13%	20%
China Coal	1	1.2	14	14	8.2	6.6	5.6	5.0	4.1	-20%	-2%	3%	3%	1.4	1.2	10%	13%
China Shenhua	1	4.4	17	14	10.6	9.3	7.0	5.8	4.9	5%	8%	3%	3%	2.8	2.4	21%	21%
Nickel & Zinc																	
Sterlite Industries	1	2.0	9	7	5.4	4.8	2.8	2.5	2.1	4%	8%	1%	1%	0.8	0.8	13%	14%
Norilsk	2	157.5	11	5	6.4	5.7	3.5	3.7	3.0	13%	9%	4%	4%	1.7	1.4	35%	27%
Hindustan Zinc	3	2.4	14	11	11.2	9.9	5.8	5.2	3.9	6%	7%	0%	1%	2.5	2.0	24%	20%
Average			21	17	11	9	7	6	5	4%	5%	2%	3%	3	2	23%	24%

Source: Powered by DataCentral

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Company sections

Company Focus

■ Company Update

Johann Steyn

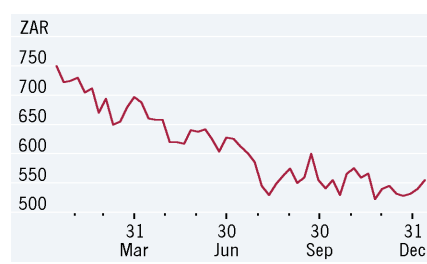
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Sell	3
Price (13 Jan 12)	R556.40
Target price	R550.00
Expected share price return	-1.2%
Expected dividend yield	2.2%
Expected total return	1.0%
Market Cap	R150,051M
	US\$18,637M

Price Performance

(RIC: AMSJ.J, BB: AMS SJ)



Anglo American Platinum Ltd (AMSJ.J)

Cost creep remains our main concern

- **Least favored in SA platinum space** — AMS remains our least favored pick in the SA platinum sector. Its new strategy is focused on prioritising growth projects on the basis of capital efficiency. We commend this focus on capital efficiency. However, we doubt whether it would solve our key concern about AMS, which is spiraling costs (refer “[Downgrade to Sell](#)”). We maintain our view that AMS is unlikely to gain relative cost position to its peers in the medium term. Sell, TP R550.
- **Operational outlook** — We expect AMS to produce 2.6m ounces (Pt) in FY12, 2.69m ounces in FY13 and 2.79m ounces in FY14. We expect unit costs to average R14,585/ounce (Pt) in FY12, R15,791/ounce in FY13 and R17,390/ounce in FY14. We expect FY12 capex of R8.8bn.
- **Valuation and risks** — We have a R550 TP and Sell recommendation for AMS. We value AMS on a sum-of-the-parts DCF basis. Our TP is derived by applying a 10% premium to DCF, which we motivate on the basis of AMS’ strategic reach in the SA platinum industry. We do not apply similar multiples to most other SA platinum companies under our coverage. Yet, AMS is our least favored stock on an expected total return (ETR) basis. Upside risks include higher rand-PGM prices and better-than-expected operational delivery.

Anglo American Platinum Ltd (ZAR)

Year to 31 Dec	2009A	2010A	2011E	2012E	2013E
Sales (RM)	36,687.0	46,124.0	46,793.7	55,070.7	62,344.5
Net Income (RM)	710.0	4,930.0	5,783.3	7,006.2	8,817.2
Diluted EPS (¢)	298	1,935	2,208	2,614	3,290
Diluted EPS (Old) (¢)	298	1,935	2,208	2,614	3,290
PE (x)	186.5	28.8	25.2	21.3	16.9
EV/EBITDA (x)	32.9	14.1	12.1	9.7	8.1
DPS (¢)	0	665	894	1,058	1,332
Net Div Yield (%)	0.0	1.2	1.6	1.9	2.4

Fiscal year end 31-Dec	2009	2010	2011E	2012E	2013E
Valuation Ratios					
P/E adjusted (x)	186.5	28.8	25.2	21.3	16.9
EV/EBITDA adjusted (x)	32.9	14.1	12.1	9.7	8.1
P/BV (x)	4.1	2.6	2.6	2.4	2.2
Dividend yield (%)	0.0	1.2	1.6	1.9	2.4
Per Share Data (¢)					
EPS adjusted	298	1,935	2,208	2,614	3,290
EPS reported	1,263	3,947	2,049	2,614	3,290
BVPS	13,503	21,412	21,725	22,943	25,063
DPS	0	665	894	1,058	1,332
Profit & Loss (Rm)					
Net sales	36,687	46,124	46,794	55,071	62,345
Operating expenses	-35,766	-39,251	-38,763	-44,648	-49,218
EBIT	921	6,873	8,031	10,423	13,127
Net interest expense	-236	-70	-9	-100	-100
Non-operating/exceptionals	2,290	5,609	-127	-385	-520
Pre-tax profit	2,975	12,412	7,895	9,938	12,507
Tax	153	-2,197	-2,456	-2,882	-3,627
Extraord./Min.Int./Pref.div.	-122	-157	-73	-50	-63
Reported net income	3,006	10,058	5,365	7,006	8,817
Adjusted earnings	710	4,930	5,783	7,006	8,817
Adjusted EBITDA	5,047	11,194	12,383	15,559	18,457
Growth Rates (%)					
Sales	-28.2	25.7	1.5	17.7	13.2
EBIT adjusted	-94.5	646.3	16.8	29.8	25.9
EBITDA adjusted	-74.7	121.8	10.6	25.6	18.6
EPS adjusted	-94.7	548.6	14.1	18.4	25.8
Cash Flow (Rm)					
Operating cash flow	4,697	10,330	10,096	11,711	10,855
Depreciation/amortization	4,126	4,321	4,353	5,136	5,330
Net working capital	275	-582	-322	-481	-3,355
Investing cash flow	-10,264	-7,041	-7,752	-8,411	-5,359
Capital expenditure	-11,301	-7,960	-7,256	-8,781	-5,729
Acquisitions/disposals	957	743	300	370	370
Financing cash flow	6,135	-4,188	-4,715	-2,837	-3,570
Borrowings	6,464	-16,147	-374	0	0
Dividends paid	-6	0	-3,913	-2,837	-3,570
Change in cash	568	-899	-2,371	463	1,926
Balance Sheet (Rm)					
Total assets	75,821	83,801	87,700	94,571	101,091
Cash & cash equivalent	3,532	2,534	163	627	2,552
Accounts receivable	2,891	2,988	4,501	5,805	6,285
Net fixed assets	35,283	37,438	39,476	43,121	43,521
Total liabilities	43,188	28,783	30,419	32,701	33,541
Accounts payable	5,409	6,190	7,877	10,159	10,999
Total Debt	22,791	6,644	6,273	6,273	6,273
Shareholders' funds	32,633	55,018	57,280	61,870	67,550
Profitability/Solvency Ratios (%)					
EBITDA margin adjusted	13.8	24.3	26.5	28.3	29.6
ROE adjusted	2.3	11.4	10.4	11.8	13.7
ROIC adjusted	1.9	7.5	8.3	10.5	12.5
Net debt to equity	59.0	7.5	10.7	9.1	5.5
Total debt to capital	41.1	10.8	9.9	9.2	8.5

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New Strategy, Same Result

Reflecting on AMS's old strategy

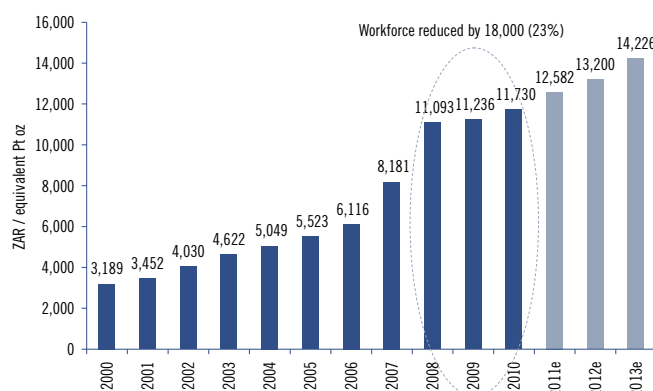
With the onset of the global economic crisis (GEC) in 2008/09, AMS reverted to a strategy of managing costs, while keeping production flat. Its strategy was well communicated and unambiguous, as per the following quote from p.16 of its 2009 annual report:

"Cost management is being institutionalized in our business and we have plans to keep unit costs flat over the next two years." At that stage, AMS was operating at unit cash costs of R11,236/oz (equivalent refined platinum) and its target was to maintain costs at this level in 2010 and 2011.

It intended achieving this target through: 1) right-sizing its workforce for 2.5m ounces of production, 2) delivering on-the-ground operational efficiency improvements, and 3) improving its infrastructure to reduce travel time of employees to work faces etc. (which admittedly was a longer-term goal).

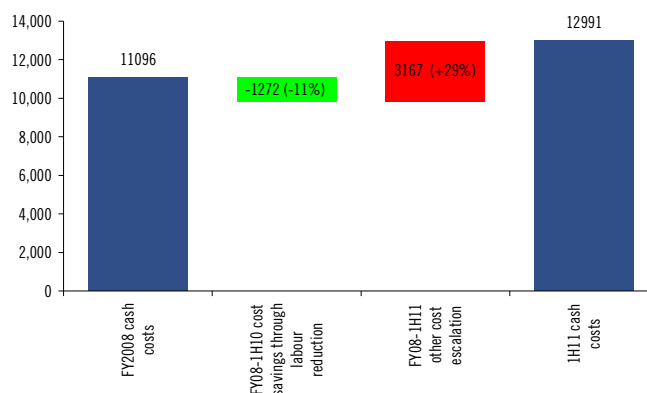
It immediately embarked on reducing its workforce by 23% (or 18,000 heads), which helped costs to remain flat from 2008 to 2009. However, the balance of its costs continued to increase at c.10% p.a. (Figure 51), which to us was an early warning sign that once the low-hanging fruit were picked (headcount reduction), delivering on its cost ambitions would become increasingly difficult.

Figure 51. Most of cost savings in 2009/10 came from labour reductions (R/equivalent refined Pt oz)



Source: Company data, CIRA estimates

Figure 52. Excluding effect of labour reduction, other costs escalated by 29% between FY08 and 1H11 (R/equivalent Pt oz)



Source: Company data, Citi Investment Research and Analysis

Indeed it did. Post the headcount reduction, AMS's costs continued to increase in line with the rest of the industry. The fact that its 1H11 costs spiraled to R12,991/ounce (which implies 2Q11 costs of R13,200/ounce) supports our long-held thesis that AMS will find it difficult to move down the cost curve and significantly improve its cost position relative to its peers, especially IMP. In fact, even with its significant headcount reductions, we calculate that AMS only gained 9% relative to IMP on the cost curve between 2008 and 2009, and 0% between 2009 and 2010. With no further headcount reductions possible for AMS, we doubt whether further improvement relative to IMP will be possible in the medium term.

New strategy: Not a game changer

AMS recently announced its new strategy, which revolves around capital management in order to meet rising PGM demand (estimated at 4% p.a. by AMS) and improve its overall market share while spending as little as possible capital. In essence, it sequences AMS's growth opportunities on the basis of capital efficiency. The five opportunities in order of capital priority are:

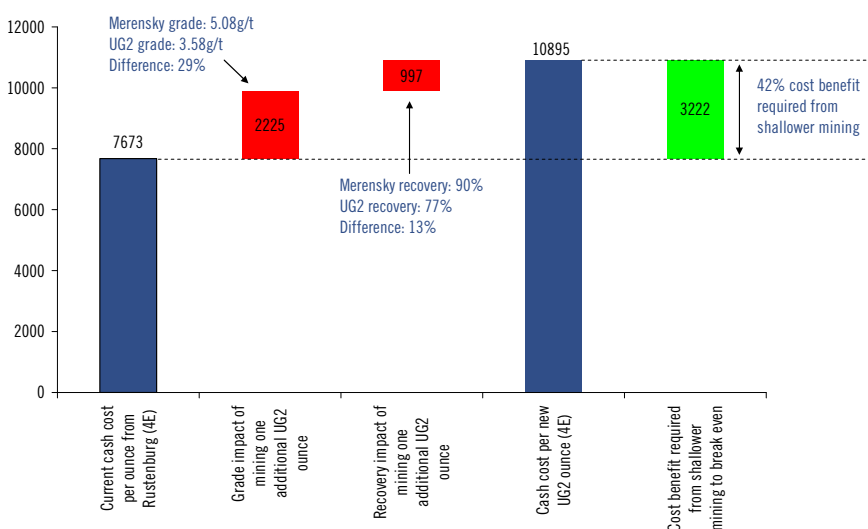
- Rustenburg UG2 optimisation (near term).
- Mogalakwena (near term).
- Unki (near to medium term).
- Eastern Limb (medium term).
- Western Limb deep shafts (longer term).

We highlight the opportunities and challenges for each of these initiatives below.

1. Rustenburg UG2 optimisation (near term)

- **The opportunity:** AMS has historically extracted mainly Merensky reef at Rustenburg, now leaving the opportunity to go back and mine the shallow UG2 ore body. Given the shallow nature of Rustenburg's remaining UG2, it should (in theory) be beneficial from a capital and operating cost point of view to focus on this reef going forward.
- **The challenge:** We caution that Rustenburg's UG2 ore is 29% lower in grade than its Merensky ore (Merensky 5.08g/t vs. UG2 3.58g/t, 4E) and typically achieves 13% lower recoveries (Merensky 90% recovery vs. UG2 77%). This implies that a 42% operating cost benefit is required on order to justify mining one additional ounce of shallower UG2 vs. deeper Merensky (*Figure 53*).

Figure 53. Cost benefit required to justify mining one additional ounce of shallower UG2 at Rustenburg (R/ounce, 3PGE+Au)



Source: Citi Investment Research and Analysis

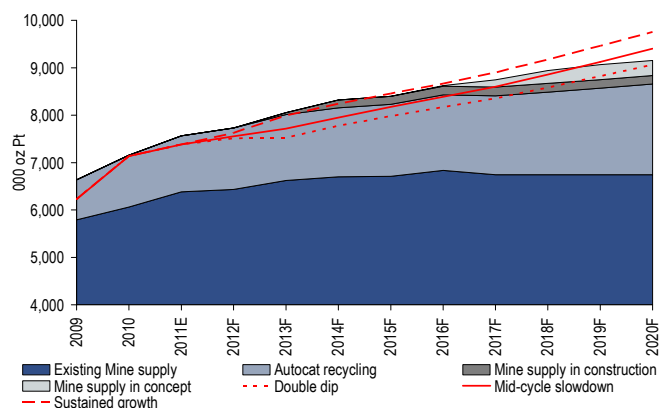
- As a result, should AMS attempt to increase production from Rustenburg on this basis, we view it as highly unlikely that it will be able to move Rustenburg down the cost curve. Even without attempting to increase production from Rustenburg, AMS expects Rustenburg's UG2:Merensky split to increase from the current 70:30 to 75:25 by 2015 and 80:20 by 2020. Given the analysis in *Figure 53*, this UG2:Merensky outlook does not augur well for lower operating costs from Rustenburg, in our view.

2. Mogalakwena (near to medium term)

The opportunity: As an open-pit mine with extensive reserves and resources, Mogalakwena has the potential to become a substantial low-cost mine within AMS's stable, should market conditions allow. AMS claims that it has improved its capacity to process the difficult Platreef ore, and that community issues are being resolved.

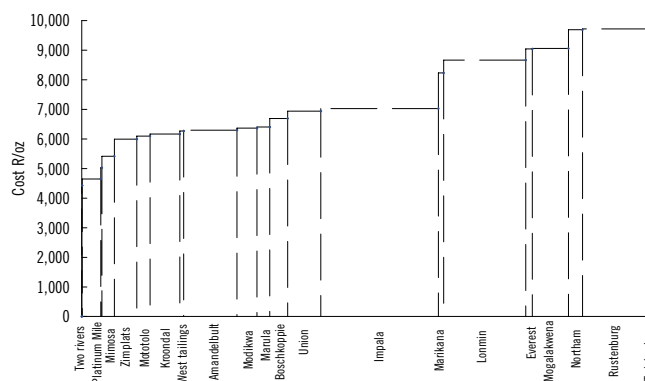
The challenge: Given that current rand-based PGM prices are not incentivising the complete cost curve (supportive of our view of a medium-term surplus outlook for platinum, see *Figure 54*), we believe AMS will not be able to increase production from Mogalakwena by any significant extent in the near to medium term. This is as its Rustenburg operations are positioned on the right-hand side of the cost curve (*Figure 55*) and are currently marginal on a post-project capex free cash flow (FCF) basis. Any increase in production from Mogalakwena will push the market further into surplus, in our view, and will result in further margin pressure on Rustenburg. As a result, whatever AMS would gain through higher production at Mogalakwena, it would likely lose through even more depressed margins at Rustenburg.

Figure 54. Citi's supply and demand outlook for platinum (000 ounces)



Source: Citi Investment Research and Analysis, Johnson Matthey

Figure 55. 2H10 5PGE+Au all-in cost curve (R/oz, 5PGE+Au)



Source: Citi Investment Research and Analysis, company reports

3. Unki (near to medium term)

The opportunity: Unki is a low-cost mine in Zimbabwe with significant reserves and significant ramp-up potential in the longer term. Its phase I is in ramp-up and will likely achieve steady state production of 141 ounces (4E) by 2013. Further longer-term expansion potential exists.

The challenge: Near term, political and indigenisation uncertainty in Zimbabwe may delay any further expansion at Unki. Also, similar to our argument for Mogalakwena above, our view of a medium-term surplus market for platinum implies that AMS will not be able to increase production from Unki to any significant extent any time soon. This is as its Rustenburg operations are positioned on the right-hand side of the cost curve and are currently marginal on a post project capex FCF basis. Any significant increase in production from Unki will push the market

further into surplus, in our view, and will result in further margin pressure on Rustenburg. As a result, whatever AMS would gain through higher production at Unki, it would likely sacrifice through even more depressed margins at Rustenburg.

4. Eastern Limb option (medium term)

The opportunity: AMS has an extensive undeveloped footprint on the Eastern Limb. Projects such as Twickenham, der Brochen and Ga-Pasha provide AMS with production flexibility in the medium to longer term.

5. Western Limb deep shafts (longer term)

The opportunity: AMS has multiple deep shaft opportunities on the Western Limb. Even though these projects are currently marginal to uneconomical, AMS believes that PGM prices would likely prove these projects feasible in 10-20 years' time. Opportunities 1-4 above provide AMS with the flexibility to wait for prices to move higher before committing to these higher capex and higher opex projects.

Valuation and Risks

Valuation

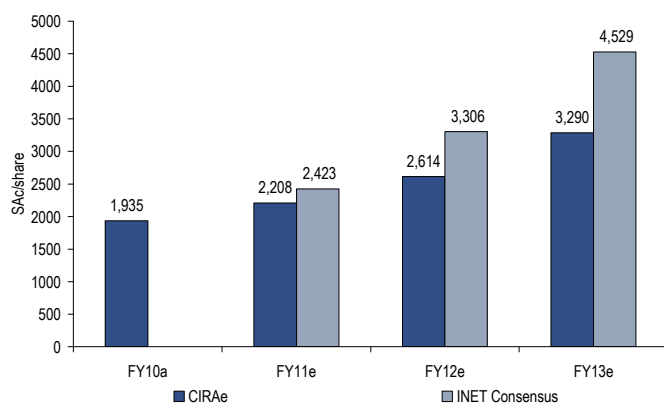
We value AMS on a sum-of-the-parts discounted cash flow (DCF) basis. We derive our valuation by applying a nominal WACC of 11.9% (beta 1.0, ERP 5.0%, RFR 8.5%), discounting cash flows over the life of the group's individual assets. We apply a 10% premium to our valuation of AMS relative to its peers to account for its strategic advantage due to its control of 55% of sector reserves. Sell, TP R550.

Figure 56. AMS sum-of-the-parts DCF valuation

NAV calculation	DCF (Rm)	Exit multiple (x)	Market value (Rm)	% of total
Rustenburg	11,614	1.10	12,776	9
Amandelbult	21,388	1.10	23,527	16
Union	15,764	1.10	17,341	12
Mogalakwena	42,333	1.10	46,566	32
Lebowa	1,935	1.10	2,129	1
Twickenham	8,218	1.10	9,040	6
Unki	4,305	1.10	4,736	3
West Tailings	1,480	1.10	1,628	1
Kroondal	6,427	1.10	7,070	5
Modikwa	9,072	1.10	9,979	7
Marikana	2,979	1.10	3,277	2
Mototolo	6,303	1.10	6,933	5
Operational value	131,819	1.10	145,001	100
Net (debt)/cash	-4,110	1.0	-4,110	
Investments	3,301	1.0	3,301	
Overhead costs	-3,326	1.0	-3,326	
Financial obligations	-4,135		-4,135	
NAV	127,684		140,866	
Equity value (Rm)	140,866			
Market cap (Rm)	160,800			
Number of shares in issue (m)	268			
CIRA target price (ZAR/share)	550			

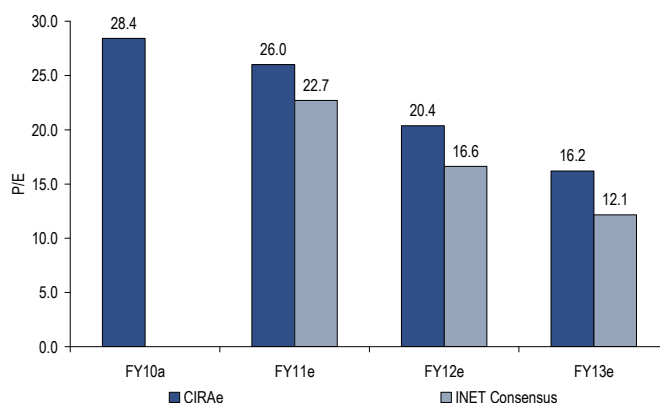
Source: Citi Investment Research and Analysis

Figure 57. AMS CIRA HEPS forecast vs. consensus



Source: I-Net, Citi Investment Research and Analysis, Company reports

Figure 58. AMS CIRA P/E vs. consensus



Source: I-Net, Citi Investment Research and Analysis, Company reports

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

■ Company Update

Johann Steyn

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Buy	1
Price (13 Jan 12)	R170.40
Target price	R220.00
Expected share price return	29.1%
Expected dividend yield	4.0%
Expected total return	33.1%
Market Cap	R107,644M
	US\$13,370M

Price Performance

(RIC: IMPJ.J, BB: IMP SJ)



Impala Platinum (IMPJ.J)

Our favourite large-cap pick in the SA platinum sector

- **Best in class** — IMP is our favourite large-cap pick in the SA platinum sector. Recent uncertainty about indigenization policies in Zimbabwe, together with Sovereign debt concerns in the Euro area, has weighed on IMP's share price. However, the company's low-cost assets and longer-term low-cost growth optionality make it structurally well positioned for longer-term economic value creation, in our view. We believe these attributes are not fully reflected in IMP's market valuation. Buy, TP R220.
- **Operational outlook** — We expect IMP to produce 1.8m ounces (Pt) in FY12, 1.9m ounces in FY13 and 2.02m ounces in FY14. We expect unit costs to average R11,954/ounce (Pt) in FY12, R12,910/ounce in FY13 and R13,943/ounce in FY14. We expect FY12 capex of R5.56bn.
- **Valuation and risks** — We value IMP on a sum-of-the-parts DCF basis, applying a nominal WACC of 11.9%. We derive our R220 TP by applying a 1x P/DCF exit multiple. We have a Buy recommendation. Downside risks to our view include weaker-than-expected PGM prices and worse-than-expected operational delivery.

Impala Platinum (ZAR)

Year to 30 Jun	2010A	2011A	2012E	2013E	2014E
Sales (RM)	25,125.3	32,767.3	31,775.0	37,682.1	42,654.6
Net Income (RM)	4,718.4	6,634.2	7,071.5	8,829.3	10,322.8
Diluted EPS (R)	7.86	11.04	11.76	14.69	17.17
Diluted EPS (Old) (R)	7.86	11.04	11.76	14.69	17.17
PE (x)	21.7	15.4	14.5	11.6	9.9
EV/EBITDA (x)	11.4	7.9	7.4	6.1	5.1
DPS (R)	3.20	5.70	5.73	7.15	8.36
Net Div Yield (%)	1.9	3.3	3.4	4.2	4.9

Fiscal year end 30-Jun	2010	2011	2012E	2013E	2014E
Valuation Ratios					
P/E adjusted (x)	21.7	15.4	14.5	11.6	9.9
EV/EBITDA adjusted (x)	11.4	7.9	7.4	6.1	5.1
P/BV (x)	2.3	2.3	2.1	1.9	1.8
Dividend yield (%)	1.9	3.3	3.4	4.2	4.9
Per Share Data (R)					
EPS adjusted	7.86	11.04	11.76	14.69	17.17
EPS reported	7.32	10.44	11.76	14.69	17.17
BVPS	72.94	75.29	80.65	88.03	96.64
DPS	3.20	5.70	5.73	7.15	8.36
Profit & Loss (Rm)					
Net sales	25,125	32,767	31,775	37,682	42,655
Operating expenses	-17,879	-22,135	-20,700	-23,864	-26,507
EBIT	7,246	10,632	11,075	13,818	16,147
Net interest expense	2	-187	0	0	0
Non-operating/exceptionals	-344	-1,249	-1,045	-1,294	-1,505
Pre-tax profit	6,904	9,196	10,030	12,524	14,642
Tax	-2,431	-2,751	-2,909	-3,632	-4,246
Extraord./Min.Int./Pref.div.	-79	-172	-50	-63	-73
Reported net income	4,394	6,273	7,071	8,829	10,323
Adjusted earnings	4,718	6,634	7,071	8,829	10,323
Adjusted EBITDA	8,329	12,004	12,622	15,410	17,981
Growth Rates (%)					
Sales	-3.8	30.4	-3.0	18.6	13.2
EBIT adjusted	-21.8	46.7	4.2	24.8	16.9
EBITDA adjusted	-18.7	44.1	5.1	22.1	16.7
EPS adjusted	-21.3	40.4	6.5	24.9	16.9
Cash Flow (Rm)					
Operating cash flow	5,597	7,920	9,597	9,822	11,542
Depreciation/amortization	1,083	1,372	1,546	1,593	1,833
Net working capital	-1,184	-371	929	-662	-688
Investing cash flow	-3,600	-4,472	-5,487	-4,801	-4,863
Capital expenditure	-4,399	-5,293	-5,557	-4,871	-4,933
Acquisitions/disposals	8	-55	70	70	70
Financing cash flow	-1,816	-3,044	-3,444	-4,300	-5,027
Borrowings	22	-583	0	0	0
Dividends paid	-1,920	-2,519	-3,444	-4,300	-5,027
Change in cash	189	319	666	722	1,652
Balance Sheet (Rm)					
Total assets	62,571	67,604	70,614	76,230	82,659
Cash & cash equivalent	3,858	4,542	4,844	5,565	7,217
Accounts receivable	3,588	4,783	4,852	5,728	6,638
Net fixed assets	29,646	33,137	37,147	40,425	43,525
Total liabilities	16,838	17,994	17,621	18,574	19,564
Accounts payable	5,147	5,656	5,283	6,236	7,226
Total Debt	2,128	1,842	1,842	1,842	1,842
Shareholders' funds	45,733	49,610	52,993	57,656	63,095
Profitability/Solvency Ratios (%)					
EBITDA margin adjusted	33.2	36.6	39.7	40.9	42.2
ROE adjusted	11.1	14.5	14.4	16.6	17.7
ROIC adjusted	13.1	19.5	18.6	21.5	23.2
Net debt to equity	-3.8	-5.4	-5.7	-6.5	-8.5
Total debt to capital	4.4	3.6	3.4	3.1	2.8

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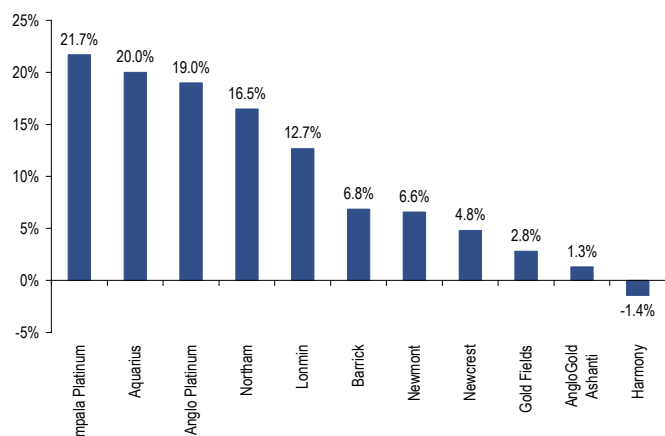


IMP to Remain Best-in-Class

IMP created superior economic value

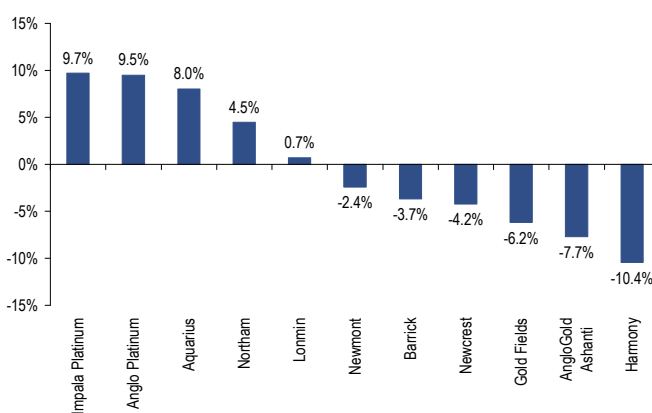
IMP delivered an average ROIC of 22% over the past decade, well above the sector average of 18%.

Figure 59. SA platinum sector relative ROIC (%), 1998-2010



Source: CIRA, company data, Bloomberg

Figure 60. Relative economic value creation (ROIC-WACC, 1998-2010)

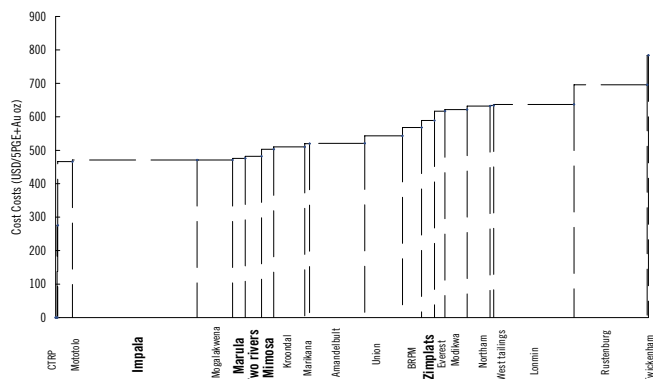


Source: CIRA, company data, Bloomberg

Mainly due to its low-cost assets

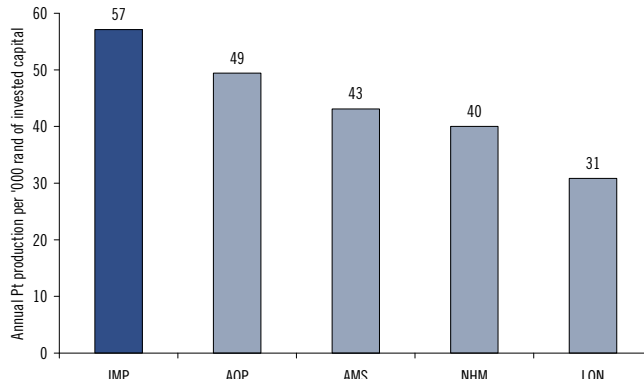
The reason for IMP's unmatched success was mainly due to its low-cost assets and more efficient application of capital relative to its peers (Figure 61 and Figure 62).

Figure 61. 1H08 5PGE+Au cash cost curve (R/oz)



Source: Company data, Citi Investment Research and Analysis

Figure 62. IMP has superior platinum production per '000 rand of invested capital (Pt oz / '000 rand)



Source: CIRA, company data, Bloomberg

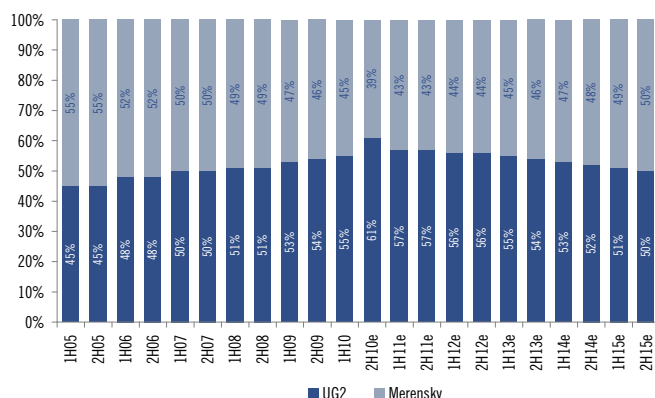
Near-term operational fears are starting to dissipate

A key concern for many has been IMP's near-term operational difficulties, which mainly stemmed from a lack of Merensky development over the past decade and which resulted in the company having to mine 60% UG2 reef and only 40% higher-grade Merensky (historically 50:50) during the latter parts of FY10. Despite these

challenges, IMP's unit costs were well maintained and it managed to keep its superior cost curve position.

IMP's Merensky:UG2 split improved from 40:60 in FY10 to 42:58 in FY11. We expect this to improve to 44:56 in FY12. Medium term we expect this split to return to 50:50 by 2016 when shafts 20, 16 and 17 come online.

Figure 63. IMP historical and expected UG2:Merensky split (%)



Source: Company data, CIRA estimates

Figure 64. Expected ramp-up schedule of IMP's Merensky shafts (000 Pt ounces)

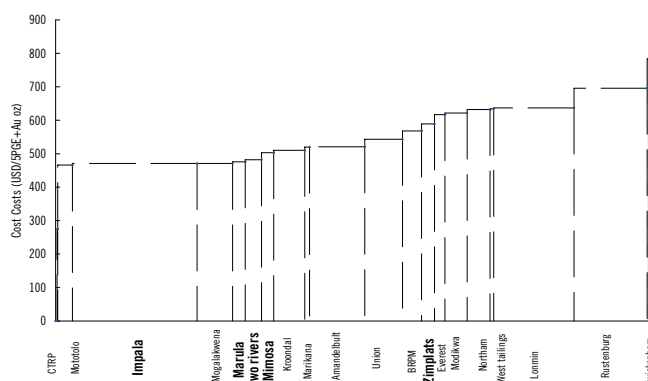
Shaft	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
20-Shaft	0	0	60	90	110	140	150	150	150	150
16-Shaft	0	0	30	70	100	130	150	185	185	185
17-Shaft	0	0	0	0	0	50	100	150	180	180
Total new Merensky	0	0	90	160	210	320	400	485	515	515
% Merensky	40	40	41	45	49	50	50	50	50	50

Source: Company data, CIRA estimates

IMP likely to remain best-in-class

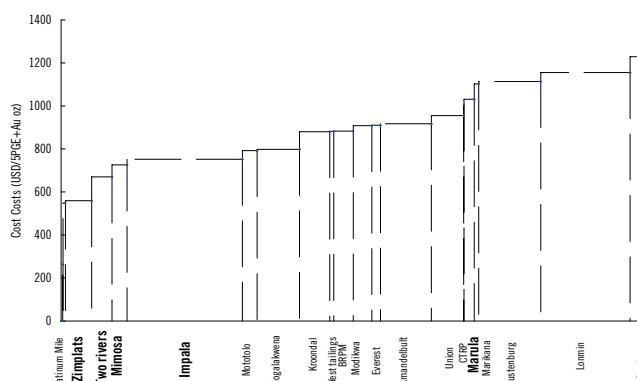
As a result, we believe the worst of IMP's near-term operational issues have now passed and expect the company to maintain (and potentially even improve in the long term through Zimplats) its superior position on the global PGM cost curve.

Figure 65. CY08 5PGE+Au cash cost curve



Source: Company data, Citi Investment Research and Analysis

Figure 66. 1H11 5PGE+Au cash cost curve



Source: Company data, Citi Investment Research and Analysis

Attractive longer-term value proposition

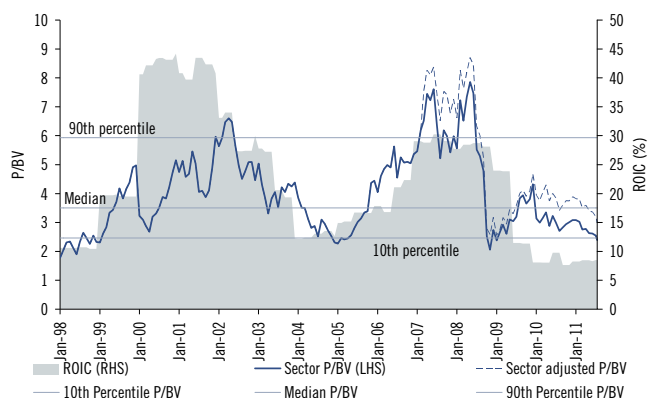
IMP trading below 15-year median P/BV

We also highlight that IMP, as with the rest of the SA platinum sector, is currently trading below its 15-year median P/BV level. It is also currently delivering cyclically low ROICs of approximately 12% (i.e. breakeven EVA, given our 12% WACC).

**IMP to remain superior value creator in
SA platinum sector**

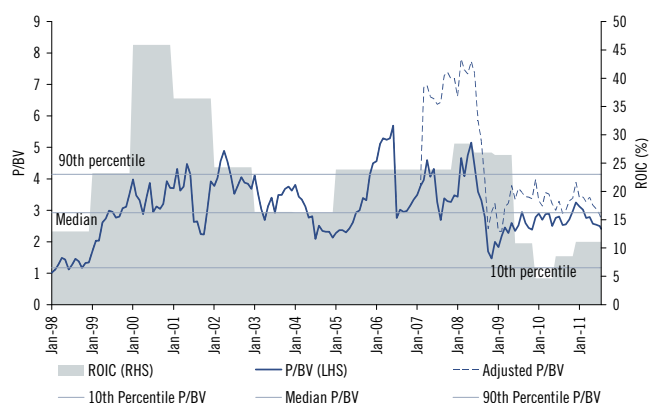
Given its favourable position on the cost curve, we view it as likely that IMP's ROIC will improve further in the medium term as the price incentivises it to sustain and increase production. This argument does not necessarily hold for higher-cost producers like AMS and LON, especially if our near- and medium-term surplus market outlook for platinum realises.

Figure 67. Platinum sector historical P/BV and ROIC



Source: CIRA, company reports, Datastream and Bloomberg

Figure 68. IMP historical P/BV and ROIC



Source: CIRA, company reports, Datastream and Bloomberg

Valuation and Risks

Valuation

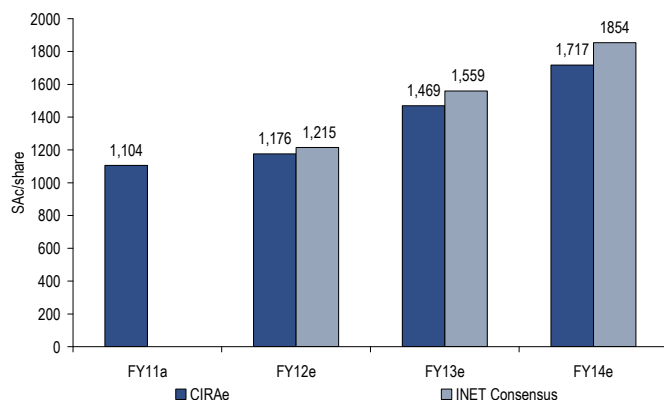
We value IMP on a sum-of-the-parts discounted cash flow (DCF) basis. We derive our valuation by applying a nominal WACC of 11.9% (beta 1.0, ERP 5.0%, RFR 8.5%), discounting cash flows over the life of the group's individual assets. We base our 12-month forward target price on a 1.0x P/DCF exit multiple. This is as we do not expect near- to medium-term PGM prices to rise substantially above our long-term price expectations. Buy, TP R220.

Figure 69. IMP sum-of the parts DCF valuation

NAV calculation	DCF (Rm)	Exit multiple (x)	Market value (Rm)	% of total
Impala	70,839	1.0	70,839	50
Marula	5,766	1.0	5,766	4
Zimplats	25,291	1.0	25,291	18
Mimosa	5,984	1.0	5,984	4
Two Rivers	9,243	1.0	9,243	7
Leeuwkop	3,839	1.0	3,839	3
IRS	20,732	1.0	20,732	15
Operational value	141,695	1.0	141,695	100
Net (debt)/cash	2,700	1.0	2,700	
Investments	1,052	1.0	1,052	
Overhead costs	-1,717	1.0	-1,717	
Financial obligations	2,035		2,035	
NAV	143,730		143,730	
Equity value (Rm)	143,730			
Market cap (Rm)	107,400			
Number of shares in issue (m)	600			
CIRA target price (ZAR/share)	220			

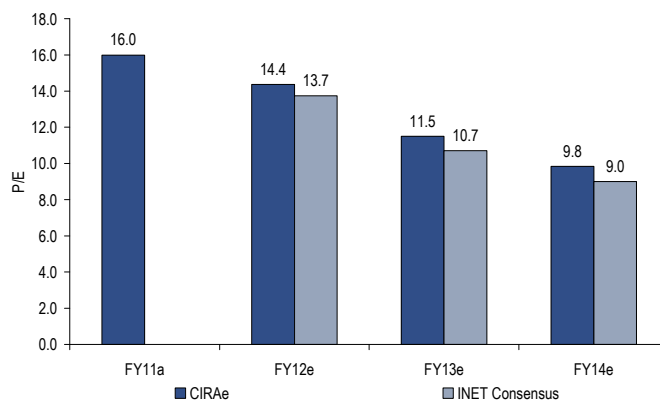
Source: Citi Investment Research and Analysis

Figure 70. IMP CIRA HEPS forecast vs. consensus



Source: I-Net, Citi Investment Research and Analysis, Company reports

Figure 71. IMP CIRA P/E vs. consensus



Source: I-Net, Citi Investment Research and Analysis, Company reports

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

■ Company Update

Johann Steyn

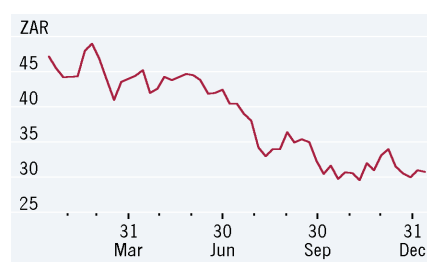
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johann.steyn@citi.com

Buy	1
Price (13 Jan 12)	R30.87
Target price	R45.00
Expected share price return	45.8%
Expected dividend yield	1.7%
Expected total return	47.5%
Market Cap	R11,805M
	US\$1,466M

Price Performance

(RIC: NHMJ.J, BB: NHM SJ)



Northam Platinum (NHMJ.J)

Unloved and undervalued

- **Near-term challenges overplayed** — NHM is our top pick in the SA platinum sector. We believe its market valuation reflects a scenario where 1) Zondereinde remains at 250,000 ounces p.a., while 2) capex, unit costs and production at Booyssendal all come in 20% worse than guided. We believe such an outcome is unlikely and see nearly 50% upside potential for NHM's share price from here. Buy, TP R45.
- **Operational outlook** — We expect NHM to produce 274k ounces (3PGE+Au) in FY12, rising to 330k ounces in FY13 and 441k ounces in FY14 as Booyssendal comes on line. We expect unit costs to average R13,846/ounce (Pt) in FY12, R14,092/ounce in FY13 and R13,626/ounce in FY14. We expect FY12 capex of R2.58bn.
- **Valuation and risks** — We value NHM on a sum-of-the-parts DCF basis, applying a nominal WACC of 11.9%. We derive our R45 TP by applying a 1x P/DCF exit multiple. We have a Buy recommendation. Downside risks include weaker rand-PGM prices, problems at Zondereinde escalating and negative deviations from Booyssendal's feasibility numbers.

Northam Platinum (ZAR)

Year to 30 Jun	2010A	2011A	2012E	2013E	2014E
Sales (RM)	3,945.6	3,570.6	3,941.1	5,228.3	7,056.0
Net Income (RM)	639.9	324.4	540.0	943.8	1,516.0
Diluted EPS (¢)	177	90	149	260	418
Diluted EPS (Old) (¢)	177	90	149	260	418
PE (x)	17.4	34.4	20.8	11.9	7.4
EV/EBITDA (x)	11.4	19.8	12.8	7.7	4.7
DPS (¢)	40	21	35	62	99
Net Div Yield (%)	1.3	0.7	1.1	2.0	3.2

Fiscal year end 30-Jun	2010	2011	2012E	2013E	2014E
Valuation Ratios					
P/E adjusted (x)	17.4	34.4	20.8	11.9	7.4
EV/EBITDA adjusted (x)	11.4	19.8	12.8	7.7	4.7
P/BV (x)	1.3	1.1	1.1	0.9	0.7
Dividend yield (%)	1.3	0.7	1.1	2.0	3.2
Per Share Data (¢)					
EPS adjusted	177	90	149	260	418
EPS reported	177	96	149	260	418
BVPS	2,449	2,717	2,907	3,413	4,242
DPS	40	21	35	62	99
Profit & Loss (Rm)					
Net sales	3,946	3,571	3,941	5,228	7,056
Operating expenses	-3,160	-3,186	-3,299	-4,017	-5,039
EBIT	785	385	643	1,211	2,017
Net interest expense	167	86	118	118	118
Non-operating/exceptionals	21	60	0	0	0
Pre-tax profit	973	531	761	1,329	2,135
Tax	-334	-182	-221	-386	-619
Extraord./Min.Int./Pref.div.	0	0	0	0	0
Reported net income	640	349	540	944	1,516
Adjusted earnings	640	324	540	944	1,516
Adjusted EBITDA	952	533	849	1,534	2,505
Growth Rates (%)					
Sales	23.8	-9.5	10.4	32.7	35.0
EBIT adjusted	-4.0	-51.0	67.0	88.5	66.5
EBITDA adjusted	-2.7	-44.0	59.2	80.7	63.3
EPS adjusted	5.7	-49.4	65.9	74.8	60.6
Cash Flow (Rm)					
Operating cash flow	863	785	331	1,086	1,769
Depreciation/amortization	167	148	206	323	488
Net working capital	1	234	-416	-180	-234
Investing cash flow	-396	-213	-1,380	-1,345	-1,189
Capital expenditure	-371	-957	-2,580	-1,345	-1,189
Acquisitions/disposals	-31	-29	0	0	0
Financing cash flow	-201	-61	-168	-222	-361
Borrowings	0	0	0	0	0
Dividends paid	-216	-90	-168	-225	-361
Change in cash	266	510	-1,217	-480	220
Balance Sheet (Rm)					
Total assets	10,089	11,917	12,362	14,454	17,832
Cash & cash equivalent	1,187	1,698	480	0	220
Accounts receivable	318	411	257	359	490
Net fixed assets	2,002	2,848	5,222	6,244	6,944
Total liabilities	1,256	1,814	1,245	1,403	1,609
Accounts payable	563	972	403	561	767
Total Debt	78	84	84	84	84
Shareholders' funds	8,833	10,103	11,117	13,051	16,223
Profitability/Solvency Ratios (%)					
EBITDA margin adjusted	24.1	14.9	21.5	29.3	35.5
ROE adjusted	7.5	3.4	5.1	7.8	10.4
ROIC adjusted	5.6	2.3	4.1	6.6	9.2
Net debt to equity	-12.6	-16.0	-3.6	0.6	-0.8
Total debt to capital	0.9	0.8	0.7	0.6	0.5

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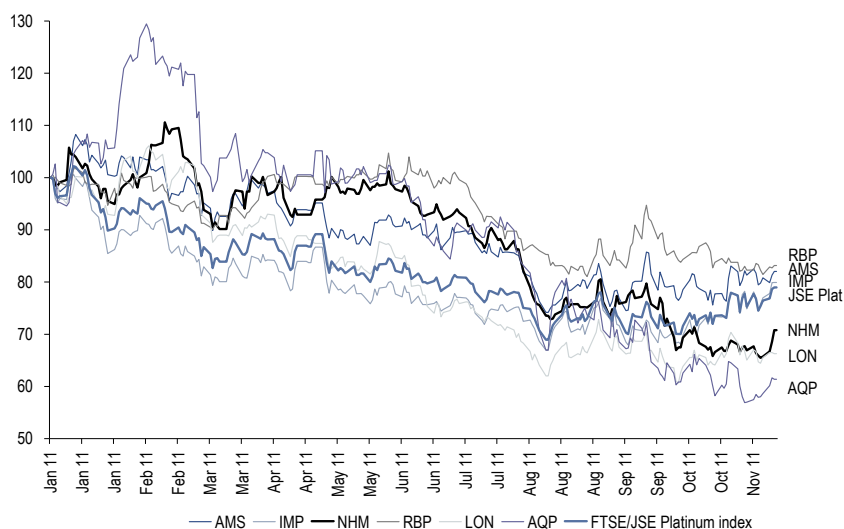


Unloved and Undervalued

NHM has underperformed y-t-d

NHM has underperformed the FTSE/JSE platinum index by 10% y-t-d. This was mainly due to a six-week strike and ongoing geological challenges at Zondereinde that resulted in a 22% decline in production to 250,000 ounces during FY11.

Figure 72. SA Platinum equity performance 2011 y-t-d (Indexed)

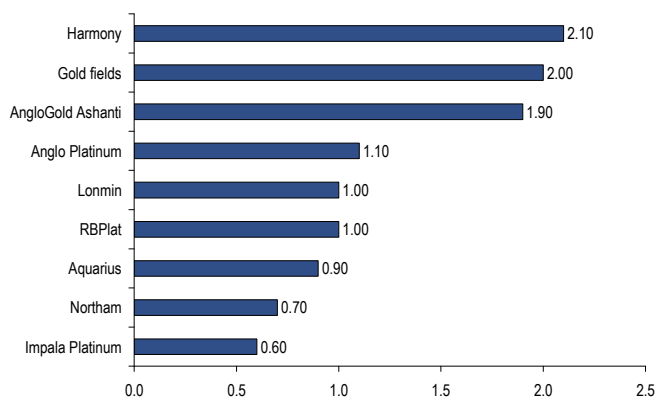


Source: DataStream

Value has emerged

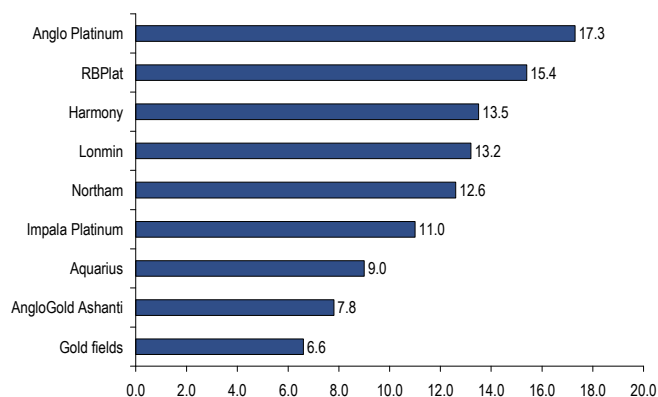
We believe this underperformance is over done and that NHM offers attractive value from here.

Figure 73. Relative P/DCF



Source: CIRA estimates

Figure 74. CY12e P/E



Source: CIRA estimates

Whereas NHM has historically traded at a premium relative to its peers (as a result of a superior growth profile and M&A potential), it now trades >25% below AMS, on a CY12e P/E basis. This is interesting since we estimate NHM offers c.50% growth over the next 3 years, vs. AMS close to 0%.

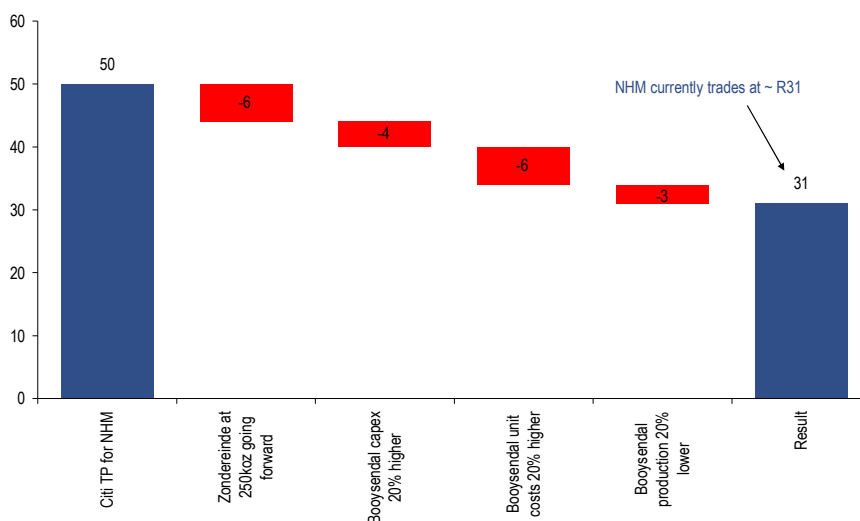
As a result, we believe the market is too pessimistic on NHM

We estimate the NHM's current market valuation reflects a scenario where Zondereinde never recovers from its current 250,000 ounce level, while all NPV parameters for Booyssendal comes in 20% worse than that stipulated in its feasibility study. i.e.:

- **Capex:** Phase I capex comes in at R4.7bn as opposed to the current R3.9bn estimate. This has a R4/share impact on our DCF for NHM.
- **Production:** Phase I production only ramps up to 139,000 ounces, as opposed to 167,000 ounces as stipulated in the feasibility study. This has a R6/share impact on our DCF for NHM.
- **Unit cash costs:** R/t unit cash costs of R546/t realise (2010 real), compared with the R455/t guided in the feasibility. This has a R4/share impact on our DCF for NHM.

NHM's current market value implies no recovery at Zondereinde while production, cost and capex at Booyssendal all come in 20% worse than expected

Figure 75. Market too pessimistic on NHM (R/share)



Source: Citi Investment Research and Analysis

Unless there is a strike at Zondereinde each year from now going forward while current development efforts prove to be in vain, we find it hard to imagine how Zondereinde will not be able to recover from its FY11 production level. Even if the current geological challenges persist, Zondereinde should be able to ramp up back to 280,000 ounces. This is what production would have been during FY11 if the six-week strike did not occur.

Also, given the relative simplicity of the decline-design at Booyssendal (versus e.g. a shaft system), we believe execution risk at Booyssendal is lower than other projects in the industry. A scenario where capex, opex and production all come in 20% worse than feasibility numbers is therefore unlikely, in our view.

Upside ignored

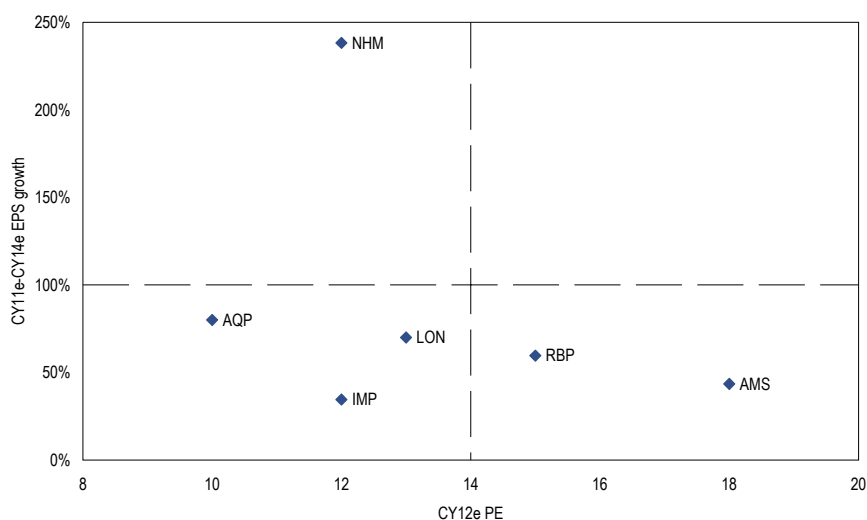
As a result, we believe NHM's market valuation does not account for any upside. We see two medium-term catalysts for the stock from these levels:

1. **A recovery at Zondereinde:** We expect Zondereinde to ramp up back to 280,000 ounces p.a. by end CY12.
2. **Growth through Booyseindal:** We expect 50% medium-term low-cost production growth from Booyseindal.

These two factors combined are likely to provide NHM with superior earnings growth over the next 3 years, in our view. Despite this superior growth outlook, NHM appears undervalued relative to its peers (*Figure 76*).

We think NHM provides superior medium-term earnings growth at an undemanding valuation.

Figure 76. CIRA CY11e-14e EPS growth vs. CY12e P/E



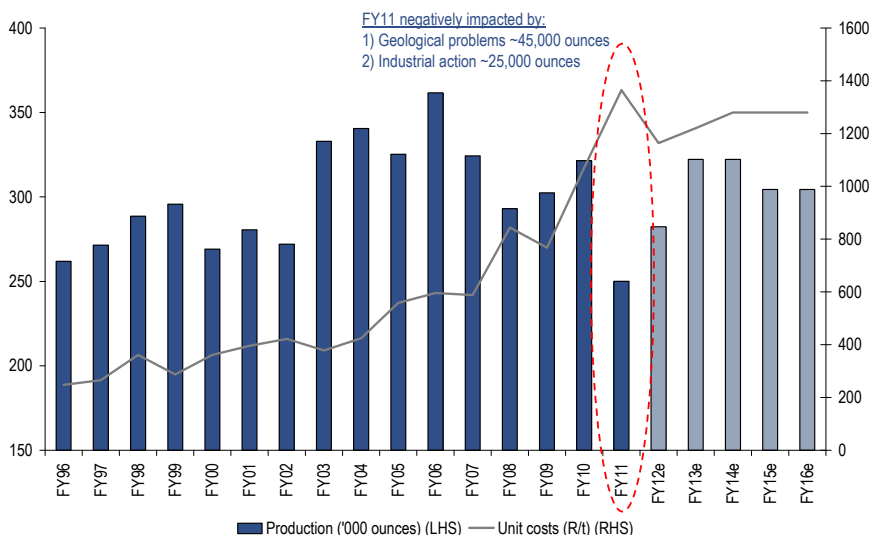
Source: Citi Investment Research and Analysis

1. Recovery at Zondereinde

Unless another strike occurs, we view it as likely that Zondereinde will be able to produce 280,000 ounces during FY12, and 300,000-320,000 ounces during FY13.

We expect Zondereinde to recover to 280,000 ounces during FY12

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



Source: Company data, CIRA estimates

Justifiably, one may question whether Zondereinde will recover and sustain production of 320,000 ounces p.a. going forward. We agree that Zondereinde's depth, fragmented reserves and numerous fault lines probably make it the most complex mine in the SA platinum sector. Historically, these challenges were well offset by a technically competent management team.

Even though we still regard NHM's management team as technically competent, we recently cautioned in our note '[Problems Zondereinde Priced In – Buy](#)' that there might come a time when the complexity of this ore body will outweigh management's ability. In that note, we also found it applicable to revise down our long-term production outlook for Zondereinde from 320,000 ounces p.a. to 300,000 ounces p.a. as we believed that technical challenges will prevent it from operating consistently at this level over the remaining life-of-mine.

As a result, we think our long-term assumptions for this mine are not overly optimistic. Yet, we still see value in NHM at these levels.

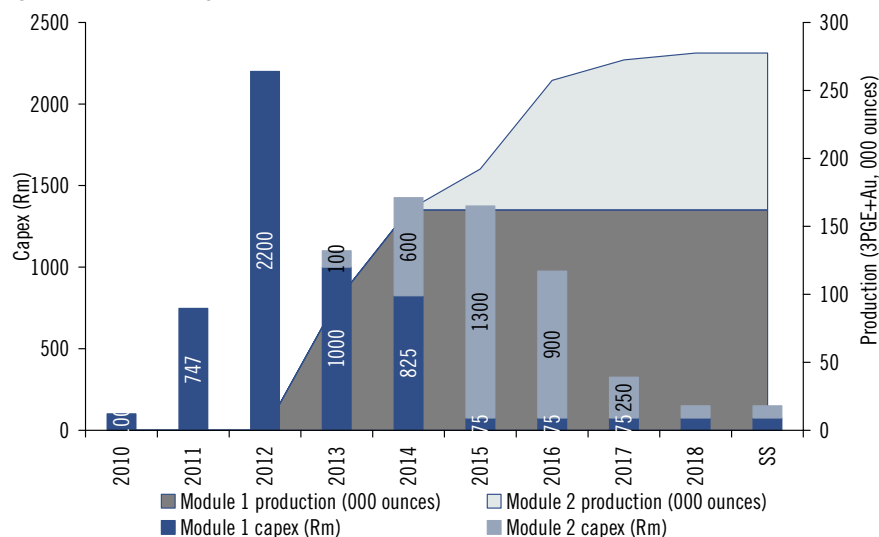
2. Growth through Booysendal

Booyesendal to add 167,000 ounces within 3 years

We expect production from Booysendal Phase 1 to ramp up to 167,000 ounces (3PGE+Au) by 2014 at unit cash costs of R455/t (2010 real). At steady state, this represents unit costs of R5,055/ounce (3PGE+Au) or USD532/ounce.

Booyesendal decline 1 should add 167,000 ounces by 2014

Figure 78. CIRAE: Booyssendal ramp-up profile ('000 ounces, Rm)



Source: Company data, CIRA estimates

Funding not a problem

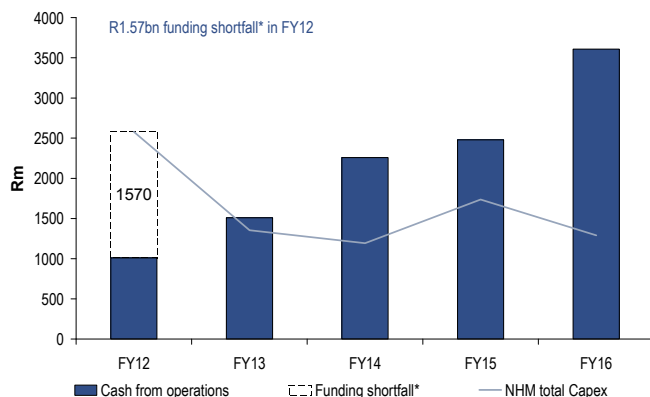
NHM has sufficient cash to self-fund Booyssendal

Even though NHM's peak capex commitments of R2.58bn (R2.2bn Booyssendal, R0.4bn Zondereinde) in FY12 will likely result in a R1.57bn funding shortfall (expressed as CFO less total capex), we believe it will comfortably self-fund its growth. This is due to:

- A decrease in capex from FY13 onwards, where after we expect CFO will cover capex.
- NHM also has R3.9bn in funds at its disposal. This includes: 1) R1.7bn cash on balance sheet; 2) R1.2bn in proceeds from the sale of Booyssendal South which is yet to be received; and 3) a potential R1.0bn credit facility (if at all required).

We therefore view shareholder dilution as highly unlikely.

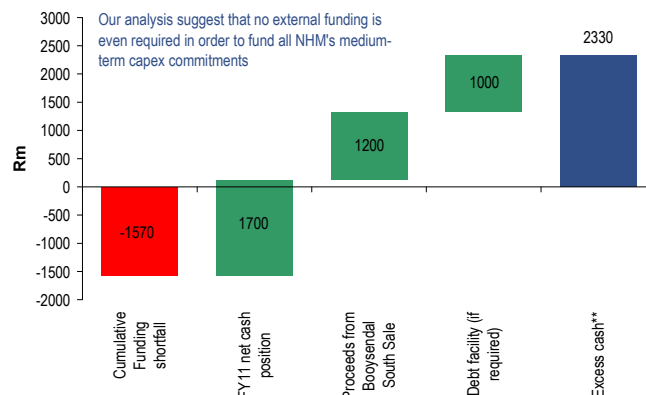
Figure 79. NHM cash flow analysis (Rm)



Source: CIRA estimates

*Cash flow from Zondereinde less total capex (excluding cash on balance sheet)

Figure 80. NHM has sufficient internal sources of cash in order to fund the shortfall* (Rm)



Source: CIRA estimates

*Cash available after funding CFO less capex shortfall

Permitting status

To date, NHM has received all 4 key permits it requires in order to commence bulk construction and mining activities. The only permit still outstanding at this stage is the Dam Safety Licence. Its permitting status is summarised in *Figure 81* below:

Figure 81. Booyssendal permitting status

Permit	Authority	Area of Impact	Received?	Status
EMP amendment	DMR	All mine infrastructure	✓	ROD received Sept-10
EIA (road and pipeline)	LEDET (Limpopo department of economic development, environment and tourism)	Main access road and extension of Lebalelo pipeline	✓	ROD received Oct-10
EIA (Mine site)	LEDET (Limpopo department of economic development, environment and tourism)	All mine infrastructure	✓	ROD received end of 2010
Integrated Water Use License	DWEA (Department of water and environmental affairs)	Infrastructure that impacts use of or quality of water, e.g. tailings dam, pollution control structures etc.	✓	ROD received in 2H11
Dam Safety License (Slimes Dam)	DWEA (Department of water and environmental affairs)	Infrastructure that impacts use of or quality of water, e.g. tailings dam, pollution control structures etc.	✗	Awaiting ROD

Source: Company data

Phase 2 remains constrained by insufficient electricity

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.

Valuation and Risks

Valuation: Buy, TP R45

In an environment where the rand-PGM basket is unlikely to rise above cost-curve economics and sector-wide margin expansion is unlikely (please refer to our note '[Value Trap](#)'), we think NHM offers superior medium-term earnings growth through a recovery at Zondereinde and low-cost growth from Booyssendal. Buy, TP R45.

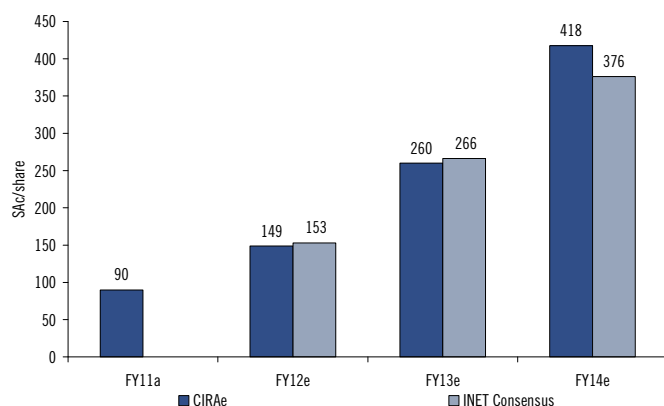
Figure 82. NHM sum-of-the-parts DCF valuation (Rm)

NAV calculation	DCF (Rm)	Exit multiple (x)	Market value (Rm)	% of total
Northam mine	8,313	1.0	8,313	54
Booyssendal	7,172	1.0	7,172	46
Operational value	15,485	1.0	15,485	
Net (debt)/cash	1,451	1.0	1,451	
Investments	341	1.0	341	
Overhead costs	-	1.0	-	
Financial obligations	1,793		1,793	
NAV	17,277		17,277	
Equity value (Rm)	17,277			
Market cap (Rm)	16,698			
Number of shares in issue (m)	363			
CIRA target price (ZAR/share)	45			

Source: Citi Investment Research and Analysis

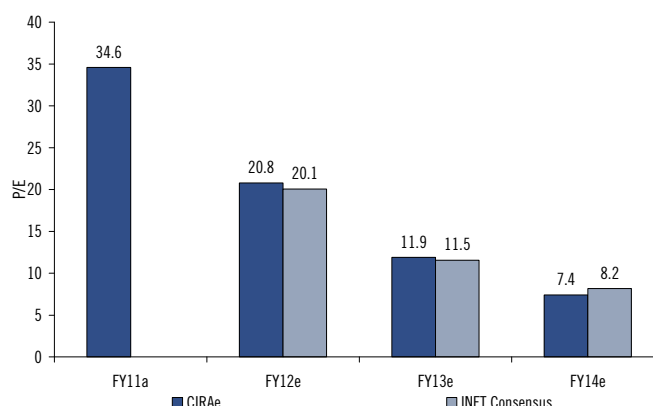
We value NHM based on a sum-of-the-parts discounted cash flow (DCF) analysis. Our model uses a nominal WACC of 11.9% (beta 1.0, ERP 5.0%, RFR 8.5%) and discounts forecast cash flows over the life of the group's individual assets. We apply a 1.0x P/DCF exit multiple as we do not expect near- to medium-term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

Figure 83. NHM CIRA HEPS forecast vs. consensus



Source: I-Net, Citi Investment Research and Analysis, Company reports

Figure 84. NHM CIRA P/E vs. consensus



Source: I-Net, Citi Investment Research and Analysis, Company reports

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

■ Company Update

Johann Steyn

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Buy	1
Price (13 Jan 12)	R55.30
Target price	R65.00
Expected share price return	17.5%
Expected dividend yield	0.0%
Expected total return	17.5%
Market Cap	R9,131M
	US\$1,134M

Price Performance

(RIC: RBPJ.J, BB: RBP SJ)



Royal Bafokeng Platinum (RBPJ.J)

Long-term value play...

- **...but needs to reduce costs** — RBP's share price decreased 17% in CY11, in line with the SA platinum sector. We believe this pullback has introduced an attractive entry point for longer-term investors. Its current share price does not reflect the full upside from Boschkopie and Styldrift, in our view. However, we believe a more aggressive cost management approach is needed in order to unlock this value for shareholders.
- **Operational outlook** — We expect RBP to produce 299k ounces (3PGE+Au) in FY12, 299k ounces in FY13 and 309k ounces in FY14. We expect unit costs to average R10,576/ounce (Pt) in FY12, R11,317/ounce in FY13 and R11,746/ounce in FY14. We expect FY12 capex of R2.3bn.
- **Valuation and risks** — We have a TP of R65 and Buy recommendation for RBP. Our TP is based on a 1.2x P/DCF exit multiple, which we view as applicable given its favourable strategic position within the SA platinum sector. Barring lower rand-PGM prices, the main downside risk to our view is RBP's management failing to control costs. We believe a more aggressive cost management approach is needed in order to achieve optimal value for shareholders.

Royal Bafokeng Platinum (ZAR)

Year to 31 Dec	2009A	2010A	2011E	2012E	2013E
Sales (RM)	1,154.7	2,106.1	3,137.7	3,661.5	4,021.7
Net Income (RM)	-122.8	271.8	439.4	556.3	663.8
Diluted EPS (¢)	-1,068	192	268	340	405
Diluted EPS (Old) (¢)	-1,068	192	268	340	405
PE (x)	-5.2	28.7	20.6	16.3	13.6
EV/EBITDA (x)	na	12.5	9.6	8.3	7.8
DPS (¢)	0	0	0	0	0
Net Div Yield (%)	0.0	0.0	0.0	0.0	0.0

Fiscal year end 31-Dec	2009	2010	2011E	2012E	2013E
Valuation Ratios					
P/E adjusted (x)	-5.2	28.7	20.6	16.3	13.6
EV/EBITDA adjusted (x)	na	12.5	9.6	8.3	7.8
P/BV (x)	1.1	0.8	0.8	0.8	0.7
Dividend yield (%)	0.0	0.0	0.0	0.0	0.0
Per Share Data (¢)					
EPS adjusted	-1,068	192	268	340	405
EPS reported	-1,068	2,241	268	340	405
BVPS	4,975	6,686	6,583	7,014	7,517
DPS	0	0	0	0	0
Profit & Loss (Rm)					
Net sales	1,155	2,106	3,138	3,662	4,022
Operating expenses	-969	-1,656	-2,448	-2,736	-2,842
EBIT	185	450	690	926	1,179
Net interest expense	-303	3	0	-50	-130
Non-operating/exceptionals	0	2,886	-71	-92	-114
Pre-tax profit	-118	3,339	619	784	935
Tax	-5	-172	-179	-227	-271
Extraord./Min.Int./Pref.div.	0	-1	0	0	0
Reported net income	-123	3,167	439	556	664
Adjusted earnings	-123	272	439	556	664
Adjusted EBITDA	331	830	1,240	1,526	1,779
Growth Rates (%)					
Sales	na	82.4	49.0	16.7	9.8
EBIT adjusted	na	146.3	51.0	34.3	27.4
EBITDA adjusted	na	150.9	49.3	23.1	16.6
EPS adjusted	na	118.0	39.4	26.6	19.3
Cash Flow (Rm)					
Operating cash flow	241	785	1,117	1,294	1,392
Depreciation/amortization	145	373	550	600	600
Net working capital	-73	-51	57	46	14
Investing cash flow	-412	-880	-1,569	-2,316	-2,913
Capital expenditure	-419	-719	-1,569	-2,316	-2,913
Acquisitions/disposals	0	0	0	0	0
Financing cash flow	42	943	0	1,000	1,600
Borrowings	42	0	0	1,000	1,600
Dividends paid	0	0	0	0	0
Change in cash	-129	847	-452	-22	79
Balance Sheet (Rm)					
Total assets	7,277	18,451	18,599	20,398	22,862
Cash & cash equivalent	52	899	448	426	506
Accounts receivable	592	1,047	628	732	804
Net fixed assets	3,652	7,338	8,357	10,072	12,385
Total liabilities	462	4,099	4,417	5,511	7,151
Accounts payable	97	415	733	826	867
Total Debt	0	0	0	1,000	2,600
Shareholders' funds	6,815	14,352	14,182	14,887	15,711
Profitability/Solvency Ratios (%)					
EBITDA margin adjusted	28.7	39.4	39.5	41.7	44.2
ROE adjusted	na	3.1	4.0	5.0	5.6
ROIC adjusted	na	2.4	3.0	3.8	4.5
Net debt to equity	-0.8	-6.3	-3.2	3.9	13.3
Total debt to capital	0.0	0.0	0.0	6.3	14.2

For further data queries on Citi's full coverage universe please contact CIRA Data Services Europe at CIRADatServicesEMEA@citi.com or +44-207-986-4050

Four reasons to Buy RBP

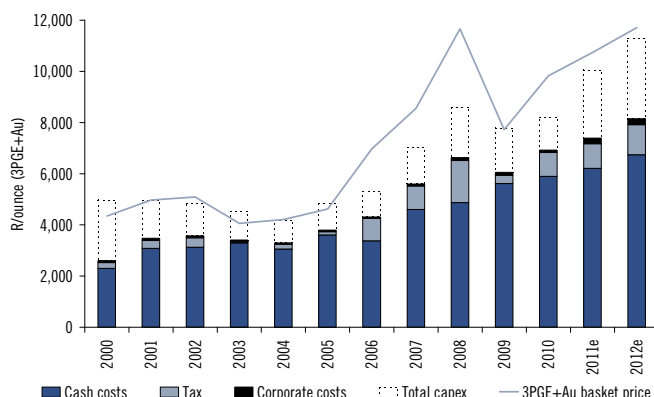
1. Low-cost, cash-generative asset

Boschkoppie has been highly cash-generative...

Boschkoppie has been highly cash-flow generative

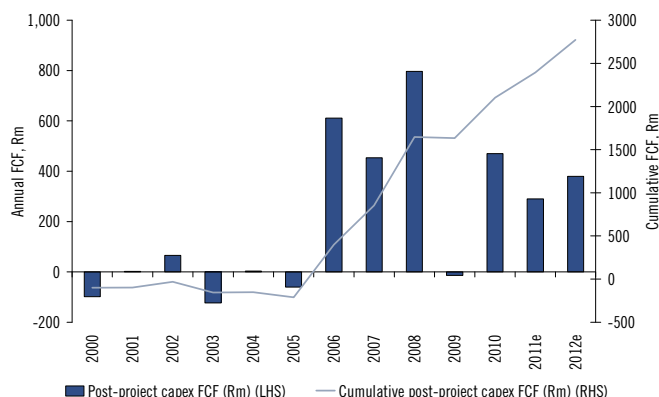
RBP's Boschkopie mine has been highly cash-generative over the past decade, especially since 2006. We estimate that it generated a cumulative R2bn in post-project capex free cash flow between 2006 and 2010.

Figure 85. Boschkopie historical 'all-in cost' evolution (R/ounce)



Source: Company data, CIRA estimates

Figure 86. Boschkopie historical post-project capex FCF (Rm)

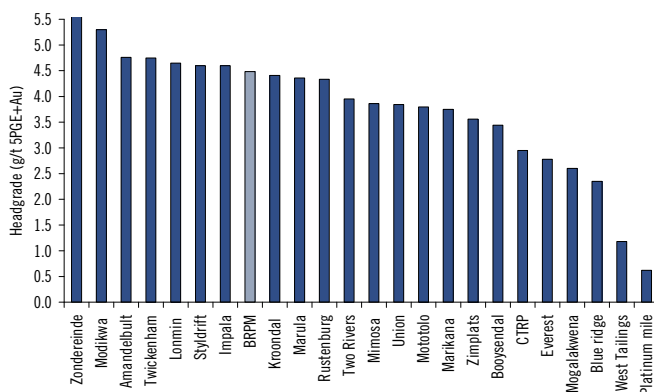


Source: Company data, CIRA estimates

Mainly due to its high-grade reserves, favourable prill split, and shallow mining depths...

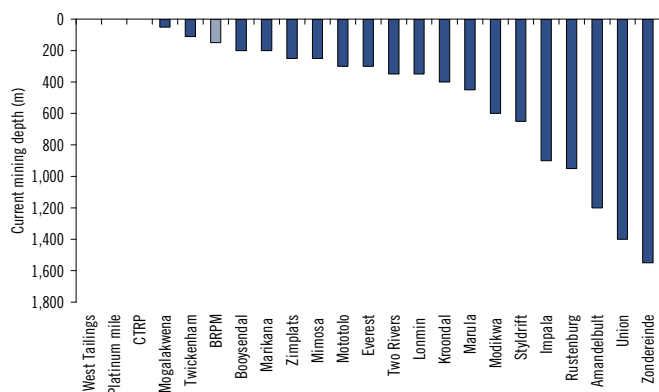
Boschkoppie's cash-generative capacity has been largely due to its high-grade reserves (4.5 g/t, 5PGE+Au), favourable prill split (Pt: 63%, Pd: 28%, Rh: 4%, Au: 5%), and shallow mining depths (150m).

Figure 87. Comparative head grades (5PGE+Au)



Source: Company data, CIRA

Figure 88. Comparative mining depths

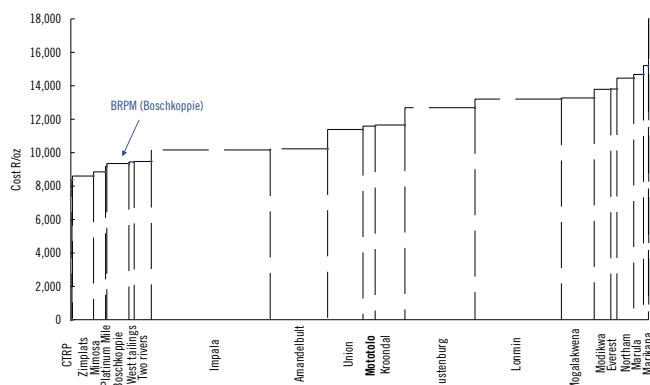


Source: Company data, CIRA

...which earned it a favourable position on the cost curve

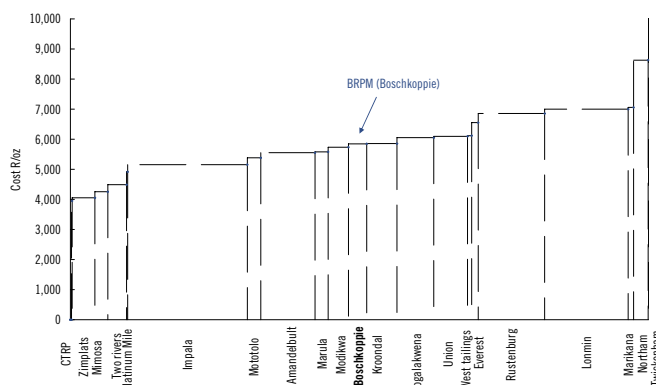
These characteristics have resulted in Boschkopie occupying a favourable position on the global cost curve, especially on a 'per-platinum' ounce basis.

Figure 89. 2H10 platinum cash cost curve (R/oz, Pt)



Source: Company data, Citi Investment Research and Analysis

Figure 90. 2H10 5PGE+Au cash cost curve (R/oz, 5PGE+Au)



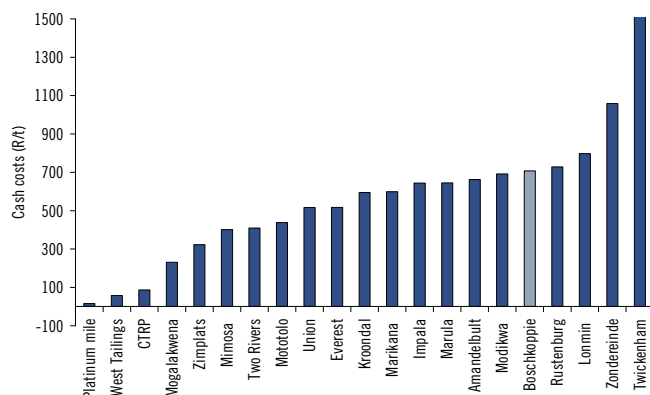
Source: Company data, Citi Investment Research and Analysis

...despite previous operational inefficiencies

Boschkoppie's cash-generating capacity was despite historical operational inefficiencies

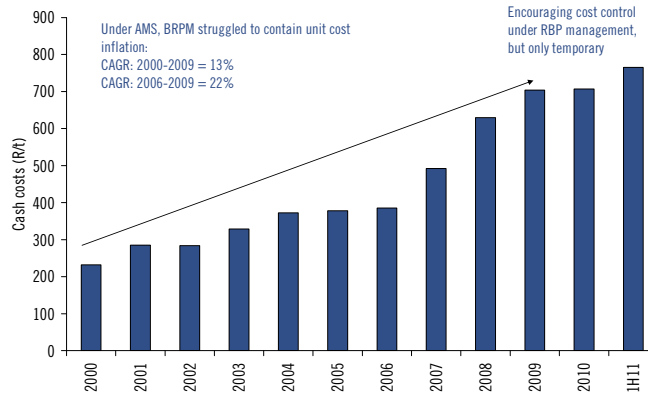
Even though Boschkopie has been highly free cash flow (FCF) generative, we believe it has not performed to its full potential under the previous Anglo Platinum (AMS) management. This is as its 50th percentile cost curve position (on a 5PGE+Au basis) does not fully reflect its Q1 and Q2 positions on a mining depth and grade basis, respectively. In fact, on a R/t basis, Boschkopie ranks in Q3 of the cost curve (Figure 91). This is as it failed to control unit cost inflation in 2006 to 2009, during which period R/t costs increased by a CAGR of 22%.

Figure 91. CY10 unit cash costs (R/t)



Source: Company data, Citi Investment Research and Analysis

Figure 92. BRPM (Boschkoppie) historical unit cost evolution (R/t)



Source: Company data, Citi Investment Research and Analysis

We see significant turnaround potential under a more focused management team

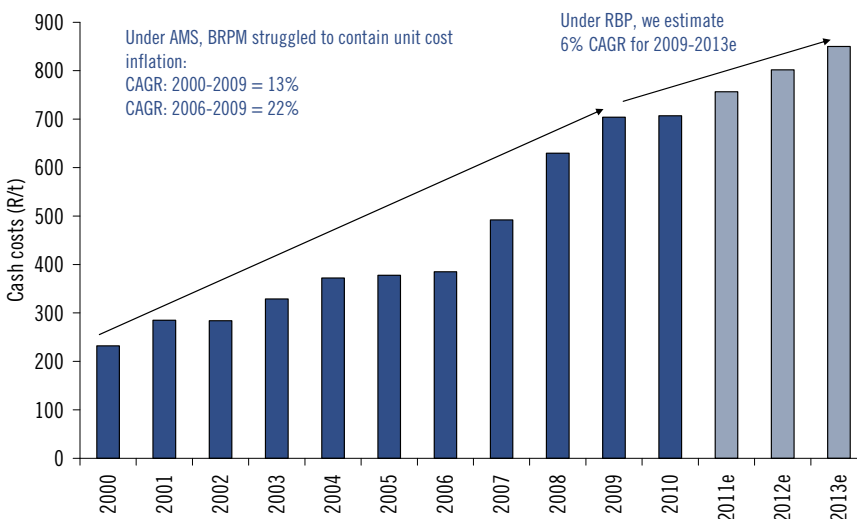
As a result, we believe significant turnaround potential exists through a more focused approach by the RBP management team. To date, however, its turnaround initiatives through Project Kgolo have yielded limited results. Even though 2010 unit costs only increased by 2% y-o-y to R717/tonne, 1H11 escalated by 14% y-o-y to R765/tonne.

'Easy-wins' are available, but more aggressive management approach needed

Through a more aggressive management approach, RBP can rein in costs

We believe that through a more aggressive management approach, RBP can keep costs constant in real terms over the medium term.

Figure 93. BRPM (Boschkoppie) unit cost outlook (R/t)

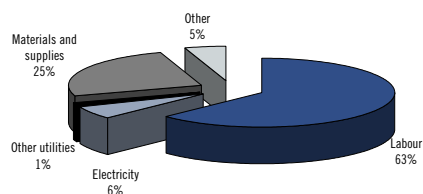


Source: Company data, CIRA estimates

We believe this is achievable, and the biggest lever would be right-sizing its headcount

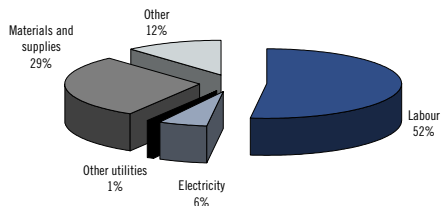
Probably the biggest lever for achieving this would be to right-size its headcount to something more in line with that of its peers. Labour currently forms 63% of RBP's cost base, compared to 49% on average for its peers. Contract labour forms 35% of RBP's labour costs. As a result, right-sizing through reducing contract labour would be a feasible method for reining in costs, in our view.

Figure 94. RBP cost breakdown



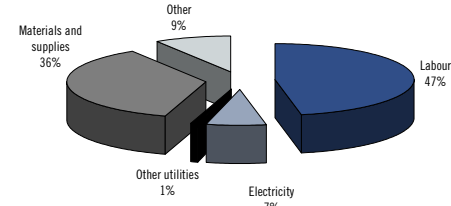
Source: Company data

Figure 95. AMS cost breakdown



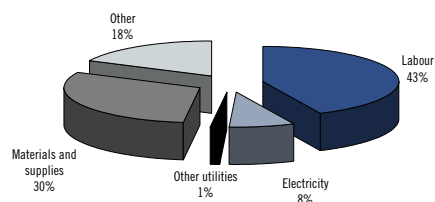
Source: Company data

Figure 96. IMP cost breakdown



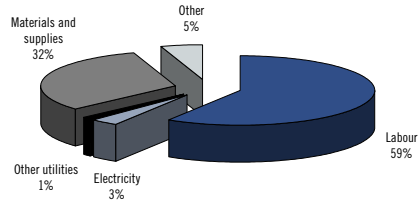
Source: Company data

Figure 97. NHM cost breakdown



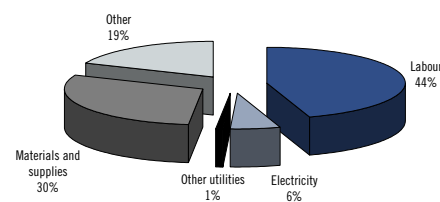
Source: Company data

Figure 98. LON cost breakdown



Source: Company data

Figure 99. AQP cost breakdown



Source: Company data

2. Attractive medium- to longer-term growth outlook

Styldrift will add 344,000 ounces by 2017E

In addition to Boschkoppie, RBP is in the process of developing its Styldrift project, which we estimate will add 344,000 ounces (3PGE+Au) by 2017. We highlight some of the project's parameters in *Figure 100* below:

Figure 100. Styldrift project parameters

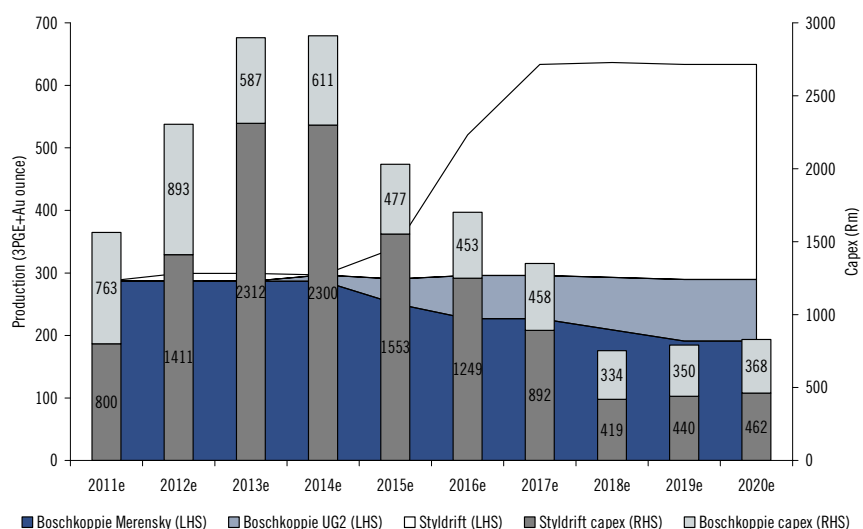
Project parameter	Units	Value
Steady-state volumes	000 tonnes	2750
Merensky head grade	g/t, 3PGE+Au	4.45
UG2 head grade		4.00
Merensky recovery	%	86%
UG2 recovery		78%
PGM production	000 ounces	344
Platinum production		220
Unit cash costs	R/t	560
Year in which steady-state achieved	year	2017
Project capex	Rbn	11.2
Sustaining capex	% of opex	12%

Source: Company data, CIRA estimates

The development of Styldrift, together with the expansion projects at Boschkoppie, should result in significant capital requirement for RBP over the next seven years. We estimate peak capex of approximately R3.0bn p.a. in 2013 and 2014, respectively.

Styldrift to add 344,000 ounces by 2017E...

Figure 101. RBP production profile and capex, including Styldrift I



Source: Company data, CIRA estimates

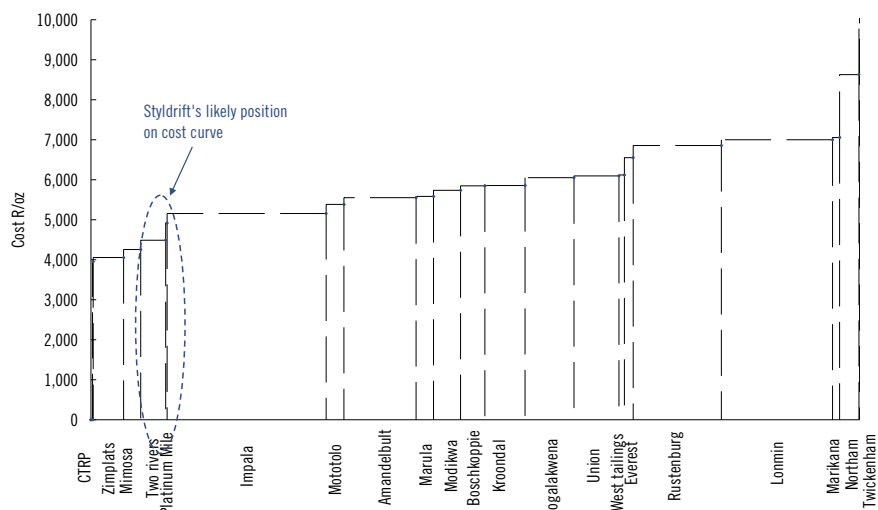
We expect Styldrift to come online in Q1 of the cost curve

Based on the feasibility numbers, we expect Styldrift to produce at steady-state unit costs of R560/t, real. On a per-ounce basis (5PGE+Au), this translates into

...and will be positioned in Q1 of the cost curve...

approximately R4,450/ounce. As a result, we expect Styldrift to be positioned in Q1 of the cost curve.

Figure 102. Styldrift's estimated position on the 5PGE+Au cash cost curve, in 2010 real terms (R/ounce, 5PGE+Au)

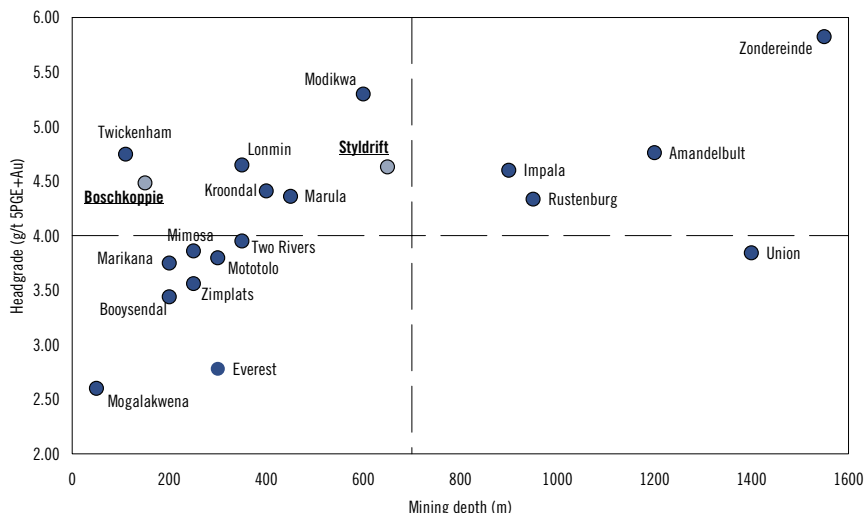


Source: Company data, Citi Investment Research and Analysis

...mainly due to its high-grade and shallow reserves

This low-cost position is despite its similar head-grade and deeper mining depth compared to Boschkoppie, and mainly due to a broader reef width (Styldrift: 1.3-2.5m, Boschkoppie: 80cm) that will lend itself to mechanised mining.

Figure 103. SA platinum mine comparative head-grades and mining depths (5PGE+Au, m)



Source: Company data, CIRA estimates

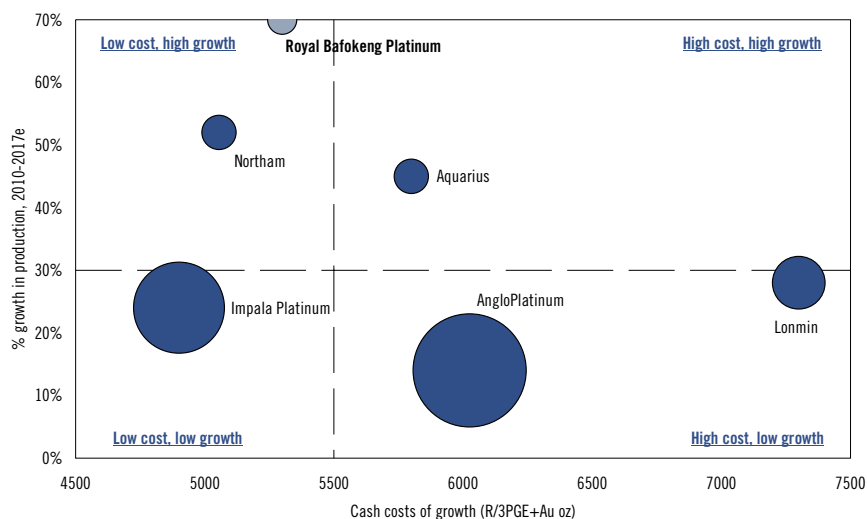
This, together with its favourable head-grade and mining depth, should make Styldrift (and RBP) very cost-competitive relative to its peers.

Relative to its peers, RBP offers a superior 7-year growth outlook...

Styldrift should provide RBP with superior low-cost growth

The ramp-up of Styldrift provides RBP with a superior growth outlook relative to its peers, at attractively low-cost, in our view. We expect RBP to grow production by 120% between 2010-2017, compared to NHM 52%, Aquarius Platinum (AQP) 45%, LON (LON) 28%, IMP 25% and AMS 15%.

Figure 104. Comparative growth* and cost of growth, outlook for SA platinum companies (% R/ounce)



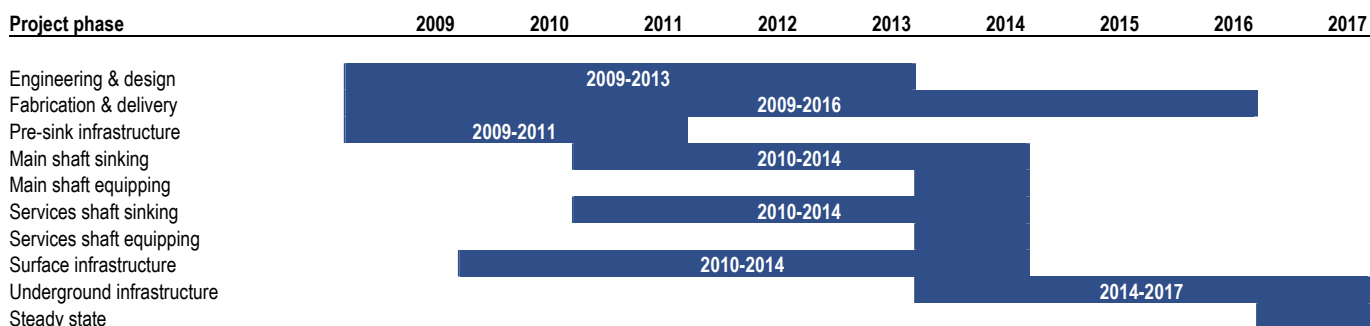
Source: Company data, CIRA estimates

*RBP's growth limited to 70% on this chart for presentation purposes. Actual growth is estimated at 120%

Styldrift I timeline

To date, RBP is on schedule and within budget on Styldrift I. It aims to reduce the initial R11.8bn capex estimate by R1.0bn through capital efficiency improvements.

Figure 105. Styldrift I timetable



Source: Company data

Further longer-term upside exists through Styldrift Phase II

RBP holds additional long-term expansion potential through Styldrift Phase II, which is not incorporated in our outlook at this stage. Styldrift II is currently in conceptual phase and contains an estimated 54m ounces of Measured and Indicated

resources, and 21m ounces of Inferred resources (3PGE+Au). The existing drill programme will continue until the end of 2011. We expect the pre-feasibility study to commence early in 2012 and feasibility in 2013. At best, we expect development to commence in 2015.

The magnitude, capex requirements and cost estimates for Styldrift II are difficult to estimate at this early stage. However, given that it will be deeper than Styldrift I, we expect Styldrift II's unit costs and capital requirements to be higher.

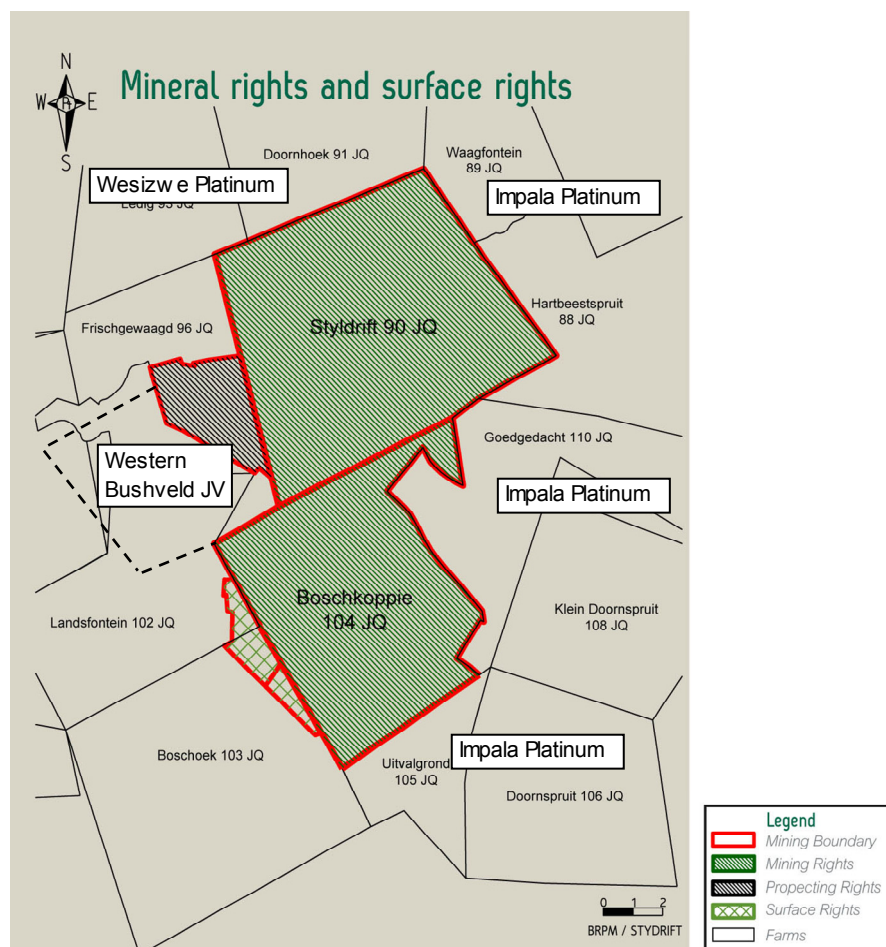
3. Ideally located to partake in industry consolidation

Geographically well positioned...

The BRPM operations and mineral and surface rights are neighboured by three of its peers, namely: 1) IMP from the North East to the South, 2) Wesizwe Platinum (WEZ) in the North, and 3) AMS's Western Bushveld JV (WBJV) with WEZ and Platinum Group Metals in the West.

RBP is geographically well positioned to partake in industry consolidation

Figure 106. RBP mining rights and surrounding companies



Source: RBPlat

...as well as strategically

It also holds the key to shallow, low-cost, and long-life mining in the Western-limb complex. These attributes are highly in demand in the SA platinum sector, especially since existing mines are getting deeper and more costly to operate. IMP, in particular, faces this outlook at its lease area, which co-incidentally lies directly adjacent to BRPM.

No wonder it has already been involved in numerous corporate actions

RBP has already been involved in a number of corporate actions

RBP's location and access to low-cost shallow ounces make it strategically well positioned to benefit from value-enhancing JV agreements and the future consolidation of the SA platinum sector.

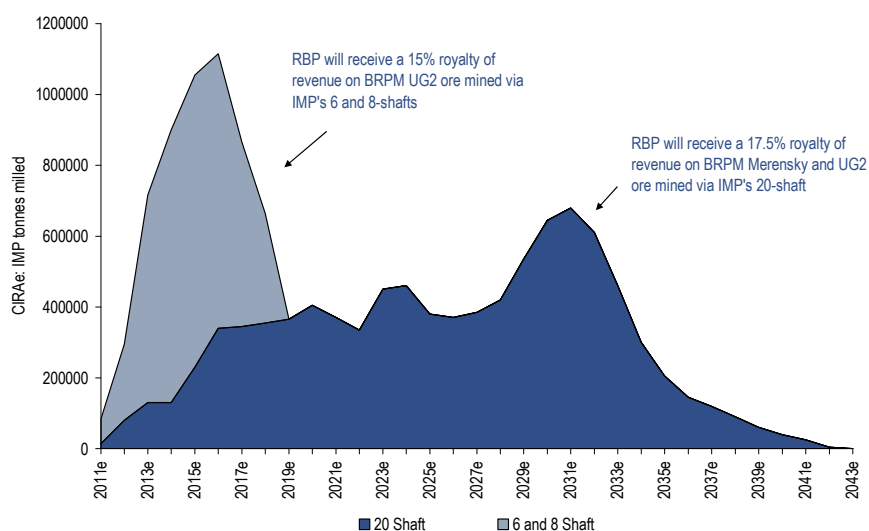
It is therefore understandable that it was approached by IMP in a takeover attempt in 2010. This attempt was, however, vetoed by AMS.

To date, RBP has also entered into two value-enhancing royalty agreements with: 1) IMP's 6 and 8-shafts, and 2) IMP's 20-shaft.

■ **IMP 6 and 8-shaft royalty agreement:** Pre its listing in November 2010, RBP entered into an agreement with IMP whereby RBP would earn a royalty of 15% of IMP's revenue generated from the mining of the BRPM UG2 ore body in close proximity to IMP's 6 and 8-shafts. The ore body contains approximately 780,000 ounces of 3PGE+Au ounces and will be mined over an eight-year period.

■ **IMP 20-shaft royalty agreement:** In 2011, RBP also agreed terms with IMP to mine a further portion of the BRPM Merensky and UG2 resources via IMP's 20-shaft at the far northern section of the Boschkoppe property. The ore body contains approximately 2.2m ounces of 3PGE+Au resources and will be mined over a 30-year period. RBP will receive a royalty from IMP of 17.5% of revenue.

Figure 107. Estimated volume profile of RBP's existing royalty agreements (tonnes)



Source: Company data, CIRA estimates

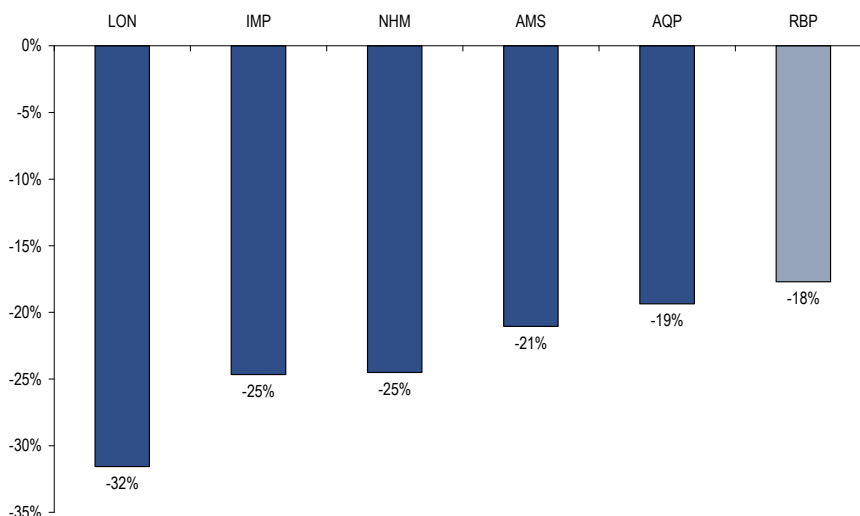
4. Appealing valuation

Attractive upside

Attractive entry point

RBP's market valuation has decreased 18% y-t-d. Even though it has outperformed its peers, we believe the stock has attractive upside.

Figure 108. Relative share price performances (y-t-d)



Source: INET

We forecast an expected total return (ETR) of ~17% over the next 12 months. Maintain Buy, TP R65.

Figure 109. Comparative mining company valuations (calendarised)

	TP Curr.	Rating	Current price	TP	% upside	CY11e DY (%)	ETR* (%)	Current P/DCF	P/E			EV/EBITDA			FCF yield (%)	
									2010	2011	2012e	2010	2011	2012e	2011	2012e
Barrick gold	USD	Buy	48.34	78.00	61.4	1.0	62.4	1.9	14.4	10.0	9.2	9.1	6.3	5.9	-0.6	5.7
Northam	ZAR	Buy	30.71	45.00	46.5	1.0	47.6	0.7	20.7	22.8	15.0	12.7	13.5	9.4	-11.0	-11.2
Rio Tinto	GBP	Buy	35.61	49.00	37.6	2.3	39.9	0.7	7.6	6.6	7.2	4.0	3.1	2.9	9.9	8.8
Impala Platinum	ZAR	Buy	166.90	220.00	31.8	3.9	35.7	0.6	15.8	13.0	12.6	7.9	6.5	6.5	3.3	4.5
African Rainbow	ZAR	Buy	174.03	230.00	32.2	3.4	35.6	0.8	13.3	9.9	9.4	5.3	4.2	4.1	2.8	6.1
Assore	ZAR	Buy	211.65	280.00	32.3	2.9	35.2	0.8	9.6	7.0	7.3	6.1	4.5	4.7	6.4	10.6
Anglo American	GBP	Buy	25.71	33.00	28.4	1.9	30.3	0.7	9.9	8.6	8.2	5.5	4.5	3.9	17.2	8.7
Xstrata	GBP	Buy	10.63	13.50	27.0	1.8	28.8	0.5	9.3	8.5	8.2	5.8	5.1	5.0	0.8	3.6
Newmont	USD	Buy	63.39	80.00	26.2	1.9	28.1	1.9	13.7	13.5	12.9	6.6	6.0	6.1	5.6	3.3
Exxaro	ZAR	Buy	175.09	215.00	22.8	4.5	27.3	1.1	10.9	6.9	5.1	14.0	8.0	4.8	4.8	10.4
Aquarius	AUD	Buy	2.55	3.05	19.6	2.0	21.6	0.9	15.7	19.3	21.3	6.4	7.6	8.3	-4.1	3.2
Newcrest	AUD	Buy	32.00	38.00	18.8	1.5	20.2	1.5	22.1	21.2	16.1	15.9	11.6	8.9	-1.8	1.4
Randgold	GBP	Buy	71.15	84.16	18.3	0.7	19.0	1.3	71.5	26.9	16.5	47.8	16.4	9.6	0.4	5.8
RBPlat	ZAR	Buy	55.45	65.00	17.2	0.0	17.2	1.0	25.9	18.3	16.3	11.7	8.8	8.3	-5.0	-11.2
BHP Billiton	GBP	Buy	20.45	23.00	12.5	3.5	15.9	0.7	10.0	8.3	8.7	5.9	5.2	5.2	8.2	4.7
Lonmin	GBP	Neutral	9.70	11.05	13.9	1.8	15.7	0.9	18.7	13.9	14.0	6.3	5.2	4.8	-3.0	6.9
AngloGold Ashanti	ZAR	Neutral	352.00	360.00	2.3	1.1	3.4	1.8	-9.2	12.1	10.5	13.5	6.0	5.1	7.1	7.1
Anglo Platinum	ZAR	Sell	550.00	550.00	0.0	1.8	1.8	1.1	25.5	22.1	21.0	12.6	10.6	9.6	2.0	2.0
Kumba Iron Ore	ZAR	Sell	522.47	450.00	-13.9	9.6	-4.2	1.5	10.5	8.3	8.8	6.0	4.4	4.7	12.3	13.6
Gold fields	ZAR	Sell	127.01	115.00	-9.5	2.7	-6.8	1.8	20.0	10.9	9.0	6.7	4.4	4.0	10.3	12.2
Harmony	ZAR	Sell	96.94	85.00	-12.3	0.0	-12.3	1.8	73.4	25.9	18.1	17.8	9.7	6.1	1.8	7.3

Source: Powered by dataCentral. Priced 13 Jan 2012.

Valuation and Risks

Valuation: Buy, TP R65

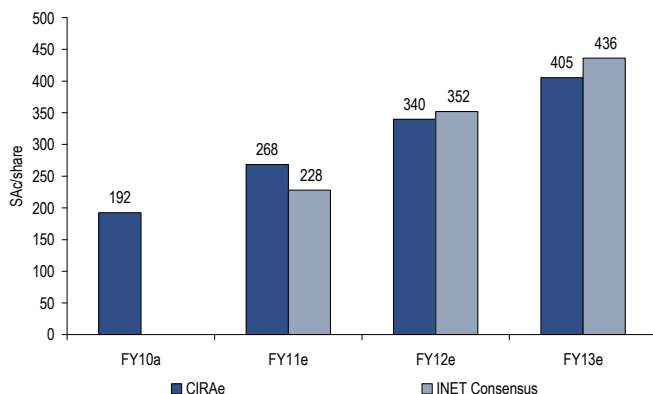
Buy, TP R65. We value RBP on a sum-of-the-parts DCF basis. We apply a R-nominal WACC of 11.9% (ERP 5.0%, RFR 8.5%, beta 1.0) to discount the future cash flows from its individual assets over their operational lives. In deriving our R65 TP, we apply a 1.2x P/DCF exit multiple to our valuation of RBP. This represents a 20% premium to our 1.0x benchmark multiple for the SA platinum sector, which is mainly to account for what we see as 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.

Figure 110. RBP sum-of-the-parts DCF valuation

NAV calculation	DCF (Rm)	Premium/(discount) to DCF	Equity value (Rm)	% of total
BRPM	3,850	20%	4,620	49%
Styl drift	3,002	20%	3,602	38%
IMP Royalty agreement	1,012	20%	1,214	13%
Operational value	7,864	20%	9,436	100%
Net (debt)/cash	1,039	0%	1,039	
Investments	251	0%	251	
Overhead costs	-403	0%	-403	
Financial obligations	886		886	
NAV	8,750		10,323	
Equity value (Rm)	10,323			
Number of shares in issue (m)	164			
DCF (R/share)	53			
CIRA target price (R/share)	65			

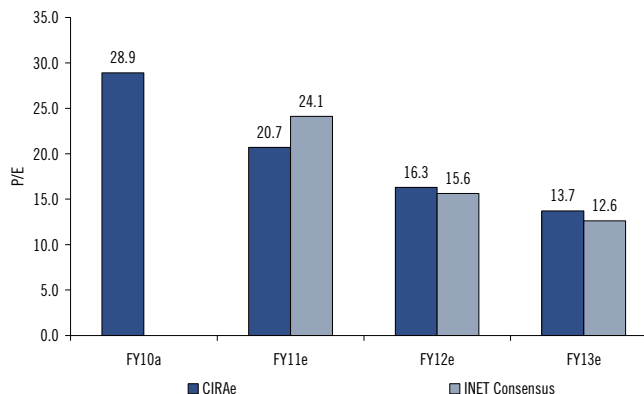
Source: Citi Investment Research and Analysis

Figure 111. RBP CIRA HEPS forecast vs. consensus



Source: I-Net, Citi Investment Research and Analysis, Company reports

Figure 112. RBP CIRA P/E vs. consensus



Source: I-Net, Citi Investment Research and Analysis, Company reports

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 buyout of its existing assets and/or projects.
- **Dilution risk:** We forecast a R4-5bn funding gap for RBP over the next 5 years. We believe that part of this gap would likely be funded through equity and therefore caution on dilution risk.

Company Focus

■ Company Update

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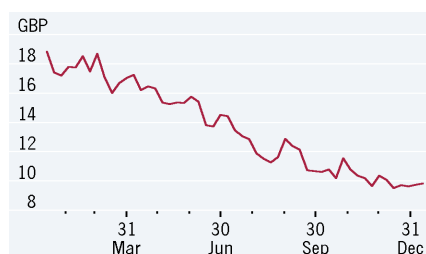
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Neutral	2
Price (13 Jan 12)	£9.84
Target price	£11.05
Expected share price return	12.4%
Expected dividend yield	0.0%
Expected total return	12.4%
Market Cap	£1,993M
	US\$3,058M

Price Performance

(RIC: LMI.L, BB: LMI LN)



Lonmin PLC (LMI.L)

Upside limited - Neutral

- **Cautious outlook** — LMI recently reduced long-term production guidance and we think its upside is now more limited (refer to our note “[Lonmin PLC \(LMI.L\) - Good 2011 but Reduced 2012 Guidance](#)”). We maintain our Neutral recommendation based on the more cautious outlook.
- **Operational outlook** — We expect LMI to produce 769k ounces (Pt) in FY12, 821k ounces in FY13 and 889k ounces in FY14. We expect unit costs to average R14,580/ounce (Pt) in FY12, R14,806/ounce in FY13 and R15,251/ounce in FY14. We expect FY12 capex of R2.57bn.
- **Valuation and risks** — We value LMI based on a sum-of-the-parts discounted cash flow (DCF) basis. 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 1.05x P/DCF exit multiple. This is a modest premium versus the 1.0x that we assume for the other SA producers, given that LMI has tended to command a premium for its London primary listing. We maintain our Neutral recommendation, TP £11.05 (R150). Upside/downside risks to our view include stronger/weaker-than-expected PGM prices and better/worse-than-expected operational delivery.

Lonmin PLC (USD)

Year to 30 Sep	2010A	2011A	2012E	2013E	2014E
Sales (\$M)	1,579.3	1,996.6	1,822.7	2,059.2	2,309.5
Profit Before Tax (\$M)	231.1	318.2	281.7	486.0	632.8
Diluted EPS (¢)	67.7	112.5	89.7	155.1	202.1
Diluted EPS (Old) (¢)	67.7	112.5	89.7	155.1	202.1
PE (x)	22.3	13.4	16.8	9.7	7.5
EV/EBITDA (x)	7.0	5.3	5.5	3.6	2.8
DPS (¢)	15.0	28.5	22.8	39.1	50.9
Net Div Yield (%)	1.0	1.9	1.5	2.6	3.4

Fiscal year end 30-Sep	2010	2011	2012E	2013E	2014E
Valuation Ratios					
P/E adjusted (x)	22.3	13.4	16.8	9.7	7.5
EV/EBITDA adjusted (x)	7.0	5.3	5.5	3.6	2.8
P/BV (x)	1.1	1.0	1.0	0.9	0.8
Dividend yield (%)	1.0	1.9	1.5	2.6	3.4
Per Share Data (US¢)					
EPS adjusted	67.7	112.5	89.7	155.1	202.1
EPS reported	67.7	112.5	89.7	155.1	202.1
BVPS	1,400.5	1,443.8	1,525.3	1,659.0	1,831.6
DPS	15.0	28.5	22.8	39.1	50.9
Profit & Loss (US\$m)					
Net sales	1,579	1,997	1,823	2,059	2,310
Operating expenses	-1,359	-1,683	-1,531	-1,560	-1,664
EBIT	220	313	292	500	646
Net interest expense	11	-5	-10	-14	-13
Non-operating/exceptionals	0	10	0	0	0
Pre-tax profit	231	318	282	486	633
Tax	-79	-57	-71	-122	-159
Extraord./Min.Int./Pref.div.	-21	-33	-28	-49	-64
Reported net income	131	228	182	315	410
Adjusted earnings	131	228	182	315	410
Adjusted EBITDA	342	436	412	631	791
Growth Rates (%)					
Sales	48.7	26.4	-8.7	13.0	12.2
EBIT adjusted	332.0	42.4	-6.9	71.2	29.3
EBITDA adjusted	nm	27.4	-5.5	53.2	25.4
EPS adjusted	214.8	66.1	-20.3	73.0	30.3
Cash Flow (US\$m)					
Operating cash flow	505	16	346	522	643
Depreciation/amortization	122	122	120	131	145
Net working capital	218	-319	6	44	51
Investing cash flow	111	-204	-190	-200	-240
Capital expenditure	-164	-194	-180	-190	-230
Acquisitions/disposals	285	0	0	0	0
Financing cash flow	333	-321	-51	-68	-90
Borrowings	126	-256	0	0	0
Dividends paid	-22	-53	-51	-68	-90
Change in cash	949	-509	105	254	313
Balance Sheet (US\$m)					
Total assets	4,818	4,862	4,981	5,272	5,641
Cash & cash equivalent	143	76	47	84	154
Accounts receivable	414	154	143	161	181
Net fixed assets	2,199	2,567	2,755	2,946	3,175
Total liabilities	1,742	1,520	1,474	1,494	1,512
Accounts payable	381	354	308	328	346
Total Debt	523	310	310	310	310
Shareholders' funds	3,076	3,342	3,507	3,779	4,129
Profitability/Solvency Ratios (%)					
EBITDA margin adjusted	21.7	21.8	22.6	30.6	34.2
ROE adjusted	5.1	8.1	6.0	9.7	11.6
ROIC adjusted	5.5	9.2	7.5	11.9	14.2
Net debt to equity	12.3	7.0	7.5	6.0	3.8
Total debt to capital	14.5	8.5	8.1	7.6	7.0

For further data queries on Citi's full coverage universe please contact CIRA Data Services Europe at CIRADataServicesEMEA@citi.com or +44-207-986-4050



Good 2011 but Reduced 2012 Guidance

What follows is an insert from "[Good 2011 but Reduced 2012 Guidance](#)"

'Lonmin has guided to only 750k oz of platinum production in 2011 in spite of having capacity of 800k oz. The new caution arises from the very high level of Section 54 safety stoppages that have occurred so far in the FY 2012 year. Lonmin produced 721k oz of platinum in FY 11 despite losing 18k to Section 54 stoppages in that year, along with 20k from the Karee strike and 5k on one day stoppages. Production would have equated to 764k oz in FY 11 without these setbacks.

Lonmin reported FY 2011 sales of 721k oz of platinum, in line with guidance and with Citi. Costs per ounce rose by 11.2% (normalised 8.0% if the strike is excluded), which was in line with guidance. EBITDA of \$433m compared to our expectation of \$428m, while EBIT of \$311m compared to our expected \$308m. Pre-tax of \$315m was above our \$300m but the big difference came in the tax line, with an effective tax rate of only 17.7% vs 33.7% in 2010. EPS were thus boosted to 111.6c (Citi 90c) against 70.2c in 2010.

Reported tax for the current year was a credit of \$28 million after exchange gains on the translation of Rand-denominated tax balances of \$82 million and the tax effects of special items of \$2 million. The underlying tax charge is \$56 million, reflecting an effective rate of 17.7%. The underlying charge largely reflects deferred tax charges being recognised on accelerated capital allowances. The dilution in the effective tax rate is driven by exchange gains on translation of Rand-denominated working capital balances at year end.

New guidance

LMI has previously guided to 850k oz in 2013. While it did not guide on 2012, a range of 775k oz to 800k oz was reasonable. LMI is now guiding to 750k oz in 2012 in spite of noting that it has the capacity to produce 800koz. This is not a big advance from 721k oz in 2011 considering the 850k oz 2013 target. Cautious 2012 guidance is being given in light of the risks from Section 54 safety stoppages (the rate in October was double the FY 11 average). Furthermore, LMI is putting some caveats on the 2015+ guidance of 950k oz, saying it will only push for that if PGM market conditions warrant it, i.e. they will only aim to produce profitable ounces.

2011 performance

LMI FY 2011 unit cost was impacted by the production losses arising from the safety stoppages and illegal strikes. Excluding these two major factors, unit cost was up around 8.0% on a normalised basis and in line with original guidance.

The C1 cost per PGM ounce produced for the year to 30 September 2011 was R7,534. This was an increase of 11.2% compared to 2010. This increase was largely driven by higher than inflation increases in the wage bill (8%) and electricity tariffs (24%), as well as a lower grade due to the change in ore mix (increase in Merensky ore from open cast and underground operations and poorer geology at K3 shaft). These increases were not mitigated by the expected increase in production in the second half of the year due to the industrial action in May and management induced safety stoppages in March and April. Had the production interruptions arising from the safety-induced stoppages and the illegal strike at Karee not occurred, the year-on-year cost increase per PGM ounce would have been 8.0%.

LMI anticipates that 2012 unit cost will increase in line with wage increases.

Cash flow generated from operations in the FY 11 at \$682m was significantly higher than the \$133m recorded in 2010. This was driven off the back of improved operating profits, coupled with a much-improved working capital position, which saw debtors and inventory decrease by \$260 million and \$12 million, respectively, during the year, somewhat offset by a \$27 million decrease in creditors.

In the 2010 financial year, smelter run-outs led to significant back-end loading of sales, resulting in unusually high debtors, as well as a stock build up at year-end. This had a significant impact on working capital. The working capital locked up in receivables at the 2010 year end has subsequently been realised. The ratio of consolidated net debt to underlying EBITDA decreased from 1.07 times at 30 September 2010 to 0.54 times at 30 September 2011. The reorganisation of LMI's bank debt facilities has resulted in the debt maturity profile being extended. Gross bank debt facilities at year end amounted to \$945 million, and consequently the balance sheet has strengthened over the year.

Immediately available ore reserves at the Marikana operations were 2.9 million centares at the end of 2011, up 8.8% on FY 2010 and constituting a very good performance from LMI.'

Valuation and Risks

Valuation

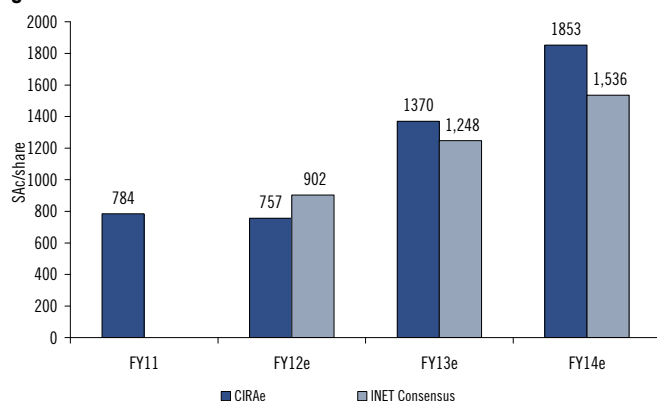
We value Lonmin based on a sum-of-the-parts discounted cash flow (DCF) analysis. Our model uses a nominal WACC of 9% and discounts forecast cash flows over the life of the group's individual assets. We apply a 1.05x P/DCF exit multiple. This is a modest premium versus the 1.0x that we assume for the South African producers, given that Lonmin has tended to command a premium for its London primary listing. We rate LON neutral TP £11.05 (R150).

Figure 113. LON sum-of-the-parts DCF valuation

WACC	US\$M	GPB	GPB/share	Exit multiple	GPB/share
Marikana	2,858	1,786	8.80	1.05	9.24
Pandora	146	91	0.45	1.05	0.47
Chrome tailings	91	57	0.28	1.05	0.29
Projects/Blue Sky *1	90	56	0.28	1.05	0.29
Operational value	3,185	1,990	9.80	1.05	10.30
Net Debt	-297	-186	-0.92		-0.92
Investments * 2	210	131	0.65		0.65
Financial obligations	-87	-55	-0.27		-0.27
NPV per share	3,097	1,936	9.54		11.05

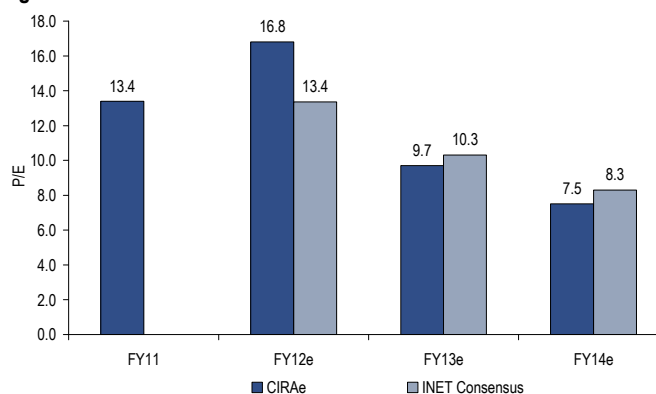
Source: Citi Investment Research and Analysis

Figure 114. LMI CIRA HEPS forecast vs. consensus



Source: I-Net, Citi Investment Research and Analysis, Company reports

Figure 115. LMI CIRA P/E vs. consensus



Source: I-Net, Citi Investment Research and Analysis, Company reports

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 favourable 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.

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Company Narratives

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 R550. We value AMS 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. In order to account for AMS's leverage to PGM prices and the strategic optionality that its large reserve/resource bases provide, we apply a 10% premium to our valuation of AMS relative to its peers (1.10x P/DCF).

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 will be able to expand production above the current 2.5m ounce (Pt) level.

Political and regulatory risks: AMS'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.

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 R220/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.

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 R45. 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 Boschkoppe 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 Buy. 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. Our DCF valuation provides attractive upside. Buy.

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 R65 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

Downside risks include a stronger-than-expected rand, weaker-than-expected PGM prices, a worse-than-expected operational performance at Boschkopie, and delays and capex overruns at Styldrift. 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.

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 720koz in 2011. 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. Xstrata owns a 25% stake in the company and could aim to increase its ownership stake.

Valuation

Our target price for Lonmin is £11.05. 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 1.05 P/NPV multiple to our £10.52 NPV.

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.

Notes

Notes

Appendix A-1

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