Deutsche Bank Markets Research

Sub-Saharan Africa South Africa Platinum

Platinum



Date 8 June 2016

Forecast Change

Unconventional future: man vs. machine

Mining costs: labour, electricity drive continuing inflation at conventional mines You may have opened this expecting a sci-fi/marvel-esque drama, instead, it is

about cost history of PGM producers we cover. Cost inflation has run at around 9% p.a over the past five or so years. We estimate conventional mines unit costs are 20-25% above mechanised, & may continue to increase at around 10% p.a. without stringent cost control. Around 70% of their costs are labour & electricity. Mechanised mines have a balanced cost composition & could limit increases at mid-to-high single digit percentages. We adjust our cost inflation expectations & valuations for longer-term cost inflation rates. With a shift to lower costs, AMS is our top pick: Buy. Lonmin is our least preferred: Sell.

Unit costs and inflation by mining method: conventional disadvantage to widen Each mine faces different circumstances and each company has different cost disclosure. However, we are able to draw some broad industry conclusions. Conventional mines have c.25% higher unit costs relative to mechanised operations. Conventional mines' inflation rates have been c.10% p.a. or higher over the last 5 to 6 years, driven by electricity and wages (making up c.70% of costs) and we think this cost-pressure is likely to continue. Mechanised mines' costs have a greater proportion of contractors and stores/materials than conventional mines and are relatively light on labour costs. While mechanised mines have also faced strong cost inflation, some operations have managed to keep inflation to mid single digit CAGR percentages.

Composition of costs by mining method and cost inflation of categories

Labour costs (c.60% of conventional costs) as a category have increased c.9 to 12%p.a. over the past 5-6 years. Utilities, c.8-10% of conventional on-mine cash costs, have increased at between 11 to 20%p.a. Stores/materials have increased at c.5.5% to 6.5% p.a. and are approximately 25 to 30% of costs.

No recommendation changes, Impala & RBPlat PT +25% on lower LT inflation

Our changes are summarised in Figure 1. We increase Impala's price target on longer-term lower inflation assumptions for mechanised operations (Zimplats, Mimosa and Two Rivers). However, we have reduced our near-term earnings forecasts as we model higher cost inflation in the short-term at conventional mines. Note however that we do not take into account the impact of uncertain insurance proceeds in our estimates. We increase RBPlats' price target on a lower cost position assumption for Styldrift, its mechanised Merensky project. We have also cut our short-term RBPlat earnings expectations on a delay of our estimate of the transfer of Styldrift from project to operating mine in 2019. We have increased our earnings expectations for Sibanye. Our operational forecasts are largely unchanged, but our earnings forecasts are impacted by a lower forecast tax rate. The effective tax rate was 36% in 2014 and 41% in 2015 owing to non-deductible expenses which we do not model in future. For Lonmin and Amplats we have made no changes.

DCF-based valuations. Sector risks include Rand and PGM price forecasts

This note changes the price targets and forecasts (recommendations unchanged) for the SA PGM producers, summarised on the front page and in Figure 1. Company specific risks and detailed changes to estimates are enclosed from page 15 onwards.

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Key Changes		
Company	Target Price	Rating
IMPJ.J	40.00 to	-
	50.00(ZAR)	
NHMJ.J	36.00 to	-
	35.00(ZAR)	
RBPJ.J	34.00 to	-
	42.00(ZAR)	
SGLJ.J	41.00 to	-
	40.00(ZAR)	
Source: Deutsche Ban	k	
Top picks		
Amplats (AMSJ	.J),ZAR388.87	Buy
Source: Deutsche Ban	k	
Companies Fea	ntured	
Amplats (AMSJ	.J),ZAR388.87	Buy
Impala Platinun	n (IMPJ.J),ZAR46.71	Hold
Northam (NHM	J.J),ZAR44.25	Hold
RBPlat (RBPJ.J)	,ZAR43.01	Hold
Sibanye Gold (S	GLJ.J),ZAR47.00	Hold
Lonmin Plc (LO	NJ.J),ZAR40.27	Sell
Source: Deutsche Ban	k	

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Changes to forecasts, ratings

Summary changes

- We have made no changes to recommendations. We retain our Buy on Amplats, Sell on Lonmin and Hold recommendation for Northam, Impala, RBPlat and Sibanye.
- Amplats and Lonmins' price targets are unchanged from before
- We have made minor changes to the price targets for Northam (R35 from R36) and Sibanve (R40 from R41).
- We have increased our Impala price target by 25% and our RBPlat price target by 24%.
 - Impala's price target is increased on longer-term lower inflation assumptions for mechanised operations (Zimplats, Mimosa and Two Rivers)
 - RBPlats price target increases on lower cost position assumption for Styldrift, its mechanised Merensky project.

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Figure '	1: Summarv	changes to	o price targets.	earnings

	Recomme	endation	Target	price						FY0				
ZAR per share	Current	Previous	Current	Previous	% chg	Current price*	Upside	Year end	Earnings	A EPS	FY1 EPS	FY2 EPS	FY1 Prior EPS	FY2 Prior EPS
Amplats	Buy	Buy	430	430	0%	391	10%	Dec	SAcps	41	1,825	2,717	1,825	2,717
Impala	Hold	Hold	50	40	25%	47	7%	June	SAcps	36	(199)	(54)	(91)	22
Lonmin	Sell	Sell	23	23	0%	41	-43%	Sept	UScps	-16	(1)	1	(1)	1
Northam	Hold	Hold	35	36	-3%	43	-18%	June	SAcps	157	105	194	105	194
RBPlat	Hold	Hold	42	34	24%	43	-3%	Dec	SAcps	-83	91	60	127	5
Sibanye	Hold	Hold	40	41	-2%	47	-15%	Dec	SAcps	74	496	615	477	533

- Source: Deutsche Bank, Company Data, DataStream *End 7 June 2016
- We have decreased our short-term earnings forecasts for Impala and RBPlat
 - For Impala we forecast higher-cost inflation in the short-term at conventional mines note however that we do not take into account the impact of uncertain insurance proceeds in this estimate.
 - For RBPlat, we have delayed the transfer of Styldrift from project to mine to 2019E which has reduced earnings expectations. Revenue and costs are capitalised until the project is regarded as an operating asset. This is a DB estimate as there is no guidance from the company.
- We have increased our earnings expectations for Sibanye. Our operational forecasts are largely unchanged, but our earnings forecasts are impacted by a greater extent owing to us adjusting our forecast tax rate lower. The effective tax rate was 36% in 2014 and 41% in 2015 owing to non-deductible expenses which we do not model in future.



Relative valuation

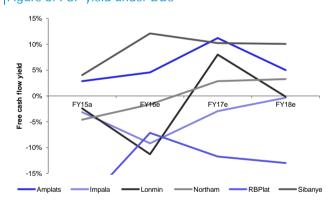
Financial relative valuation tables and charts

Figure 2: Summary trading metrics under DB forecast commodity prices and forex

	Fiscal	Close	Mkt Cap	Current		NPV	P/		PE				EV/EB	ITDA		Fre	e cash	flow yie	eld
Company	YE	Price	(ZAR)	EV (ZAR)	Rating			FY15a	FY16e	FY17e	FY18e	FY15a	FY16e	FY17e	FY18e	FY15a	FY16e	FY17e	FY18e
Amplats	Dec	389	104,871	117,637	Buy	428	0.9	704	21	14	13	10.4	9.8	8.0	7.2	3%	5%	11%	5%
Impala	Jun	47	34,322	34,613	Hold	49	1.0	218	n/a	n/a	64	13.1	23.4	9.5	7.7	-3%	-9%	-3%	0%
Lonmin	Sep	40	11,360	9,661	Sell	23	1.7	n/a	n/a	476	24	67.0	5.2	4.1	3.1	-2%	-11%	8%	0%
Northam	Jun	44	22,558	18,986	Hold	34	1.3	27	41	22	25	19.6	23.3	12.3	12.4	-5%	-2%	3%	3%
RBPlat	Dec	43	8,296	8,091	Hold	42	1.0	n/a	47	72	n/a	52.7	16.6	17.2	20.7	-21%	-7%	-12%	-13%
Sibanye	Dec	47	43,068	46,154	Hold	37	1.3	30	9	8	9	3.7	3.5	2.9	3.3	4%	12%	10%	10%
	<u> </u>			Simple	average		1.2	316	37	146	32	32.6	15.7	10.2	10.2	-6%	-5%	1%	-1%

Source: Deutsche Bank, Company Data, DataStream

Figure 3: FCF-yield under DBe



Source: Deutsche Bank, Company Data

Figure 4: EV/EBITDA under DBe 18.0 16.0 14.0 EV/EBITDA multiple 12.0 10.0 8.0 4.0 2.0 RBPlat

FY16e

■FY17e

■FY18e

Source: Deutsche Bank, Company Data

FY15a

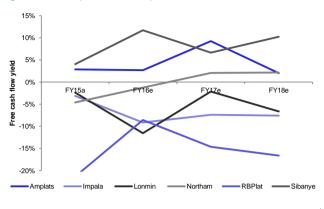
Figure 5: Summary trading metrics under DB forecast commodity prices and forex

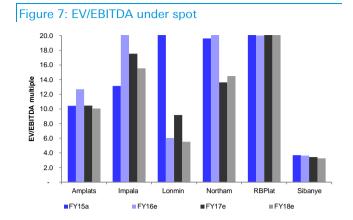
				Simple	average		9.7	316	50	24	27	32.6	16.7	15.4	17.6	-6%	-6%	-3%	-5%
Sibanye	Dec	47	43,068	46,154	Hold	32	1.5	30	10	10	9	3.7	3.6	3.4	3.3	4%	12%	7%	10%
RBPlat	Dec	43	8,296	8,091	Hold	-7	-6.2	n/a	77	n/a	n/a	52.7	20.0	26.0	42.4	-21%	-9%	-15%	-17%
Northam	Jun	44	22,558	18,986	Hold	4	9.8	27	37	25	31	19.6	21.4	13.6	14.5	-5%	-1%	2%	2%
Lonmin	Sep	40	11,360	9,661	Sell	-71	-0.6	n/a	n/a	n/a	n/a	67.0	6.0	9.2	5.5	-2%	-12%	-2%	-7%
Impala	Jun	47	34,322	34,613	Hold	-52	-0.9	218	n/a	n/a	n/a	13.1	23.4	17.5	15.5	-3%	-9%	-7%	-8%
Amplats	Dec	389	104,871	117,637	Buy	8	46.5	704	36	22	22	10.4	12.7	10.5	10.1	3%	3%	9%	2%
Company	YE	Price	(ZAR)	EV (ZAR)	Rating			FY15a	FY16e	FY17e	FY18e	FY15a	FY16e	FY17e	FY18e	FY15a	FY16e	FY17e	FY18e
	Fiscal	Close	Mkt Cap	Current		NPV	P/		PE				EV/EB	ITDA		Fre	e cash	flow yie	eld
			,	,						, .									_

Source: Deutsche Bank, Company Data, DataStream



Figure 6: FCF-yield under spot

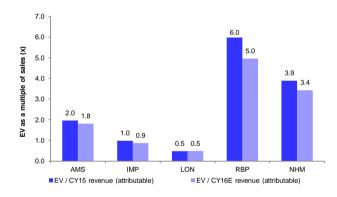




Source: Deutsche Bank, Company Data Source: Deutsche Bank, Company Data

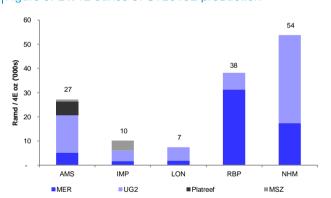
Operational relative value charts

Figure 8: EV to calendar year revenue, 2015-2016E



Source: Deutsche Bank, Company Data, DataStream

Figure 9: EV/4E ounce of CY2016E production



Source: Deutsche Bank, Company Data, DataStream

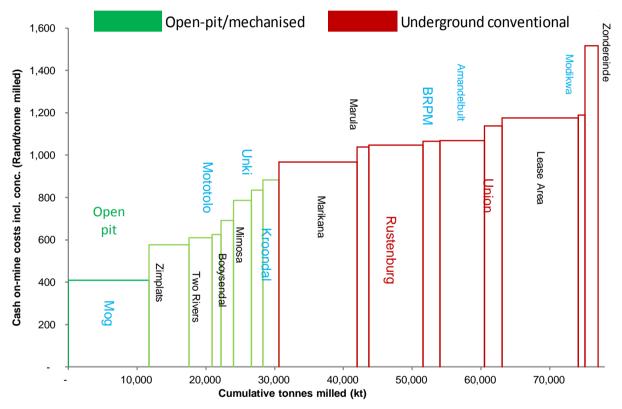


Cost inflation check

Re-assessing cost-inflation rates and relative positions

There is a clear cost differential by method of mining. Open-pit (Mogalakwena) or mechanised mining carries a lower Rand-per-tonne milled cost than conventional underground mining. The cost-curve below reflects the cost of on-mine cash costs for PGM mines under coverage for 2015.

Figure 10: Rand per tonne milled cost curve, 2015, mine type highlighted



Source: Deutsche Bank, Company Data

We looked at cost by category and type of mining and the related inflation rates for recent history for the platinum companies under coverage. The companies do not report in a standardised fashion and thus figures should be compared with caution. While it proved challenging to compare across companies and mining methods given that 1) each mine is unique and faces different circumstances; and 2) that each company has differing disclosure, we are able to draw some broad conclusions. Conventional mines have approximately 25% higher unit costs relative to mechanised operations. This cost differential is likely to persist and potentially widen further in the absence of stringent cost control measures. Conventional mines have experienced inflation rates of 10%p.a. plus over the last 5 to 6 years, driven by electricity and wages (making up c.70% of conventional on-mine costs) and this cost-pressure is likely to continue. Mechanised mines costs are weighted more to contractors and stores, materials and/or consumables than conventional mines



and are relatively light on labour costs. While mechanised mines have also faced strong cost inflation, some have managed to rein it in to mid-to-low single digit percentages. We summarise our key cost inflation findings in the following table.

Figure 11: Summary of costs and cost inflation at Platinum companies over recent history

	Amplats	RBPlat	Northam	Impala	Lonmin
Period	CY2015	CY2015	FY15 (year end June)	FY15 (year end June)	FY15 (y/e September)
Group reported unit costs	R19,266/Pt oz	R14,504/Pt oz		R22,222/Pt oz	
Conventional	R10,068/6E oz	R14,504/Pt oz	R19,613/Pt oz	R23,300/Pt oz	R10,339/PGM oz
Mechanised	R8,480/6E oz		R15,411/Pt oz	R16,200/Pt oz	
Open-cast	R7,340/6E oz				
	Simple average			Simple average	
Cost inflation					
Period	2010-2015	2010-2015	FY09-FY15	FY09 - FY15	FY09 - FY15
Conventional inflation	11% R/tonne milled	10% R/Pt oz	11.6% R/kg 4E	15% R/PGM oz	5.6% R/PGM oz
Mechanised inflation	10% R/tonne milled			5% R/PGM oz	
Open-cast	12% R/tonne milled				
Zimbabwe	13.2% R/tonne milled			9% R/PGM oz	
	Zim from 2011-2015			Simple average	
Cost categories inflation					
Period	2010-2015	2010-2015	FY09-FY15	FY13 - FY15	
Labour	8.7%	9%	10%	12%	
Stores/Materials/Consumables	6.6%	5%	5.5%	5.5%	
Utilities	13.2%	13%	21%	10.5%	
Contractors	1.8%	14%			
Sundry	12.6%		0.7%		
Total	8.5%	9%	8.5%	6.6%	

In addition to the above inflation rates, we note that the typical split of on-mine cash costs for underground conventional mines for the last full reported fiscal period are as follows:

- Labour c.60% (including contractors)
 - Amplats conventional 65%, RBPlat 62%, Northam Zondereinde 47%, Impala 61% (group), Lonmin 60% (from annual report)
- Stores/Materials/Consumables c.25-30%
 - Amplats 17%, RBPlat 29%, Northam 27%, Impala 32%
- Utilities c.8-10%
 - Amplats 8%, RBPlat 9%, Northam 14%, Impala 7%
- Sundries and other, if reported, c.11%
 - Amplats 10%, Northam 12%,

The exception to the conventional mining inflation rate is Lonmin, which has managed to contain cost inflation at 6% p.a. by lowering production levels and focusing on more profitable production. Mechanised mine Two Rivers (Impala owns 49%) has contained unit cost inflation to c.4.6% p.a., albeit on growing production. Mechanised JV partner (Amplats) mines Mototolo and Kroondal have experienced 5-year CAGR unit inflation of 7.4% and 8.2% respectively.



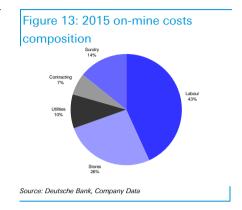
Amplats cost inflation

The Rand-per-tonne cash on-mine costs for conventional underground mines in Amplats' portfolio have increased at c.11% per annum over 2010-2015 inclusive, despite significant cost-cutting measures taken by Amplats.

Figure 12: 5-year mining cost progression by mine type

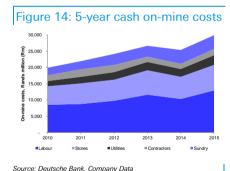
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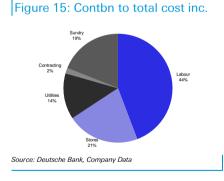
Source: Deutsche Bank, Company Data

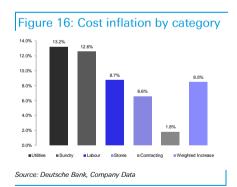


Cost-push inflation pressure from electricity and labour costs

Amplats' separately identifiable on-mine cash costs are labour, stores, utilities and contracting. Cash-cost inflation over the period 2010-2015 has averaged 8.5% in total and 8.8% per platinum ounce, eroding mining margins as revenue per platinum ounce has increased by only 6%. Labour cost inflation, at 8.7% p.a. (excluding contracting), has accounted for 44% of the increase in nominal on-mine cash costs and are 43% of total costs. While not reflecting the highest rate of inflation, it is the single largest component of on-mine cash costs and its impact is thus significant. The Utilities category (driven by increases in electricity prices, in our view) has increased by 13% CAGR over five-years, although it comprises just 10% of total on-mine costs.







Amplats publishes a cost break-down by mining method. The figures below use data from the 2015 Annual Report.



Figure 17: Open-pit cost structure

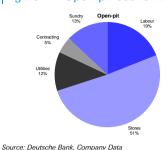


Figure 18:Mechanised cost structure

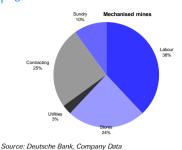
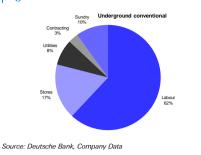


Figure 19: Conventional cost structure



Conventional mining is, unsurprisingly, heavily skewed toward labour costs (over 60%). Stores comprise the majority of the mining costs at Mogalakwena (this includes diesel, tyres, explosives and spares).

Conventional mining will continue to experience the highest cost-push inflation

Using the disclosed cost-weightings and the five year CAGR of underlying cost drivers as a base, conventional mining could experience underlying inflation of close to 10% per annum in future. 62% of costs are labour-related and 8% are from utilities. We do not expect the upward pressure on wages or electricity prices to abate in the medium term. Using the same methodology, we expect mechanised/open-pit mining to face underlying annual cost inflation of 6-8%.



RBPlat's 5 year cost inflation by category

RBPlats' existing operations display a similar rate of inflation over the past five years to Amplats' conventional mines. RBPlat currently has a single operation which uses conventional mining methods.

Figure 20: RBPlats' 5-year cost inflation by category

Year end December		2011	2012	2013	2014	2015	5-year CAGR
Cash operating costs	Rm	1,802	2,051	2,093	2,361	2,548	9%
% chg yoy			14%	2%	13%	8%	
- Labour		674	753	773	884	946	9%
% chg yoy			12%	3%	14%	7%	
- Utilities		145	171	179	209	234	13%
% chg yoy			18%	5%	16%	12%	
- Contractor costs		377	478	489	542	633	14%
% chg yoy			27%	2%	11%	17%	
- Materials & other costs		615	648	651	730	735	5%
% chg yoy			5%	0%	12%	1%	
Unit costs							
On-mine costs/tonne milled	R/t	782	864	920	957	1,066	8%
% chg yoy			11%	6%	4%	11%	
On-mine costs/4E oz produced	R/oz	6,399	7,616	7,519	8,040	9,359	10%
% chg yoy			0	-0	0	0	
On-mine costs/Pt oz produced	R/oz	9,863	11,775	11,592	12,463	14,504	10%
% chg yoy			19%	-2%	8%	16%	
Source: Deutsche Bank, Company Data							•

RBPlat has experienced unit cost inflation of 10% per annum on 4E ounces produced over the period FY11-FY15 (total cash costs are up 9% per annum). Cost inflation was 9% for labour, 14% for contractors and 13% for utilities.

Figure 21: RBPlat on-mine cash costs FY15 by category

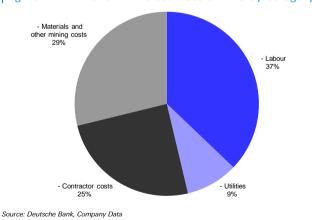
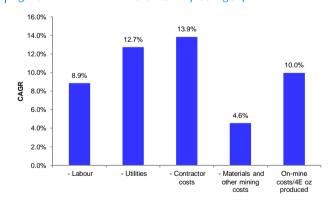


Figure 22: RBP FY11-15 CAGR by category



Source: Deutsche Bank, Company Data



Northam's cost inflation history and composition

Unit costs at Zondereinde have escalated at 11.6%p.a. CAGR over 2009-2015, while absolute operating costs have increased by 8.5%p.a. Labour, the single largest category, has escalated at 10% p.a. over this period, while utilities has escalated by 21% p.a.

Figure 23: Zondereinde: cost history by category, FY09-15. Costs include concentrating & smelting (not refining).

Year end June		2009	2010	2011	2012	2013	2014	2015	CAGR
Unit costs									
Cash costs of prodn	R/kg (4E)	199,680	215,900	279,118	283,934	309,421	358,891	386,117	11.6%
			8.1%	29.3%	1.7%	9.0%	16%	7.6%	
Operating costs	Rm	1,906	2,230	2,259	2,633	2,797	2,691	3,115	8.5%
Year-on-year			17.0%	1.3%	16.6%	6.2%	-3.8%	15.8%	
Labour		824	975	992	1,198	1,264	1,355	1,471	10%
% chg yoy				2%	20.7%	5.5%	7.2%	8.6%	
Stores		600	650	596	691	698	652	827	5.5%
% chg yoy				-8%	15.8%	1.1%	-6.6%	26.8%	
Utilities		141	208	249	298	341	372	444	21%
% chg yoy				20%	19.7%	14.2%	9.3%	19.1%	
Sundries		344	386	400	416	446	305	358	0.7%
Decommisioning/ restor	ration	-2.8	11.1	4.4	4.9	11	6	15	

The vast majority of Booysendals' labour is contractor-based and so the cost composition between Zondereinde and Booysendal is not comparable. However, we determine that in 1H16 (half ending December 2015), Booysendal is 50% more productive than Zondereinde when measure on a production per total employee (including contractors) basis.

Figure 24: 4E ounce/employee 1H16

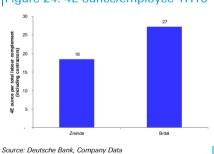


Figure 25: Z/einde cost cat. FY15

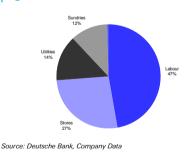
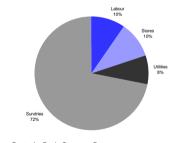


Figure 26: B/dal cost categories



Source: Deutsche Bank, Company Data



Impala's cost inflation history and composition

Impala's Lease Area and Marula are the mines which, within the group, have experienced the highest per-unit cost inflation CAGR over the period FY09-15. These are Impala's two conventional South African mines. Two Rivers, the mechanised operation, has experienced unit cost inflation of 5% over the same period, although this is helped by production growth (absolute on-mine CAGR was 12%).

Figure 27: FY09-15 CAGR by mine

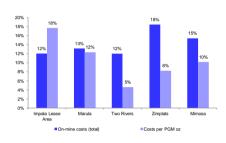


Figure 28: Impala group on-mine costs by category, FY15

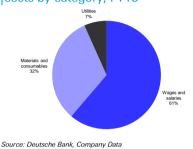
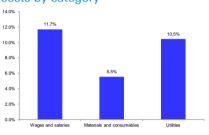


Figure 29: FY13-15 CAGR of on-mine costs by category



Source: Deutsche Bank, Company Data

Source: Deutsche Bank, Company Data

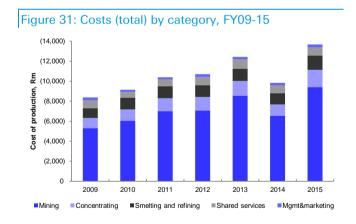
Impala only discloses the composition of on-mine costs on the group level. Wages and salaries are the majority of on-mine costs, at 61%. The FY13 to FY15 CAGR of the three cost categories shows that wages and salaries have increased the most at c.12% per annum, followed by utilities at 10.5% and then materials and consumables at 5.5%. We have not looked at group data further beyond FY13 as associates were previously proportionately consolidated (now equity accounted) and the group base changed in FY13.

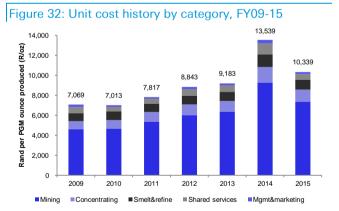
Zimplats and Mimosa (both mechanised) unit cost inflation CAGR falls inbetween SA conventional and SA mechanised, but has recently been negatively impacted by the Rands depreciation against the US dollar.



Lonmin's cost inflation history and composition

Cost per PGM oz Gource: Deutsche Bank, Company Da	R/oz	7,069	7,013	7,817	8,843	9,183	13,539	10,339	5.6%
Mgmt & marketing	R/oz	239	173	161	228	173	355	207	-0.8%
Shared services	R/oz	622	446	503	639	661	1,087	570	-0.5%
Smelting and refining	R/oz	789	883	832	877	925	1,269	985	3.4%
Concentrating	R/oz	816	868	960	1,073	1,051	1,567	1,228	6.0%
Mining	R/oz	4,604	4,644	5,361	6,026	6,373	9,261	7,349	6.9%
Cost of production per PG	M ounce								
Total cost of prodn	Rm	(8,379)	(9,142)	(10,399)	(10,701)	(12,420)	(9,838)	(13,674)	6.6%
Mgmt & marketing	Rm	(298)	(227)	(217)	(287)	(243)	(256)	(294)	0.1%
Shared services	Rm	(776)	(586)	(679)	(805)	(928)	(786)	(810)	0.4%
Smelting & refining	Rm	(982)	(1,161)	(1,203)	(1,183)	(1,235)	(1,119)	(1,426)	4.8%
Concentrating	Rm	(1,019)	(1,142)	(1,297)	(1,346)	(1,469)	(1,121)	(1,731)	6.8%
Mining	Rm	(5,302)	(6,026)	(7,002)	(7,079)	(8,545)	(6,556)	(9,414)	7.9%
Total costs		2009	2010	2011	2012	2013	2014	2015	FY09-15
Year end September									CAGR
Figure 30: Lonmin c	ost history	/ by catego	ry, FY09-15	A					





Source: Deutsche Bank, Company Data

Source: Deutsche Bank, Company Data



Impala, Hold, R50 PT

Investment Thesis

Outlook

Impala's flagship Lease Area mine, which produced over 1Mozpa from 1996 through to 2009, could reclaim its prestige and become the biggest single platinum mine by 2020, if it achieves its planned ramp-up to 815-830kozpa. While Impala should benefit from rising prices and production growth (albeit off of a low-base) from the Lease Area should prove positive for Impala, its deferral of 17-Shaft and other capital projects may mean that any increase in production to target run-rates at the Lease Area could be short-lived. Impala also faces challenges from weak-USD PGM prices at its Zimplats subsidiary. We see a balance of upside and downside risks/catalysts and believe the shares are fairly valued from a Risk-Reward basis. Hold.

Valuation

We value Impala on a sum-of-the-parts DCF model of life-of-mine cash flows. We use a WACC of 13% and apply a 1x DCF exit multiple to derive our target price. Given the uncertainty between Impala and the Zimbabwean government regarding 51% ownership of Impala's Zimplats and Mimosa mines, we include only 49% of Impala's ownership in these mines. For CY16 we use a platinum price forecast of US\$940/ounce and a ZAR/USD forecast of 15.89.

Risks

Upside/Downside Risks include: Rand-PGM prices; mining cost inflation/containment; timing of the delivery of the new vertical shafts at the Lease Area. Upside/Downside risks relating to the Zimbabwean regulatory environment include: the outcome on indigenisation agreements and/or valuation; changes to mining taxes and levies; legislative changes to the treatment of export material for further processing in South Africa; and governments determination on the industry as to whether a precious metals refinery in Zimbabwe should be funded. A positive refinancing outcome for Impala's February 2018 bonds could be a boost to the company; while a liquidity crunch poses a downside risk should spot or lower prices persist for longer than forecast or strikes or other production interruptions, including those related to load-curtailment as a result of electricity shortages in South Africa and/or a deterioration in safety trends, pose other downside risks.



Impala: Changes to estimates

We have made minor changes to our operational forecasts for Impala. Owing to current low margins and the related leverage, this has had a disproportionate impact on HEPS forecasts.

Yr ending June		FY16e	FY17e	FY186
Group refined platinum production	000koz	1,456	1,541	1,582
Previous		1,432	1,452	1,483
% chg		2%	6%	7%
Revenue per platinum ounce	R/oz	23,846	26,165	27,188
Previous		24,760	27,041	28,177
% chg		-3.7%	-3.2%	-3.5%
Group unit costs	R/Pt oz	21,916	21,803	22,121
Previous		21,542	22,020	22,892
% chg		1.7%	-1.0%	-3.4%
Revenues	Rm	34,716	40,321	43,008
Previous		35,452	39,274	41,792
% chg		-2.1%	2.7%	2.9%
Cost of sales	Rm	36,333	39,930	42,024
Previous		35,833	38,236	40,177
% chg		1.4%	4.4%	4.6%
Gross profit	Rm	-1,616	391	985
Previous		-382	1,038	1,615
% chg		<-100%	-62.4%	-39.0%
EBITDA	Rm	918	3,502	4,675
Operating profit	Rm	-2,088	111	674
Previous		-871	881	1,518
% chg		<-100%	-87.4%	-55.6%
EBIT margins: current		-6.0%	0.3%	1.6%
EBIT margins: previous		-2.5%	2.2%	3.6%
Headline earnings	Rm	-1,302	-356	474
Previous		-597	142	987
% chg		<-100%	<-100%	-52.0%
HE margins: current		-3.8%	-0.9%	1.1%
HE margins: previous		-1.7%	0.4%	2.4%
Headline basic EPS	R	-1.99	-0.54	0.72
Previous		-0.91	0.22	1.51
% chg		<-100%	<-100%	-52.0%
Сарех	Rm	3,687	4,006	4,321
Previous		3,755	4,091	4,395
% chg		-1.8%	-2.1%	-1.7%
Free cash flow		-2,801	-892	-101
Previous		-1,363	211	922

>100%

5,262

3,823

37.6%

Rm

<-100%

6,547

4,006

63.5%

<-100%

5,955

7,108

-16.2%

Production, revenue and unit costs are tweaked by single digit percentages

Low single digit earnings margins mean small operational changes translate to big swings in earnings forecasts

Source: Deutsche Bank, Company Data

% chg

Previous

% chg

Net debt/(cash)



Model updated:07 June 2016	
Running the numbers	
Sub-Saharan Africa	
South Africa	
Platinum	

Impala Platinum

Reuters: IMPJ.J Bloomberg: IMP SJ

Hold

Price (7 Jun 16)	ZAR 46.71
Target Price	ZAR 50.00
52 Week range	ZAR 23.24 - 60.49
Market Cap (m)	ZARm 30,596
	USDm 2,054

Company Profile

Impala Platinum owns and operates the Impala mine on the Western Limb of SA's Bushveld Complex. The mine is commissioning two new shafts in a bid to ramp-up to c.815-830kozpa Pt by 2020. On the Eastern Limb, it owns and operates 73% of the Marula mine and 49% of Two Rivers, managed by JV partner ARM. In Zimbabwe, Impala owns and operates 87% of the Zimplats mine, ramping up to 260koz pa Pt in 2016, and 50% of the Mimosa mine with JV partner Aquarius. Impala also provides refining services for precious and base metal producers.

Price Performance



Margin Trends



Growth & Profitability



Solvency



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Fiscal year end 30-Jun	2013	2014	2015	2016E	2017E	2018E
Financial Summary						
DB EPS (ZAR)	3.30	0.86	0.36	-1.99	-0.54	0.72
Reported EPS (ZAR)	1.68	0.01	-6.02	-2.20	-0.54	0.72
DPS (ZAR)	0.95	0.00	0.00	0.00	0.00	0.21
BVPS (ZAR)	85.8	86.3	82.5	84.2	83.6	84.2
Weighted average shares (m)	607	607	607	655	655	655
Average market cap (ZARm)	82,849	70,441	48,182	30,596	30,596	30,596
Enterprise value (ZARm)	87,107	73,093	52,117	33,512	34,457	34,612
Valuation Metrics	41.4	104.7	010.5			04.5
P/E (DB) (x) P/E (Reported) (x)	41.4 81.1	134.7 nm	218.5 nm	nm nm	nm nm	64.5 64.5
P/BV (x)	1.08	1.24	0.66	0.55	0.56	0.55
FCF Yield (%)	nm	nm	nm	nm	nm	nm
Dividend Yield (%)	0.7	0.0	0.0	0.0	0.0	0.4
EV/Sales (x)	2.9	2.5	1.6	1.0	0.9	0.8
EV/EBITDA (x)	19.2	22.0	11.8	23.7	9.8	8.1
EV/EBIT (x)	39.2	74.7	28.7	nm	310.9	51.3
Income Statement (ZARm)						
Sales revenue	30,032	29,028	32,477	34,716	40,321	43,008
Gross profit	7,214	5,583	4,221	1,628	3,780	4,594
EBITDA	4,538	3,320	4,411	1,413	3,500	4,284
Depreciation	2,314	2,341	2,593	3,244	3,390	3,610
Amortisation EBIT	0	0 979	1 010	1 021	0 111	0 674
Net interest income(expense)	2,224 -230	-178	1,818 -284	-1,831 -584	-630	-438
Associates/affiliates	163	365	377	175	136	223
Exceptionals/extraordinaries	0	-1,000	-5,847	-257	0	0
Other pre-tax income/(expense)	242	-151	-420	-413	-135	169
Profit before tax	2,399	15	-4,356	-2,910	-518	628
Income tax expense Minorities	1,476 -99	144 -137	-217 -476	-1,384 -81	-145 -17	176 -22
Other post-tax income/(expense)	0	0	-470	0	0	-22
Net profit	1,022	8	-3,663	-1,445	-356	474
DB adjustments (including dilution)	979	515	3,884	143	0	0
DB Net profit	2,001	523	221	-1,302	-356	474
Cash Flow (ZARm)						
Cash flow from operations	5,786	4,096	2,328	353	2,770	3,907
Net Capex	-6,258	-4,436	-4,466	-3,684	-4,006	-4,321
Free cash flow	-472	-340	-2,138	-3,331	-1,237	-414
Equity raised/(bought back) Dividends paid	36 -580	8 -371	1 -10	3,900 -33	0	-90
Net inc/(dec) in borrowings	4,466	-16	-264	-10	-522	0
Other investing/financing cash flows	308	911	703	728	345	313
Net cash flow	3,758	192	-1,708	1,254	-1,414	-191
Change in working capital	-487	1,649	338	-702	0	0
Balance Sheet (ZARm)						
Cash and other liquid assets	5,308	4,305	2,597	3,851	2,437	2,246
Tangible fixed assets	50,263	50,276	47,633	51,240	51,857	52,568
Goodwill/intangible assets	1 225	2 200	2 902	4 950	4 700	0 3,492
Associates/investments Other assets	1,335 23,813	3,380 21,906	3,802 23,183	4,859 23,479	4,789 23,479	23,479
Total assets	80,719	79,867	77,215	83,429	82,562	81,785
Interest bearing debt	8,322	7,787	8,076	9,077	8,555	7,244
Other liabilities	17,781	17,163	16,777	16,663	16,836	17,009
Total liabilities	26,103	24,950	24,853	25,741	25,392	24,254
Shareholders' equity	52,037	52,367	50,104	55,139	54,783	55,167
Minorities Total shareholders' equity	2,579 54,616	2,550 54,917	2,258 52,362	2,549 57,688	2,532 57,315	2,510 57,677
Net debt	3,014	3,482	5,479	5,226	6,118	4,998
Key Company Metrics						
	nm	2.2	11 0	6.0	16 1	67
Sales growth (%) DB EPS growth (%)	nm na	-3.3 -73.9	11.9 -57.9	6.9 na	16.1 72.7	6.7 na
EBITDA Margin (%)	15.1	11.4	13.6	4.1	8.7	10.0
EBIT Margin (%)	7.4	3.4	5.6	-5.3	0.3	1.6
Payout ratio (%)	56.4	0.0	nm	nm	nm	28.6
ROE (%)	2.0	0.0	-7.1	-2.7	-0.6	0.9
Capex/sales (%)	21.2 2.7	15.5 1.9	13.9	10.6	9.9	10.0 1.2
	2.1	1.9	1.7	1.1	1.2	
Capex/depreciation (x) Net debt/equity (%)	5.5	6.3	10.5	9.1	10.7	8.7
Net debt/equity (%) Net interest cover (x)	5.5 9.7	6.3 5.5	10.5 6.4	9.1 nm	10.7 0.2	8.7 1.5



ASSUMPTIONS		FY14	FY15	FY16e	FY17e	FY18e	FY19e	NPV to Impala (attbl basis)		er share	(%)
AR/USD		10.43	11.48	14.84	16.39	16.14	14.37	Impala Lease Area	4,677	7	13%
Platinum (US\$/oz)		1,432	1,248	936	923	960	1,140	Zimplats (49%)	11,470	9	32%
otal attributable tonnes milled	kt	FY14	FY15	FY16e	FY17e	FY18e	FY19e	Mimosa (49%)	2,253	2	6%
mpala Lease Area		6,183	9,199	11,000	11,200	11,800	12,400	Marula	(21)	(0)	0%
implats		5,939	5,164	6,200	6,200	6,200	6,200	Two Rivers	4,129	6	12%
Marula		1,794	1,662	1,800	1,818	1,836	1,855	IRS	12,123	19	34%
Aimosa (attributable)		1,227	1,293	1,300	1,300	1,300	1,300	Chrome Operations	895	1	3%
wo Rivers (attributable)		1,476	1,513	1,528	1,528	1,528	1,528	NPV Current Operations	35,526		100%
「otal		16,618	18,831	21,828	22,046	22,664	23,283			ala Lease	
verage Headgrade (5PGE+Au)	g/t	FY14	FY15	FY16e	FY17e	FY18e	FY19e			Area 13%	
mpala Lease Area		4.34	4.19	4.11	4.45	4.45	4.45	NPV split,		1370	
implats		3.47	3.47	3.47	3.46	3.46	3.48	attributable to Impala IRS			
Marula		4.19	4.19	4.27	4.25	4.25	4.25		Zimplats (4 32%	19%	
limosa (attributable)		3.92	3.93	3.89	3.93	3.93	3.93			7	
wo Rivers (attributable)		4.01	3.98	4.09	4.00	4.00	4.00	Tr		7	
Average Headgrade (5PGE+Au)		3.95	3.96	3.93	4.09	4.10	4.12	12	%		
Platinum Production	koz	FY14	FY15	FY16e	FY17e	FY18e	FY19e		Mim	osa (49%) 6%	
mpala Lease Area		411	575	626	710	750	790	Graph 1 - Production profile	to FY19e		
implats		240	190	260	260	260	261	1,700 ¬			
Marula		79	74	83 💆	84	85	85	1,500			
/limosa		110	117	118	120	120	120	70			
RS net		339	320	368	368	368	368	1,300 ·			
otal		1,178	1,276	1,456	1,541	1,582	1,624	ig 1,100 -			
verage cash cost per tonne milled	R/t	FY14	FY15	FY16e	FY17e	FY18e	FY19e	900			
npala Lease Area		1,465	1,493	1,305	1,377	1,398	1,422	(So 1,300 - 1,			
implats		540	707	770	879	883	801	500			
Marula		869	1,000	1,013	1,072	1,135	1,202	300	Se FY17e	FY18e	FY19
Mimosa		798	790	1,083	1,120	1,119	1,011				
wo Rivers		611	617	629	657	687	718	■Impala Lease Area ■Zimplats	■Marula	■Mimosa	■IRSnet
Average group cash cost per refined	R/oz	FY14	FY15	FY16e	FY17e	FY18e	FY19e	Graph 2 - Cash Cost per Re	fined ounce		
latinum oz (Excluding SBP)								20.000 -			
mpala Lease Area		22,036	23,884	23,099	21,724	21,995	22,315	30,000			
implats		13,383	19,208	18,333	21,003	21,084	19,034	25,000		100	
Marula		19,860	22,582	21,887	23,284	24,654	26,105	S 20,000 ·			
/limosa		17,768	17,402	21,975	24,354	24,332	21,988	<u> </u>		ш	
Group		19,430	22,222	21,916	21,803	22,121	22,005	15,000			
APEX	Rm	FY14	FY15	FY16e	FY17e	FY18e	FY19e	10,000 -			
mpala Lease Area		2,823	3,047	2,770	2,760	3,060	2,094	5,000			
implats		1,226	968	827	1,090	1,095	994	_,,,,,			
Marula		159	145	90	156	167	178	- FY14 FY15 F	Y16e FY17e	FY18e	FY19e
/limosa		175	172	236	264	264	239	■Impala Lease Area ■Zimplats	■Marula	⊪Mimosa	Group
Total Attributable Group Capex		4,345	4,287	3,923	4,271	4,585	3,505				

Source: Company data, Deutsche Bank estimates, DataStream



Northam, Hold, R35

Investment Thesis

Outlook

We believe Northam's share price reflects both the prospect of organic production growth and higher-than-spot Rand-PGM prices; which DB forecasts. Thus, despite a strong liquidity position and the potential for mechanized production growth at Booysendal, we see a fair balance of upside and downside risks to valuation. Northam's Booysendal mine, a mechanised operation on the Eastern Limb of the BIC, will be competitively placed on the industry cost-curve and has significant organic growth potential. 2016 is the first year of full production from the initial phase of this mine complex. Free cash flow should improve rapidly as project capex rolls off and production and prices increase in CY16, with Northam poised to increase low-cost ounces if PGM prices should rise further. We highlight dilutionary risk, however, from the cumulative preference shares, issued by Zambezi Platinum (Northam's BEE investor), which are guaranteed by Northam and due in May 2025. These are accruing cumulative preference dividends at a rate of prime plus 350bps and represent potential to dilute ordinary shareholders should Northam be required to redeem them/be called on its guarantee. With a positive operational outlook but premium valuation, we rate Northam a Hold.

Valuation

We value Northam on a sum-of-the-parts DCF basis using a WACC of 14% and applying a 1x DCF exit multiple to derive our target price. For CY16 we use a platinum price forecast of US\$940/ounce and a ZAR/USD forecast of 15.89.

Risks

Upside and downside risks for Northam include Rand-PGM prices and operational performance, considering the changes to the company's operating strategy, including: Zondereinde's increased UG2 mining, furnace upgrade, Booysendal North expansion, Booysendal Merenskyand Booysendal South projects. The company's ability to control operating and capital costs is also a source of upside and downside risk.



Northam: Changes to estimates

We have tweaked our Northam forecasts slightly and all forecast changes are in the low single-digit percentages.

Year ending June		FY16e	FY17e	FY18e
Group refined platinum sales	000oz	264	278	289
Previous		264	278	289
% chg		0.0%	0.0%	0.0%
Rand basket price (4E)*	R/4E oz	12,102	13,567	14,061
Previous		12,102	13,567	14,061
% chg		0.0%	0.0%	0.0%
Cash operating cost	R/4E oz	10,611	11,019	11,716
Previous		10,611	11,243	11,921
% chg		0.0%	-2.0%	-1.7%
Revenue	Rm	6,414	7,679	8,152
Previous		6,458	7,732	8,212
% chg		-0.7%	-0.7%	-0.7%
EBITDA	Rm	816	1,547	1,531
Previous		815	1,548	1,545
% chg		0.2%	-0.1%	-0.9%
Operating profit	Rm	393	1,080	1,013
Previous		391	1,081	1,027
% chg		0.3%	-0.1%	-1.4%
Headline earnings	Rm	-354	-22	-389
Previous		-354	-22	-379
% chg		-0.2%	0.7%	2.5%
Headline EPS	SAcps	-101	-6	-111
Previous		-101	-6	-108
% chg		-0.2%	0.7%	2.5%
Adjusted headline earnings	Rm	535	990	858
Adjusted headline earnings	SAcps	105	194	168
Previous		105	194	170
% chg		0.1%	0.0%	-1.1%
Cash from operations	Rm	1,043	1,409	1,319
Previous		1,035	1,414	1,331
% chg		0.7%	-0.4%	-0.9%
Capex	Rm	1,260	980	833
Previous		1,260	990	849
% chg		0.0%	-1.1%	-1.8%
Free cash flow	Rm	-248	430	486
Previous		-255	424	482
% chg		-3.0%	1.3%	0.8%
Net debt / (cash)	Rm	4,910	5,509	6,286
Previous		4,917	5,522	6,303
% chg		-0.2%	-0.2%	-0.3%



Model updated:07 June 2016	
Running the numbers	
Sub-Saharan Africa	
South Africa	
Platinum	

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II N	U	ľ	ш	a	ш

Reuters: NHMJ.J Bloomberg: NHM SJ

Hold

Price (7 Jun 16)	ZAR 44.25
Target Price	ZAR 35.00
52 Week range	ZAR 19.30 - 49.50
Market Cap (m)	ZARm 15,482
	USDm 1.039

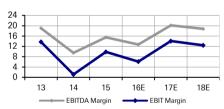
Company Profile

Northam Platinum owns and operates 100% of the Zondereinde mine on the Western Limb of the South African Bushveld Complex. Zondereinde has a steady-state capacity of 300k p.a. PGM (4E) ounces. 2016 is also the first calendar year of full production from the first phase of Booysendal North, a mechanised UG2 mine on the Eastern Limb. While the first phase will produce around 160kozpa PGM (4E) ounces; there is potential for higher production from 1) an expansion of Booysendal North; 2) a Merensky mine, and/or 3) Booysendal South...

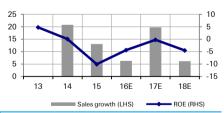
Price Performance



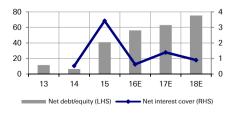
Margin Trends



Growth & Profitability



Solvency



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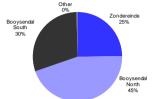
Fiscal year end 30-Jun	2013	2014	2015	2016E	2017E	2018E
Financial Summary						
DB EPS (ZAR)	1.36	0.02	-2.03	-1.01	-0.06	-1.11
Reported EPS (ZAR)	1.32	0.02	-2.64	-1.13	-0.06	-1.11
DPS (ZAR)	0.00	0.00	0.00	0.00	0.00	0.00
BVPS (ZAR)	28.2	29.1	23.5	25.2	25.2	24.0
Weighted average shares (m)	383	391	392	350	350	350
Average market cap (ZARm)	12,639	16,012	16,500	15,482	15,482	15,482
Enterprise value (ZARm)	13,406	16,272	19,993	20,186	20,779	21,550
Valuation Metrics	04.0					
P/E (DB) (x) P/E (Reported) (x)	24.2 25.0	nm nm	nm nm	nm nm	nm nm	nm nm
P/BV (x)	1.13	1.56	1.71	1.75	1.76	1.84
FCF Yield (%)	nm	nm	nm	nm	2.8	3.1
Dividend Yield (%)	0.0	0.0	0.0	0.0	0.0	0.0
EV/Sales (x)	3.0	3.0	3.3	3.1	2.7	2.6
EV/Sales (x) EV/EBITDA (x)	15.9	32.1	21.4	24.7	13.4	14.1
EV/EBIT (x)	22.1	264.7	33.6	51.4	19.2	21.3
Income Statement (7A Dec)						
Income Statement (ZARm)	4 404	E 000	6 000	C 414	7.070	0.454
Sales revenue Gross profit	4,421 842	5,339 507	6,036 936	6,414 816	7,679 1,547	8,152 1,531
EBITDA	842	507	936	816	1,547	1,53
Depreciation	235	446	340	423	467	518
Amortisation	0	0	0	0	0	
EBIT	608	61 -116	596 -174	393	1,080	1,013 -1,127
Net interest income(expense) Associates/affiliates	15 14	-116	-174 29	-629 5	-775 6	-1,12
Exceptionals/extraordinaries	0	0	-1,551	0	0	(
Other pre-tax income/(expense)	60	97	232	76	53	53
Profit before tax	697	46	-868	-156	363	-58
Income tax expense	169 23	26 10	166 2	239 0	385 0	334
Minorities Other post-tax income/(expense)	0	0	0	0	0	(
Net profit	505	9	-1,036	-395	-22	-389
DB adjustments (including dilution)	17	-1	241	41	0	C
DB Net profit	522	9	-795	-354	-22	-389
Cash Flow (ZARm)						
Cash flow from operations	400	709	196	1,014	1,409	1,319
Net Capex	-1,743	-894	-1,098	-1,260	-980	-833
Free cash flow	-1,342	-185	-901	-246	430	486
Equity raised/(bought back)	2	579	0	0	0	(
Dividends paid	-22 1,516	-11 -134	-4 4,596	0 -1,372	0	(
Net inc/(dec) in borrowings Other investing/financing cash flows	39	118	-218	-1,372	0	(
Net cash flow	194	367	3,472	-1,649	430	486
Change in working capital	-281	271	-221	46	-59	-67
Balance Sheet (ZARm)						
Cash and other liquid assets	299	666	4,138	2,489	2,919	3,405
Tangible fixed assets	11,931	11,940	12,702	13,537	14,049	14,364
Goodwill/intangible assets	0	0	0	0	0	(
Associates/investments	495	497	276	248	253	259
Other assets	1,633	1,638	2,035	1,888	2,108	2,23
Total assets Interest bearing debt	14,358 1,551	14,741 1,418	19,151 7,906	18,16 <u>2</u> 7,441	19,330 8,469	20,264 9,732
Other liabilities	1,991	1,931	2,028	1,899	2,060	2,12
Total liabilities	3,542	3,349	9,935	9,340	10,530	11,85
Shareholders' equity	10,806	11,386	9,216	8,822	8,800	8,41
Minorities Total shareholders' equity	10 10,816	5 11,392	0 216	9 922 9 922	8 800 0	Q /11
Net debt	10,816 1,253	752	9,216 <i>3,768</i>	8,822 <i>4,952</i>	8,800 <i>5,551</i>	8,411 <i>6,328</i>
		-		• •		y
Key Company Metrics			,			_
Sales growth (%)	nm	20.8	13.0	6.3	19.7	1 600
DB EPS growth (%) EBITDA Margin (%)	na 19.1	-98.4 9.5	na 15.5	50.2 12.7	93.9 20.1	-1,689. 18.
EBIT Margin (%)	13.7	1.2	9.9	6.1	14.1	12.
Payout ratio (%)	0.0	0.0	nm	nm	nm	nn
ROE (%)	4.8	0.1	-10.1	-4.4	-0.2	-4.
Capex/sales (%)	39.5	16.8	18.3	19.6	12.8	10.:
Capex/depreciation (x) Net debt/equity (%)	7.4 11.6	2.0 6.6	3.2 40.9	3.0 56.1	2.1 63.1	1.6 75.2
Net interest cover (x)	nm	0.5	3.4	0.6	1.4	0.9
	11111	0.5	5.4	0.0	1.4	0

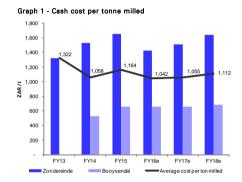
Source: Company data, Deutsche Bank estimates

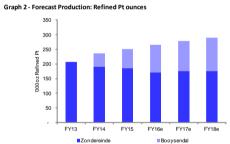


NORTHAM OPERATIONAL SUMMARY DA	ATA			J	IUNE YE	AR END		
ASSUMPTIONS		,	FY13	FY14	FY15	FY16e	FY17e	FY18e
ZAR/USD		ŀ	8.90	10.43	11.48	14.84	16.39	16.14
Platinum (US\$/oz)		•	1,552	1,432	1,248	936	923	960
Total tonnes milled	kt	•	FY13 [*]	FY14 [*]	FY15 [FY16e	FY17e	FY18e
Zondereinde		•	2,116	1,724	1,860	2,110	2,170	2,170
Booysendal		r	nm	1,517	1,786	2,111	2,500	2,650
Total			2,116	3,241	3,647	4,221	4,670	4,820
Average Headgrade (4E)	g/t	•	FY13 [*]	FY14	FY15 [*]	FY16e	FY17e	FY18e
Zondereinde		•	4.9	5.0	4.9	4.9	4.8	4.8
Booysendal		,	nm	2.6	2.6	2.7	2.7	2.7
Average		•	4.9	3.9	3.8	3.8	3.7 "	3.6
Platinum refined	koz	•	FY13 [*]	FY14	FY15 *	FY16e	FY17e	FY18e
Zondereinde			207	190	186	172	176	176
Booysendal		·	- 1	46	65	92	102	113
[*] Total		•	207	236	250 7	264	278	289
Zondereinde Production	kt	•	FY13 [*]	FY14 [*]	FY15 🕺	FY16e	FY17e	FY18e
MER tonnes milled		ŀ	958	804	796	870	870	870
UG2 tonnes milled		į.	1,158	920	1,064	1,240	1,300	1,300
Total			2,116	1,724	1,860 7	2,110	2,170	2,170
'UG2 as a % of total	%	•	54.7%	53.4%	57.2% 7	58.8%	59.9%	59.9%
Cash cost per tonne milled (incl conc. and smelt)	R/t	۲	FY13 [*]	FY14	FY15 *	FY16e ^r	FY17e	FY18e
Zondereinde		•	1,322	1,526	1,650	1,424	1,509	1,638
Booysendal		r	nm	527	658	661	661	681
Average cost per ton milled		•	1,322	1,058	1,164	1,042	1,055	1,112
Cash cost per 4E ounce	R / oz		FY13 [*]	FY14	FY15 *	FY16e	FY17e	FY18e
Zondereinde		•	10,508	12,270	12,643	11,298	11,996	13,007
Booysendal		_	_		11,169	9,337	9,403	9,703
Average		•	10,508	9,875	12,262	10,612	11,044	11,713
CAPEX	Rm	۲	FY13 [*]	FY14	FY15 *	FY16e	FY17e	FY18e
Zondereinde			350	361	303	732	680	480
Booysendal		r	1,500	540	799	528	300	353
Total		•	1,850	901	1,102	1,260	980 "	833

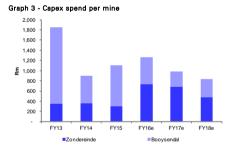








Source: Company data, Deutsche Bank estimates, DataStream





RBPlat, Hold, R42

Investment Thesis

Outlook

RBPlat is one of the best positioned producers in the industry: a net cash position, production is predominately high-margin Merensky, fully empowered in terms of South Africa's BEE requirements and enviable labour relations relative to the other producers. However, the low prices are weighing on RBPlat, and its low-cost high-margin project, Styldrift, is on slow-development given the low price environment. The project can deliver low-cost potential ounces when/if prices recover, however this may not be soon enough to offset production declines from BRPM South Shaft, nor is it fundable from only operational cash flows and the current environment is not conducive for tapping capital markets. In light of these factors and a fair valuation, we have a Hold rating for RBPlat.

Valuation

We value RBPlat using a DCF, using a WACC of 13% and applying a 1x DCF exit multiple to derive our target price. For CY16 we use a platinum price forecast of US\$940/ounce and a ZAR/USD forecast of 15.89.

Rieke

Upside/Downside risks include Rand-PGM prices, cost and capex control, particularly in light of the revised timeline for Styldrift; the timing of the delivery of Styldrift and/or the final Styldrift design; unit cost control at the Boschkoppie mine, particularly considering the upcoming South Shaft closure (c.1/3 of production scheduled to close in 2018). Downside risks include the availability of electrical-power as a result of delays to Eskom's substations being built which are critical to Styldrifts completion and/or load-curtailment as a result of electricity shortages in South Africa; concentrator performance as the sole existing concentrator is being upgraded while remaining fully operational.



RBPlat: Changes to estimates

Our medium-term financial forecasts for RBPlat have been negatively impacted by the delayed ramp-up of the Styldrift project. We have also delayed the timing of when the company stops capitalising revenue and costs for Styldrift and begins expensing these, however this is an estimation uncertainty. HEPS is impacted by these significant sources of financial uncertainty.

However, our assessment of the cost-advantage of a mechanised mine and the cost inflation it faces over the longer term has benefitted our longer-term valuation.

faces over the longer term has benefitted our longer-term

Production 5% lower in

FY18E on ramp-up of Styldrift

Yr ending December		FY16e	FY17e	FY18e
Pt metal in concentrate	000oz	206	229	239
Previous		200	226	252
% chg		2.9%	1.2%	-5.1%
Cash unit cost per Pt ounce (Boschkoppie only)	R/oz	14,867	15,999	17,286
Previous		15,790	16,404	16,864
% chg		-5.8%	-2.5%	2.5%
Revenues	Rm	3,667	3,889	3,919
Previous		4,007	3,786	5,717
% chg		-8.5%	2.7%	-31.4%
Gross profit	Rm	435	402	292
Previous		556	142	809
% chg		-21.7%	>100%	-63.9%
EBITDA	Rm	731	707	587
Previous		1,046	608	1,342
% chg		-30.1%	16.3%	-56.3%
Profit before tax	Rm	355	240	-55
Previous		506	21	429
% chg		-29.8%	>100%	<-100%
HEPS	Rps	0.91	0.60	-0.14
Previous		1.27	0.05	1.08
% chg		-28.3%	>100%	<-100%
Operating cash flow	Rm	666	651	687
Previous		824	610	1,126
% chg		-19.2%	6.6%	-39.0%
Сарех	Rm	1,258	1,625	1,763
Previous		1,198	1,882	1,889
% chg		5.0%	-13.6%	-6.7%
Free cash flow	Rm	-592	-975	-1,076
Previous		-374	-1,272	-764
% chg		-58.4%	23.4%	-41.0%
Net cash/(debt)	Rm	325	-649	-1,726
Previous		544	-728	-1,492
% chq		-40.2%	-10.8%	15.7%

Revenues impacted by delaying Styldrift's transition from a project (capitalising revenue and costs) to an operation (recognising revenue and costs in the income statement).



Model updated:07 June 2016	
Running the numbers	
Sub-Saharan Africa	
South Africa	_
Platinum	_

RBPlat

Reuters: RBPJ.J Bloomberg: RBP SJ

Hold

1	
Price (7 Jun 16)	ZAR 43.01
Target Price	ZAR 42.00
52 Week range	ZAR 22.35 - 54.00
Market Cap (m)	ZARm 8,240
	USDm 553

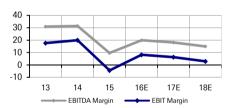
Company Profile

RBPlat is a black-owned, -controlled and -managed midter platinum group metals producer. RBPlat owns 67% of the BRPM joint venture mine, with JV partner, Amplats. The BRPM JV is a well-established, shallow Merensky reef producer on the Western Limb of the Bushveld Complex. The company's strategy is to achieve operational excellence from its operating assets, to deliver organic growth from its Styldrift project, and to pursue selective M&A.

Price Performance



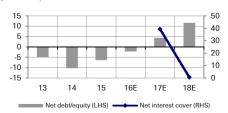
Margin Trends



Growth & Profitability



Solvency



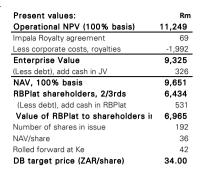
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Fiscal year end 31-Dec	2013	2014	2015	2016E	2017E	2018E
Financial Summary						
DB EPS (ZAR)	1.73	2.38	-0.83	0.87	0.60	-0.14
Reported EPS (ZAR)	1.73	2.38	-15.89	0.87	0.60	-0.14
DPS (ZAR)	0.00	0.00	0.00	0.00	0.00	0.00
BVPS (ZAR)	72.2	75.3	57.0	57.9	58.5	58.4
Weighted average shares (m)	164	185	192	192	192	192
Average market cap (ZARm)	9,152	12,091	7,969	8,240	8,240	8,240
Enterprise value (ZARm)	12,507	14,513	10,616	11,565	12,597	13,660
Valuation Metrics						
P/E (DB) (x)	32.3	27.5 27.5	nm	49.2	71.3	nm
P/E (Reported) (x) P/BV (x)	32.2 0.82	27.5 0.70	nm 0.47	49. <u>2</u> 0.74	71.3 0.74	nm 0.74
FCF Yield (%) Dividend Yield (%)	nm 0.0	nm 0.0	nm 0.0	nm 0.0	nm 0.0	nm 0.0
EV/Sales (x) EV/EBITDA (x)	3.8 12.4	3.9 12.2	3.5 36.1	3. <u>2</u> 15.8	3. <u>2</u> 17.8	3.5 23.3
EV/EBIT (x)	21.8	19.3	nm	38.5	51.2	120.3
Income Statement (ZARm)						
Sales revenue	3,251	3,768	3,045	3,667	3,889	3,919
Gross profit	1,035	1,300	389	866	864	765
EBITDA	1,007	1,188	294	731	707	587
Depreciation	372	370	367	368	394	405
Amortisation	61	65	62	62	67	69
EBIT	574	753 91	-135 81	301 55	246 -6	114
Net interest income(expense) Associates/affiliates	39 0	0	0	0	-6 0	-169 0
Exceptionals/extraordinaries	0	0	-4,466	0	0	0
Other pre-tax income/(expense)	0	0	0	0	0	0
Profit before tax	613	845	-4,520	355	240	-55
Income tax expense	165	246	-753	102	67	-15
Minorities	164	158	-722	86	57 0	-13
Other post-tax income/(expense) Net profit	0 284	0 441	0 -3,045	0 167	116	0 -27
·					0	
DB adjustments (including dilution) DB Net profit	0 284	0 441	2,885 -160	0 167	116	0 -27
Cash Flow (ZARm)						
Cash flow from operations	908	1,427	619	666	651	687
Net Capex	-1,036	-1,676	-2,018	-1,258	-1,625	-1,763
Free cash flow	-129	-249	-1,399	-592	-975	-1,076
Equity raised/(bought back)	0	1,479	0	0	0	0
Dividends paid Net inc/(dec) in borrowings	0	0	0	0	0 750	0 3,000
Other investing/financing cash flows	252	-138	452	0	0	3,000
Net cash flow	123	1,091	-947	-592	-225	1,924
Change in working capital	-134	50	612	-102	-24	295
Balance Sheet (ZARm)						
Cash and other liquid assets	773	1,864	918	325	101	2,024
Tangible fixed assets	9,621	10,890	10,130	11,020	12,251	13,609
Goodwill/intangible assets	8,966	8,907	6,744	6,682	6,615	6,546
Associates/investments	0	0	0	0	0	0
Other assets	1,458	1,843	1,968	2,279	2,384	2,099
Total assets	20,818	23,504	19,759	20,306	21,351	24,279
Interest bearing debt Other liabilities	0 4,831	0 5,308	0 5,275	0 5,561	750 5,682	3,750 5,650
Total liabilities	4,831	5,308	5,275	5,561	6,432	9,400
Shareholders' equity	11,858	13,910	10,920	11,096	11,211	11,185
Minorities	4,128	4,286	3,564	3,650	3,707	3,694
Total shareholders' equity	15,986	18,196	14,484	14,746	14,918	14,879
Net debt	-773	-1,864	-918	-325	649	1,726
Key Company Metrics						
Sales growth (%)	nm	15.9	-19.2	20.4	6.1	8.0
DB EPS growth (%)	na	37.9	na	na	-30.9	na
EBITDA Margin (%)	31.0	31.5	9.7	19.9	18.2	15.0
EBIT Margin (%)	17.6	20.0	-4.4	8.2	6.3	2.9
Payout ratio (%) ROE (%)	0.0 2.4	0.0 3.4	nm -24.5	0.0 1.5	0.0 1.0	nm -0.2
Capex/sales (%)	31.9	3.4 44.5	-24.5 66.3	34.3	41.8	-0.2 45.0
Capex/depreciation (x)	2.4	3.9	4.7	2.9	3.5	3.7
Net debt/equity (%)	-4.8	-10.2	-6.3	-2.2	4.4	11.6
Net interest cover (x)	nm	nm	nm	nm	39.3	0.7
rect interest dever (x)						

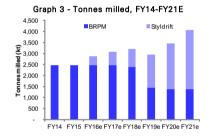


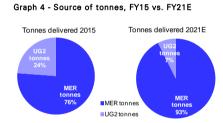
RBPLAT OPERATION	NAL SUMMARY		DECEMBER YEAR END	<u>15-21E</u>
ASSUMPTIONS	FY14	FY15 FY16	FY17e FY18e FY19e FY20	e FY21e <u>CAGR</u>
ZARUSD	10.87	12.94 15.93	16.77 15.38 13.36 13.1	1 14.63 2.1%
Platinum	US\$/oz 1,386	1,056 939	890 1,030 1,250 1,39	0 1,450 5.4%
Basket price per 4E oz		11,105 13,038	3 13,779 14,413 14,917 15,93:	2 18,661 9%
Basket price per Pt oz	R/Pt oz 19,842	17,256 20,152	21,297 22,276 23,055 24,62	4 2 8,842 9%
Tonnes milled, source:	kt FY14	FY15 FY16e	FY17e FY18e FY19e FY20e	FY21e
BRPM	2,479	2,461 2,461	2,478 2,388 1,438 1,38	0 1,380
Styldrift		400	600 810 1,522 2,08	0 2,700
Total tonnes milled	2,479		"3,078 "3,198 "2,960 "3,460	
Pt in concentrate	koz FY14	FY15 FY16e	FY17e FY18e FY19e FY20e	"FY21e
BRPM	190			1 101
Styldrift		24		1 209
Total Pt in concentrate	" 190 "			3 10 10%
Cost metrics	FY14 ^F	FY15 FY16e	FY17e FY18e FY19e FY20e	FY21e
Cash operating costs	Rm 2,452	2,645 2,789	3,012 3,141 3,856 4,26	9 5,334 12%
ZAR / tonne milled	R/t 957	1,066 1,099	1,179 1,273 1,303 1,23	4 1,307 3%
ZAR / Pt oz			15,999 17,286 17,246 16,26	
			BRPM only incl. Styldrift	
CAPEX	Rm FY14 F	FY15 FY16e	FY17e FY18e FY19e FY20e	FY21e
SIB	154	112 108		
Replacement & expansion	1,569	1,897 1,150	1,450 1,550 1,500 1,00	
Total Capex	1,724	2,009 1,258	1,625 1,763 1,868 1,414	533 -20%











Replacement & expansion 2,000 R 1,500 Capex, 1,000

FY14 FY15 FY16e FY17e FY18e FY19e FY20e FY21e

Graph 2 - Capex FY14 to FY21e

Source: Company data, Deutsche Bank estimates, DataStream



Sibanye, Hold, R40

Investment Thesis

Outlook

Sibanye is making significant free cash flow in 2016 at current Rand-Gold prices, on our estimates. In a strong signal of its view on its cash-generation ability, it declared a higher-than-policy dividend for the FY15 year. It is making the most of the higher Rand-Gold prices to re-invest in existing operations, increasing capex to extend the life of Kloof and Driefontein (deepening projects) and is going ahead with the Burnstone project. In platinum, the acquisitions it is making (Aquarius, 1H16; and Rustenburg, expected end CY16), provide entry into an industry where we see attractive longer term fundamentals and forecast rising Rand-PGM-prices. Sibanye, with a relatively strong balance sheet and cash inflows from gold, is in a unique position to weather the current low Rand-PGM-prices and sustain/grow its position in the platinum sector. We see a balance of upside/downside risks at the current share price: Hold.

Valuation

We derive our target price from a life-of-mine DCF model, using a WACC of 11% and applying a 1x exit multiple to our NAV. For CY16 we use a gold price forecast of US\$1,195/ounce; a platinum price forecast of US\$940/oz; and a ZAR/USD forecast of 15.89. (Rand-Gold price of c.R612,000 per kilogram).

Risks

Upside/downside risks include: substantially different cash flows from base case estimates as a result of further corporate action and/or investments in projects in the pipeline; Rand and PGM-prices different to forecasts; entry into new commodity-production markets (such as coal) also poses both an upside and downside risk to valuation. Downside risks exist from production interruptions from safety incidents and labour relations unrest.



Sibanye: Changes to estimates

We have tweaked our operational forecast for Sibanye. Earnings are impacted by a greater extent owing to us adjusting our forecast tax rate lower. The effective tax rate was 36% in 2014 and 41% in 2015 owing to non-deductible expenses which we do not model in future.

Year end December		2016e	2017e	2018e
Gold Production	koz	1,610	1.579	1,540
Previous		1,613	1,583	1,544
% chg		-0.2%	-0.2%	-0.3%
Rand gold price	R/kg	612,206	663,884	630,255
Cash costs gold	R/kg	358,144	378,781	390,388
Previous		351,027	370,994	380,354
% chg		2.0%	2.1%	2.6%
All in sustaining costs, Gold	R/kg	425,919	458,352	475,982
Previous		421,107	449,845	464,739
% chg		1.1%	1.9%	2.4%
Revenue	Rm	32,233	46,475	45,494
- Gold		30,273	32,608	30,710
- Platinum		1,960	13,867	14,784
Previous		32,007	45,089	43,242
% chg		0.7%	3.1%	5.2%
EBITDA	Rm	13,030	15,912	14,093
- Gold		12,946	14,731	12,878
- Platinum		83	1,181	1,216
Previous		13,837	16,095	13,373
% chg		-5.8%	-1.1%	5.4%
HEPS	R/share	4.96	6.15	5.30
Previous		4.77	5.33	4.05
% chg		4.0%	15.4%	30.8%
DPS	R/share	1.24	1.54	1.33
Previous		1.43	1.60	1.22
% chg		-13.3%	-3.8%	9.0%
Free cash flow	Rm	5,214	4,405	4,339
Previous		4,667	3,415	3,076
% chg		11.7%	29.0%	41.1%
Net debt/(cash)	Rm	3,018	(1,615)	(4,909)
Previous		3,652	125	-1,830
% chg		-17.4%	<-100%	>100%



Model updated:08 June 2016	
Running the numbers	
Sub-Saharan Africa	
South Africa	
Mining	
Sibanye Gold	

the state of the s	
Reuters: SGLJ.J	Bloomberg: SGL S

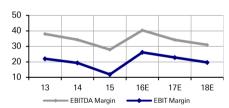
Hold	
Price (7 Jun 16)	ZAR 47.00
Target Price	ZAR 40.00
52 Week range	ZAR 13.66 - 61.20
Market Cap (m)	ZARm 43,059
	USDm 2,890

Company Profile

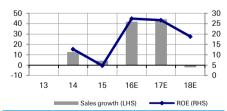
Sibanye Gold owns and operates underground gold mines in South Africa - Kloof, Driefontein, Beatrix (which were previously wholly owned by Gold Fields Limited) and the acquired Cooke operations. Sibanye also has potential production in the Burnstone mine, through acquiring Wits Gold in 2014.

Price Performance 70 60 50 40 30 20 10 Jun 14 Dec 14 Jun 15 Dec 15 —— Sibanye Gold —— FTSE/JSE ALL SHARE (Rebased)

Margin Trends



Growth & Profitability



Solvency



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Fiscal year end 31-Dec	2013	2014	2015	2016E	2017E	2018E
Financial Summary						
DB EPS (ZAR)	2.15	1.70	0.74	4.96	6.15	5.30
DB EPS (ZAR) Reported EPS (ZAR)	3.15 2.30	1.70	0.74	4.96	6.15	5.30
DPS (ZAR)	1.12	1.12	1.00	1.24	1.54	1.33
BVPS (ZAR)	12.8	16.7	16.4	19.8	26.3	30.1
Weighted average shares (m)	734	836	912	916	916	916
Average market cap (ZARm)	8,128	19,430	20,495	43,059	43,059	43,059
Enterprise value (ZARm)	8,114	21,742	23,414	45,754	40,961	37,550
	,	•		-, -	.,	
Valuation Metrics P/E (DB) (x)	3.5	13.7	30.4	9.5	7.6	8.9
P/E (Reported) (x)	4.8	12.5	28.6	9.5	7.6	8.9
P/BV (x)	0.96	1.35	1.40	2.37	1.79	1.56
FCF Yield (%)	46.1	9.4	4.4	12.1	10.2	10.1
Dividend Yield (%)	10.1	4.8	4.5	2.6	3.3	2.8
EV/Sales (x) EV/EBITDA (x)	0.4 1.1	1.0 2.9	1.0 3.7	1.4 3.5	0.9 2.6	0.8 2.7
EV/EBIT (x)	1.9	5.2	8.7	5.4	3.9	4.2
Income Statement (ZARm)	10.001	04 704	00.717	00.000	40 475	45 40
Sales revenue	19,331	21,781	22,717	32,233	46,475	45,494
Gross profit EBITDA	7,358 7,358	7,469 7,469	6,337 6,337	13,030 13,030	15,912 15,912	14,093 14,093
Depreciation	3,104	3,255	3,637	4,586	5.315	5,170
Amortisation	0	0	0	0	0	0,.,
EBIT	4,254	4,214	2,700	8,444	10,597	8,924
Net interest income(expense)	-420	-400	-562	-380	-747	-747
Associates/affiliates	52	-471	116	158	160	117
Exceptionals/extraordinaries	-1,294	-63	-230	-105	0	0
Other pre-tax income/(expense)	-636	-945	-1,109	-1,091	-1,283	-802
Profit before tax Income tax expense	1,955 256	2,335 828	915 377	7,026 2,459	8,727 3,055	7,492 2,622
Minorities	6	-45	-179	2,459	40	2,022
Other post-tax income/(expense)	0	0	-173	0	0	0
Net profit	1,692	1,552	717	4,544	5,633	4,856
DB adjustments (including dilution)	617	-134	-42	0	0	0
DB Net profit	2,310	1,418	675	4,544	5,633	4,856
Cash Flow (ZARm)						
Cash flow from operations	6,632	5,058	4,174	9,413	10,514	9,901
Net Capex	-2,889	-3,228	-3,280	-4,200	-6,110	-5,562
Free cash flow	3,744	1,830	894	5,214	4,405	4,339
Equity raised/(bought back)	17,246	0	0	0	1,500	0
Dividends paid	-272	-1,005	-658	-1,392	-1,272	-1,311
Net inc/(dec) in borrowings	-19,328	-673	-21	3,668	0	0
Other investing/financing cash flows Net cash flow	-189 1,201	-1,081 -930	-60 155	-3,753 3,736	0 4,633	267 3,294
Change in working capital	569	215	-668	3,730	-335	-46
		2.0				
Balance Sheet (ZARm) Cash and other liquid assets	1,492	563	717	4,453	9,086	12,380
Tangible fixed assets	15,151	22,704	22,132	25,478	26,250	26,352
Goodwill/intangible assets	0	737	737	737	737	737
Associates/investments	515	295	168	322	482	599
Other assets	2,837	3,623	4,512	5,270	6,535	6,479
Total assets	19,995	27,922	28,266	36,260	43,090	46,547
nterest bearing debt	1,991	3,170	3,804	7,471	7,471	7,471
Other liabilities	8,581	9,766	9,477	10,633	11,563	11,461
Total liabilities Shareholders' equity	10,572	12,936	13,281	18,104	19,034	18,932
Snareholders equity Minorities	9,421 2	14,986 0	14,985 0	18,159 0	24,060 0	27,619 0
Fotal shareholders' equity	9,423	14,986	14,985	18,159	24,060	27,619
Vet debt	499	2,607	3,086	3,018	-1,615	-4,909
Key Company Metrics						
Sales growth (%)	nm	12.7	4.3	41.9	44.2	-2.1
DB EPS growth (%)	na	-46.1	-56.4	570.5	24.0	-13.8
EBITDA Margin (%)	38.1	34.3	27.9	40.4	34.2	31.0
EBIT Margin (%)	22.0	19.3	11.9	26.2	22.8	19.6
Payout ratio (%)	48.6	60.3	127.2	25.0	25.0	25.0
ROE (%)	nm	12.7	4.8	27.4	26.7	18.8
Capex/sales (%)	15.0	14.9	14.7	13.0	13.1	12.2
Capex/depreciation (x)	0.9	1.0	0.9	0.9	1.1	1.1
Net debt/equity (%)	5.3	17.4	20.6	16.6	-6.7	-17.8
Net interest cover (x)	10.1	10.5	4.8	22.2	14.2	11.9



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SIBANYE GOLD OPERATIONAL SUMMARY ASSUMPTIONS	DECEMBER YEAR FY15A	FY16e	FY17e	FY18e	FY19e		NPV Rm R/Sh
ZARUSD	12.94	15.93	16.77	15.38	13.36	4-yr CAGR	NPV of Gold 31,607 35
Gold (US\$/oz)	1,161	1,195	1,231	1,275	1,317	4 71 0/1011	Rustenburg platinum 1,738 2
Rand-Gold (Rand per kilogram)	482,931	612,206	663,884	630,255	565,452		AQP FV-purchase 615 1
· -						(2015 - 2019)	Net Debt/(cash) 3,018 3
Gold PRODUCTION, tonnes milled	FY15A	FY16e	FY17e	FY18e	FY19e		Equity Value 30,941 34
Driefontein	5,772	6,166	2,700	2,700	2,700		No. of shares 909
Kloof	3,977	4,205	4,168	4,168	4,168		Value per share 34
Beatrix	4,319	4,126	4,336	4,336	3,933		Ke 13.0%
Cooke	5,793	5,972	2,021	1,250	950		FY1 Divi yield 1.2
Total group	19,861	20,470	13,225	12,454	11,751	-12.3%	
Average grade g/t	FY15A	FY16e	FY17e	FY18e	FY19e		Target Price 37
Average grade, g/t Driefontein	3.0	2.8	6.5	6.5	6.5		
Kloof	3.5	3.7	3.8	3.8	3.8		Graph 1 - Tonnes and grade profile to FY27e
Beatrix	2.3	2.4	2.2	2.2	2.2		Graph 1 Tollinos and grado profile to 1 1270
Cooke	1.1	1.2	3.0	3.9	3.9		25,000
Total group	2.4	2.4	3.7	3.8	3.9	12.9%	20,000 ,5.0
							,4.0
PRODUCTION, gold koz	FY15A	FY16e	FY17e	FY18e	FY19e		15,000
Driefontein	558	558	565	565	565	3	10,000
Kloof Beatrix	452 325	498 324	510 309	510 309	510 282		,2.0
Cooke	201	230	195	155	118		5,000 ,1.0
Total group	1,536	1,610	1,579	1,540	1,475	-1.0%	
Total Broad	1,000	1,010	1,078	1,040	1,470	-1.076	PY14A PY156 PY166 PY166 PY166 PY266 PY266 PY266 PY266 PY266
TOTAL CASH COSTS, \$/oz	FY15A	FY16e	FY17e	FY18e	FY19e		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Driefontein	756	649	657	748	894		Driefontein Kloof Beatrix
Kloof	837	670	663	755	901		Cooke Yield (g/t)
Beatrix	819	754	756	860	1,029		
Cooke	1,141	904	851	916	971		
Weighted average	843	713	702	790	928	2.4%	Graph 2 - Production profile to FY27e
TOTAL ALL-IN COSTS, \$/oz	FY15A	FY16e	FY17e	FY18e	FY19e		1,800
Driefontein	912	775	785	896	1,074		1,600
Kloof	1,051	817	844	964	1,156		1,400
Beatrix	982	890	887	1,011	1,215		1,200
Cooke	1,309	1,005	953	1,043	1,143		§ .800
Weighted average	1,035	870	893	1,014	1,164	3.0%	,600
		=144					,400
TOTAL CAPEX, Rm Driefontein	FY15A 994	FY16e 1129	FY17e 1218	FY18e 1291	FY19e 1368		,200
Kloof	1130	1042	1480	1569	1665		Here the tree to the tree too too to the tree tree to the tree to the
							AN A
	597			644	620		* * * * * * * * * * * * * * * * * * * *
Beatrix	597 337	593 240	610 211	644 167	620 119		■ Driefontein ■ Kloof ■ Beatrix ■ Cooke
	597 337 3,058	593	610	644 167 3,672		5.4%	■ Driefontein ■ Kloof ■ Beatrix ■ Cooke
Beatrix Cooke Total group	337 3,058	593 240 3,004	610 211 3,518	167 3,672	119 3,772		
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices	337 3,058 FY15A	593 240 3,004 FY16e	610 211 3,518 FY17e	167 3,672 FY18e	119 3,772 FY19e	FY20e	■ Driefontein ■ Kloof ■ Beatrix ■ Cooke
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram)	337 3,058 FY15A 482,931	593 240 3,004 FY16e 612,206	610 211 3,518 FY17e 663,884	167 3,672 FY18e 630,255	119 3,772 FY19e 565,452	FY20e 572,766	■ Driefontein ■ Kloof ■ Beatrix ■ Cooke Graph 3 - Cash cost profile to FY25e 3,500
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices	337 3,058 FY15A	593 240 3,004 FY16e	610 211 3,518 FY17e	167 3,672 FY18e	119 3,772 FY19e	FY20e	■ Driefontein ■ Kloof ■ Beatrix ■ Cooke Graph 3 - Cash cost profile to FY25e
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue	337 3,058 FY15A 482,931 22,717	593 240 3,004 FY16e 612,206 32,233	610 211 3,518 FY17e 663,884 46,475	167 3,672 FY18e 630,255 45,494	119 3,772 FY19e 565,452 44,724	FY20e 572,766 43,742	■ Driefontein ■ Kloof ■ Beatrix ■ Cooke Graph 3 - Cash cost profile to FY25e 3,500 3,000 2,500
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold	337 3,058 FY15A 482,931 22,717	593 240 3,004 FY16e 612,206 32,233 30,273	610 211 3,518 FY17e 663,884 46,475 32,608	167 3,672 FY18e 630,255 45,494 30,710	119 3,772 FY19e 565,452 44,724 26,995	FY20e 572,766 43,742 24,511	■ Driefontein ■ Kloof ■ Beatrix ■ Cooke Graph 3 - Cash cost profile to FY25e 3,500 3,000 2,500
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum	337 3,058 FY15A 482,931 22,717 22,717	593 240 3,004 FY16e 612,206 32,233 30,273 1,960	610 211 3,518 FY17e 663,884 46,475 32,608 13,867	167 3,672 FY18e 630,255 45,494 30,710 14,784	119 3,772 FY19e 565,452 44,724 26,995 17,729	FY20e 572,766 43,742 24,511 19,231	☐ Driefontein ☐ Kloof ☐ Beatrix ☐ Cooke Graph 3 - Cash cost profile to FY25e 3,500 2,500 2,500 ☐ 2,000
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216	119 3,772 FY19e 565,452 44,724 26,995 17,729 11,340 9,604 1,736	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085	☐ Driefontein ☐ Kloof ☐ Beatrix ☐ Cooke Graph 3 - Cash cost profile to FY25e 3,500 2,500 2,500 ☐ 2,000
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold	337 3,058 FY15A 482,931 22,717 22,717	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878	119 3,772 FY19e 565,452 44,724 26,995 17,729 11,340 9,604	FY20e 572,766 43,742 24,511 19,231 11,326 9,241	☐ Driefontein ☐ Kloof ☐ Beatrix ☐ Cooke Graph 3 - Cash cost profile to FY25e 3,500 2,500 2,500 ☐ 2,000
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40%	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34%	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 31%	119 3,772 FY19e 585,452 44,724 26,995 17,729 11,340 9,604 1,736 25%	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26%	☐ Driefontein ☐ Kloof ☐ Beatrix ☐ Cooke Graph 3 - Cash cost profile to FY25e 3,500 2,500 2,500 2,500 2,000 2,000
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin Capex	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337 28% (3,345)	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40% (4,200)	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110)	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 31% (5,562)	119 3,772 FY19e 565,452 44,724 26,995 17,729 11,340 9,604 1,736 25%	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339)	Graph 3 - Cash cost profile to FY25e 3,500 2,500 2,500 1,000 1,000
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40%	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34%	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 31%	119 3,772 FY19e 585,452 44,724 26,995 17,729 11,340 9,604 1,736 25%	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26%	Graph 3 - Cash cost profile to FY25e 3,500 2,500 2,500 1,000 500
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin Capex - Gold	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337 28% (3,345) (3,567)	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 12,946 83 40% (4,200) (3,857) (342)	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686)	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 31% (5,562) (3,709) (1,853)	119 3,772 FY19e 565,452 44,724 26,995 17,729 11,340 9,604 1,736 25% (5,716) (3,846) (1,870)	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339) (3,432) (1,907)	Graph 3 - Cash cost profile to FY25e 3,500 2,500 2,500 1,000 0
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin Capex - Gold - Platinum	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337 6,337 28% (3,345) (3,567)	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40% (4,200) (3,857) (342)	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686)	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 37 % (5,562) (3,709) (1,853)	119 3,772 FY19e 565,452 44,724 26,995 17,729 11,340 9,604 1,736 26% (5,716) (3,846) (1,870)	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339) (3,432) (1,907)	Graph 3 - Cash cost profile to FY25e 3,500 2,500 2,500 1,000 0
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin Capex - Gold - Platinum Free cash flow Net debt/(cash)	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337 28% (3,345) (3,567)	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40% (4,200) (3,857) (342)	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686)	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 31% (5,562) (3,709) (1,853)	119 3,772 FY19e 585,452 44,724 26,995 17,729 11,340 9,604 1,736 25% (5,716) (3,846) (1,870)	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339) (3,432) (1,907) 2,879 (8,788)	Graph 3 - Cash cost profile to FY25e 3,500 2,500 2,500 1,000 500 1,000 500 1,000 1,
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin Capex - Gold - Flatinum Capex - Gold - Flatinum Free cash flow Net debt/(cash) Normalised HEPS	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337 (3,345) (3,567)	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40% (4,200) (3,857) (342) 5,214 3,018 4,96	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686) 4,405 (1,615) 6,15	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 31% (5,562) (3,709) (1,853) 4,339 (4,909) 5,30	119 3,772 FY19s 565,452 44,724 26,995 17,729 11,340 9,604 1,736 25% (5,716) (3,846) (1,870) 2,598 (6,726) 3,84	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339) (3,432) (1,907) 2,979 (8,788) 4,18	Graph 3 - Cash cost profile to FY25e 3,500 2,500 2,500 1,000 0
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin Capex - Gold - Platinum Free cash flow Net debt/(cash)	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337 28% (3,345) (3,567)	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40% (4,200) (3,857) (342)	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686)	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 31% (5,562) (3,709) (1,853)	119 3,772 FY19e 585,452 44,724 26,995 17,729 11,340 9,604 1,736 25% (5,716) (3,846) (1,870)	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339) (3,432) (1,907) 2,879 (8,788)	Graph 3 - Cash cost profile to FY25e 3,500 3,000 2,500 1,000 1,000 500 0 Reference of the
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin Capex - Gold - Platinum Free cash flow Net debt/(cash) Normalised HEPS DPS	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337 (3,345) (3,567) 829 3,086 1.34 1.00	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40% (4,200) (3,857) (342) 5,214 3,018 4,96 1,24	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686) 4,405 (1,615) 6,15	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 37% (5,562) (3,709) (1,853) 4,339 (4,909) 5,30 1,33	119 3,772 FY19e 565,452 44,724 26,995 17,729 11,340 9,604 1,736 25% (5,716) (3,846) (1,870) 2,598 (6,726) 3,84 0,96	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339) (3,432) (1,907) 2,979 (8,788) 4.18 1.04	Graph 3 - Cash cost profile to FY25e 3,500 2,500 1,000 1,000 Driefontein Kloof Beatrix Cooke Cooke
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin Capex - Gold - Platinum Free cash flow Net debt/(cash) Normalised HEPS DPS SUMMARY FINANCIALS, Rm, SPOT	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337 3,345) (3,567) 829 3,086 1,34 1,00	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 12,946 83 40% (4,200) (3,857) (342) 5,214 3,018 4,96 1,24	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686) 4,405 (1,615) 6,15	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 31% (5,562) (3,709) (1,853) 4,339 (4,909) 5,30 1,333 FY18e	119 3,772 FY19e 565,452 44,724 26,995 17,729 11,340 9,604 1,736 25% (5,716) (3,846) (1,870) 2,598 (6,726) 3,84 0,96	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339) (3,432) (1,907) 2,979 (8,788) 4,18 1.04	Graph 3 - Cash cost profile to FY25e 3,500 2,500 2,500 1,000 500 1,000 500 1,000 1,
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin Capex - Gold - Platinum Free cash flow Net debt/(cash) Normalised HEPS DPS SUMMARY FINANCIALS, Rm, SPOT Revenue	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337 (3,345) (3,567) 829 3,086 1,34 1,00 FY15A 22,717	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40% (4,200) (3,857) (342) 5,214 3,018 4,96 1,24 FY16e 31,875	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686) 4,405 (1,615) 6.15 1.54	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 31% (5,562) (3,709) (1,853) 4,339 (4,909) 5,30 1,33	119 3,772 FY19e 585,452 44,724 26,995 17,729 11,340 9,604 1,736 25% (5,716) (3,846) (1,870) 2,598 (6,726) 3,84 0,96 FY19e 48,474	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339) (3,432) (1,907) 2,979 (8,788) 4,18 1,04 FY20e 47,365	Graph 3 - Cash cost profile to FY25e 3,500 2,500 2,500 1,000 1,000 500 Driefontein Rloof Beatrix Cooke
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin Capex - Gold - Platinum Free cash flow Net debt/(cash) Normalised HEPS DPS SUMMARY FINANCIALS, Rm, SPOT Revenue - Gold	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337 3,345) (3,567) 829 3,086 1,34 1,00	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40% (4,200) (3,857) (342) 5,214 3,018 4,96 1,24 FY16e 31,875 30,021	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686) 4,405 (1,615) 6,15 1,54	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 37% (5,562) (3,709) (1,853) 4,339 (4,909) 5,30 1,33 FY18e 45,445 30,880	119 3,772 FY19e 565,452 44,724 26,995 17,729 11,340 9,604 1,736 25% (5,716) (3,846) (1,870) 2,598 (6,726) 3,84 0,96 FY19e 48,474 31,010	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339) (3,432) (1,907) 2,979 (8,788) 4.18 1.04 FY20e 47,365 28,511	Graph 3 - Cash cost profile to FY25e 3,500 2,500 2,500 1,000 1,000 2,500 1,000 1,000 500 1,000 Craph 4 - Cashflow and margins to FY25e 9,000 9,000 4,000 50% 4,000 50% 50% 50% 4,000
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin Capex - Gold - Platinum Free cash flow Net debt/(cash) Normalised HEPS DPS SUMMARY FINANCIALS, Rm, SPOT Revenue	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337 (3,345) (3,567) 829 3,086 1,34 1,00 FY15A 22,717	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40% (4,200) (3,857) (342) 5,214 3,018 4,96 1,24 FY16e 31,875	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686) 4,405 (1,615) 6.15 1.54	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 31% (5,562) (3,709) (1,853) 4,339 (4,909) 5,30 1,33	119 3,772 FY19e 585,452 44,724 26,995 17,729 11,340 9,604 1,736 25% (5,716) (3,846) (1,870) 2,598 (6,726) 3,84 0,96 FY19e 48,474	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339) (3,432) (1,907) 2,979 (8,788) 4,18 1,04 FY20e 47,365	Graph 3 - Cash cost profile to FY25e 3,500 2,500 2,500 1,000 1,000 500 Driefontein Kloof Beatrix Cooke Graph 4 - Cashflow and margins to FY25e 9,000 8,00
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin Capex - Gold - Platinum Free cash flow Net debt/(cash) Normalised HEPS DPS SUMMARY FINANCIALS, Rm, SPOT Revenue - Gold - Platinum	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337 6,337 (3,345) (3,567) 829 3,086 1,34 1,00 FY15A 22,717 22,717	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40% (4,200) (3,857) (342) 5,214 3,018 4,96 1,24 FY16e 31,875 30,021 1,854	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686) 4,405 (1,615) 6,15 1,54 FY17e 43,912 30,218 13,695	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 31% (5,562) (3,709) (1,853) 4,339 (4,909) 5,30 1,33 FY18e 45,445 30,880 14,564	119 3,772 FY19e 565,452 44,724 26,995 17,729 11,340 9,604 1,736 25% (5,716) (3,846) (1,870) 2,598 (6,726) 3.84 0.96 FY19e 48,474 31,010 17,464	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339) (3,432) (1,907) 2,979 (8,788) 4,18 1,04 FY20e 47,365 28,511 18,854	Graph 3 - Cash cost profile to FY25e 3,500 2,500 2,500 1,000 500 Driefontein Kloof Beatrix Cooke Graph 4 - Cashflow and margins to FY25e
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA — Gold - Platinum EBITDA margin Capex - Gold - Platinum Free cash flow Normalised HEPS DPS SUMMARY FINANCIALS, Rm, SPOT Revenue - Gold - Platinum EBITDA - Gold - Platinum	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337 6,337 3,086 1,34 1,00 FY15A 22,717 22,717 22,717 6,337	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40% (4,200) (3,857) (342) 5,214 3,018 4,96 1,24 FY16e 31,875 30,021 1,854 12,672 12,694 (22)	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686) 4,405 (1,615) 6,15 1,54 FY17e 43,912 30,218 13,695 13,350 12,341 1,009	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 31% (5,562) (3,709) (1,853) 4,339 (4,909) 5,30 1,33 FY18e 45,445 30,880 14,564 14,045 13,049 996	119 3,772 FY19e 565,452 44,724 26,995 17,729 11,340 9,604 1,736 25% (5,716) (3,846) (1,870) 2,598 (6,726) 3.84 0.96 FY19e 48,474 31,010 17,464 15,090 13,619 1,471	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 (5,339) (3,432) (1,907) 2,979 (8,788) 4.18 1.04 FY20e 47,365 28,511 18,854 14,950 13,242 1,708	Graph 3 - Cash cost profile to FY25e 3,500 2,500 1,000 1,000 500 Driefontein Kloof Beatrix Cooke Graph 4 - Cashflow and margins to FY25e 9,000 8,000 6,000 6,000 6,000 2,500 1,00
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin Capex - Gold - Platinum Free cash flow Net debt/(cash) Normalised HEPS DPS SUMMARY FINANCIALS, Rm, SPOT Revenue - Gold - Platinum EBITDA - Gold - Platinum Free Cash flow Net debt/(cash) Normalised HEPS DPS	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337 (3,345) (3,567) 829 3,086 1,34 1,00 FY15A 22,717 22,717	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40% (4,200) (3,857) (342) 5,214 3,018 4,96 1,24 FY16e 31,875 30,021 1,854 12,672 12,694	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686) 4,405 (1,615) 6,15 1,54 FY17e 43,912 30,218 13,695 13,350 12,341	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 31% (5,562) (3,709) (1,853) 4,339 (4,909) 5,30 1,33 FY18e 45,445 30,880 14,564 14,045 13,049	119 3,772 FY19e 565,452 44,724 26,995 17,729 11,340 9,604 1,736 25% (5,716) (3,846) (1,870) 2,598 (6,726) 3,84 0,96 FY19e 48,474 31,010 17,464 15,090 13,619	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339) (3,432) (1,907) 2,979 (8,788) 4,18 1,04 FY20e 47,365 28,511 18,854 14,950 13,242	Graph 3 - Cash cost profile to FY25e 3,500 3,000 2,500 2,500 1,000 500 1,000 Triefontein Kloof Beatrix Cooke Graph 4 - Cashflow and margins to FY25e 9,000 7,000 4,00
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin Capex - Gold - Platinum Free cash flow Net debt/(cash) Normalised HEPS DPS SUMMARY FINANCIALS, Rm, SPOT Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA - Gold - Platinum	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337 6,337 (3,345) (3,567) 829 3,086 1,34 1,00 FY15A 22,717 22,717 6,337 6,337 6,337 6,337	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40% (4,200) (3,857) (342) 5,214 3,018 4,96 1,24 FY16e 31,875 30,021 1,854 12,672 12,694 (22) 40%	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686) 4,405 (1,615) 6,15 1,54 FY17e 43,912 30,218 13,695 13,350 12,341 1,009 30%	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 31% (5,562) (3,709) (1,853) 4,339 (4,909) 5,30 1,33 FY18e 45,445 30,880 14,564 14,045 13,049 996 31%	119 3,772 FY19e 565,452 44,724 26,995 17,729 11,340 9,604 1,736 25% (5,716) (3,846) (1,870) 2,598 (6,726) 3,84 0,96 FY19e 48,474 31,010 17,464 15,090 13,619 1,471 31%	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339) (3,432) (1,907) 2,979 (8,788) 4,18 1,04 FY20e 47,365 28,511 18,854 14,950 13,242 1,708 32%	Graph 3 - Cash cost profile to FY25e 3,500 2,500 2,500 1,000 2,500 1,000 Architecture the perfect and
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin Capex - Gold - Platinum Free cash flow Normalised HEPS DPS SUMMARY FINANCIALS, Rm, SPOT Revenue - Gold - Platinum EBITDA margin Capex	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337 6,337 3,086 1,34 1,00 FY15A 22,717 22,717 22,717 22,717 22,717 6,337 6,337 6,337 6,337	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40% (4,200) (3,857) (342) 5,214 3,018 4,96 1,24 FY16e 31,875 30,021 1,854 12,672 12,694 (4,196)	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686) 4,405 (1,615) 6,15 1,54 FY17e 43,912 30,218 13,695 13,350 12,341 1,009 30% (6,098)	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 37% (5,562) (3,709) (1,853) 4,339 (4,909) 5,30 1,33 FY18e 45,445 30,880 14,564 14,045 13,049 996 31% (5,562)	119 3,772 FY19e 565,452 44,724 26,995 17,729 11,340 9,604 1,736 25% (5,716) (3,846) (1,870) 2,598 (6,726) 3.84 0.96 FY19e 48,474 31,010 17,464 15,090 13,619 1,471 31% (5,733)	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339) (3,432) (1,907) 2,979 (8,788) 4.18 1.04 FY20e 47,365 28,511 18,854 14,950 13,242 1,708 32% (5,360)	Graph 3 - Cash cost profile to FY25e 3,500 3,000 2,500 1,000 1,000 500 Driefontein Kloof Beatrix Cooke Graph 4 - Cashflow and margins to FY25e 9,000 8,000 7,000 6,000 8,000 1,00
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA — Gold - Platinum EBITDA margin Capex - Gold - Platinum Free cash flow Normalised HEPS DPS SUMMARY FINANCIALS, Rm, SPOT Revenue - Gold - Platinum EBITDA - Gold - Platinum	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337 6,337 (3,345) (3,567) 829 3,086 1,34 1,00 FY15A 22,717 22,717 6,337 6,337 6,337 6,337	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40% (4,200) (3,857) (342) 5,214 3,018 4,96 1,24 FY16e 31,875 30,021 1,854 12,672 12,694 (4,196) (3,857)	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686) 4,405 (1,615) 6,15 1,54 FY17e 43,912 30,218 13,695 13,350 12,341 1,009 30% (6,098) (4,424)	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 31% (5,562) (3,709) (1,853) 4,339 (4,909) 5,30 1,33 FY18e 45,445 30,880 14,564 14,045 13,049 996 31% (5,562) (3,709)	119 3,772 FY19e 565,452 44,724 26,995 17,729 11,340 9,604 1,736 25% (5,716) (3,846) (1,870) 2,598 (6,726) 3,84 0,96 FY19e 48,474 31,010 17,464 15,090 13,619 1,471 31% (5,733) (3,846)	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339) (3,432) (1,907) 2,979 (8,788) 4.18 1.04 FY20e 47,365 28,511 18,854 14,950 13,242 1,708 32% (5,360) (3,432)	Graph 3 - Cash cost profile to FY25e 3,500 2,500 2,500 1,500 1,000 500 Driefontein Kloof Beatrix Cooke Graph 4 - Cashflow and margins to FY25e 9,000 8,000 6,000 6,000 1,00
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum Free cash flow Net debt/(cash) Normalised HEPS DPS SUMMARY FINANCIALS, Rm, SPOT Revenue - Gold - Platinum EBITDA - Gold - Platinum Free Cash flow Ret debt/(cash) Rormalised HEPS Revenue - Gold - Platinum EBITDA - Gold - Platinum - EBITDA - Gold	337 3,058 FY15A 482,931 22,717 22,717 22,717 6,337 6,337 3,086 1,34 1,00 FY15A 22,717 22,717 22,717 22,717 22,717 6,337 6,337 6,337 6,337 6,337 6,337 6,337	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40% (4,200) (3,857) (342) 5,214 3,018 4,96 1,24 FY16e 31,875 30,021 1,854 12,672 12,694 (22) 40% (4,196) (3,857) (338)	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686) 4,405 (1,615) 6,15 1,54 FY17e 43,912 30,218 13,695 13,350 12,341 1,009 30% (6,098) (4,424) (1,674)	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 37% (5,562) (3,709) (1,853) 4,339 (4,909) 5,30 1,33 FY18e 45,445 30,880 14,564 14,045 13,049 996 31% (5,562)	119 3,772 FY19e 565,452 44,724 26,995 17,729 11,340 9,604 1,736 25% (5,716) (3,846) (1,870) 2,598 (6,726) 3,84 0,96 FY19e 48,474 31,010 17,464 15,090 13,619 1,471 31% (5,733) (3,846) (1,888)	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339) (3,432) (1,907) 2,979 (8,788) 4.18 1.04 FY20e 47,365 28,511 18,854 14,950 13,242 1,708 32% (5,360) (3,432) (1,928)	Graph 3 - Cash cost profile to FY25e 3,500 3,000 2,500 1,000 1,000 500 Driefontein Kloof Beatrix Cooke Graph 4 - Cashflow and margins to FY25e 9,000 8,000 7,000 6,000 6,000 9,000 1,00
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin Capex - Gold - Platinum Free cash flow Normalised HEPS DPS SUMMARY FINANCIALS, Rm, SPOT Revenue - Gold - Platinum EBITDA margin Capex - Gold - Platinum EBITDA margin Capex - Gold - Platinum	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337 3,086 1,34 1,00 FY15A 22,717 22,717 22,717 6,337 6,337 6,337 6,337 6,337 6,337	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40% (4,200) (3,857) (342) 5,214 3,018 4,96 1,24 FY16e 31,875 30,021 1,854 12,672 12,694 (4,196) (3,857) (338) 4,986	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686) 4,405 (1,615) 6,15 1,54 FY17e 43,912 30,218 13,695 13,350 12,341 1,009 30% (6,098) (4,424) (1,674)	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 31% (5,562) (3,709) (1,853) 4,339 (4,909) 5,30 1,33 FY18e 45,445 30,880 14,564 14,045 13,049 996 31% (5,562) (3,709) (1,853)	119 3,772 FY19e 565,452 44,724 26,995 17,729 11,340 9,604 1,736 25% (5,716) (3,846) (1,870) 2,598 (6,726) 3.84 0.96 FY19e 48,474 31,010 17,464 15,090 13,619 1,471 31% (5,733) (3,846) (1,888)	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339) (3,432) (1,907) 2,979 (8,788) 4.18 1.04 FY20e 47,365 28,511 18,854 14,950 13,242 1,708 32% (5,360) (3,432) (1,928)	Graph 3 - Cash cost profile to FY25e 3,500 3,000 2,500 1,000 1,000 500 Driefontein Kloof Beatrix Cooke Graph 4 - Cashflow and margins to FY25e 9,000 8,000 7,000 6,000 8,000 1,00
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin Capex - Gold - Platinum Free cash flow Normalised HEPS DPS SUMMARY FINANCIALS, Rm, SPOT Revenue - Gold - Platinum EBITDA margin Capex - Gold - Platinum EBITDA margin Capex - Gold - Platinum EBITDA margin Capex - Gold - Platinum Free cash flow Net debt/(cash)	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337 (3,345) (3,567) 829 3,086 1,34 1,00 FY15A 22,717 22,717 22,717 22,717 6,337 6,337 6,337 6,337 6,337 6,337 28% (3,345) (3,567)	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40% (4,200) (3,857) (342) 5,214 3,018 4,96 1,24 FY16e 31,875 30,021 1,854 12,672 12,694 (22) 40% (4,196) (3,857) (338)	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686) 4,405 (1,615) 6.15 1.54 FY17e 43,912 30,218 13,695 13,3695 12,341 1,009 30% (6,098) (4,424) (1,674)	167 3,672 FY18e 630,255 45,444 30,710 14,784 14,093 12,878 1,216 37% (5,562) (3,709) (1,853) 4,339 (4,909) 5,30 1,33 FY18e 45,445 30,880 14,564 14,045 13,049 996 37% (5,562) (3,709) (1,853)	119 3,772 FY19e 565,452 44,724 26,995 17,729 11,340 9,604 1,736 25% (5,716) (3,846) (1,870) 2,598 (6,726) 3,84 0,96 FY19e 48,474 31,010 17,464 15,090 13,619 1,471 37% (5,733) (3,846) (1,888) 4,856 (7,321)	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339) (3,432) (1,907) 2,979 (8,788) 4,18 1,04 FY20e 47,365 28,511 18,854 14,950 13,242 1,708 32% (5,360) (3,432) (1,928)	Graph 3 - Cash cost profile to FY25e 3,500 3,000 2,500 1,000 1,000 500 Driefontein Kloof Beatrix Cooke Graph 4 - Cashflow and margins to FY25e 9,000 8,000 7,000 6,000 6,000 9,000 1,00
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin Capex - Gold - Platinum Free cash flow Normalised HEPS DPS SUMMARY FINANCIALS, Rm, SPOT Revenue - Gold - Platinum EBITDA - Gold - Platinum - Free cash flow Normalised HEPS - Gold - Platinum - Free cash flow Net debt/(cash) Normalised HEPS	337 3,058 FY15A 482,931 22,717 22,717 22,717 6,337 6,337 3,086 1,34 1,00 FY15A 22,717 22,717 22,717 22,717 22,717 6,337 6,337 6,337 6,337 6,337 3,086 1,34 1,00	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40% (4,200) (3,857) (342) 5,214 3,018 4,96 1,24 FY16e 31,875 30,021 1,854 12,672 12,694 (22) 40% (4,196) (3,857) (3,857) (338) 4,986 3,220 4,73	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686) 4,405 (1,615) 6,15 1,54 FY17e 43,912 30,218 13,695 13,350 12,341 1,009 30% (6,098) (4,424) (1,674)	167 3,672 FY18e 630,255 45,494 30,710 14,784 14,093 12,878 1,216 31% (5,562) (3,709) (1,853) 4,339 (4,909) 5,30 1,33 FY18e 45,445 30,880 14,564 14,045 13,049 996 31% (5,562) (3,709) (1,853) 4,325 (3,494) 5,18	119 3,772 FY19e 565,452 44,724 26,995 17,729 11,340 9,604 1,736 25% (5,716) (3,846) (1,870) 2,598 (6,726) 3.84 0.96 FY19e 48,474 31,010 17,464 15,090 13,619 1,471 31% (5,733) (3,846) (1,888) 4,856 (7,321) 6.13	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339) (3,432) (1,907) 2,979 (8,788) 4.18 1.04 FY20e 47,365 28,511 18,854 14,950 13,242 1,708 32% (5,360) (3,432) (1,928) (1,928)	Graph 3 - Cash cost profile to FY25e 3,500 3,000 2,500 1,000 1,000 500 Driefontein Kloof Beatrix Cooke Graph 4 - Cashflow and margins to FY25e 9,000 8,000 7,000 6,000 6,000 9,000 1,00
Beatrix Cooke Total group SUMMARY FINANCIALS, Rm, DBe prices Rand-Gold (Rand per kilogram) Revenue - Gold - Platinum EBITDA - Gold - Platinum EBITDA margin Capex - Gold - Platinum Free cash flow Net debt/(cash) Normalised HEPS DPS SUMMARY FINANCIALS, Rm, SPOT Revenue - Gold - Platinum EBITDA margin Capex - Gold - Platinum EBITDA margin Capex - Gold - Platinum EBITDA margin	337 3,058 FY15A 482,931 22,717 22,717 6,337 6,337 (3,345) (3,567) 829 3,086 1,34 1,00 FY15A 22,717 22,717 22,717 22,717 6,337 6,337 6,337 6,337 6,337 6,337 28% (3,345) (3,567)	593 240 3,004 FY16e 612,206 32,233 30,273 1,960 13,030 12,946 83 40% (4,200) (3,857) (342) 5,214 3,018 4,96 1,24 FY16e 31,875 30,021 1,854 12,672 12,694 (22) 40% (4,196) (3,857) (338)	610 211 3,518 FY17e 663,884 46,475 32,608 13,867 15,912 14,731 1,181 34% (6,110) (4,424) (1,686) 4,405 (1,615) 6.15 1.54 FY17e 43,912 30,218 13,695 13,3695 12,341 1,009 30% (6,098) (4,424) (1,674)	167 3,672 FY18e 630,255 45,444 30,710 14,784 14,093 12,878 1,216 37% (5,562) (3,709) (1,853) 4,339 (4,909) 5,30 1,33 FY18e 45,445 30,880 14,564 14,045 13,049 996 37% (5,562) (3,709) (1,853)	119 3,772 FY19e 565,452 44,724 26,995 17,729 11,340 9,604 1,736 25% (5,716) (3,846) (1,870) 2,598 (6,726) 3,84 0,96 FY19e 48,474 31,010 17,464 15,090 13,619 1,471 37% (5,733) (3,846) (1,888) 4,856 (7,321)	FY20e 572,766 43,742 24,511 19,231 11,326 9,241 2,085 26% (5,339) (3,432) (1,907) 2,979 (8,788) 4,18 1,04 FY20e 47,365 28,511 18,854 14,950 13,242 1,708 32% (5,360) (3,432) (1,928)	Graph 3 - Cash cost profile to FY25e 3,500 3,000 2,500 1,000 1,000 500 Driefontein Kloof Beatrix Cooke Graph 4 - Cashflow and margins to FY25e 9,000 8,000 7,000 6,000 6,000 9,000 1,00

Source: Company data, Deutsche Bank estimates, Reuters



Lonmin, Sell, R23

Investment Thesis

Outlook

As a marginal producer, our price forecasts (based on marginal costs) leave Lonmin leaking cash slowly but steadily over time. Lonmin's position as the marginal producer with a single mine complex also leaves the group's balance sheet vulnerable to both operational risks (strikes, safety stoppages, operational failures) as well as to prices declining further. We believe higherthan-forecast prices (i.e. above marginal cost) are unlikely in the medium term given the well-supplied PGM metals market; and alternative sources of metal for end-users from recycling and above-ground stocks. Lonmin has performed operationally, assisted by its high ore reserve availability, and has no further obvious levers to pull in our view. Management has already made the tough decision to lower production: output from the Marikana complex will reduce by 100koz to 650kozpa over FY16 and FY17 as the Hossy and Newman Shafts are closed and some of the smaller, contractor-operated mines are put onto careand-maintenance. We see a concentration of downside risks to being exposed to the high-cost producer in an industry under pressure, and with low-prices expected to persist for the medium term we have a Sell recommendation.

Valuation

Our price target is derived by applying a 1x multiple to the group's DCF valuation, based on company management performance, relative to the broader Metals and Mining peer group. Our life-of-mine cash flows are discounted at a WACC of 10.0% (Beta 1.4, ERP 6%).

Risks

Risks include a weaker-than-expected rand and/or higher-than-expected PGM prices leading to stronger-than-forecast cash flow, taking pressure off the balance sheet. Additional risks include corporate action or an approach for Lonmin given its distressed position; better-than-expected production as a result of unexpected improvements in productivity; grades; recoveries or a combination of the above.



Lonmin: Changes to estimates

Yr end September		FY16e	FY17e	FY18e
Refined platinum production	koz	717	668	654
Previous		717	668	654
% chg		0.0%	0.0%	0.0%
R basket incl base metals	R/PGM oz	11,314	12,536	12,950
Previous		11,314	12,536	12,950
% chg		0.0%	0.0%	0.0%
Total C1 cash costs	R/PGM oz	10,381	10,227	10,301
Previous		10,381	10,227	10,301
% chg		0.0%	0.0%	0.0%
Revenue	US\$m	1,039	968	1,038
Previous		1,039	968	1,038
% chg		0.0%	0.0%	0.0%
Underlying EBITDA	US\$m	100	116	165
Previous		100	116	165
% chg		0.0%	0.0%	0.0%
Net Profit/(Loss)		-1	2	35
Previous		-1	2	35
% chg		0.0%	0.0%	0.0%
Attributable profit		0	1	30
Previous		0	1	30
% chg		0.0%	0.0%	0.0%
Underlying diluted EPS	USc	(1.1)	0.5	10.7
Previous		(1.1)	0.5	10.7
% chg		0.0%	0.0%	0.0%
Cash from operations	US\$m	-2	122	136
Previous		-2	122	136
% chg		0.0%	0.0%	0.0%
Total Capex	US\$m	80	67	137
Previous		80	67	137
% chg		0.0%	0.0%	0.0%
Net debt/(cash)	US\$m	-113	-168	-167
Previous		-113	-168	-167
% chg		0.0%	0.0%	0.0%



Model updated:16 May 2016	
Running the numbers	
Sub-Saharan Africa	
South Africa	
Platinum	

Lonmin Plc

Reuters: LONJ.J Bloomberg: LON SJ

Sell

Price (7 Jun 16)	ZAR 40.27
Target Price	ZAR 23.00
52 Week range	ZAR 8.70 - 337.40
Market Cap (m)	ZARm 10,052
	USDm 675

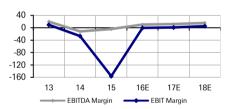
Company Profile

Lonmin specialises in the mining of PGMs (platinum group metals). The group operates a number of platinum mines, concentrators, smelters and a refinery in its core Marikana operations, all situated in the Bushveld Igneous Complex of South Africa. The company's target is to produce 700koz in FY16, and 650kozpa in the two years thereafter.

Price Performance



Margin Trends



Growth & Profitability



Solvency



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patrick.mann@db.com

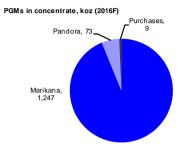
Source: Company data, Deutsche Bank estimates

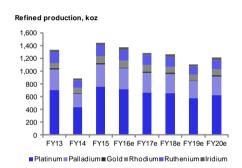
Fiscal year end 30-Sep	2013	2014	2015	2016E	2017E	2018
Financial Summary						
DB EPS (USD)	0.20	0.05	-0.16	-0.01	0.01	0.1
Reported EPS (USD)	0.31	-0.33	-2.86	0.00	0.01	0.1
DPS (USD)	0.00	0.00	0.00	0.00	0.00	0.0
BVPS (USD)	6.4	5.7	2.8	8.1	7.1	7.
Weighted average shares (m)	532	570	582	250	282	28
Average market cap (USDm)	31,245	32,518	14,024	675	675	67
Enterprise value (USDm)	30,779	32,304	13,953	313	259	26
Valuation Metrics						
P/E (DB) (x)	287.8	nm	nm	nm	528.6	25.
P/E (Reported) (x)	189.0	nm	nm	nm	528.6	25
P/BV (x)	10.11	6.60	1.13	0.34	0.38	0.3
FCF Yield (%)	nm	nm	nm	nm	7.2	n
Dividend Yield (%)	0.0	0.0	0.0	0.0	0.0	0
EV/Sales (x)	20.2	33.5	10.8	0.3	0.3	0.
EV/EBITDA (x)	101.2	nm	nm	2.9	2.2	1
EV/EBIT (x)	209.4	nm	nm	nm	22.2	4
Income Statement (USDm)						
Sales revenue	1,520	965	1,293	1,039	968	1,03
Gross profit	304	-113	-52	107	116	16
EBITDA	304	-113	-52	107	116	16
Depreciation	157	142	1,966	109	104	10
Amortisation	0	0	0	0	0	
EBIT	147	-255	-2,018	-2	12	Ę
Net interest income(expense)	-9	-64	-239	-10	-9	
Associates/affiliates Exceptionals/extraordinaries	4 0	-6 0	-5 0	-2 0	0	
Other pre-tax income/(expense)	-2	-1	0	0	0	
Profit before tax	140	-326	-2,262	-14	2	4
Income tax expense	-58	-123	-363	-13	1	1
Minorities	32	-15	-238	-1	0	
Other post-tax income/(expense)	0	0	0	0	0	
Net profit	166	-188	-1,661	0	1	3
DB adjustments (including dilution)	-57	219	1,567	-3	0	
DB Net profit	109	31	-94	-3	1	3
Cash Flow (USDm)						
Cash flow from operations	16	-116	-12	-2	122	13
Net Capex	-159	-93	-136	-80	-67	-13
Free cash flow	-143	-209	-148	-82	55	
Equity raised/(bought back)	824	1	3	395	0	
Dividends paid	-11	-37	-19	0	0	
Net inc/(dec) in borrowings	-742	175	331	-355	0	
Other investing/financing cash flows	-42	12	10	-15	0	
Net cash flow	-114	-58	177	-57	55	
Change in working capital	-223	32	60	-49	16	
Balance Sheet (USDm)						
Cash and other liquid assets	201	143	320	263	318	31
Tangible fixed assets	2,908	2,882	1,477	1,450	1,412	1,44
Goodwill/intangible assets	502	497	94	94	94	10
Associates/investments	466	392	147	138	138	13
Other assets Total assets	539 4,616	451 4,365	391 2,429	375 2,320	347 2,309	35 2,34
notal assets Interest bearing debt	4,616	4,365	2,429 505	2,320 150	2,309 150	2,34 15
Other liabilities	1,006	811	404	270	258	26
Total liabilities	1,006	983	909	420	408	4
Shareholders' equity	3,409	3,233	1,629	2,010	2,012	2,04
Minorities	201	149	-109	-110	-110	-10
Total shareholders' equity	3,610	3,382	1,520	1,900	1,901	1,93
Vet debt	-201	29	185	-113	-168	-16
Key Company Metrics						
Sales growth (%)	nm	-36.5	34.0	-19.6	-6.8	7
DB EPS growth (%)	na	-73.6	na	92.9	na	2,000
EBITDA Margin (%)	20.0	-11.7	-4.0	10.3	11.9	15
EBIT Margin (%)	9.7	-26.4	-156.1	-0.2	1.2	5
Payout ratio (%)	0.0	nm	nm	0.0	0.0	0
ROE (%)	5.6	-5.7	-68.3	0.0	0.1	1
Capex/sales (%)	10.5	9.6	10.5	7.7	6.9	13
Capex/depreciation (x) Net debt/equity (%)	1.0 -5.6	0.7	0.1	0.7	0.6	1. -8.
Net debt/equity (%) Net interest cover (x)	-5.6 16.3	0.9	12.2 nm	-5.9	-8.8 1.2	-8 7
		nm	11111	nm	1.2	,
Source: Company data Doutscho Rank ost	motoo					

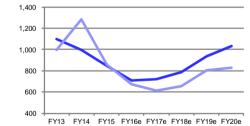


ASSUMPTIONS	FY13	FY14	FY15	FY16e	FY17e	FY18e	FY19e	FY20e
ZAR/USD	9.24	10.55	12.01	15.36	16.67	15.72	13.86	13.17
Platinum (USD/oz)	1,519	1,413	1,095	923	905	995	1,195	1,355
Palladium (USD/oz)	709	787	718	563	656	727	863	915
Rhodium (USD/oz)	1,110	1,093	998	700	723	743	825	888
Gold (USD/oz)	1,508	1,132	1,487	1,262	1,231	1,264	1,306	1,348
PGM Basket Price, ZAR/ 6E oz	10,115	10,456	10,207	10,811	12,007	12,395	12,981	13,623
PGM Basket Price, USD/ 6E oz	1,097	995	849	706	720	788	937	1,034
PGMs in concentrate (koz)								
Marikana	1,320	679	1,336	1,247	1,216	1,192	1,048	1,155
Pandora	79	37	74	73	82	80	66	65
Purchases	6	7	10	9	9	9	8	9
Total PGMs	1,405	725	1,420	1,329	1,307	1,280	1,123	1,229
Refined production (koz)								
Platinum	709.0	436.2	759.7	717.1	667.9	654.0	575.7	626.8
Palladium	320.5	210.5	350.3	325.1	312.4	305.8	268.9	293.0
Gold	19.0	12.4	18.2	18.1	17.9	17.4	16.1	16.3
Rhodium	81.0	78.5	102.5	107.4	94.5	92.8	80.1	89.7
Ruthenium	177.6	114.6	183.9	167.0	157.0	154.1	133.2	149.0
Iridium	29.1	29.9	32.7	38.1	37.4	36.7	31.7	35.5
Total PGMs	1,336.1	882.1	1,447.4	1,372.8	1,287.1	1,260.8	1,105.8	1,210.3
Nickel (kt)	3.5	1.8	3.7	3.5	3.1	3.1	2.7	3.0
Copper (kt)	2.2	1.0	2.3	2.1	1.9	1.9	1.6	1.8
Refined sales (koz)								
Platinum	695.8	441.7	751.6	730.1	667.9	654.0	575.7	626.8
Palladium	313.0	212.5	347.9	332.3	312.4	305.8	268.9	293.0
Gold	18.4	13.1	19.2	19.2	17.9	17.4	16.1	16.3
Rhodium	77.6	81.1	92.5	114.6	94.5	92.8	80.1	89.7
Ruthenium	168.3	121.9	192.5	170.1	157.0	154.1	133.2	149.0
Iridium	28.8	29.8	30.1	38.4	37.4	36.7	31.7	35.5
Total PGMs	1,302.0	900.1	1,433.9	1,404.7	1,287.1	1,260.8	1,105.8	1,210.3
Nickel (kt)	3.6	2.3	3.7	3.5	3.1	3.1	2.7	3.0
Copper (kt)	2.1	1.4	2.1	2.1	1.9	1.9	1.6	1.8
Cash costs (PGM)								
Cash cost, ZAR/ 6E oz	9,183	13,539	10,339	10,381	10,227	10,301	11,122	10,885
Cash cost, USD/ 6E oz	994	1,284	861	676	614	655	802	826
Financials (US\$m)								
Underlying EBITDA	321	194	21	100	116	165	146	243
Operating cash flow	16	-116	-12	-2	122	136	121	172
Capex	159	93	136	80	67	137	186	240

Valuation					
	USD Mn	US\$/Sh	R/Sh		
Mining operations:					
Marikana & Pandora (100%)	529	1.87	29.8		
Less: JV minorities	95	0.34	5.4		
Total operations	433	1.54	24.5		
Corporate	-68	-0.24	-3.8		
Exploration	-69	-0.24	-3.9		
Less: Net debt/(cash)	-114	-0.40	-6.4		
Total to shareholders	411	1.46	23.2		







PGM Basket Price, USD/6E oz Cash cost, USD/6E oz

350 350 300 300 250 250 200 200 150 150 100 100 50 -50 -50 -100 -100 FY13 FY14 FY15 FY16e FY17e FY18e FY19e FY20e Capex Operating cash flow Underlying EBITDA

Financials, US\$m

Source : Company data, DB estimates

Cash cost profile



Appendix 1

Important Disclosures

Additional information available upon request

Disclosure checklist			
Company	Ticker	Recent price*	Disclosure
Amplats	AMSJ.J	388.87 (ZAR) 7 Jun 16	NA
Impala Platinum	IMPJ.J	46.71 (ZAR) 7 Jun 16	3
Northam	NHMJ.J	44.25 (ZAR) 7 Jun 16	14
RBPlat	RBPJ.J	43.01 (ZAR) 7 Jun 16	NA
Sibanve Gold	SGLJ.J	47.00 (ZAR) 7 Jun 16	6.9

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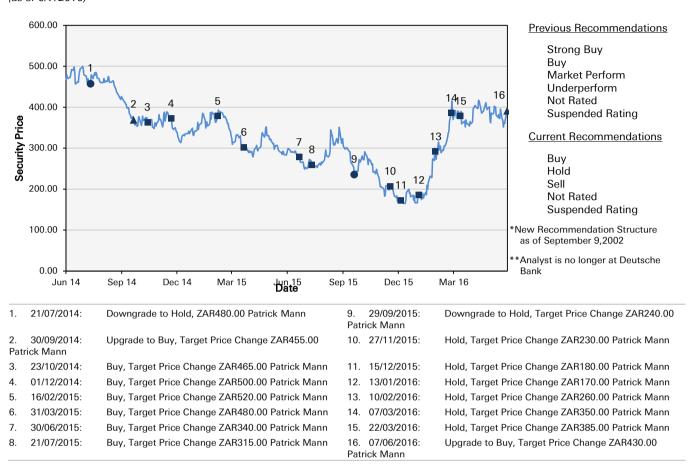
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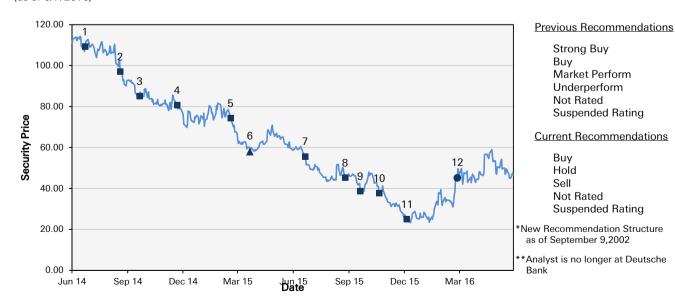
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Historical recommendations and target price: Amplats (AMSJ.J) (as of 6/7/2016)



Historical recommendations and target price: Impala Platinum (IMPJ.J) (as of 6/7/2016)





1.	02/07/2014:	Hold, Target Price Change ZAR120.00 Patrick Mann	7.	30/06/2015:	Buy, Target Price Change ZAR80.00 Patrick Mann
2.	29/08/2014:	Hold, Target Price Change ZAR110.00 Patrick Mann	8.	04/09/2015:	Buy, Target Price Change ZAR75.00 Patrick Mann
3.	30/09/2014:	Hold, Target Price Change ZAR100.00 Patrick Mann	9.	29/09/2015:	Buy, Target Price Change ZAR60.00 Patrick Mann
4.	01/12/2014:	Hold, Target Price Change ZAR115.00 Patrick Mann	10.	30/10/2015:	Buy, Target Price Change ZAR57.00 Patrick Mann
5.	27/02/2015:	Hold, Target Price Change ZAR100.00 Patrick Mann	11.	15/12/2015:	Buy, Target Price Change ZAR40.00 Patrick Mann
6.	31/03/2015:	Upgrade to Buy, ZAR100.00 Patrick Mann	12.	07/03/2016:	Downgrade to Hold, ZAR40.00 Patrick Mann

Historical recommendations and target price: Northam (NHMJ.J) (as of 6/7/2016)

Upgrade to Hold, Target Price Change ZAR27.00



29/09/2015:

Patrick Mann



Historical recommendations and target price: RBPlat (RBPJ.J) (as of 6/7/2016)





Historical recommendations and target price: Sibanye Gold (SGLJ.J) (as of 6/7/2016)



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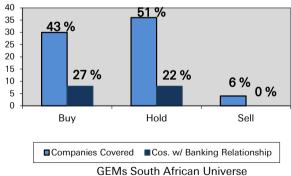
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Sell: Based on a current 12-month view of total shareholder return, we recommend that investors sell the stock

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Newly issued research recommendations and target prices supersede previously published research.

Equity rating dispersion and banking relationships



8 June 2016 Platinum Platinum



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