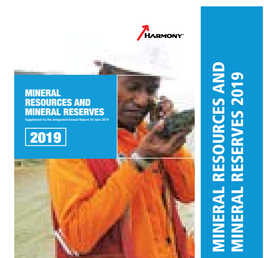
FINANCIAL REPORT

2019

Target North

Our 2019 set of reports includes:

INTEGRATED ANNUAL REPORT 2019



MINERAL RESOURCES AND MINERAL RESERVES 2019

ESG REPORT 2019

FINANCIAL REPORT 2019

REPORT TO SHAREHOLDERS 2019

These reports together with other supporting documents are available online at *www.har.co.za*. Other additional information can be found at *www.harmony.co.za.*

OTHER REPORTS

Form 20-F

Annual report filed with the United States Securities and Exchange Commission, in compliance with the listing requirements of the New York Stock Exchange

Global Reporting Initiative Scorecard

An index of the indicators reported in terms of the Global Reporting Initiative

Operations 2019

Detailed information on each operation

www.harmony.co.za

Hidden Valley

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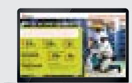


OUR REPORTS ONLINE

Harmony's full set of 2019 reports and supporting documents are available at *www.har.co.za.*

The electronic reports are interactive pdfs, with links to sections within the document and to external websites. The interactive links are indicated by text in red italics.

FTSE4Good

Harmony included in the FTSE4Good Index Series

FTSE Russell (the trading name of FTSE International Limited and Frank Russell Company) confirms that Harmony has been independently assessed according to the FTSE4Good criteria, and has satisfied the requirements to become a constituent of the FTSE4Good Index Series. Created by the global index provider FTSE Russell, the FTSE4Good Index Series is designed to measure the performance of companies demonstrating strong Environmental, Social and Governance (ESG) practices. The FTSE4Good indices are used by a wide variety of market participants to create and assess responsible investment funds and other products.

CORPORATE PROFILE

WHO WE ARE

Harmony, a gold mining and exploration company, conducts its activities in South Africa and in Papua New Guinea, one of the world's premier new gold-copper regions. With 69 years of experience, Harmony is currently South Africa's largest gold producer.

Headquartered in Randfontein, South Africa, Harmony is listed on the Johannesburg Stock Exchange, our primary listing, and on the New York Stock Exchange, on which our shares are quoted as American Depositary Receipts. At 30 June 2019, our market capitalisation was R17.1 billion (US$1.2 billion) (30 June 2018): R10.6 billion; US$769 million).

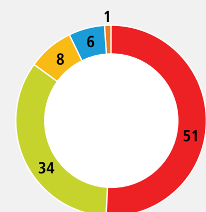
OUR IMPACT

At Harmony, we understand the impact that our company has on the lives of the people we employ, the communities that surround our mines and the environment, as well as the economic contribution that we make to the countries in which we operate.

SHAREHOLDERS

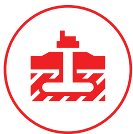
Our largest shareholder is African Rainbow Minerals Limited (ARM) which has a stake of 13.83% in the company. The remainder of our shareholders, which are geographically diverse, include some of the largest fund managers globally.

Geographic distribution of shareholders (%)
as at 30 June 2019



- United States of America
- South Africa
- United Kingdom
- Europe
- Rest of the world

WHAT WE DO



Exploration and acquisitions

Exploring for and evaluating economically viable gold-bearing orebodies and/or value-accretive acquisitions

Mining and processing

Establishing, developing and operating mines and related processing infrastructure. Ore mined is milled and processed by our gold plants to produce gold doré bars

Sales and financial management

Generating revenue through the sale of gold produced and optimising efficiencies to maximise financial returns

Stewardship and mine closure

Restoring mining impacted land for alternative economic use post-mining, having in place approved mine closure commitments and empowering communities and employees

WHAT WE ACHIEVED IN FY19

- **17% increase** in production to **1.44Moz** of gold, contributed to a **23% increase** in production profit
- **2% increase** in underground recovered grade to 5.59g/t at South African mines
- **Operating free cash flow boosted** by Moab Khotsong and Hidden Valley
- **Hedging** strategy contributed to improved cash flow margins
- **19% increase** in headline earnings per share to 204 SA cents – 8% increase to 14 US cents
- **Included in** Bloomberg Gender-Equality Index 2019, and FTSE4Good Index
- **CDP Climate Change and Water** reports scored A- and B respectively

WHERE WE OPERATE

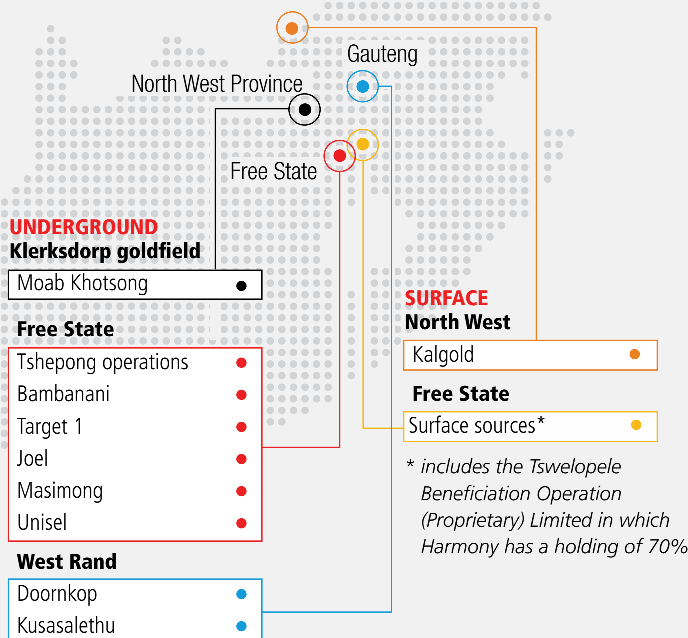
In South Africa, our nine underground operations are located within the world-renowned Witwatersrand Basin – one in the Klerksdorp goldfield, two in the West Rand and six in the Free State, in the southern portion of the Witwatersrand Basin.

In addition, we have an open-pit mine on the Kraaipan Greenstone Belt as well as several surface treatment operations.

In Papua New Guinea, Hidden Valley is an open-pit gold and silver mine.

Our significant gold-copper portfolio includes a 50% stake in the Wafi-Golpu project in the Morobe Province, through a 50:50 joint venture with Newcrest Mining Limited (Newcrest).

SOUTH AFRICA



UNDERGROUND

Klerksdorp goldfield

- Moab Khotsong

Free State

- Tshepong operations
- Bambanani
- Target 1
- Joel
- Masimong
- Unisel

West Rand

- Doornkop
- Kusasalethu

SURFACE

North West

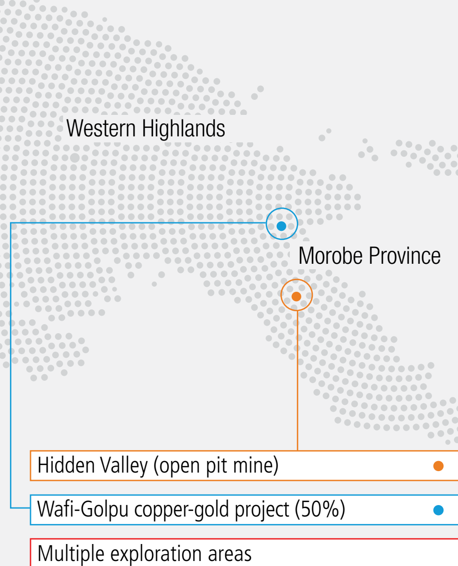
- Kalgold

Free State

- Surface sources*

** includes the Tswelopele Beneficiation Operation (Proprietary) Limited in which Harmony has a holding of 70%*

PAPUA NEW GUINEA



- Hidden Valley (open pit mine)
- Wafi-Golpu copper-gold project (50%)
- Multiple exploration areas

Harmony's equity interest 100% unless otherwise indicated

OUR VALUES

SAFETY

No matter the circumstances, safety is our main priority

ACCOUNTABLE

We are all accountable for delivering on our commitments

ACHIEVEMENT

Achievement is core to our success

CONNECTED

We are all connected as one team

HONESTY

We uphold honesty in all our business dealings and communicate openly with stakeholders

HOW WE PERFORMED

Relevant GRI indicator: G4-EC1

		FY19	FY18	FY17	FY16	FY15
Operating performance						
Ore milled	000t	**25 976**	22 441	19 401	18 373	18 063
Gold produced [1]	kg	**44 734**	38 193	33 836	33 655	33 513
	000oz	**1 438**	1 228	1 088	1 082	1 077
Operating costs	R/kg	**439 722**	421 260	436 917	392 026	369 203
	US$/oz	**965**	1 018	1 000	841	1 003
All-in sustaining costs	R/kg	**550 005**	508 970	516 687	467 611	453 244
	US$/oz	**1 207**	1 231	1 182	1 003	1 232
Underground grade	g/t	**5.59**	5.48	5.07	5.02	4.75
Financial performance						
Revenue [2]	R million	**26 912**	20 452	19 494	18 667	15 643
Production costs [2]	R million	**20 324**	15 084	15 042	13 583	12 840
Production profit	R million	**6 588**	5 368	4 452	5 084	2 803
Operating margin	%	**24**	26	23	28	18
Net profit/(loss) for the year	R million	**(2 607)**	(4 473)	362	949	(4 536)
Total headline earnings/(loss) per share	SA cents	**204**	171	298	221	(189)
Capital expenditure	R million	**5 036**	4 687	4 280	2 439	2 836
Exploration spend [3, 4]	R million	**148**	135	241	191	263
Dividend paid	R million	**–**	154	439	–	–
Net debt	R million	**(4 922)**	(4 908)	(887)	(1 083)	(2 332)
Market performance						
Average gold price received	R/kg	**586 653**	570 709	570 164	544 984	449 570
	US$/oz	**1 287**	1 380	1 304	1 169	1 222
Total market capitalisation	R billion	**17.1**	10.6	9.5	22.9	6.8
	US$ billion	**1.2**	0.8	0.7	1.6	0.56
Average exchange rate	R/US$	**14.18**	12.85	13.60	14.50	11.45
Reserves						
Gold and gold equivalents	Moz	**36.5**	36.9	36.7	36.9	42.6
Geographical distribution of gold reserves						
– South Africa	%	**47**	46	44	45	52
– Papua New Guinea	%	**53**	54	56	55	48
Safety						
Number of fatalities		**11**	13	5	10	9
Group FIFR – fatal injury frequency rate	per million hours worked	**0.13**	0.16	0.07	0.13	0.11
Group LTIFR – lost-time injuries frequency rate	per million hours worked	**[6] 6.16**	[5] 6.26	[5] 7.21	[5] 6.23	[5] 9.24
Health (South Africa)						
– Shifts lost due to injury		**25 388**	23 769	24 026	22 416	24 514
– Silicosis cases certified [7]		**[6] 58**	[5] 179	[5] 108	[5] 64	[5] 197

[1] *Gold production of 2 068kg (66 499oz) capitalised in FY18 (FY17: 364kg, 11 713oz). Zero gold production capitalised in FY19, FY16 and FY15*

[2] *FY15 to FY18 restated due to a change in accounting policy*

[3] *As per income statement*

[4] *Total exploration spend including capitalised amounts are R498 million (US$35 million) (FY19), R423 million (US$33 million) (FY18), R438 million (US$32 million) (FY17), R433 million (US$30 million) ((FY16) and R385 million US$34 million) (FY15)*

		FY19	FY18	FY17	FY16	FY15
People						
Total number of employees and contractors [8]		**39 773**	40 686	33 201	30 547	31 114
South Africa: Employees		**31 201**	32 520	26 478	25 861	26 000
Contractors		**6 159**	5 951	4 512	4 580	5 012
Papua New Guinea: Employees [8]		**1 675**	1 397	1 300	76	75
Contractors [8]		**738**	818	911	30	27
Employment equity (historically disadvantaged South Africans in management) [9]	%	[6] **62**	[5] 60	[5] 61	[5] 60	[5] 58
Number of people in single rooms [10]		**8 019**	[5] 6 739	[5] 7 266	[5] 7 252	[5] 7 436
Number of people sharing accommodation		**0**	[5] 0	[5] 0	[5] 0	[5] 0
Number of people in critical-skill positions trained		[6] **109**	[5] 106	[5] 75	[5] 68	[5] 69
Community						
Group local economic development [11]	R million	**56**	[5] 20	[5] 27	[5] 18	[5] 64
Preferential procurement (BEE-compliant spend)	R million	[6] **6 340**	[5] 5 120	[5] 4 461	[5] 3 794	[5] 3 849
Total discretionary spend	R million	**8 470**	6 436	5 685	4 978	5 565
Preferential procurement spend	%	**75**	80	78	76	69
Environment						
Mineral waste (volume disposed) [13]	000t	[6, 12] **52 691**	[5] 50 798	[5, 12] 38 392	[5] 26 170	[5] 24 659
Total electricity use (purchased)	000MWh	[6, 12] **3 326**	[5] 2 518	[5, 12] 2 629	[5] 2 597	[5] 2 657
CO_2 emissions						
– Scope 1	000t CO_2e	[6] **133**	[5] 131	[5] 111	[5] 56	[5] 67
– Scope 2	000t CO_2e	[6, 12] **3 193**	[5] 2 442	[5] 2 513	[5] 2 581	[5] 2 686
– Scope 3	000t CO_2e	[6, 12] **533**	[5] 440	[5] 445	[5] 615	[5] 686
Water used for primary activities	000m³	[6, 12] **23 158**	[5] 15 473	18 125	15 083	15 752
Funding/guarantees for rehabilitation and closure	R million	**3 752**	3 717	3 072	2 933	2 796

[5] *Assured by independent auditors in prior years – refer to https://www.harmony.co.za/invest/annual-reports. All assured indicators exclude the results of Moab Khotsong from 1 March 2018 to 30 June 2018, except for the LTIFR safety indicator*

[6] *Assured by independent auditors in the current year. Please refer to the GRI Assurance Report in the Integrated Annual Report 2019 and to the Glossary of Terms on the website, www.har.co.za*

[7] *Since FY18, Harmony reports on the number of cases of silicosis confirmed by the South Africa's Medical Bureau of Occupational Diseases. Previously we assured silicosis cases submitted to the Medical Bureau of Occupational Diseases*

[8] *FY18 includes employees from the Moab Khotsong operations. Excludes employees from the Wafi-Golpu Joint Venture. FY16 and FY15 exclude employees from the Morobe Mining Joint Venture, which are included from FY17, following Harmony acquiring full ownership of Hidden Valley*

[9] *The increase in compliance indicators is due to alignment of Harmony's reporting with the Department of Labour's classification guidelines – (EEA9). For previous years, indicators were based on Patterson grade D-F only, whereas C band employees are now classified as Junior Management and have been included in the FY15 employment equity percentage*

[10] *The number of single rooms only represent hostels which are 100% converted. At the end of FY15, all employees living in hostels were living in single rooms.*

[11] *In addition, capital of R1 million (US$0.1 million) was spent in FY16 on the upgrading of hostel accommodation at various operations, (FY15: R89 million (US$8 million)*

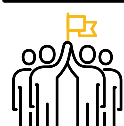
[12] *Increases recorded in FY17, a result of the acquisition in full of Hidden Valley following which it was included at 100% versus 50% in preceding years. FY19 increases are attributed to the inclusion of Moab Khotsong*

[13] *The year-on-year increase in mineral waste in FY18 was due to waste stripping of the cutbacks at Hidden Valley*

FINANCIAL DIRECTOR'S REPORT

"We remain strongly levered to the gold price and exchange rates and we expect cash flow generation across the business to benefit from higher gold prices and current market conditions."

Frank Abbott – Financial director



FINANCIAL HIGHLIGHTS OF THE YEAR UNDER REVIEW

- **Moab Khotsong and Hidden Valley boost cash flow – generated R1.4 billion (US$97 million)** in operating free cash flow
- **Successful hedging strategy topped up – secured cash flow margins,** contributing R477 million (US$34 million) to cash flow
- 19% increase in headline earnings per share to 204 cents **(8% increase to 14 US cents)**

Post year-end

- **90% increase in our share price** following a higher R/kg gold price
- **Replaced existing US$350 million facility with a US$400 million facility,** increasing the size and tenure of our financial headroom

CAPITAL ALLOCATION

Moab Khotsong and Hidden Valley generated combined operating free cash flows of R1.4 billion (US$97 million) after operating for the full twelve-month period in FY19 and significantly boosting production levels for the group.

Capital expenditure for FY19 increased by 9% to R4.7 billion (decrease of 1% to US$331 million). The increase is mainly due to the inclusion of Moab Khotsong for the full twelve-month period in FY19 (compared to the four months in FY18).

Borrowings as at 30 June 2019 include R4.1 billion (US$295 million) utilised on the US$ facility. The group's South East Asia operations have an outstanding loan of R283 million (US$20 million) used to finance the acquisition of fleet equipment. R1.5 billion (US$106 million) has been utilised of the group's R2 billion (US$142 million) facility. Net debt remained stable at R4.9 billion at 30 June 2019 compared to a similar position at 30 June 2018 (in US$ terms a decrease of US$8 million from US$356 million to US$348 million).

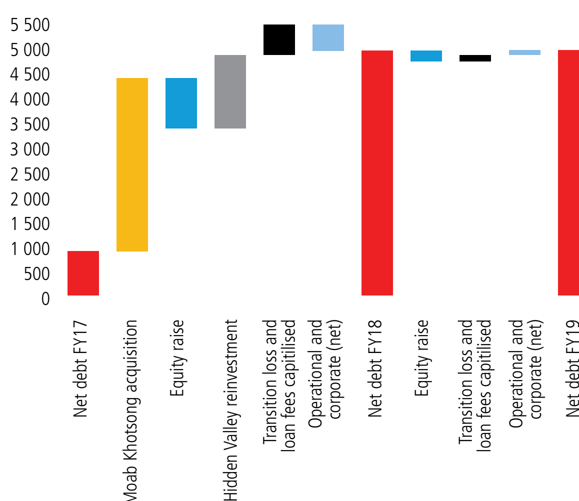
FUNDING QUALITY GROWTH

Harmony conducted a placement of new ordinary shares to qualifying investors earlier in the financial year which resulted in R211 million (US$16 million) of capital being raised in FY19. Combined with the placement completed late in the preceding year, left the group with an appropriate balance between debt and equity post the acquisition of Moab Khotsong.

During FY19 the R1 billion facility was refinanced and increased into a R2 billion facility, with a longer maturity of four years, to support the enlarged South African asset base.

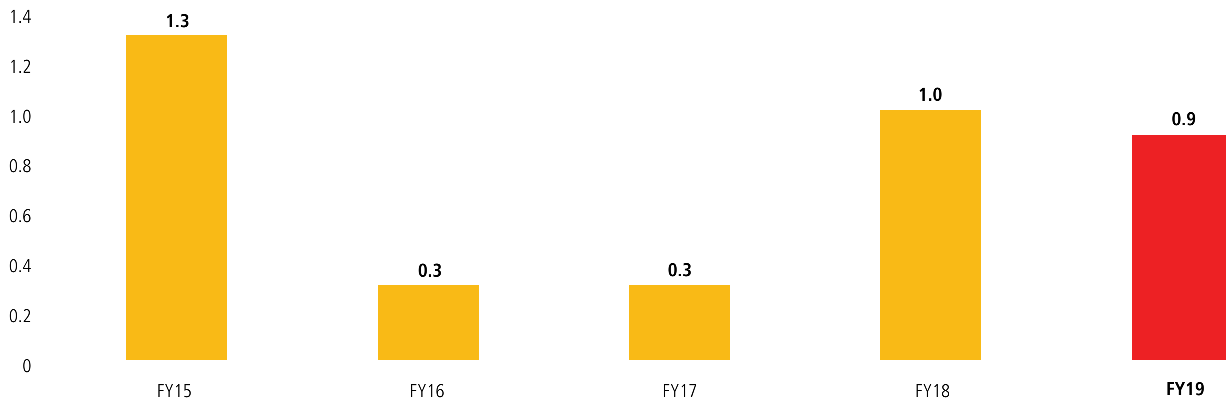
Subsequent to year-end, a new syndicated facility of US$400 million was entered into, replacing the existing US$350 million facility. This facility was well received in the lending market and over-subscribed. The group was able to improve terms like the interest rates and covenants as well as including an option to extend the term to maturity from three to four years. This has resulted in a meaningful increase in the size and tenure of the financial headroom for the group.

Net debt (R million)



At current gold prices the group's net debt to EBITDA ratio will reduce significantly in FY20, thereby improving balance sheet flexibility. Together with the new facilities, the group is well positioned to fund both organic growth, as well as value accretive acquisitions.

Total net debt/EBITDA ratio

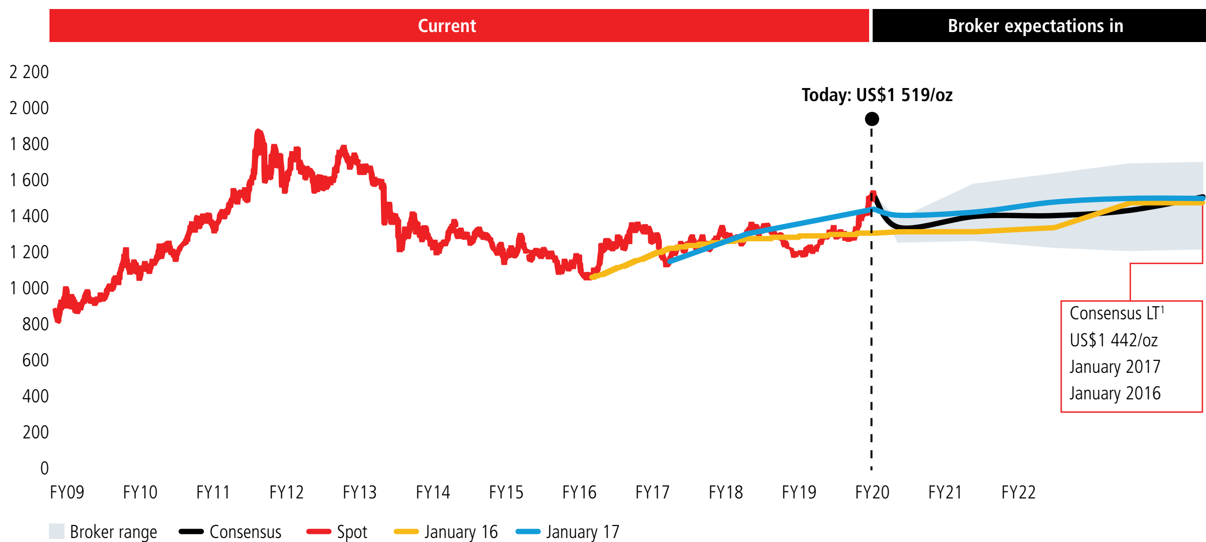


CASH CERTAINTY

The realised cash gain from commodity hedging programmes in FY19 was R511 million (US$36 million) (2018: R1.1 billion (US$87 million)), whereas a loss of R34 million (US$2 million) from currency hedges was incurred in FY19.

The hedging programmes are topped up as and when opportunities arise to lock-in attractive margins for the business. A meaningful proportion of the group's expected production and foreign currency export proceeds have already been secured at beneficial margins.

Gold price consensus (US$/oz)



Source: Broker reports, FactSet as of 30 August 2019

[1] Long-term prices are given in 2018 real terms, shown in graph inflated to 2024 nominal

Open hedging contracts as at 30 June 2019

		FY20		FY21		Total
		H1	H2	H1	H2	
Currency hedges rand dollar						
Zero cost collars	$m	140	126	97	51	414
	Floor (R/US$)	14.53	14.88	15.29	15.42	14.92
	Cap (R/US$)	15.27	15.66	16.19	16.41	15.74
Forward contracts	$m	138	126	96	30	390
	R/US$	14.86	15.35	15.86	16.01	15.35
Total rand dollar		**278**	**252**	**193**	**81**	**804**
Rand gold						
Forward contracts	000oz	189	190	142	106	627
	R000/kg	633	655	671	693	659
Dollar gold						
Forward contracts	000oz	24	24	14	4	66
	US$/oz	1 357	1 364	1 381	1 407	1 368
Total gold contracts	**000oz**	**213**	**214**	**156**	**110**	**693**
Dollar silver						
Zero cost collars	000oz	90	–	–	–	90
	Floor (US$/oz)	17.40	–	–	–	17.40
	Cap (US$/oz)	18.40	–	–	–	18.40

IMPAIRMENT

An impairment of R3.9 billion (US$276 million) was recognised during the year caused by expected increases in working costs and capital expenditure, the inclusion of carbon tax, as well as increased discount rates. Although there was an increase in the net present value of the group's life-of-mine models, the areas outside the life-of-mine models included in the resource base models were negatively impacted by lower recovery grades which negatively impacted on the cash flows and ultimately the recoverable amounts.

The FY19 impairment was made up as follows:

Operation	Impairment (R million)
Tshepong Operations	2 254
Target 1	312
Kusasalethu	690
Target 3	318
Joel	198
Bambanani	6
Other assets	120
Total impairment	**3 898**

- At Tshepong Operations and Kusasalethu, lower recovered grades and increases in expected costs to exploit the resource base resulted in a lower recoverable amount. The decrease in the recovered grade is a result of the change in the dilution factors applied to the outside life-of-mine resources.
- Target 1 and Joel were affected by the estimated impact of carbon tax and expected cost increases. The change in the method of valuation for Target 3, from a discounted cash flow model to a resource multiple approach, reduced its recoverable amount
- Bambanani's goodwill was impaired, resulting in a reduced carrying amount of intangible assets

Continuous evaluation of the group's orebodies and exclusion of lower-grade mining areas enabled the group to effectively allocate capital and resources in line with its strategy to produce safe, profitable ounces and to increase margins.

FINANCIAL PERFORMANCE

Our FY19 performance was substantially improved by the inclusion of Moab Khotsong and Hidden Valley's full year of production.

Key drivers of financial performance FY19

		FY19	FY18	Change %
Gold produced	kg	**44 734**	38 193	17
	oz	**1 438 231**	1 227 934	17
Underground grade recovered	g/t	**5.59**	5.48	2
Gold price received	R/kg	**586 653**	570 709	3
	US$/oz	**1 287**	1 380	(7)
Production profit	Rm	**6 588**	5 356	23
	US$m	**465**	416	12
All-in sustaining costs	R/kg	**550 005**	508 970	(8)
	US$/oz	**1 207**	1 231	2
Net debt	Rm	**4 922**	4 908	0
	US$m	**348**	356	2
Net debt/EBITDA ratio	times	**0.9x**	1.0x	
Average exchange rate	R/US$	**14.18**	12.85	10

Income statement – extract

	FY19	FY18	Change %
Revenue	**26 912**	20 452	32
Production costs	**(20 324)**	(15 084)	(35)
Impairment of assets	**(3 898)**	(5 336)	27
Depreciation and amortisation	**(4 054)**	(2 570)	(58)
Gains on derivatives	**484**	99	389
Net loss for the year	**(2 607)**	(4 473)	42
Headline earnings per share (SA cents per share)	**204**	171	19

Revenue and production costs were impacted mostly by the inclusion of Moab Khotsong for the full year as well as continuing production at Hidden Valley for the full year.

Revenue increased by R6.5 billion or 32% (US$307 million or 19%) mainly due to an 18% increase in gold sold and a R515 million (US$36 million) increase in silver sales. The average gold price received increased by 3% to R586 653/kg (from R570 709/kg in FY18). Forward gold sale contracts of 6 998kg (or 225 000oz) with an average price of R638 007/kg matured during FY19.

Production costs increased by R5.2 billion or 35% (US$259 million or 22%) during FY19 mainly due to the inclusion of Moab Khotsong for the full year as well as continuing production at Hidden Valley for the full year.

Amortisation and depreciation is R1.5 billion (US$86 million) higher for FY19 owing mainly to a full year of production at Hidden Valley as well as Moab Khotsong included for the full year.

The net gain on derivatives was R484 million (US$34 million) for FY19 (FY18: R99 million (US$8 million)).

The gains relate primarily to foreign exchange derivatives entered into during the year when the spot US$/rand exchange rate was weaker than the closing rate of US$/R14.13.

The hedging programmes realised cash gains of R477 million (US$34 million) for FY19.

The net loss for FY19 was R2 607 million (US$185 million), compared to a loss of R4 473 million (US$321 million) for FY18. Moab Khotsong and Hidden Valley's inclusion for a full financial year as well as lower impairments recorded in FY19 contributed to the improvement of the Headline earnings.

ACKNOWLEDGEMENT

I would like to express my appreciation to our committed and diligent finance team across the group. We continue to maintain a high standard of governance and compliance to internal controls across the organisation. The quality financial information prepared for our stakeholders is testament to the high calibre of our financial team whom I applaud. I look forward to another year - supported by the finance team - on meeting our strategic objectives aimed at improving shareholder returns on a sustainable basis.

Warm regards

Frank Abbott
Financial director
24 October 2019

AUDIT AND RISK COMMITTEE: CHAIRMAN'S REPORT

"Harmony is committed to the highest standards of corporate governance and accountability"

Fikile De Buck – Chairman: Audit and risk committee

Harmony's audit and risk committee (the committee) is pleased to present its report for the financial year ended 30 June 2019 (FY19). This report addresses various material issues beyond compliance with the statutory requirements relating to an audit committee.

INTRODUCTION

The committee is an independent statutory committee appointed by Harmony's shareholders. In compliance with section 94 of the Companies Act of 2008 (the Act) and the principles of good governance, shareholders annually appoint certain independent directors as members of the audit committee to fulfil the statutory duties as prescribed by the Act.

In addition, Harmony's board of directors (the board) delegates specific oversight functions to the committee.

This report considers these statutory and delegated duties as well as the committee's responsibilities in terms of the JSE Listings Requirements. It also addresses some of the matters that the King IV Code on Corporate Governance, 2016 (King IV) advises should be considered by an audit committee.

Terms of reference

The committee has formal terms of reference, which are reviewed and updated annually as necessary (or more frequently if required) by both the committee and the board. The committee is satisfied that it has conducted its affairs in accordance with its terms of reference and has discharged its responsibilities.

The committee's terms of reference can be accessed at our corporate website, *www.harmony.co.za*.

Composition and function

The committee's diverse perspectives, independence, knowledge and experience increase the value of Harmony's governance structures. For details of the qualifications, expertise and experience of the members of the audit and risk committee, refer to *Board of directors in the Integrated Annual Report 2019*.

Recommendations for the appointment of members to the committee for the new financial year can be found in the notice of annual general meeting in the *Report to shareholders 2019* that accompanies the annual financial statements.

The group chief executive officer, the financial director, the executive: special projects, the executive: ore reserves, the group IT manager, the external auditors, the chief audit executive and other assurance providers attend meetings either by standing invitation or as and when required.

As at the date of this report, the committee comprised the following independent members:

Name	Status	Date appointed
Fikile De Buck (chairman)	Independent non-executive director	30 March 2006 (Chairman with effect from 10 May 2018)
John Wetton	Independent non-executive director	1 July 2011
Dr Simo Lushaba	Independent non-executive director	24 January 2003
Karabo Nondumo	Independent non-executive director	3 May 2013
Given Sibiya	Independent non-executive director	15 August 2019

Roles and responsibilities

The committee is satisfied that it complied with its legal, regulatory and other responsibilities during the past financial year. The committee's primary objective is to assist the board with its responsibilities of ensuring the integrity of financial statements, the management of risk and cyber security, as well as the safeguarding of assets. Additionally, the committee is mandated to provide oversight of financial control and reporting on internal controls, shareholder reporting and corporate governance, particularly relating to legislative and regulatory compliance.

The committee's roles and responsibilities include statutory and regulatory duties as per the Act, the JSE Listings Requirements and those items recommended in the interest of good governance according to King IV. In addition, the board has assigned other ad hoc duties to the committee, embodied in its terms of reference.

The board conducts annual reviews of the committee's duties and terms of reference as well as annual assessments of its performance, in a manner determined by the board.

No major concerns were raised by any member of the committee in FY19.

For more on the committee and its activities during the year under review, see *Corporate governance* in the *Integrated Annual Report 2019*.

The integrated annual report

The committee is responsible for overseeing the group's integrated annual report and the reporting process. This integrated annual report, which has been reviewed by the committee, focuses not only

on the group's financial performance, but also its economic, social and environmental performance. This report sets out how the group has engaged with stakeholders, addressed its material issues and governed its business. The committee is satisfied with the quality and integrity of the information contained in the integrated annual report 2019 and recommended it to the board for approval.

Annual report filed on Form 20-F with the United States Securities and Exchange Commission

The committee has reviewed the annual report filed on Form 20-F for the year ended 30 June 2019 and recommended the report to the board for approval.

Annual financial statements and accounting practices

The committee reviewed the audited annual financial statements and summarised consolidated financial statements for the year ended 30 June 2019. The statements comply with International Financial Reporting Standards and no significant matters were identified by the committee in that regard. The committee submits that they present a balanced view of the group's performance for the period under review.

The committee considered the JSE's most recent report back on proactive monitoring of financial statements, and where necessary those of previous periods, and has taken appropriate action where necessary to respond to the findings as highlighted in the JSE report when preparing the annual financial statements.

The committee recommended the annual financial statements and summarised consolidated financial statements to the board for approval.

External auditor appointment and independence

The committee is satisfied that the external auditor, PricewaterhouseCoopers (PwC), is independent of the group, as set out in section 94(8) of the Act. This opinion is based on consideration of previous appointments of the auditor and the extent of other work the auditor has undertaken for the group. In a written statement addressed to the committee, PwC confirmed that their independence complies with criteria relating to independence or conflicts of interest as prescribed by the Independent Regulatory Board for Auditors, the Public Company Accounting Oversight Board and the Securities and Exchange Commission. Requisite assurance was sought and provided by the auditor that internal governance processes within the audit firm support and demonstrate its independence.

The committee ensured that the appointment of the auditor complies with the requirements of the Act and other applicable legislation relating to the appointment of auditors. The committee, in consultation with management, agreed to the engagement letter and terms, and to the audit plan as well as scope of work performed and budgeted audit fees for the 2019/20 year.

A formal procedure has been adopted to govern the process whereby the external auditor may be considered for non-audit services and the extent of these services is closely monitored by the committee.

Fees paid to the external auditor for the year were R37 million, of which R35 million was for audit related services, R1 million for non-audit services and R1 million for tax services.

Tenure of the audit firm

PwC has been the group's external auditor for 69 years. At the annual general meeting held on 7 December 2018, PwC was reappointed as the independent external auditor and undertook to hold office until the conclusion of the 2019 annual general meeting.

The committee considered the suitability of PwC and designated audit partner as required by paragraph 3.84(g) (iii) of the JSE Listings Requirements and found same to be adequate based on PwC's submission of the relevant information as required by paragraph 22.15 (h) of the JSE Listings Requirements.

The individual registered auditor responsible for the audit for the financial year ended 30 June 2019 was Mr HP Odendaal. As PwC is required to rotate the audit partner responsible for the group audit every five years, the current lead audit partner will be required to change from FY21 onwards.

As part of Harmony's commitment to transformation, PwC continued to partner with Ngubane & Co., a black audit firm, as part of the PwC engagement team. To facilitate the transfer of skills in the audit of mining companies and SEC registrants, Ngubane & Co. assisted PwC on the audit of Harmony's South African operations. PwC had overall responsibility for the audit and signed off the financial statements. Ngubane & Co. is a level 1 broad-based black economic empowerment company.

The committee has recommended to the board that PwC be re-appointed as the group's independent external auditor, to hold office until the conclusion of the 2020 annual general meeting.

The directors will propose the re-appointment of PwC at the annual general meeting to be held on 22 November 2019. Details can be found in the notice of the annual general meeting in the Report to shareholders 2019 that accompanies the annual financial statements.

Mandatory audit firm rotation is effective from financial years commencing on or after 1 April 2023 and is applicable to listed companies, as well as all public interest entities, to promote superior audit quality and audit independence. To ensure continuity during the company's growth phase and because audit firm rotation is not yet compulsory, the audit and risk committee is of the opinion that PwC should remain as the company's external auditor for the ensuing year.

Internal controls

The committee considers significant control deficiencies raised by management and by the internal and external auditors, and reports its findings to the board. Where weaknesses are identified, the committee ensures that management takes appropriate action.

Based on a review of the design, implementation and effectiveness of the group's system of internal financial controls conducted by the internal audit function during the year under review, and on reports made by the independent external auditors on the results of their audit and management reports, the committee is satisfied that the company's system of internal financial controls is effective and forms a basis for the preparation of reliable financial statements. No findings have come to the attention of the committee to indicate that any material breakdown in internal controls occurred during the past financial year.

AUDIT AND RISK COMMITTEE: CHAIRMAN'S REPORT
CONTINUED

Internal audit

In accordance with the requirements of King IV, the committee confirms that, having considered the effectiveness of the chief audit executive, Ms Besky Maluleka-Ngunjiri, it is satisfied that she has the appropriate expertise and experience to meet the responsibilities of this position. The committee is also satisfied that the internal audit function is adequately resourced with technically competent individuals and operates both effectively and efficiently.

The committee is responsible for:

- ensuring that the group's internal audit function is independent and has the necessary resources, standing and authority within the group to enable it to perform its duties
- oversees co-operation between the internal and external auditors, and serves as a link between the board of directors and these functions

The chief audit executive is responsible for regularly reporting the findings of the internal audit work against the agreed internal audit plan to the committee. She has direct access to the committee, primarily through its chairman.

During the year, the committee met with the external auditors and with the chief audit executive without management being present.

The committee is satisfied that the group internal audit follows an approved risk-based internal audit plan and regularly reviews the group's risk profile with necessary changes to the internal audit plan being proposed as and when deemed appropriate. Internal audit provides an overall statement as to the effectiveness of the group's governance, risk management and control processes.

External independent quality assessment

During FY19, the internal audit function underwent an independent quality review conducted by the Institute of Internal Auditors South Africa. The internal audit function was found to generally conform with the International Standards for the Professional Practice of Internal Auditing. No material findings were noted.

Combined assurance

The committee is satisfied that the group has optimised the assurance coverage obtained from management, and internal and external assurance providers, in accordance with an appropriate approved combined assurance model. The committee is also satisfied that the combined assurance model and related systems and procedures are effective in achieving the following objectives:

- Enabling an effective internal control environment
- Supporting the integrity of information used for internal decision-making by management, the board and its committees
- Supporting the integrity of external reports
- Minimising assurance fatigue

Going concern

The audit committee has reviewed a documented assessment, including key assumptions prepared by management, of the going-concern status of the group. The board's statement on the going-concern status of the group, as supported by the audit committee, appears in the *Directors' Report*.

Governance of risk

The audit committee fulfils a dual function, being both an audit committee and a risk committee. Internal audit conducts regular and full assessments of the risk management function and framework. The committee is satisfied with the effectiveness of its oversight of the governance of risk in the group. A detailed report on risk, as recommended in King IV, is contained in the *Integrated Annual Report* – see *Managing risks and opportunities* in that report.

Technology and information governance

The board recognises that technology is now more than just an enabler, but that technology is both a source for future opportunities and platforms on which our organisation conducts its business.

The audit and risk committee has delegated responsibility to management for implementing the policy on enterprise-wide technology and information management, and for embedding it into the day-to-day, medium- and long-term decision-making activities and culture of the organisation.

During the period under review, inter alia, management introduced a hybrid sourcing model ensuring optimal placement of adequately skilled resources to support operational and project initiatives as per the approved strategy, adopted best-practice cybersecurity policies and user awareness programmes enabling a secure and resilient environment, keeping ahead of evolving cyber threats with a revised methodology to governance, complemented by technology, allowing visibility and transparency, which improved compliance and reduced audit effort.

Events subsequent to June 2019

- On 26 July 2019, the Johannesburg High Court approved the R5.2bn settlement of the silicosis and tuberculosis class action suit between the Occupational Lung Disease Working Group – representing Harmony, Gold Fields, African Rainbow Minerals, Anglo American South Africa, AngloGold Ashanti and Sibanye-Stillwater – and lawyers representing affected mineworkers. After a mandatory three-month period, during which potential beneficiaries can opt out of the settlement agreement, the settlement funds will be used to establish the Tshiamiso Trust. The trust will track and trace class members, process all submitted claims, including the undertaking of benefit medical examinations, and pay benefits to eligible claimants
- On 19 August 2019, Harmony and a syndicate of local and international lenders entered into a loan facility agreement which was jointly arranged by Nedbank Limited and ABSA Bank Limited, comprising a revolving credit facility (RCF) of up to US$200 million and a term portion of up to US$200 million. The tenor of the facility is three years with an option to extend by another one year. The interest rate for the term loan is LIBOR plus 3.05% and LIBOR plus 2.90% for the RCF. Conditions precedent were fulfilled on 26 September 2019 and financial close was on 2 October 2019, with US$5 million (R76 million) being drawn on, resulting in an outstanding balance of US$300 million (R4.6 billion) and an undrawn balance of US$100 million (R1.4 billion)

Fikile De Buck
Chairman: Audit and risk committee
24 October 2019

DIRECTORS' REPORT

Our business

The Harmony group of companies has underground and surface operations and conducts gold mining and exploration in South Africa and Papua New Guinea. A general review of the group's business and operations is provided in *Operational performance*.

The company does not have a controlling shareholder and is managed by its directors on behalf of all of its shareholders. The company's primary listing is in South Africa on the JSE. Harmony's ordinary shares are also listed in the form of American Depositary Receipts on the New York Stock Exchange.

Integrated annual report 2019

As required by the King IV Report on Governance for South Africa, 2016 (King IV report) and the JSE Listings Requirements, the board has reviewed and approved the Integrated Annual Report 2019 on the recommendation of the audit and risk committee, supported by the social and ethics committee.

Statement by the board

The board of directors is of the opinion that the Integrated Annual Report 2019 and the accompanying consolidated financial statements fairly reflect the true financial position of the group at 30 June 2019 and its performance for the year.

Company secretary

The company secretary is Riana Bisschoff. Her business and postal addresses appear on the inside back cover of this report. The company secretary's certificate is found in the 2019 *Integrated Annual Report*.

Board of directors

On 13 May 2019, the board appointed Ms Given Sibiya and Ms Grathel Motau as independent non-executive directors.

The board subsequently appointed Ms Given Sibiya as a member of the audit and risk committee and Ms Grathel Motau as a member of the investment committee, effective 15 August 2019.

Directors' shareholdings

At 30 June 2019, the chief executive officer, Peter Steenkamp, held 512 000 shares, the financial director, Frank Abbott, held 1 142 010 shares and executive director, Mashego Mashego, held 593 shares in Harmony while non-executive directors André Wilkens and Ken Dicks, held 101 301 and 35 000 shares in Harmony respectively. None of the directors' immediate families and associates held any direct shareholding in the company's issued share capital. No other director held or acquired any shares in the company, other than through share incentive schemes (executive directors only) during FY19. Refer to the Remuneration report for details of share incentives awarded to executive directors.

Going concern

In accordance with the solvency and liquidity test in terms of section 4 of the Companies Act, the board is of the opinion that the company has adequate resources and that the:

- company's assets, fairly valued, exceed the fair value of its liabilities
- company will be able to pay its debts as they become due in the ordinary course of business for the 12 months following 30 June 2019

Financial results

Details of the group's financial performance are discussed in the *Financial director's report*. The audited consolidated and company annual financial statements are included in the Financial Report 2019 which is available online at *www.har.co.za*.

Share capital

On 12 July 2018, shareholders approved the special resolution to issue 11 032 623 new ordinary shares to African Rainbow Minerals Limited at the placing price of R19.12 (ARM Placing). The proceeds of R211 million (US$16 million) raised from the ARM Placing were used to repay part of the outstanding bridge loan raised for the acquisition of the Moab Khotsong operations.

Costs directly attributable to the issue of the shares amounted to R49 million (US$3.7 million).

Full details of the authorised, issued and unissued share capital of the company as at 30 June 2019 are set out in the consolidated statements of changes in shareholders' equity in the Financial Report 2019 *(www.har.co.za)*.

Shareholders

Information on shareholder spread, the range of shareholdings and public shareholders, as well as major shareholders, is presented in the *Shareholders' information* section in this Financial Report 2019.

Dividend policy

Harmony is pursuing a growth strategy which has resulted in our production having increased by approximately 30% over the past two financial years. This increase in production was predominantly financed through debt. Our priority is to reduce debt before we consider paying a dividend.

Dividends declared

No dividend declared for FY18 and FY19.

Investments

A schedule of investments in subsidiaries, associates and joint arrangements appears in the Financial Report 2019 *(www.har.co.za)*.

Contingencies

None of Harmony's properties is the subject of pending material legal proceedings. We are involved in legal and arbitration proceedings that are incidental to the normal conduct of our business. Refer to note 35 of the consolidated financial statements for further discussion.

Borrowings

(i) Movement in borrowings: see note 29 to the consolidated financial statements

(ii) Borrowing powers are detailed in the company's memorandum of incorporation

Disposals

There were no material disposals during FY19.

Acquisitions

There were no material acquisitions during FY19.

Related party transactions

None of the directors or major shareholders of Harmony or, to Harmony's knowledge, their families, had an interest, directly or indirectly, in any transaction during the period under review or in any proposed transaction that has affected or will materially affect Harmony or its subsidiaries, other than as discussed below.

Modise Motloba, Harmony's deputy chairman, is a director of Tysys Limited. Tysys Limited entered into a contract with the group in February 2017 to provide services relating to the group's small and medium enterprise development projects. Approximately R4 million was paid to Tysys Limited during FY19. The contract has a 30-day notice period.

Material transactions with associates, joint arrangements and structured entities

Refer to note 34 of the consolidated financial statements for details on transactions conducted during the period under review.

Recent developments

On 26 July 2019, the Johannesburg High Court approved the R5.2bn settlement of the silicosis and tuberculosis class action suit between the Occupational Lung Disease Working Group – representing Gold Fields, African Rainbow Minerals, Anglo American SA, AngloGold Ashanti, Harmony and Sibanye-Stillwater – and lawyers representing affected mineworkers. After a mandatory three-month period, during which potential beneficiaries can opt out of the settlement agreement, the settlement funds will be used to establish the Tshiamiso Trust. The trust will track and trace class members, process all submitted claims, including the undertaking of benefit medical examinations, and pay benefits to eligible claimants.

On 19 August 2019, Harmony and a syndicate of local and international lenders entered into a loan facility agreement which was jointly arranged by Nedbank Limited and ABSA Bank Limited, comprising a revolving credit facility (RCF) of up to US$200 million and a term portion of up to US$200 million. The tenor of the facility is three years with an option to extend by another one year. The interest rate for the term loan is LIBOR plus 3.05% and LIBOR plus 2.90% for the RCF. Conditions precedent were fulfilled on 26 September 2019 and financial close was on 2 October 2019, with US$5 million (R75 million) being drawn on, resulting in an outstanding balance of US$300 million (R4.5 billion).

Independent auditor's report

To the Shareholders of Harmony Gold Mining Company Limited

Report on the audit of the consolidated and separate financial statements

Our opinion

In our opinion, the consolidated and separate financial statements present fairly, in all material respects, the consolidated and separate financial position of Harmony Gold Mining Company Limited (the Company) and its subsidiaries (together the Group) as at 30 June 2019, and its consolidated and separate financial performance and its consolidated and separate cash flows for the year then ended in accordance with International Financial Reporting Standards and the requirements of the Companies Act of South Africa.

What we have audited

Harmony Gold Mining Company Limited's consolidated and separate financial statements set out on pages 25 to 159 comprise:

- the group balance sheets and the company balance sheets as at 30 June 2019;
- the group income statements and the company income statements for the year then ended;
- the group statements of comprehensive income and the company statements of comprehensive income for the year then ended;
- the group statements of changes in shareholders' equity and the company statements of changes in shareholders' equity for the year then ended;
- the group statements of cash flow and the company statements of cash flow for the year then ended;
- the notes to the financial statements, which include a summary of significant accounting policies; and
- annexure A – statement of group companies at 30 June 2019 and annexure B – directors emoluments.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the consolidated and separate financial statements* section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

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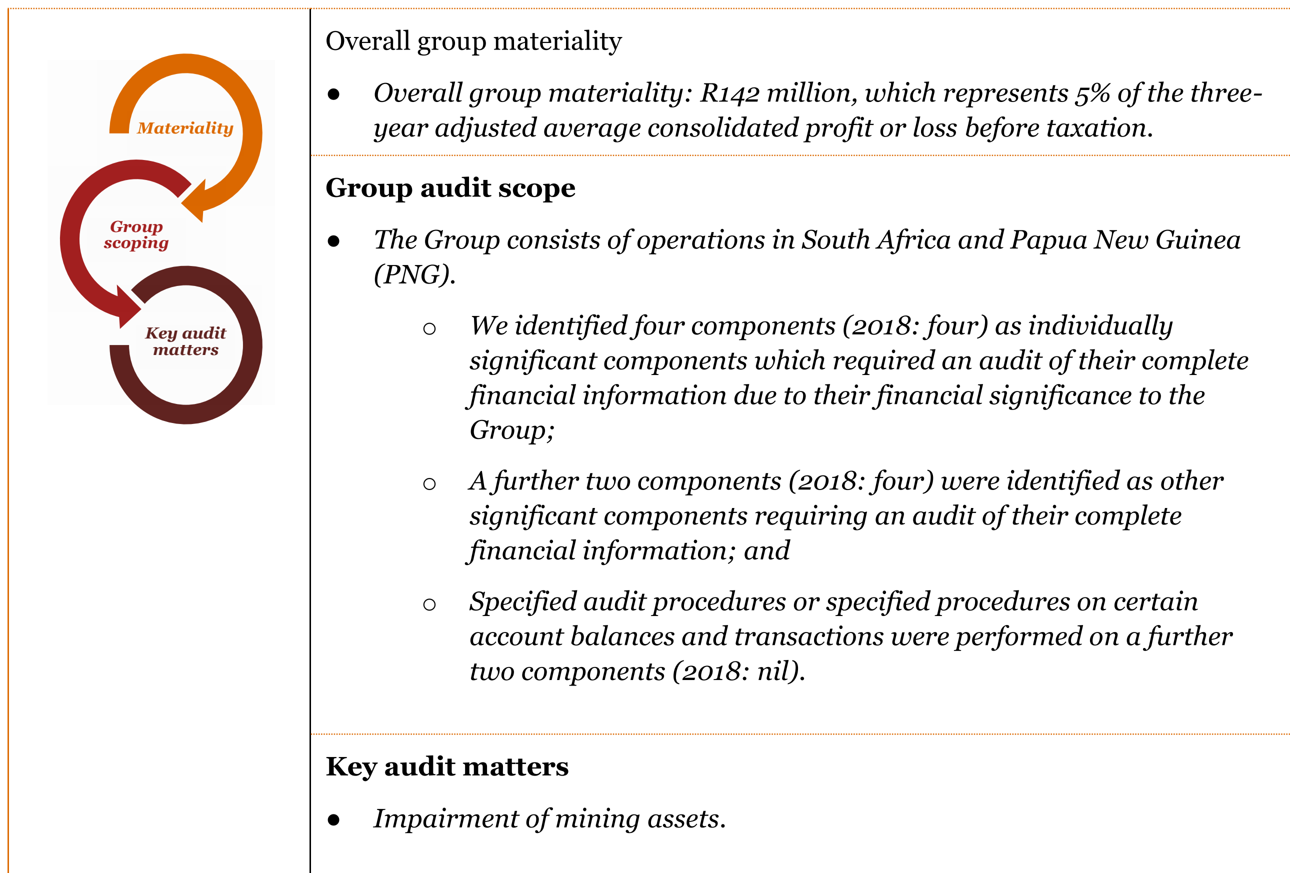
Independence

We are independent of the Group in accordance with the sections 290 and 291 of the Independent Regulatory Board for Auditors' *Code of Professional Conduct for Registered Auditors (Revised January 2018)*, parts 1 and 3 of the Independent Regulatory Board for Auditors' *Code of Professional Conduct for Registered Auditors (Revised November 2018)* (together the IRBA Codes) and other independence requirements applicable to performing audits of financial statements in South Africa. We have fulfilled our other ethical responsibilities, as applicable, in accordance with the IRBA Codes and in accordance with other ethical requirements applicable to performing audits in South Africa. The IRBA Codes are consistent with the corresponding sections of the International Ethics Standards Board for Accountants' *Code of Ethics for Professional Accountants* and the International Ethics Standards Board for Accountants' *International Code of Ethics for Professional Accountants (including International Independence Standards)* respectively.

Our audit approach

Overview



Overall group materiality

- *Overall group materiality: R142 million, which represents 5% of the three-year adjusted average consolidated profit or loss before taxation.*

Group audit scope

- *The Group consists of operations in South Africa and Papua New Guinea (PNG).*
    - *We identified four components (2018: four) as individually significant components which required an audit of their complete financial information due to their financial significance to the Group;*
    - *A further two components (2018: four) were identified as other significant components requiring an audit of their complete financial information; and*
    - *Specified audit procedures or specified procedures on certain account balances and transactions were performed on a further two components (2018: nil).*

Key audit matters

- *Impairment of mining assets.*

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the consolidated and separate financial statements. In particular, we considered where the directors made subjective judgements; for example, in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain. As in all of our audits, we also addressed the risk of management override of internal controls, including among other matters, consideration of whether there was evidence of bias that represented a risk of material misstatement due to fraud.

Materiality

The scope of our audit was influenced by our application of materiality. An audit is designed to obtain reasonable assurance whether the financial statements are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the consolidated financial statements.

Based on our professional judgement, we determined certain quantitative thresholds for materiality, including the overall group materiality for the consolidated financial statements as a whole as set out in the table below. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

Overall group materiality	*R 142 million*
How we determined it	*We have determined materiality by using 5% of the three-year adjusted average consolidated profit or loss before taxation.*
Rationale for the materiality benchmark applied	*We consider this approach of using a three-year average to be more appropriate than an assessment based on current year results alone given the nature of the mining industry which is exposed to cyclical commodity price and exchange rate fluctuations. Use of an average provides a more stable base reflective of the scale of the Group's size and operations.* *The consolidated profit or loss before taxation was adjusted to exclude exceptional once-off items such as the acquisition costs of the Moab Khotsong operation and the gain on bargain purchase recorded within the financial periods ended 30 June 2018 and 30 June 2017 respectively. These once-off items are not reflective of the ongoing operations of the business.* *We chose 5% which is consistent with quantitative materiality thresholds used for profit-oriented companies in this sector.*

How we tailored our group audit scope

We tailored the scope of our audit in order to perform sufficient work to enable us to provide an opinion on the consolidated financial statements as a whole, taking into account the structure of the Group, the accounting processes and controls, and the industry in which the Group operates.

The Group operates in two countries: South Africa and Papua New Guinea with eight operating gold mining companies. The operating gold mining entities are split into separate mining operations, namely South Africa Underground, South Africa Surface and International operations – refer to segment information (note 38). We identified four components (2018: four) within the operating gold mining companies that were deemed financially significant components (as defined within the ISAs) which in our view, required an audit of their complete financial information, due to their financial significance to the Group. Outside of these components, we also performed a full scope audit on two (2018: four) other significant components. Specified procedures on certain balances and transactions were performed for two components (2018: nil), primarily to ensure appropriate audit coverage.

The operating gold mining companies were identified to be in scope for a full scope audit based on scoping benchmarks such as the company's contribution to key financial statement line items (revenue, total assets and profit or loss before tax), risk associated with the company and considerations relating to aggregation risk within the group. We concluded that all other entities within the Group are financially inconsequential individually and in aggregate.

In establishing the overall approach to the group audit, we determined the type of work that needed to be performed by us, as the group engagement team, or a component auditor from another PwC network firm under our instruction. Where the work was performed by a component auditor, we determined the level of involvement we needed to have in the audit work at the component to be able to conclude whether sufficient appropriate audit evidence had been obtained as a basis for our opinion on the consolidated financial statements as a whole.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated and separate financial statements of the current period. These matters were addressed in the context of our audit of the consolidated and separate financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter	*How our audit addressed the key audit matter*
Impairment of mining assets	
This key audit matter relates to the consolidated and separate financial statements. Refer note 2.5 (Accounting policy), note 6 (Cost of sales), note 13 (Property, plant and equipment) and note 14 (Intangible assets) to the consolidated financial statements on pages 38, 51, 62, 71 and note 15 (Investment in Subsidiaries and Loans to/from	We held discussions with management to obtain an understanding of management's process for identifying impairment indicators, as well as their conclusions reached. We further gained an understanding as to how impairments were considered by management across the CGUs as well as the methodologies and models used in determining the fair value less costs to sell.

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Subsidiaries) to the separate financial statements on pages 129. For the purpose of assessing impairment of mining assets, assets are grouped at the lowest level for which there are separately identifiable cash flows (cash generating units or CGUs). Management has identified each operating shaft, along with allocated common assets such as plant and administrative offices, as a CGU. An impairment loss is recognised in the income statement for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less cost to sell and value in use. For all CGU's the fair value less cost to sell method was used to estimate the recoverable amount. The recoverable amount of mining assets is determined utilising real discounted future cash flows or resource multiples in the case of undeveloped properties and certain resource bases. Key input assumptions to the discounted cash flow models in determining the recoverable amounts are the commodity prices, marketable discount rates, exchange rates, and forecasted annual life-of-mine plans. Where valuations are based on resource multiples, the key input assumptions are the resources available and the resource multiple applied. Impairment losses were recognised for seven CGUs where the carrying value was greater than the estimated recoverable value. The impairment assessment was a matter of most significance to our current year audit due to the significant judgment involved in determining the recoverable amount of CGUs, as well as the magnitude of the impairments recognised in the current year.	We evaluated the design, implementation and operating effectiveness of internal controls over the review of the impairment, life-of-mine and resource base models, budgeting and forecasting process and determination of key assumptions (including the determination of the reserves and resources used within the valuations of the CGUs, resource multiples, discount rates applied, commodity prices and exchange rates assumptions). We evaluated management's discounted cash flow models for the CGUs against life-of-mine plans and our understanding of the operations, and tested the key estimates and assumptions used by management in each discounted cash flow model by performing procedures which included: • We used our valuation expertise to evaluate methodologies applied by management and recalculate the results of management's discounted cash flow models by using independently obtained key input assumptions such as commodity prices, exchange rates and market discount rates and found management's final recoverable amounts to be within a reasonable range of possible outcomes; • We assessed the reasonableness of management's future forecasts of annual production volumes, recovery grade, capital expenditure and operating unit costs included in the cash flow forecasts and noted these to be reasonable by comparing them to current and historical operational results, Reserves and Resources signed off by the Group's Competent Person and final approved budgets; • We compared the prior year forecasts to the current year forecasts and found that the forecasting method was consistently applied; • We used our valuations expertise to test the short- and long-term real commodity prices and exchange rates (R/US$ and PGK/US$) by benchmarking them against analysts' forecasts. Based on the work performed, we found management's assumptions to be within a reasonable range of possible prices; and

- We further made use of our valuation expertise to independently calculate the discount rates used in performing the impairment assessments. This included using relevant third-party sources and data such as the cost of debt, risk-free rates in the market, market risk premiums, debt/equity ratios, the beta of comparable companies, as well as the impact of economic and industry factors. In cases where discount rates determined by us differed from those used by management we gained an understanding of the differences and assessed there to be no material impact on the impairment assessment.

We evaluated management's resource multiple valuations by performing procedures which included:

- We tested the outside life-of-mine resource ounces, used within the valuation calculation of the resource base values in the CGUs, by reconciling the remaining ounces of total resources as signed off by the Group's Competent Person after the deduction of the life-of-mine resource ounces to the outside life-of-mine resource ounces and noted the resources declared to be sufficient.
- For undeveloped properties and certain additional resources, we agreed the resources used in management's valuation to the ounces as signed off by the Group's Competent Person.
- We used our valuations expertise to independently calculate the resource multiples by benchmarking the valuation against recent transactions within the gold mining industry. Based on our independent calculation, management's resource multiples were found to be reasonable.

We assessed management's sensitivity assessments by performing our own sensitivity calculations in respect of short- and long-term gold and silver prices, discount rates, inflation rates and operational performance. We found the sensitivity disclosures given in the notes to the financial statements to be appropriate.

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Other information

The directors are responsible for the other information. The other information comprises the information included in the documents titled “Harmony Gold Mining Company Limited Financial Report for the year end 30 June 2019”, “Harmony Gold Mining Company Limited Integrated Annual Report 2019”, “The Mineral Resources and Reserves 2019”, “ESG Report 2019” and the “Report to shareholders 2019”, which include the Directors’ Report, the Audit and Risk Committee’s Report: Chairman’s report and the Company Secretary’s Certificate as required by the Companies Act of South Africa. The other information does not include the consolidated or the separate financial statements and our auditor’s report thereon.

Our opinion on the consolidated and separate financial statements does not cover the other information and we do not express an audit opinion or any form of assurance conclusion thereon.

In connection with our audit of the consolidated and separate financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the consolidated and separate financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the directors for the consolidated and separate financial statements

The directors are responsible for the preparation and fair presentation of the consolidated and separate financial statements in accordance with International Financial Reporting Standards and the requirements of the Companies Act of South Africa, and for such internal control as the directors determine is necessary to enable the preparation of consolidated and separate financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated and separate financial statements, the directors are responsible for assessing the Group and the Company’s ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group and/or the Company or to cease operations, or have no realistic alternative but to do so.

Auditor’s responsibilities for the audit of the consolidated and separate financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated and separate financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor’s report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated and separate financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated and separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's and the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated and separate financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group and / or Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated and separate financial statements, including the disclosures, and whether the consolidated and separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the directors with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the directors, we determine those matters that were of most significance in the audit of the consolidated and separate financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on other legal and regulatory requirements

In terms of the IRBA Rule published in Government Gazette Number 39475 dated 4 December 2015, we report that PricewaterhouseCoopers Inc. has been the auditor of Harmony Gold Mining Company Limited for sixty-nine years.

PricewaterhouseCoopers Inc

PricewaterhouseCoopers Inc.

Director: HP Odendaal

Registered Auditor

Waterfall City

24 October 2019

DIRECTORS' STATEMENT OF RESPONSIBILITY

FINANCIAL STATEMENTS

The directors have the pleasure in presenting the complete consolidated and company annual financial statements (collectively the annual financial statements) for the year ended 30 June 2019 and the summarised consolidated financial statements (included in the Report to Shareholders) for the same period. The annual financial statements were audited by PricewaterhouseCoopers Inc. who expressed an unmodified opinion thereon. The audited annual financial statements and the auditor's report thereon are available for inspection at the company's registered office. The summarised consolidated financial statements are extracted from the audited financial statements but are not themselves audited.

The annual financial statements have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board (IASB) and IFRIC Interpretations Committee (IFRIC) Interpretations (collectively IFRS), the SAICA Financial Reporting Guidelines as issued by the Accounting Practices Committee, Financial Pronouncements as issued by the Financial Reporting Standards Council and the Companies Act of South Africa.

The directors are responsible for the preparation, integrity and fair presentation of the annual financial statements of the company and its subsidiaries. The annual financial statements have been prepared by Harmony Gold Mining Company Limited's corporate reporting team, headed by Boipelo Lekubo CA(SA). This process was supervised by the financial director, Frank Abbott CA(SA). The directors take full responsibility for the preparation of the summarised report and the financial information has been correctly extracted from the underlying consolidated annual financial statements.

The directors are also responsible for the maintenance of effective systems of internal control which are based on established organisational structure and procedures. These systems are designed to provide reasonable assurance as to the reliability of the annual financial statements, and to prevent and detect material misstatement and loss.

Nothing has come to the attention of the board that caused it to believe that the systems of internal controls and risk management are not effective for the period under review and that the internal financial controls do not form a sound basis for the preparation of reliable financial statements. The board's opinion is underpinned by the audit and risk committee's statement.

The annual financial statements have been prepared on a going concern basis and the directors believe that the company and group will continue to be in operation in the foreseeable future.

APPROVAL

The annual financial statements and summarised consolidated financial statements were approved by the board of directors and signed on its behalf by:

PW Steenkamp

Chief executive officer
Randfontein
South Africa

F Abbott

Financial director
Randfontein
South Africa

24 October 2019

GROUP INCOME STATEMENTS

for the years ended 30 June 2019

Figures in million	Notes	SA rand 2019	2018 Restated	2017 Restated
Revenue	5	**26 912**	20 452	19 494
Cost of sales	6	**(28 869)**	(23 596)	(19 869)
Production costs		**(20 324)**	(15 084)	(15 042)
Amortisation and depreciation		**(4 054)**	(2 570)	(2 519)
Impairment of assets		**(3 898)**	(5 336)	(1 718)
Other items		**(593)**	(606)	(590)
Gross profit/(loss)		**(1 957)**	(3 144)	(375)
Corporate, administration and other expenditure		**(731)**	(813)	(517)
Exploration expenditure		**(148)**	(135)	(241)
Gains on derivatives	18	**484**	99	1 025
Other operating expenses	7	**(186)**	(667)	(886)
Operating profit/(loss)		**(2 538)**	(4 660)	(994)
Gain on bargain purchase	12	**—**	—	848
Loss on liquidation of subsidiaries		**—**	—	(14)
Share of profit/(loss) from associate	20	**59**	38	(22)
Acquisition related costs	12	**—**	(98)	—
Investment income	8	**308**	343	268
Finance costs	9	**(575)**	(330)	(234)
Profit/(loss) before taxation		**(2 746)**	(4 707)	(148)
Taxation	10	**139**	234	510
Net profit/(loss) for the year		**(2 607)**	(4 473)	362
Attributable to:				
Owners of the parent		**(2 607)**	(4 473)	362
Earnings/(loss) per ordinary share (cents)				
Total earnings/(loss)	11	**(498)**	(1 003)	82
Diluted earnings/(loss) per ordinary share (cents)				
Total diluted earnings/(loss)	11	**(500)**	(1 004)	79

These are the consolidated financial statements of Harmony Gold Mining Company Limited and its subsidiaries. For the separate financial statements of the company, refer to page 112 to 159.

The accompanying notes are an integral part of these consolidated financial statements.

GROUP STATEMENTS OF COMPREHENSIVE INCOME
for the years ended 30 June 2019

		SA rand		
Figures in million	Notes	**2019**	2018	2017
Net profit/(loss) for the year		**(2 607)**	(4 473)	362
Other comprehensive income for the year, net of income tax		**(684)**	(660)	818
Items that may be reclassified subsequently to profit or loss	24	**(677)**	(647)	821
Foreign exchange translation gain/(loss)		**(50)**	83	(322)
Remeasurement of gold hedging contracts				
Unrealised gain/(loss) on gold contracts		**(351)**	273	2 172
Released to revenue		**(453)**	(1 197)	(728)
Released to gains on derivatives		**—**	—	(16)
Deferred taxation thereon		**177**	194	(285)
Items that will not be reclassified to profit or loss:	24	**(7)**	(13)	(3)
Remeasurement of retirement benefit obligation		**(7)**	(13)	(3)
Total comprehensive income for the year		**(3 291)**	(5 133)	1 180
Attributable to:				
Owners of the parent		**(3 291)**	(5 133)	1 180

The accompanying notes are an integral part of these consolidated financial statements.

GROUP **BALANCE SHEETS**

		SA rand	
Figures in million	Notes	**At 30 June 2019**	At 30 June 2018 Restated
ASSETS			
Non-current assets			
Property, plant and equipment	13	**27 749**	30 969
Intangible assets	14	**533**	545
Restricted cash	15	**92**	77
Restricted investments	16	**3 301**	3 271
Investments in associates	20	**110**	84
Inventories	22	**43**	46
Other non-current assets	17	**334**	264
Derivative financial assets	18	**197**	84
Total non-current assets		**32 359**	35 340
Current assets			
Inventories	22	**1 967**	1 759
Restricted cash	15	**44**	38
Trade and other receivables	19	**1 064**	1 139
Derivative financial assets	18	**309**	539
Cash and cash equivalents		**993**	706
Total current assets		**4 377**	4 181
Total assets		**36 736**	39 521
EQUITY AND LIABILITIES			
Share capital and reserves			
Share capital and premium	23	**29 551**	29 340
Other reserves	24	**4 773**	5 145
Accumulated loss		**(11 710)**	(9 103)
Total equity		**22 614**	25 382
Non-current liabilities			
Deferred tax liabilities	10	**688**	1 145
Provision for environmental rehabilitation	25	**3 054**	3 309
Provision for silicosis settlement	26	**942**	925
Retirement benefit obligation	27	**201**	186
Borrowings	29	**5 826**	4 924
Other non-current liabilities	28	**5**	41
Derivative financial liabilities	18	**172**	10
Total non-current liabilities		**10 888**	10 540
Current liabilities			
Borrowings	29	**89**	690
Trade and other payables	30	**2 875**	2 704
Derivative financial liabilities	18	**270**	205
Total current liabilities		**3 234**	3 599
Total equity and liabilities		**36 736**	39 521

The accompanying notes are an integral part of these consolidated financial statements.

GROUP STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

for the years ended 30 June 2019

	Number of ordinary shares issued	Share capital and premium	Accumulated loss	Other reserves	Total
Notes	23	23		24	
Figures in million (SA rand)					
Balance - 30 June 2016	437 299 479	28 336	(4 409)	4 252	28 179
Issue of shares					
– Exercise of employee share options	2 657 720	—	—	—	—
Share-based payments	—	—	—	371	371
Net profit for the year	—	—	362	—	362
Other comprehensive income for the year	—	—	—	818	818
Dividends paid	—	—	(439)	—	(439)
Balance - 30 June 2017	439 957 199	28 336	(4 486)	5 441	29 291
Issue of shares					
– Shares issued and fully paid	55 055 050	1 004	—	—	1 004
– Exercise of employee share options	5 239 502	—	—	—	—
Share-based payments	—	—	—	374	374
Net loss for the year	—	—	(4 473)	—	(4 473)
Other comprehensive income for the year	—	—	—	(660)	(660)
Reclassification from other reserves	—	—	10	(10)	—
Dividends paid	—	—	(154)	—	(154)
Balance - 30 June 2018	500 251 751	29 340	(9 103)	5 145	25 382
Impact of adopting IFRS 9 (refer to note 2)	**—**	**—**	**—**	**82**	**82**
Restated opening balance - 1 July 2018	**500 251 751**	**29 340**	**(9 103)**	**5 227**	**25 464**
Issue of shares					
– Shares issued and fully paid	**11 032 623**	**211**	**—**	**—**	**211**
– Exercise of employee share options	**21 856 821**	**—**	**—**	**—**	**—**
– Harmony ESOP Trust	**6 700 000**	**—**	**—**	**—**	**—**
Share-based payments	**—**	**—**	**—**	**230**	**230**
Net loss for the year	**—**	**—**	**(2 607)**	**—**	**(2 607)**
Other comprehensive income for the year	**—**	**—**	**—**	**(684)**	**(684)**
Balance - 30 June 2019	**539 841 195**	**29 551**	**(11 710)**	**4 773**	**22 614**

The accompanying notes are an integral part of these consolidated financial statements.

GROUP CASH FLOW STATEMENTS
for the years ended 30 June 2019

		SA rand		
Figures in million	Notes	**2019**	2018	2017
CASH FLOW FROM OPERATING ACTIVITIES				
Cash generated by operations	31	**5 052**	4 289	4 346
Interest received		**69**	82	75
Interest paid		**(387)**	(180)	(79)
Income and mining taxes paid		**(55)**	(307)	(538)
Cash generated by operating activities		**4 679**	3 884	3 804
CASH FLOW FROM INVESTING ACTIVITIES				
Increase in restricted cash		**(15)**	(32)	(1)
Decrease in amounts invested in restricted investments	16	**187**	—	7
Cash on acquisition of Hidden Valley	12	**—**	—	459
Acquisition of Moab Khotsong	12	**—**	(3 474)	—
Additions to intangible assets		**(1)**	(9)	—
Redemption of preference shares from associates	20	**32**	—	—
Capital distributions from investments	17	**30**	—	—
Proceeds from disposal of property, plant and equipment		**5**	2	42
Additions to property, plant and equipment		**(5 035)**	(4 562)	(3 890)
Cash utilised by investing activities		**(4 797)**	(8 075)	(3 383)
CASH FLOW FROM FINANCING ACTIVITIES				
Borrowings raised	29	**1 522**	6 937	699
Borrowings repaid	29	**(1 353)**	(4 063)	(710)
Proceeds from the issue of shares	23	**211**	1 003	—
Dividends paid		**—**	(154)	(439)
Cash generated from/(utilised by) financing activities		**380**	3 723	(450)
Foreign currency translation adjustments		**25**	(72)	19
Net increase/(decrease) in cash and cash equivalents		**287**	(540)	(10)
Cash and cash equivalents - beginning of year		**706**	1 246	1 256
Cash and cash equivalents - end of year		**993**	706	1 246

The accompanying notes are an integral part of these consolidated financial statements.

NOTES TO THE GROUP FINANCIAL STATEMENTS
for the years ended 30 June 2019

1 GENERAL INFORMATION

Harmony Gold Mining Company Limited (the company) and its subsidiaries (collectively Harmony or the group) are engaged in gold mining and related activities, including exploration, extraction and processing. Gold bullion, the group's principal product, is currently produced at its operations in South Africa and Papua New Guinea (PNG). Uranium and silver are produced as by-products.

The company is a public company, incorporated and domiciled in South Africa. The address of its registered office is Randfontein Office Park, Corner Main Reef Road and Ward Avenue, Randfontein, 1759.

The consolidated financial statements were authorised for issue by the board of directors on 24 October 2019.

2 ACCOUNTING POLICIES

BASIS OF PREPARATION

The principal accounting policies applied in the preparation of the consolidated financial statements have been consistently applied in all years presented except for the changes as described under "Recent accounting developments" below.

The comparative amounts in the balance sheet were restated due to the finalisation of the purchase price allocation which was done on a provisional basis in 2018. Refer to note 12 for more information.

Non-current trade and other receivables and other non-current assets, which were presented as separate line items in the balance sheet in 2018, have been combined into a single line item called other non-current assets in 2019.

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board (IASB) and IFRS Interpretations Committee (IFRIC) Interpretations (collectively IFRS), the SAICA Financial Reporting Guidelines as issued by the Accounting Practices Committee, Financial Pronouncements as issued by the Financial Reporting Standards Council (FRSC), the JSE Listings Requirements and the Companies Act of South Africa.

The consolidated financial statements have been prepared on a going concern basis.

The consolidated financial statements have been prepared to the nearest million and rounding may cause differences.

RECENT ACCOUNTING DEVELOPMENTS

New standards, amendments to standards and interpretations to existing standards adopted by the group

During the financial year, the following new standards, amendments to standards and interpretations to existing standards were adopted by the group. No other standards and amendments to standards that became effective during the 2019 year had a material impact on the consolidated financial statements.

IFRS 15 – *Revenue from Contracts with Customers*

IFRS 15 establishes a single comprehensive five-step model to account for revenue arising from contracts with customers and is based on the core principle that revenue is recognised when control of a good or service transfers to a customer. It is effective for annual periods beginning on or after 1 January 2018. Harmony adopted the standard on 1 July 2018 under the full retrospective approach. The adoption of the new standard did not have an impact on the group's accounting for revenue as discussed below.

Scope of IFRS 15
The group's contracts that are in scope of the new revenue standard include gold, silver and uranium contracts. Income derived from all of these products are presented in revenue.

Revenue measurement
Under the previous standard, IAS 18, *Revenue*, revenue was measured at the fair value of the consideration received and discounted to the present value of consideration due if payment extended beyond normal credit terms. Historically payments have not extended beyond normal credit terms and the amount of revenue recognised equated to the transaction price.

Under IFRS 15, revenue is measured at the amount of consideration to which an entity expects to be entitled in exchange for transferring goods to a customer. The group's contracts do not contain elements of variable consideration, non-cash consideration or significant financing components and therefore the amount of revenue recognised equates to the transaction price. The group has not applied the practical expedient for significant financing components as there are none present in the group's contracts with customers.

2 ACCOUNTING POLICIES continued

RECENT ACCOUNTING DEVELOPMENTS continued

New standards, amendments to standards and interpretations to existing standards adopted by the group continued

IFRS 15 – *Revenue from Contracts with Customers* continued

Revenue recognition
Under IAS 18, revenue was recognised for the South African operations when the goods were delivered and a certificate of sale for gold and confirmation of transfer for uranium was issued. At Hidden Valley, the point of recognition was when the metal account was credited. This was taken to be the point in time at which the customer accepted the goods and the related risks and rewards of ownership transferred.

IFRS 15 requires revenue to be recognised when a customer obtains control of the goods. The group has assessed that the drivers for revenue recognition are unchanged as this is the point when control of the goods effectively transfers to the customer.

Hedge accounting
The effective portion of gains or losses on the derivatives designated as cash flow hedging items (forecast sales transactions) are recognised in revenue when the forecast sales transactions occur. The adoption of IFRS 15 and IFRS 9, *Financial Instruments* did not have an impact on the amount or timing of the hedging gains or losses recognised in revenue.

Subsequent changes
Subsequent to the adoption of IFRS 15, the customer who bought gold and silver from Hidden Valley was changed and a new contract was entered into. The point at which control of the product transfers to this customer is when the metal is collected from Hidden Valley and a confirmation of collection is sent to and accepted by the customer.

IFRS 9 – *Financial Instruments*

IFRS 9 replaces IAS 39, *Financial Instruments: Recognition and Measurement* and is effective for annual periods beginning on or after 1 January 2018. Harmony adopted the new standard on 1 July 2018. In line with the transitional provisions of IFRS 9, the group has applied the standard retrospectively without restating any comparative figures. The impact of adoption of the new standard is discussed below.

Classification and measurement
In terms of IFRS 9, financial instruments are measured either at amortised cost or at fair value. Movements in fair value are presented in either profit or loss (FVTPL) or other comprehensive income (FVOCI), subject to certain criteria being met. On 1 July 2018 management classified the group's financial instruments into the appropriate IFRS 9 categories. The new standard did not have a significant impact on the classification and measurement of the group's financial assets and derivative financial instruments as illustrated below:

	Measurement category		Carrying amount	
Figures in million (SA rand)	IAS 39	IFRS 9	30 June 2018 IAS 39	1 July 2018 IFRS 9
Restricted cash	Loans and receivables (amortised cost)	Debt instruments at amortised cost (a)	115	115
Cash and cash equivalents	Loans and receivables (amortised cost)	Debt instruments at amortised cost (a)	706	706
Trade and other receivables	Loans and receivables (amortised cost)	Debt instruments at amortised cost (a)	626	626
Restricted investments (cash and cash equivalents)	Loans and receivables (amortised cost)	Debt instruments at amortised cost (a)	23	23
Restricted investments (fixed deposits)	Held-to-maturity investments (amortised cost)	Debt instruments at amortised cost (a)	2 335	2 335
Restricted investments (equity-linked deposits)	Fair value through profit or loss	Debt instruments at fair value through profit or loss (b)	913	913
Other non-current assets (equity instruments)	Available-for-sale financial assets (cost)	Equity instruments designated at fair value through OCI (c)	8	90
Other non-current assets (debt instruments)	Loans and receivables (amortised cost)	Debt instruments at fair value through profit or loss (d)	253	253
Derivative financial instruments (hedging instruments)	Hedging instruments (fair value through profit or loss)	Derivatives designated as cash flow hedges (e)	482	482
Derivative financial instruments (fair value through profit or loss)	Fair value through profit or loss	Derivatives at fair value through profit or loss (e)	(74)	(74)

2 ACCOUNTING POLICIES continued

RECENT ACCOUNTING DEVELOPMENTS continued

New standards, amendments to standards and interpretations to existing standards adopted by the group continued

IFRS 9 – *Financial Instruments* continued

Classification and measurement continued

(a) The majority of loans and receivables, including debt instruments previously classified as held-to-maturity, are classified and measured at amortised cost under IFRS 9 as the group's business model is to hold these instruments in order to collect contractual cash flows, which is solely payments of principal and interest.
(b) Debt investments previously measured at FVTPL are classified and measured on the same basis under IFRS 9.
(c) An irrevocable election was made to classify the equity instruments previously classified as available-for-sale as at FVOCI. The new standard impacted the measurement of the group's unquoted equity investments. IFRS 9 eliminates the exemption provided under IAS 39 where unquoted equity investments were measured at cost when fair value could not be reliably measured. This change resulted in revaluing unlisted investments with a cost of Rnil to fair value of R82 million. The difference between the carrying amounts of financial instruments before the adoption of IFRS 9 and the new carrying amount calculated in accordance with the standard at 1 July 2018 was recognised directly in the opening balance of equity. Refer to the statements of changes in equity.
(d) The loan to the ARM BBEE Trust, previously carried at amortised cost, is classified at FVTPL under IFRS 9 as the contractual cash flows fail the solely payments of principal and interest (SPPI) characteristics. The group determined that the contractual terms include exposure to risk and volatility that is inconsistent with a basic lending arrangement. In making this assessment the group considered contingent events that would change the amount and timing of cash flows and potential limits on the group's claim to cash flows from specified assets (e.g. non-recourse asset arrangements). The change in classification did not have an impact on the carrying amount of the loan on initial adoption as the carrying amount was equal to the fair value. The loan is included in other non-current assets in the balance sheet. Previously, the ARM BBEE Trust loan was included in non-current trade and other receivables in the balance sheet.
(e) Derivative financial instruments continue to be classified and measured at FVTPL.

There was no impact on the group's accounting for financial liabilities as the new requirements only affected the accounting for financial liabilities that are designated at FVTPL and currently the group does not have any such liabilities.

Impairment
The change from the "incurred loss" model to the "expected credit loss" model did not have a material impact on the measurement of the group's financial assets. Under IFRS 9, credit losses are recognised earlier than under IAS 39. Refer to note 4 for details on how the credit loss was calculated.

Hedge accounting
Except for assessing hedge effectiveness, accounting for the group's defined hedge relationships remained unchanged under IFRS 9. The new requirements and disclosures have been applied for 2019 only.

IFRS 2 – *Share-based payment* (Amendment)

A collection of three distinct narrow-scope amendments dealing with classification and measurement of share-based payments. The amendments are effective for annual periods beginning on or after 1 January 2018 and address:
– the effects of vesting conditions on the measurement of a cash-settled share-based payment;
– the accounting requirements for a modification to the terms and conditions of a share-based payment that changes the classification of the transaction from cash-settled to equity-settled; and
– the classification of share-based payment transactions with net settlement features.

The amendments do not have a material impact on the group.

2 ACCOUNTING POLICIES continued

RECENT ACCOUNTING DEVELOPMENTS continued

Change in accounting policy - classification of by-products

Previously, income from silver and uranium sales were classified as a credit to cost of sales. The increasing significance of by-product income following the acquisition of the additional Hidden Valley interest warrants the by-products to be considered an output of the group's ordinary activities and therefore income from these products is presented now as part of the group's revenue.

The change in accounting policy results in an increase in revenue and a consequential increase in costs of sales and therefore does not have an impact on previously reported gross profit or loss. The group has applied the change retrospectively to each prior reporting period presented in accordance with IAS 8, *Accounting Policies, Changes in Accounting Estimates and Errors.* The impact on revenue and cost of sales is as follows:

	SA rand	
Figures in million	2018	2017
Revenue as previously reported	20 359	19 264
By-product revenue	93	230
Revenue (restated)	**20 452**	**19 494**
Cost of sales as previously reported	23 503	19 639
By-product revenue	93	230
Cost of sales (restated)	**23 596**	**19 869**

New standards, amendments to standards and interpretations to existing standards that are not yet effective and have not been early adopted

At the date of authorisation of these financial statements, the standards, amendments to standards and interpretations listed below were in issue but not yet effective. These new standards and interpretations have not been early adopted by the group and the group plans on adopting these standards, amendments to standards and interpretations on the dates when they become effective.

IFRS 16 – *Leases*

IFRS 16 replaces the previous accounting standard on leases, IAS 17 *Leases* and related Interpretations. The new standard introduces a single lease accounting model and requires a lessee to capitalise most leases with certain exemptions. A lessee is required to recognise a right of use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments.

The group will apply IFRS 16 initially on 1 July 2019 using the modified retrospective approach. Under this approach, the cumulative effect of adopting the new standard will be recognised as an adjustment to the opening balance of retained earnings at 1 July 2019 with no restatement of comparative information. The group has elected to recognise the right-of-use assets at an amount equal to the lease liability at 1 July 2019 together with the following practical expedients:
- Exemption not to capitalise leases for which the underlying asset is of low value;
- Exemption not to capitalise short-term leases;
- Recognition exemption for leases for which the lease term ends within 12 months of the date of initial application; and
- Exclude initial direct costs from the measurement of the right-of-use asset on initial adoption.

Based on the contracts in existence on 30 June 2019, the group expects to recognise additional right-of-use assets and related lease liabilities of between R80 million to R120 million on 1 July 2019 relating to leases previously classified as operating leases. In calculating this range, options to extend the lease contracts that are reasonably certain to be exercised were taken into account in determining the lease term. Currently, the minimum future lease payments under non-cancellable operating leases amount to R48 million, representing solely payments under the non-cancellable periods per the contracts and excluding any options to extend the lease term.

Furthermore, an increase in the group’s depreciation charge and finance cost is also expected while production cost is expected to decrease. Operating cash flows are expected to increase and financing cash flows to decrease as repayment of the principal portion of the lease liabilities will be classified as cash flows from financing activities, while previously the operating lease payments were classified as cash flows from operating activities.

The adoption of IFRS 16 will not impact the group's current debt covenant arrangements with financial institutions.

2 ACCOUNTING POLICIES continued

RECENT ACCOUNTING DEVELOPMENTS continued

New standards, amendments to standards and interpretations to existing standards that are not yet effective and have not been early adopted continued

IFRS 3 *Business Combinations* (Amendment)

These amendments are effective for annual periods beginning on or after 1 January 2020 and make it easier for companies to decide whether activities and assets they acquire are a business or merely a group of assets. The amendments:

- Confirm that a business must include inputs and a process, and clarified that: (i) the process must be substantive and (ii) the inputs and process must together significantly contribute to creating outputs;
- Narrow the definitions of a business by focusing the definition of outputs on goods and services provided to customers and other income from ordinary activities, rather than on providing dividends or other economic benefits directly to investors or lowering costs; and
- Add a test that makes it easier to conclude that a company has acquired a group of assets, rather than a business, if the value of the assets acquired is substantially all concentrated in a single asset or group of similar assets.

The amendments are not expected to have a material impact on the group.

IAS 1 *Presentation of Financial Statements* and IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* (Amendment)

The amendments, effective for annual periods beginning on or after 1 January 2020, clarify and align the definition of "material" and provide guidance to help improve consistency in the application of materiality whenever it is used in IFRS Standards.

IAS 19 *Employee Benefits* (Amendment)

The amendments require an entity to use the updated assumptions from a remeasurement of net defined benefit liability or asset resulting from a plan amendment, curtailment or settlement to determine current service cost and net interest for the remainder of the reporting period after the change to the plan. The amendments apply for annual periods beginning on or after 1 January 2019 and is not expected to have a material impact on the group.

IAS 23 *Borrowing Costs* (Amendment)

The amendments clarify that if any specific borrowing remains outstanding after the related asset is ready for its intended use or sale, that borrowing becomes part of the funds that an entity borrows generally when calculating the capitalisation rate on general borrowings.The amendments apply for annual periods beginning on or after 1 January 2019 and is not expected to have a material impact on the group.

IAS 28 *Investments in Associates and Joint Ventures* (Amendment)

The amendments clarify that an entity applies IFRS 9 to long-term interests in an associate and joint venture that forms part of the net investment in the associate or joint venture but to which the equity method is not applied. The amendments apply for annual periods beginning on or after 1 January 2019 and is not expected to have a material impact on the group.

IFRIC 23 *Uncertainty over Income Tax Treatments*

The interpretation specifies how an entity should reflect the effects of uncertainties in accounting for income taxes and is effective for annual periods beginning on or after 1 January 2019. IFRIC 23 specifically clarifies how to incorporate this uncertainty into the measurement of tax as reported in the consolidated financial statements. The interpretation does not introduce any new disclosures but reinforces the need to comply with existing disclosure requirements about judgements made, assumptions and other estimates used and the potential impact of uncertainties that are not reflected. The interpretation will not have a material impact on the group.

MEASUREMENT BASIS

The financial statements have been prepared under the historical cost convention except for certain financial assets and financial liabilities which are measured at fair value through profit or loss or other comprehensive income - refer to note 4.

GROUP ACCOUNTING POLICIES

Accounting policies are included in the relevant notes to the consolidated financial statements and have been highlighted between red lines in the notes to the consolidated financial statements. The accounting policies that follow are applied throughout the financial statements.

2 ACCOUNTING POLICIES continued

GROUP ACCOUNTING POLICIES continued

2.1 Consolidation

The group recognises that control is the single basis for consolidation for all types of entities in accordance with IFRS 10 - *Consolidated Financial Statements*.

The consolidated financial information includes the financial statements of the company, its subsidiaries, interest in associates and joint arrangements and structured entities. Where the group has no control over an entity, that entity is not consolidated.

Control
The group, regardless of the nature of its involvement with an entity, shall determine whether it is a parent by assessing whether it controls the investee.

The group controls an entity when it is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the activities of the entity.

(i) Subsidiaries
Subsidiaries are entities over which the group has control. Subsidiaries are fully consolidated from the date on which control is transferred to the group up until when that control ceases.

Intercompany transactions, balances and unrealised gains on transactions between group companies are eliminated. Unrealised losses are also eliminated. Accounting policies of subsidiaries have been changed to ensure consistency with the policies adopted by the group.

The group uses the acquisition method of accounting to account for business combinations. The consideration transferred for the acquisition of an acquiree is the fair value of the assets transferred, liabilities incurred and the equity interests issued by the group. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Acquisition-related costs are expensed as incurred. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. On an acquisition-by-acquisition basis, the group recognises any non-controlling interests in the acquiree either at fair value or at the non-controlling interest's proportionate share of the acquiree's net assets.

The excess of the sum of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previously held equity interest in the acquiree over the fair value of the group's share of the identifiable net assets acquired is recorded as goodwill. If this is less than the fair value of the net assets of the subsidiary acquired, in the case of a bargain purchase, the difference is recognised directly in the income statement below operating profit or loss.

(ii) Associates
Associates are entities in which the group has significant influence, but not control, over operational and financial policies. This may be when there is a shareholding of between 20% and 50% of the voting rights or when significant influence can be otherwise demonstrated, for example where the group has the right of representation on the board of directors, or other governing body, of the entity.

Investments in associates are accounted for by using the equity method of accounting, and are initially recognised at cost. The group's investment in associates includes goodwill identified on acquisition. Cumulative post-acquisition movements are adjusted against the carrying amount of the investment. The group's share of the associates' post-acquisition profits or losses is recognised in the income statement, and its share of post acquisition movement in reserves is recognised in other reserves. When the group's share of losses in an associate equals or exceeds its interest in the associate, the group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate.

The carrying value of an associate is reviewed on a regular basis and, if impairment in the carrying value has occurred, it is written off in the period in which such impairment is identified.

Accounting policies of associates have been reviewed to ensure consistency with the policies adopted by the group.

(iii) Joint arrangements
Joint arrangements are arrangements of which two or more parties have joint control and are contractually bound. The joint arrangement can either be a joint operation or a joint venture. A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement and have the right to the assets, and obligations for the liabilities, relating to the arrangement. These parties are called joint operators. A joint venture is a joint arrangement where the parties that have joint control of the arrangement have rights to the net assets of the arrangement. Those parties are called joint venturers.

2 ACCOUNTING POLICIES continued

GROUP ACCOUNTING POLICIES continued

2.1 Consolidation continued

(iii) Joint arrangements
For interest in joint operations, the group includes its share of the joint operations' individual income and expenses, assets and liabilities and cash flows on a line-by-line basis with similar items in the group's financial statements.

Where an additional interest in a joint operation is acquired, the principles of IFRS 3 are applied to account for the transaction.

The group recognises the portion of gains or losses on the sale of assets by the group to the joint operation that is attributable to the other joint operators. The group does not recognise its share of profits or losses from the joint operation that results from the purchase of assets by the group from the joint operation until it resells the assets to an independent party. However, if a loss on the transaction provides evidence of a reduction in the net realisable value of current assets or an impairment loss, the loss is recognised immediately.

The group recognises its interest in a joint venture as an investment and accounts for it using the equity accounting method.

(iv) Structured entities
A structured entity is an entity that has been designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate to administrative tasks only and the relevant activities are directed by means of contractual arrangements.

The accounting treatment for a structured entity will fall into one of the aforementioned categories (i to iii) depending on whether the group has control over that structured entity.

2.2 Foreign currency translation

(i) Functional and presentation currency
Items included in the financial statements of each of the group's entities are measured using the currency of the primary economic environment in which the entity operates (the functional currency). The consolidated financial statements are presented in South African rand, which is the group's presentation currency.

References to "A$" refers to Australian currency, "R" to South African currency, "$" or "US$" to United States currency and "K" or "kina" to Papua New Guinean currency.

(ii) Transactions and balances
Foreign exchange gains and losses resulting from the settlement of foreign currency transactions and from the translation to year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the income statement. Gains and losses recognised in the income statement are included in the determination of other operating expenses.

(iii) Group companies
The results and financial position of all group entities (none of which has the currency of a hyperinflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:
- Assets and liabilities for each balance sheet presented are translated at the closing rate at the date of that balance sheet while equity items are translated at historic rates;
- Income and expenses for each income statement are translated at average exchange rates (the rate on the date of the transaction is used if the average is not a reasonable rate for the translation of the transaction);
- All resulting exchange differences are recognised as a separate component of other comprehensive income.

On consolidation, exchange differences arising from the translation of the net investment in foreign operations, and of borrowings and other currency instruments designated as hedges of such investments, are taken to other comprehensive income. When a foreign operation is sold or control is otherwise lost, exchange differences that were recorded in other comprehensive income are recognised in profit or loss in the period of the disposal or change in control. Goodwill and fair value adjustments arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign entity and translated at the closing rate.

2 ACCOUNTING POLICIES continued

GROUP ACCOUNTING POLICIES continued

2.3 Derivatives and hedging activities

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The accounting for subsequent changes in fair value depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged.

The difference between the fair value of the derivative at initial recognition and expected forward transaction price is deferred and recognised as a day one gain or loss. The day one gain or loss is amortised over the derivative contract period and recognised in profit or loss in gains/losses on derivatives.

The full fair value of a derivative is classified as a non-current asset or liability when the remaining maturity is more than 12 months; it is classified as a current asset or liability when the remaining maturity is less than 12 months.

(i) Cash flow hedge
The group designates certain derivatives as hedges of a particular risk associated with the cash flows of highly probable forecast transactions (cash flow hedges). At inception of the hedge relationship, the group documents the economic relationship between hedging instruments and hedged items including whether changes in the cash flows of the hedging instruments are expected to offset changes in the cash flows of hedged items. The group documents its risk management objective and strategy for undertaking its hedge transactions.

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in other comprehensive income and accumulated in reserves in equity. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss within gains/losses on derivatives.

Amounts accumulated in equity are reclassified to profit or loss in the periods when the forecast sale that is hedged takes place and affects profit or loss. The gain or loss relating to the effective portion of the rand and US$ gold forward sales contracts is recognised in profit or loss within revenue.

When a hedging instrument expires or is sold or terminated, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in equity and is recognised when the forecast transaction that was hedged is ultimately recognised in profit or loss. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately reclassified to profit or loss.

(ii) Derivatives not designated for hedge accounting purposes
Certain derivative instruments do not qualify for hedge accounting. Changes in the fair value as well as gains and losses on expiry, disposal or termination of any derivative instrument that does not qualify for hedge accounting are recognised immediately in profit or loss and are included in gains/losses on derivatives.

2.4 Exploration expenditure

The group has elected to expense all exploration and evaluation expenditures until it is concluded that the project is technically feasible and commercially viable, and that future economic benefits are therefore probable. The information used to make that determination depends on the level of exploration as well as the degree of confidence in the ore body as set out below.

Exploration and evaluation expenditure on greenfield sites, being those where the group does not have any mineral deposits which are already being mined or developed, is expensed as incurred until the technical and commercial viability of the project has been demonstrated usually through the completion of a final feasibility study. However, in certain instances, the technical and commercial viability of the deposit may be demonstrated at an earlier stage, for example where an extended feasibility study is conducted and the underlying feasibility study in respect of specific components of the mineral deposit has advanced to such a stage that significant commercially viable reserves has been established, and the other criteria for the recognition of an asset have been met.

Exploration and evaluation expenditure on brownfield sites, being those adjacent to mineral deposits which are already being mined or developed, is expensed as incurred until the group is able to demonstrate that future economic benefits are probable through the completion of a feasibility study, after which the expenditure is capitalised as mine development cost. A ‘feasibility study’ consists of a comprehensive study of the viability of a mineral project that has advanced to a stage where the mining method has been established, and which, if an effective method of mineral processing has been determined, includes a financial analysis based on reasonable assumptions of technical, engineering, operating economic factors and the evaluation of other relevant factors. The feasibility study, when combined with existing knowledge of the mineral property that is adjacent to mineral deposits that are already being mined or developed, allows the group to conclude that the project is technically feasible and commercially viable.

2 ACCOUNTING POLICIES continued

GROUP ACCOUNTING POLICIES continued

2.4 Exploration expenditure continued

Exploration and evaluation expenditure relating to extensions of mineral deposits which are already being mined or developed, including expenditure on the definition of mineralisation of such mineral deposits, is capitalised as a mine development cost following the completion of an economic evaluation equivalent to a feasibility study. This economic evaluation is distinguished from a feasibility study in that some of the information that would normally be determined in a feasibility study is instead obtained from the existing mine or development. This information, when combined with existing knowledge of the mineral property already being mined or developed, allows the directors to conclude that the project is technically feasible and commercially viable.

2.5 Impairment of non-financial assets

Assets that have an indefinite useful life are not subject to amortisation or depreciation and are tested annually for impairment or when there is an indication of impairment.

Assets that are subject to amortisation are reviewed annually on 30 June for impairment or whenever events or changes in circumstances indicate that the carrying amount may not be recoverable.

An impairment loss is recognised in the income statement for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash generating unit or CGU). Each operating shaft, along with allocated common assets such as plants and administrative offices, is considered to be a cash generating unit as each shaft is largely independent from the cash flows of other shafts and assets belonging to the group.

Fair value less cost to sell is generally determined by using discounted estimated after-tax future cash flows. Future cash flows are estimated based on quantities of recoverable minerals, expected gold prices (considering current and historical prices, price trends and related factors), production levels and cash costs of production, all based on life-of-mine (LoM) plans. Future cash flows are discounted to their present value using a post-tax discount rate that reflects current market assessments of the time value of money and risk specific to the asset. Refer to note 13 for detail.

The term "recoverable minerals" refers to the estimated amount of gold that will be obtained from reserves and resources and all related exploration stage mineral interests (except for other mine-related exploration potential and greenfields exploration potential discussed separately below) after taking into account losses during ore processing and treatment. Estimates of recoverable minerals from such related exploration stage mineral interests will be risk adjusted based on management's relative confidence in such materials.

In estimating future cash flows, assets are grouped at the lowest level for which there are identifiable cash flows that are largely independent of cash flows from other asset groups. With the exception of other mine-related exploration potential and greenfields exploration potential, estimates of future undiscounted cash flows are included on an area of interest basis, which generally represents an individual operating mine, even if the mines are included in a larger mine complex.

In the case of mineral interests associated with other mine-related exploration potential and greenfields exploration potential, cash flows and fair values are individually evaluated based primarily on recent exploration results and recent transactions involving sales of similar properties, if any. Assumptions underlying future cash flow estimates are subject to significant risks and uncertainties.

Impairment losses on goodwill are recognised immediately in the income statement and are not reversed. The impairment testing is performed annually on 30 June or when events or changes in circumstances indicate that it may be impaired.

Non-financial assets other than goodwill that suffered an impairment are reviewed annually for possible reversal of the impairment at 30 June. Reversal of impairments is also considered when there is objective evidence to indicate that the asset is no longer impaired. Where an impairment subsequently reverses, the carrying amount of the asset or CGU is increased to the revised estimate of its recoverable amount, but not higher than the carrying value that would have been determined had no impairment been recognised in prior years.

2.6 Operating profit

The group defines operating profit as the profit earned from the normal core mining operations. In reporting operating profit in the income statement, transactions for capital transactions involving subsidiaries, joint arrangements and associates are excluded from operating profit as these are not considered to be part of the mining operations of the Harmony group. Any gains or losses on capital transactions are presented below the operating profit line.

3 CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

The preparation of the financial statements in conformity with IFRS requires the group's management to make estimates and assumptions that affect the reported amounts of assets and liabilities as well as disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Refer to the specific notes below for further information on the key accounting estimates and assumptions applied.

- Valuation of derivative financial instruments – note 4;
- Estimate of taxation – note 10;
- Recognition of deferred tax asset – note 10;
- Valuation of acquired assets and assumed liabilities for Moab Khotsong and Hidden Valley– note 12;
- Gold mineral reserves and resources – note 13;
- Production start date – note 13;
- Stripping activities – note 13;
- Impairment of assets – note 13;
- Depreciation of property plant and equipment – note 13;
- Impairment of goodwill – note 14;
- Valuation of interest in associate – note 20;
- Provision for stock obsolescence - note 22;
- Estimate of exposure and liabilities with regard to rehabilitation costs – note 25;
- Estimate of provision for silicosis settlement – note 26;
- Estimate of employee benefit liabilities – note 27;
- Fair value of share-based payments – note 33;
- Assessment of contingencies – note 35.

4 FINANCIAL RISK MANAGEMENT

The group's operating activities expose it to a variety of financial risks: market risk (including commodity price risk, currency risk, cash flow interest rate risk and other price risk), credit risk and liquidity risk. The group may use derivative financial instruments to hedge certain risk exposures.

The group's financial assets and liabilities are classified as set out below:

Figures in million (SA rand)	Debt instruments at amortised cost	Equity instruments designated at fair value through OCI	Derivatives designated as cash flow hedges	Derivatives at fair value through profit or loss	Debt instruments at fair value through profit or loss	Financial liabilities at amortised cost
At 30 June 2019						
Financial assets						
Restricted cash	136	—	—	—	—	—
Restricted investments	2 045	—	—	—	1 256	—
Other non-current assets	3	59	—	—	271	—
Non-current derivative financial instruments	—	—	24	173	—	—
- Rand gold hedging contracts	—	—	23	—	—	—
- US$ commodity contracts	—	—	1	—	—	—
- Foreign exchange hedging contracts	—	—	—	173	—	—
Current derivative financial instruments	—	—	26	283	—	—
- Rand gold hedging contracts	—	—	22	—	—	—
- US$ commodity contracts	—	—	4	—	—	—
- Foreign exchange hedging contracts	—	—	—	283	—	—
Trade and other receivables	627	—	—	—	—	—
Cash and cash equivalents	993	—	—	—	—	—
Financial liabilities						
Non-current derivative financial instruments	—	—	172	—	—	—
- Rand gold hedging contracts	—	—	158	—	—	—
- US$ commodity contracts	—	—	14	—	—	—
Current derivative financial instruments	—	—	205	65	—	—
- Rand gold hedging contracts	—	—	164	61	—	—
- US$ commodity contracts	—	—	41	2	—	—
- Foreign exchange hedging contracts	—	—	—	2	—	—
Borrowings	—	—	—	—	—	5 915
Other non-current liabilities	—	—	—	—	—	2
Trade and other payables	—	—	—	—	—	930

4 FINANCIAL RISK MANAGEMENT continued

Figures in million (SA rand)	Loans and receivables	Available-for-sale financial assets	Held-to-maturity investments	Hedging instruments	Fair value through profit or loss	Financial liabilities at amortised cost
At 30 June 2018						
Financial assets						
Restricted cash	115	—	—	—	—	—
Restricted investments	23	—	2 335	—	913	—
Other non-current assets	253	8	—	—	—	—
Non-current derivative financial instruments	—	—	—	70	14	—
Current derivative financial instruments	—	—	—	412	127	—
Trade and other receivables	626	—	—	—	—	—
Cash and cash equivalents	706	—	—	—	—	—
Financial liabilities						
Non-current derivative financial instruments	—	—	—	—	10	—
Current derivative financial instruments	—	—	—	—	205	—
Borrowings	—	—	—	—	—	5 614
Other non-current liabilities	—	—	—	—	—	1
Trade and other payables	—	—	—	—	—	769

Risk management is carried out by a central treasury department (Group treasury) under policies approved by the board of directors. Group treasury identifies, evaluates and hedges certain selected financial risks in close cooperation with the group's operating units. The audit and risk committee and the board provides written principles for overall risk management, as well as written policies covering specific areas, such as commodity price risk, foreign exchange risk, interest rate risk, credit risk, use of derivative financial instruments and non-derivative financial instruments, and the investment of excess liquidity.

MARKET RISK

Foreign exchange risk

The group operates internationally and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the US dollar (US$). Foreign exchange risk arises when future commercial transactions or recognised assets or liabilities are denominated in a currency that is not the entity's functional currency. The majority of Harmony's revenues are sensitive to the R/US$ exchange rate as all revenues are generated by gold sales denominated in US$. Harmony may enter into hedging transactions to reduce this risk. The limit currently set by the board is 25% of the group's foreign exchange risk exposure for a period of 24 months. Refer to note 18 for details of the contracts. The audit and risk committee review the details of the programme quarterly.

The group is exposed to foreign exchange risk arising from borrowings and cash denominated in a currency other than the functional currency of that entity.

The group has reviewed its foreign currency exposure on financial assets and financial liabilities and has identified the following sensitivities for a 10% change in the exchange rate that would affect profit or loss. Management considers a range between 10% and 20% to be a reasonable change given the volatility in the market. The analysis has been performed on the same basis for 2018.

4 FINANCIAL RISK MANAGEMENT continued

MARKET RISK continued

Foreign exchange risk continued

	SA rand	
Figures in million	**2019**	2018
Sensitivity analysis - borrowings		
Rand against US$		
Balance at 30 June	**4 143**	5 114
Strengthen by 10%	**414**	511
Weaken by 10%	**(414)**	(511)
Closing rate	**14.13**	13.81
US$ against Kina		
Balance at 30 June	**283**	—
Strengthen by 10%	**26**	—
Weaken by 10%	**(31)**	—
Closing rate	**0.30**	0.30
Sensitivity analysis - financial instruments		
Rand against US$		
Balance at 30 June	**454**	(136)
Strengthen by 10%	**567**	666
Weaken by 10%	**(1 511)**	(625)
Closing rate	**14.13**	13.81
US$ against Kina		
Balance at 30 June	**211**	30
Strengthen by 10%	**19**	3
Weaken by 10%	**(23)**	(3)
Closing rate	**0.30**	0.30

Commodity price sensitivity

The profitability of the group's operations, and the cash flows generated by those operations, are affected by changes in the market price of gold, and in the case of Hidden Valley, silver as well. Harmony entered into rand gold and US dollar forward gold sale contracts to manage the variability in cash flows from the group's production, in order to create cash certainty and protect the group against lower commodity prices. The general limit for gold hedging currently set by the board is 20% for a 24-month period. In response to the increase in the rand gold price, this limit was temporarily increased to 24% just before year-end to accommodate additional hedging for certain more marginal operations. This increased limit normalises back to 20% by the end of the 2020 financial year. The limit set by the board is 50% of silver exposure over a 24-month period.

Management continues to top up these programmes as and when opportunities arise to lock in attractive margins for the business, but are not required to maintain hedging at these levels. The audit and risk committee review the details of the programme quarterly.

The exposure to the variability in the price of gold is managed by entering into gold forward sales contracts for a portion of the group's production. A portion of the production of the South African operations is linked to rand gold forward contracts and US$ gold forward contracts were entered into for the production from Hidden Valley. The exposure to the variability in the price of silver for Hidden Valley is managed by entering into US$/silver zero cost collars. These contracts have not been designated as hedging instruments for hedge accounting and the gains and losses are accounted for in the income statement.

4 FINANCIAL RISK MANAGEMENT continued

MARKET RISK continued

Commodity price sensitivity continued

Refer to note 18 and the fair value determination for financial assets and liabilities section below for further detail on these contracts.

The group has reviewed its exposure to commodity linked instruments and has identified the following sensitivities for a 10% change in the commodity price specified per contract that would affect other comprehensive income and profit or loss. Management considers a range between 10% and 20% to be a reasonable change given the recent volatility in the market. The analysis has been performed on the same basis for 2018.

	SA rand	
Figures in million	**2019**	2018
Sensitivity analysis		
Rand gold derivatives		
Profit or loss		
Increase by 10%	**(76)**	—
Decrease by 10%	**79**	—
Other comprehensive income		
Increase by 10%	**(1 162)**	(522)
Decrease by 10%	**1 174**	515
US$ gold derivatives		
Profit or loss		
Increase by 10%	**(20)**	(166)
Decrease by 10%	**20**	167
Other comprehensive income		
Increase by 10%	**(110)**	—
Decrease by 10%	**113**	—
US$ silver derivatives		
Profit or loss		
Increase by 10%	**—**	(14)
Decrease by 10%	**4**	15

Other price risk

The group is exposed to the risk of fluctuations in the fair value of fair value through profit or loss financial assets as a result of changes in market prices (other than changes in interest rates and foreign currencies). Harmony generally does not use any derivative instruments to manage this risk.

Sensitivity analysis

Certain of the restricted investments are linked to the Top 40 Index on the JSE. A 10% increase in the Top 40 index at the reporting date, with all other variables held constant, would have increased profit or loss by R76 million (2018: R42 million); an equal change in the opposite direction would have decreased profit or loss by R17 million (2018: R32 million).

4 FINANCIAL RISK MANAGEMENT continued

MARKET RISK continued

Interest rate risk

The group's interest rate risk arises mainly from long-term borrowings. The group has variable interest rate borrowings. Variable rate borrowings expose the group to cash flow interest rate risk. The group has not entered into interest rate swap agreements as this is a risk that management is prepared to take as the risk is deemed to be low. The audit and risk committee reviews the exposures quarterly.

Interest rate risk arising from long-term borrowings is offset by cash, restricted cash and restricted investments held at variable rates. A change of 100 basis points in interest rates at the reporting date would have increased/(decreased) profit or loss before tax by the amounts shown below. This analysis assumes that all other variables remain constant. The analysis has been performed on the same basis for 2018.

	SA rand	
Figures in million	**2019**	2018
Sensitivity analysis - borrowings (finance costs)		
Increase by 100 basis points	**(59)**	(56)
Decrease by 100 basis points	**59**	56
Sensitivity analysis - financial assets (interest received)		
Increase by 100 basis points	**44**	32
Decrease by 100 basis points	**(44)**	(32)

CREDIT RISK

Credit risk is the risk that a counterparty may default or not meet its obligations in a timely manner. Financial instruments, which subject the group to concentrations of credit risk, consist of restricted cash, restricted investments, derivative financial assets, trade and other receivables (excluding non-financial instruments) and cash and cash equivalents.

Assessment of credit risk

In April 2017, two of the three international rating agencies, Standard and Poor's (S&P) and Fitch, downgraded South Africa's long-term sovereign credit rating. Moody's has kept the sovereign credit risk of South Africa as investment grade. This was largely limited to international scale ratings, not the national scale ratings. The ratings have remained the same since then, with a change in outlook by Fitch from Stable to Negative in July 2019.

The group has identified the following risks as a result of this downgrade, which are:
- Increased credit risk;
- Increased cost of capital; and
- Difficulty in obtaining funding.

In assessing the credit worthiness of local institutions, management uses the national scale long-term ratings which are unchanged. Management will continue monitoring these ratings.

Exposure to credit risk on trade and other receivables is monitored on a regular basis. The credit risk arising from restricted cash, cash and cash equivalents, restricted investments and derivative financial assets is managed by ensuring amounts are only invested with financial institutions of good credit quality based on external credit ratings. The group has policies that limit the amount of credit exposure to any one financial institution. The audit and risk committee reviews the exposure on a quarterly basis.

The group's maximum exposure to credit risk is represented by the carrying amount of all financial assets determined to be exposed to credit risk, amounting to R5 837 million as at 30 June 2019 (2018: R5 602 million).

The social plan trust fund of R28 million (2018: R33 million) has been invested in unit trusts comprising shares in listed companies.

4 FINANCIAL RISK MANAGEMENT continued

CREDIT RISK continued

Assessment of credit risk continued

Financial institutions' credit rating by exposure (Source: Fitch Ratings and Global Credit Ratings)

	SA rand	
Figures in million	**2019**	2018
Cash and cash equivalents		
AA	**671**	623
AA-	**322**	83
	993	706
Restricted cash		
AA	**109**	94
AA-	**27**	21
	136	115
Restricted investments (environmental trusts)		
AA+	**—**	1 498
AA	**3 273**	1 740
	3 273	3 238
Derivative financial assets		
AA+	**—**	130
AA	**393**	354
AA-	**69**	139
A+	**44**	—
	506	623

Expected credit loss assessment

The group recognises loss allowances for expected credit losses (ECLs) on financial assets measured at amortised cost. The group's debt instruments at amortised cost consist of cash and cash equivalents, restricted cash, a portion of restricted investments and trade and other receivables. The assessment of ECLs for the different debt instruments is discussed below:

Cash and cash equivalents
The cash and cash equivalents are held with banks and financial institutions which are rated AA- to AA (see above). The ECL on cash and cash equivalents has been determined using the simplification that allows the group to assume that the credit risk on financial instruments determined to have low credit risk at the reporting date, has not increased significantly since initial recognition of the financial instrument. The ECL was estimated with reference to a probability of default model using external credit ratings in determining the default risk of counterparites. The ECL was determined to be immaterial.

Restricted cash and investments
The restricted cash and investments relate largely to the environmental trust funds. These funds are held with banks and financial institutions which are rated AA- to AA (see above). Impairment of environmental trust funds has been determined using the simplification that allows the group to assume that the credit risk on financial instruments determined to have low credit risk at the reporting date, has not increased significantly since initial recognition of the financial instrument. The group considers that its environmental trust funds have low credit risk based on the external credit ratings of the counterparties with which the funds are deposited with. The ECL was estimated with reference to a probability of default model using external credit ratings in determining the default risk of counterparites.

4 FINANCIAL RISK MANAGEMENT continued

CREDIT RISK continued

Expected credit loss assessment continued

Restricted cash and investments continued
Concentration of credit risk on restricted cash and environmental trust funds is considered minimal due to the group's investment risk management and counterparty exposure risk management policies. The ECL was determined to be immaterial.

Trade and other receivables
The group's exposure to credit risk arising from trade receivables (metals) and other trade receivables is influenced mainly by the individual characteristics of each customer.

Trade receivables result largely from the sale of gold and are fully performing. Exposure to credit risk on receivables from gold sales is limited through payment terms of two to three days after recognition of revenue for gold sales. The majority of other receivables comprise of a limited number of individually significant customers. The group determines the ECL on trade receivables and individually significant other receivable balances with reference to a probability of default model using external credit ratings in determining the default risk of counterparites. The external credit ratings used range between BBB- to A+. The ECL was determined to be immaterial.

Loss allowances on individually insignificant other trade receivables has been determined using the simplified ECL approach using a provision matrix and reflects the short-term maturities of the exposures and past experienced credit judgement. Refer to note 19 for details on the amount of the loss allowance recognised and the stratification of trade and other receivables for purposes of the assessment.

LIQUIDITY RISK

Prudent liquidity risk management implies maintaining sufficient cash and marketable securities, and the availability of funding through an adequate amount of committed credit facilities.

In the ordinary course of business, the group receives cash from its operations and is required to fund working capital and capital expenditure requirements. Management prepares cash flow forecasts weekly and ensures that surplus funds are invested in a manner to achieve market-related returns and to provide sufficient liquidity at the minimum risk. The group maintains and refinances committed credit facilities as medium-term forecasts require. The audit and risk committee reviews the updated forecasts quarterly. The group is able to actively source financing at competitive rates. Where necessary, funds will be drawn from its revolving credit facilities (refer to note 29).

The following are the undiscounted contractual maturities of financial liabilities (including principal and interest payments assuming the closing R/US$ exchange rate and interest rate at year end):

	SA rand	
Figures in million	Current	More than 1 year
2019		
Other non-current liabilities	—	2
Trade and other payables (excluding non-financial liabilities)	930	—
Derivative financial liabilities	280	194
Borrowings		
Due between 0 to six months	242	—
Due between six to 12 months	241	—
Due between one to two years	—	4 578
Due between two to four years	—	1 624
	1 693	**6 398**

4 FINANCIAL RISK MANAGEMENT continued

LIQUIDITY RISK continued

	SA rand	
Figures in million	Current	More than 1 year
2018		
Other non-current liabilities	—	1
Trade and other payables (excluding non-financial liabilities)	769	—
Derivative financial liabilities	124	95
Borrowings		
Due between 0 to six months	702	—
Due between six to 12 months	—	—
Due between one to two years	—	584
Due between two to four years	—	5 002
	1 595	5 682

CAPITAL RISK MANAGEMENT

The primary objective of managing the group's capital is to ensure that there is sufficient capital available to support the funding requirements of the group, in a way that optimises the cost of capital and matches the current strategic business plan.

The group manages and makes adjustments to the capital structure, which consists of debt and equity, as and when borrowings mature or when funding is required. This may take the form of raising equity, market or bank debt or hybrids thereof. In doing so, the group ensures it stays within the debt covenants agreed with lenders. The group may also sell assets to reduce debt or schedule projects to manage the capital structure.

During the 2018 financial year the level of gearing increased with R4 021 million due to the funding required for the acquisition of the Moab Khotsong operations (refer to note 12). Notwithstanding, the group continues to follow a conservative approach to debt and prefers to maintain low levels of gearing.

Net debt is as follows:

	SA rand	
Figures in million	**2019**	2018
Cash and cash equivalents	**993**	706
Borrowings	**(5 915)**	(5 614)
Net debt	**(4 922)**	(4 908)

Management also considers net debt to earnings before interest, tax and depreciation (EBITDA) as defined in the debt covenants for our borrowings. The ratio at 30 June 2019 was 0.9 and 1.0 as at 30 June 2018. Refer to note 29 for details.

4 FINANCIAL RISK MANAGEMENT continued

CAPITAL RISK MANAGEMENT continued

EBITDA per the debt covenants is as follows:

Figures in million	SA rand 2019	2018
Reconciliation of EBITDA		
Profit/(loss) adjusted for:	**(2 746)**	(4 707)
Add: Finance cost	**575**	330
Less: Interest received	**(308)**	(343)
Add: Amortisation and depreciation	**4 054**	2 570
Add: Impairment loss	**3 898**	5 336
Exclude: Derivative (gain)/loss	**(484)**	(99)
Exclude: Forex (gains)/losses	**86**	682
Add: Other	**259**	305
EBITDA	**5 334**	4 074

There were no changes to the group's approach to capital management during the year.

FAIR VALUE DETERMINATION FOR FINANCIAL ASSETS AND LIABILITIES

The fair value levels of hierarchy are as follows:
Level 1: Quoted prices (unadjusted) in active markets;
Level 2: Inputs other than quoted prices included within level 1 that are observable for the asset, either directly (that is, as prices) or indirectly (that is, derived from other prices);
Level 3: Inputs for the asset that are not based on observable market data (that is, unobservable inputs).

The following table sets out the group's assets and liabilities measured at fair value by level within the fair value hierarchy:

Figures in million	SA rand At 30 June 2019		At 30 June 2018	
	Level 2	Level 3	Level 2	Level 3
Fair value through other comprehensive income				
Other non-current assets (a)	**—**	**59**	—	8
Fair value through profit or loss				
Restricted investments (b)	**1 256**	**—**	913	—
Derivative financial assets (c)	**507**	**—**	623	—
Derivative financial liabilities (c)	**(422)**	**—**	(215)	—
Other non-current assets (d)	**—**	**271**	—	—

(a) The increase in level 3 fair value measurement relates to the equity investment in Rand Mutual Assurance previously carried at cost. Refer to note 2. The fair value of the investment was estimated with reference to an independent valuation. The valuation was performed using a discounted cash flow model. In valuating the group's share of the business, common practice marketability and minority discounts as well as additional specific risk discounts were applied.

(b) The majority of the balance is directly derived from the Top 40 index on the JSE, and is discounted at market interest rate. This relates to equity-linked deposits in the group's environmental rehabilitation trust funds. The balance of the environmental trust funds are carried at amortised cost and therefore not disclosed here.

4 FINANCIAL RISK MANAGEMENT continued

FAIR VALUE DETERMINATION FOR FINANCIAL ASSETS AND LIABILITIES continued

(c) The mark-to market remeasurement of the derivative contracts was determined as follows:
- Forex hedging contracts comprise of zero cost collars and FECs:
  The zero cost collars were valued using a Black-Scholes valuation technique derived from spot rand/US$ exchange rate inputs, implied volatilities on the rand/US$ exchange rate, rand/US$ inter-bank interest rates and discounted at market interest rate (zero-coupon interest rate curve). The value of the FECs is derived from the forward rand/US$ exchange rate and discounted at market interest rate (zero-coupon interest rate curve).
- Rand gold hedging contracts (forward sale contracts): spot Rand/US$ exchange rate, Rand and dollar interest rates (forward points), spot US$ gold price, differential between the US interest rate and gold lease interest rate which is discounted at market interest rate.
- US$ gold hedging contracts (forward sale contracts): spot US$ gold price, differential between the US interest rate and gold lease interest rate and discounted at market interest rate.
- Silver hedging contracts (zero cost collars): a Black-Scholes valuation technique, derived from spot US$ silver price, strike price, implied volatilities, time to maturity and interest rates and discounted at market interest rate.

(d) The increase in level 3 fair value measurement relates to the ARM BBEE loan that was previously carried at amortised cost. Refer to note 17. The fair value was calculated using a discounted cash flow model taking into account projected interest payments and the projected share price for African Rainbow Minerals Limited (ARM) on the expected repayment date.

The carrying values (less any impairment allowance) of short-term financial instruments are assumed to approximate their fair values.

The fair values of borrowings are not materially different to their carrying amounts since the interest payable on those borrowings is at floating interest rates. The fair value of borrowings are based on discounted cash flows using a current borrowing rate. The determination of the fair values are level 3 in the fair value hierarchy due to the use of unobservable inputs, including own credit risk.

5 REVENUE

ACCOUNTING POLICY

Revenue from metal sales include the sale of gold, silver and uranium. Revenue from metal sales is recognised when the group satisfies its performance obligations under its contract with the customer, by transferring such metals to the customer's control. Transfer of control is generally determined to be when risk and title to the metals passes to the customer. Revenue is measured based on the consideration specified in the contract with the customer and is driven by the quoted market prices of the metals.

The effective portion of gains or losses on the derivatives designated as cash flow hedging items (forecast sales transactions) are recognised in revenue when the forecast sales transactions occur. See the accounting policy for derivatives and hedging activities in note 2.

	SA rand		
Figures in million	**2019**	2018 Restated*	2017 Restated*
Revenue from contracts with customers	**26 459**	19 255	18 766
Gold	**25 693**	19 162	18 536
Silver[1]	**589**	74	230
Uranium[2]	**177**	19	—
Hedging gain[3]	**453**	1 197	728
Total revenue[4]	**26 912**	20 452	19 494

* Relates to a change in accounting policy - refer to note 2 for detail.
[1] Derived from the Hidden Valley operation in Papua New Guinea.
[2] Derived from the Moab Khotsong operation.
[3] Relates to the realised effective portion of the hedge-accounted gold derivatives. Refer to note 18 for further information.
[4] A geographical analysis of revenue is provided in the segment report in note 37.

5 REVENUE continued

The points of transfer of control are as follows:

• Gold: South Africa	Gold is delivered and certificate of sale is issued.
• Gold and silver: Hidden Valley	For sales up to 13 February 2019: metal is delivered and metal account credited by the customer. Sales from 14 February 2019 onwards: metal is collected from Hidden Valley and a confirmation of collection is sent to and accepted by the customer.
• Uranium	Confirmation of transfer is issued.

6 COST OF SALES

	SA rand		
Figures in million	**2019**	2018 Restated*	2017 Restated*
Production costs (a)	**20 324**	15 084	15 042
Amortisation and depreciation of mining assets (b)	**3 961**	2 468	2 441
Amortisation and depreciation of assets other than mining assets (b)	**93**	102	78
Rehabilitation expenditure (c)	**33**	67	23
Care and maintenance costs of restructured shafts	**134**	128	109
Employment termination and restructuring costs (d)	**242**	208	74
Share-based payments (e)	**155**	244	391
Impairment of assets (f)	**3 898**	5 336	1 718
Other	**29**	(41)	(7)
Total cost of sales	**28 869**	23 596	19 869

* Relates to a change in accounting policy - refer to note 2 for detail.

(a) Production costs include mine production and transport and refinery costs, applicable general administrative costs, movement in inventories and ore stockpiles, ongoing environmental rehabilitation costs and transfers for stripping activities. Employee termination costs are included, except for employee termination costs associated with major restructuring and shaft closures, which are separately disclosed.

Production costs increased during the 2019 year mainly due to the inclusion of Moab Khotsong (R2.4 billion increase) for the full year as well as continuing production at Hidden Valley (R1.6 billion) for the full year following the operation reaching commercial levels of production at the end of the 2018 financial year. Production costs for 2018 include R1.0 billion related to the Moab Khotsong operations and production costs related to Hidden Valley were R1.2 billion lower than 2017 due to the capitalisation of costs during the plant upgrade and the development of the stage 5 and 6 cut back.

Production costs, analysed by nature, consist of the following:

	SA rand		
Figures in million	**2019**	2018 Restated*	2017 Restated*
Labour costs, including contractors	**12 715**	9 750	9 006
Consumables	**5 532**	3 418	3 614
Water and electricity	**3 398**	2 551	2 316
Insurance	**126**	86	91
Transportation	**354**	121	177
Change in inventory	**(166)**	(211)	370
Capitalisation of mine development costs	**(1 880)**	(1 552)	(1 321)
Stripping activities[1]	**(1 197)**	(167)	(77)
Royalty expense	**193**	121	211
Other	**1 249**	967	655
Total production costs	**20 324**	15 084	15 042

* Relates to a change in accounting policy - refer to note 2 for detail.
[1] Stripping activities increased as a result of Hidden Valley reaching commercial level of production during June 2018.

6 COST OF SALES continued

(b) Depreciation is higher for the 2019 year owing mainly to full year production at Hidden Valley (R1.6 billion increase) as well as Moab Khotsong (R178 million increase) included for the full year. Offsetting this are decreases year on year at Target 1 (R199 million) as well as Unisel and Masimong (R184 million) owing to the impact of the impairment that was recognised at the end of the 2018 year.

Amortisation and depreciation of assets other than mining assets includes the amortisation of intangible assets.

(c) For the assumptions used to calculate the rehabilitation costs, refer to note 25. This expense includes the change in estimate for the rehabilitation provision where an asset no longer exists as well as costs related to the rehabilitation process. For 2019, R86 million (2018: R94 million) (2017: R96 million) was spent on rehabilitation in South Africa. Refer to note 25.

(d) The employment termination and restructuring expenditure for 2019 and 2018 relate to the voluntary severance program in place to reduce labour costs. The 2017 amount includes contractor fees for the optimisation of the Hidden Valley operation of R61 million.

(e) Refer to note 33 for details on the share-based payment schemes implemented by the group. Due to the approval of the new management share plan, no new issue for the management share incentive scheme was made following the 2015 issue maturing in November 2018.

(f) An increase in the planned gold price was offset by an increase in costs (both working costs and capital expenditure), which was further compounded by the inclusion of carbon tax (effective 1 June 2019), in both the life-of-mine and resource base models. Although there was an increase in the overall group's net present value of the life-of-mine models, the revision of the areas included in certain of the resource base models resulted in lower grades which negatively impacted on the cash flows and ultimately the recoverable amounts. Refer to note 13 for further information. The impairment of assets consists of the following:

	SA rand		
Figures in million	**2019**	2018	2017
Tshepong Operations	**2 254**	988	255
Kusasalethu	**690**	579	678
Target 1	**312**	699	785
Target 3	**318**	—	—
Joel	**198**	160	—
Other mining assets	**120**	319	—
Bambanani	**6**	—	—
Doornkop	**—**	317	—
Unisel	**—**	487	—
Masimong	**—**	329	—
Target North	**—**	1 458	—
Total impairment of assets	**3 898**	5 336	1 718

6 COST OF SALES continued

(f) Impairment continued

The recoverable amounts for these assets have been determined on a fair value less costs to sell basis using the assumptions per note 13 in discounted cash flow models and attributable resource values. These are fair value measurements classified as level 3. The recoverable amounts of the CGUs where impairments were recognised as at 30 June 2019 are as follows:

	SA rand		
	Recoverable amount		
Figures in million	**Life-of-Mine plan**	**Resource base**	**Total**
Tshepong Operations The impairment is due to the increased costs to exploit the resource base as well as a lower expected recovered grade. The decrease in the recovery grade is as a result of the change in the dilution factors applied to the outside life of mine resources.	**3 811**	**2 055**	**5 866**
Kusasalethu The decrease in grade and increased estimated costs in the resource base resulted in a lower recoverable amount. The decrease in the recovery grade is as a result of the change in the dilution factors applied to the outside life of mine resources.	**1 297**	**—**	**1 297**
Target 1 The recoverable amount decreased as a result of increased costs and decrease in grade in the resource base together with the estimated impact of carbon tax. The increase in discount rate due to increased risk factors also negatively impacted on the recoverable amount.	**467**	**609**	**1 076**
Target 3 The operation remains under care and maintenance. A change in valuation method from discounted cash flow model to resource multiple approach reduced the recoverable amount.	**None**	**182**	**182**
Joel The increased capital costs in the resource base together with carbon tax negatively impacted the net present value of expected cash flows.	**765**	**87**	**852**
Other mining assets The updated life-of-mine plans for the CGUs in Freegold and Avgold resulted in the impairment of other mining assets.	**335**	**None**	**335**
Bambanani The impairment of goodwill reduced the carrying amount of intangible assets. As goodwill is not depreciated, it results in an impairment as the life of the operation shortens.	**763**	**None**	**763**

6 COST OF SALES continued

(f) Impairment continued

The recoverable amounts of the CGUs where impairments were recognised as at 30 June 2018 are as follows:

	SA rand		
	Recoverable amount		
Figures in million	Life-of-Mine plan	Resource base	Total
Tshepong Operations			
The impairment was mainly driven by sensitivity to fluctuations in the gold price. Furthermore the updated life-of-mine for the Tshepong operations presented a marginal decrease in recovered grade.	4 279	3 147	7 426
Kusasalethu			
Kusasalethu's old section of the mine at the operation was excluded in the FY19 life-of-mine plan.	1 019	1 119	2 138
Target 1			
Exploration drilling results during the year pointed towards lower grade estimates within certain blocks that have now been excluded from the life-of-mine plans.	471	746	1 217
Joel			
The updated life-of-mine for the Joel operation presented a marginal decrease in recovered grade.	540	336	876
Other mining assets			
The updated life-of-mine plans for the CGUs in Freegold and Harmony resulted in the impairment of other mining assets.	366	None	366
Doornkop			
The impairment of Doornkop is primarily as a result of a decrease in the Kimberley Reef's resource values.	1 552	1 178	2 730
Unisel			
Excluded the Leader Reef from the life-of-mine plan to focus on the higher grade Basal Reef. This reduced the life-of-mine from four years to eighteen months.	38	None	38
Masimong			
The impairment at Masimong was as a result of the depletion of the higher grade B Reef and subsequent reduced life-of-mine.	58	None	58
Target North			
The impairment of Target North was as a result of a decrease in resource values.	None	3 681	3 681

The recoverable amounts of the CGUs where impairments were recognised as at 30 June 2017 are as follows:

	SA rand		
	Recoverable amount		
Figures in million	Life-of-Mine plan	Resource base	Total
Tshepong Operations			
The impairment was mainly driven by the restriction on hoisting capacity at Phakisa along with the general pressure on margins.	4 931	2 849	7 780
Target 1			
Information gained from the underground drilling during the year indicated that some areas of the bottom reef of the Dreyerskuil are highly channelised, which negatively impacted on the overall grade for the operation. These areas were subsequently excluded from the life-of-mine plan. This, together with the general pressure on margins, reduced the profitability of the operation over its life and contributed to the decrease in the recoverable amount.	867	1 129	1 996
Kusasalethu			
The impairment was driven by a reduction in the additional attributable resource value as a result of a decrease in the ounces. The company investigated the viability of a decline to extend the life. The business case showed that the option was not feasible and therefore the resource ounces were reduced.	1 240	1 543	2 783

There was no reversal of impairment for the 2019, 2018 or 2017 financial years.

7 OTHER OPERATING EXPENSES

	SA rand		
Figures in million	**2019**	2018	2017
Profit on sale of property, plant and equipment	**(5)**	(2)	(42)
Social investment expenditure	**155**	73	74
Loss on scrapping of property, plant and equipment (a)	**21**	1	140
Foreign exchange translation (gain)/loss (b)	**86**	682	(194)
Silicosis settlement provision/(reversal of provision) (c)	**(62)**	(68)	917
Provision/(reversal of provision) for ARM BBEE Trust loan (d)	**—**	(43)	13
Other (income)/expenses - net	**(9)**	24	(22)
Total other operating expenses	**186**	667	886

(a) These losses arise from the derecognition of property, plant and equipment that are no longer in use. No future economic benefits are expected from the use or disposal of these assets. The amount in 2017 relates to the abandonment of individual surface assets that were no longer core to the group's business.

(b) The majority of the foreign exchange gains and losses relates to the US$ borrowings. Refer to note 29 for more details.

(c) Refer to note 26 for details on the movement in the silicosis settlement provision.

(d) Pursuant to the adoption of IFRS 9 on 1 July 2018 (refer to note 2), the ARM BBEE Trust loan is carried at fair value through profit or loss with movement in fair value recognised in net gains on financial instruments (refer to note 8). In 2018, the provision was reversed following an increase in African Rainbow Minerals Limited's share price and dividends paid in the period between July 2017 and June 2018, which form part of the recoverability test at 30 June 2018. Refer to note 17 for further details on the loan.

8 INVESTMENT INCOME

ACCOUNTING POLICY

Interest income is recognised on the effective interest method, taking into account the principal outstanding and the effective rate over the period to maturity, when it is determined that such income will accrue to the group. Dividend income is recognised when the shareholder's right to receive payment is established. This is recognised at the last date of registration.

Cash flows from interest and dividends received are classified under operating activities in the cash flow statement.

	SA rand		
Figures in million	**2019**	2018	2017
Interest income from financial assets at amortised cost	**244**	272	264
Net gain on financial instruments[1]	**64**	71	4
Total investment income	**308**	343	268

[1] Primarily relates to the environmental trust funds and the social trust fund (refer to note 16) and also includes the fair value movement of the ARM BBEE Trust loan (refer to note 17).

9 FINANCE COSTS

ACCOUNTING POLICY

Borrowing costs are capitalised to the extent that they are directly attributable to the acquisition and construction of qualifying assets. Qualifying assets are assets that take a substantial time to get ready for their intended use. These costs are capitalised until the asset moves into the production phase. Other borrowing costs are expensed. The foreign exchange translation loss is included in the borrowing cost calculation to the extent that it is considered to be a part of interest.

9 FINANCE COSTS continued

Figures in million	2019	2018	2017
		SA rand	
Financial liabilities			
Borrowings	**402**	227	110
Other creditors and liabilities	**2**	1	—
Total finance costs from financial liabilities	**404**	228	110
Non-financial liabilities			
Post-retirement benefits	**17**	18	16
Time value of money component of silicosis provision	**79**	76	—
Time value of money and inflation component of rehabilitation costs	**208**	191	173
Total finance costs from non-financial liabilities	**304**	285	189
Total finance costs before interest capitalised	**708**	513	299
Interest capitalised (a)	**(133)**	(183)	(65)
Total finance costs	**575**	330	234

(a) The capitalisation rate used to determine capitalised borrowing costs is:

	2019 %	2018 %	2017 %
Capitalisation rate	**10.4%**	10.5%	4.2%

The change in the rate from 2017 to 2018 is due to the effect of the foreign exchange translation loss in 2018 compared with a gain of 2017 on the calculation of the rate.

10 TAXATION

ACCOUNTING POLICY

Taxation is made up of current and deferred taxation. The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the balance sheet date in the countries where the group operates and generates taxable income.

Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulations are subject to interpretation and establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

Deferred taxation is recognised on temporary differences existing at each reporting date between the tax base of all assets and liabilities and their carrying amounts. Substantively enacted tax rates are used to determine future anticipated effective tax rates which in turn are used in the determination of deferred taxation, except to the extent that deferred tax arises from the initial recognition of an asset or liability in a transaction that is not a business combination and does not affect the accounting or taxable profit or loss at the time of the transaction. Deferred tax is charged to profit or loss, except where the tax relates to items recognised in other comprehensive income or directly in equity in which case the tax is also recognised in other comprehensive income or directly in equity. The effect on deferred tax of any changes in tax rates is recognised in the income statement, except to the extent that it relates to items previously charged or credited directly to equity.

The principal temporary differences arise from amortisation and depreciation on property, plant and equipment, provisions, unutilised tax losses, unutilised capital allowances carried forward and unrealised gains and losses on the gold forward sale contracts. Deferred tax assets relating to the carry forward of unutilised tax losses and unutilised capital allowances are recognised to the extent that it is probable that future taxable profit will be available against which the unutilised tax losses and unutilised capital allowances can be utilised. The recoverability of these assets is reviewed at each reporting date and adjusted if recovery is no longer probable.

10 TAXATION continued

ACCOUNTING POLICY continued

Deferred income tax is provided on temporary differences arising from investments in subsidiaries, joint ventures and associates, except where the timing of the reversal of the temporary difference is controlled by the group and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income tax assets and liabilities relate to income taxes levied by the same taxation authority on either the taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

The group is subject to income tax in several jurisdictions. Significant judgement is required in determining the worldwide provision for income taxes. There are many transactions and calculations for which the ultimate tax determination is uncertain during the ordinary course of business. Where the final tax outcome is different from the amounts that were initially recorded, such differences will impact the income tax and deferred tax provisions in the period in which such determination is made.

Management has to exercise judgement with regard to deferred tax assets. Where the possibility exists that no future taxable income may flow against which these assets can be offset, the deferred tax assets are not recognised.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled. When different tax rates apply to different levels of taxable income, deferred tax assets and liabilities are measured using the average tax rates that are expected to apply to the taxable profit (tax loss) of the periods in which the temporary differences are expected to reverse. At the group's South African operations, such average tax rates are directly impacted by the profitability of the relevant mine. The deferred tax rate is therefore based on the current estimate of future profitability of an operation when temporary differences will reverse, based on tax rates and tax laws that have been enacted at the balance sheet date. The future profitability of each mine, in turn, is determined by reference to the life-of-mine (LoM) plan for that operation. The LoM plan is influenced by factors as disclosed in note 13, which may differ from one year to the next and normally result in the deferred tax rate changing from one year to the next.

The taxation (expense)/credit for the year is as follows:

	SA rand		
Figures in million	**2019**	2018	2017
SA taxation			
Mining tax (a)	**(19)**	(42)	(230)
- current year	**(14)**	(42)	(230)
- prior year	**(5)**	—	—
Non-mining tax (b)	**(124)**	(163)	(258)
- current year	**(121)**	(163)	(256)
- prior year	**(3)**	—	(2)
Deferred tax (c)	**282**	439	998
- current year	**282**	439	998
Total taxation (expense)/credit	**139**	234	510

(a) Mining tax on gold mining taxable income in South Africa is determined according to a formula, based on the taxable income from mining operations. 5% of total revenue is exempt from taxation while the remainder is taxable at a higher rate (34%) than non-mining income (28%) as a result of applying the gold mining formula. Mining and non-mining income of Australian entities and PNG operation are taxed at a standard rate of 30%.

All qualifying mining capital expenditure is deducted from taxable mining income to the extent that it does not result in an assessed loss. Accounting depreciation is eliminated when calculating the South African mining tax income. Excess capital expenditure is carried forward as unredeemed capital to be claimed from future mining taxable income. The group has several tax paying entities in South Africa. In terms of the mining ring-fencing application, each ring-fenced mine is treated separately and deductions can normally only be utilised against mining income generated from the relevant ring-fenced mine.

10 TAXATION continued

(b) Non-mining taxable income of mining companies and the taxable income for non-mining companies are taxed at the statutory corporate rate of 28%.The expense relates to non-mining tax arising from derivative gains (realised and unrealised) recognised on the foreign currency derivatives as well as the realised gains on the commodity forward sale contracts. Refer to note 18 for details on the group's derivative gains recorded.

(c) The deferred tax rate used to calculate deferred tax is based on the current estimate of future profitability when temporary differences will reverse based on tax rates and tax laws that have been enacted at the balance sheet date. Depending on the profitability of the operations, the deferred tax rate can consequently be significantly different from year to year.

The deferred tax credit in the 2019, 2018 and 2017 years is mainly a result of the impairment of assets, a decrease in the weighted average deferred tax rate due to reduced estimated profitability at South African operations, as well as the provision for silicosis settlement raised in 2017.

INCOME AND MINING TAX RATES

The tax rate remains unchanged for the 2017, 2018 and 2019 years.

Major items causing the group's income tax provision to differ from the South African mining statutory tax rate of 34% were:

		SA rand	
Figures in million	**2019**	2018	2017
Tax on net loss at the mining statutory tax rate	**934**	1 600	50
Non-allowable deductions	**(241)**	(513)	(77)
Gain on bargain purchase	**—**	—	288
Share-based payments	**(70)**	(104)	(104)
Impairment of assets	**(2)**	(219)	(87)
Exploration expenditure	**(36)**	(74)	(50)
Finance costs	**(68)**	(54)	(37)
Other	**(65)**	(62)	(87)
Movement in temporary differences related to property, plant and equipment	**(1 388)**	(1 248)	(1 080)
Movements in temporary differences related to other assets and liabilities	**98**	55	52
Difference between effective mining tax rate and statutory mining rate on mining income	**(175)**	(550)	129
Difference between non-mining tax rate and statutory mining rate on non-mining income	**19**	35	55
Effect on temporary differences due to changes in effective tax rates[1]	**83**	675	968
Prior year adjustment	**(8)**	—	7
Capital allowances[2]	**684**	604	536
Deferred tax asset not recognised[3]	**133**	(424)	(130)
Income and mining taxation	**139**	234	510
Effective income and mining tax rate (%)	**5**	5	347

[1] This mainly relates to movements in the deferred tax rate related to Harmony (10.5% to 25.7%) (2018: 19.4% to 10.5%) (2017: 21.1% to 19.4%), Freegold (8.7% to 8.1%) (2018: 12.5% to 8.7%) (2017: 20.0% to 12.5%) and Randfontein Estates Limited (Randfontein) (1.8% to 4.5%) (2018: 3.8% to 1.8%) (2017: 10.1% to 3.8%).
[2] This relates to the additional capital allowance that may be deducted from taxable income from mining operations in South Africa. A significant portion relates to Avgold Limited (Avgold) which has a 0% effective tax rate.
[3] This relates to tax losses and deductible temporary differences for which future taxable profits are uncertain and are not considered probable.

10 TAXATION continued

DEFERRED TAX

The analysis of deferred tax assets and liabilities is as follows:

Figures in million	SA rand 2019	2018 Restated*
Deferred tax assets	**(549)**	(388)
Deferred tax asset to be recovered after more than 12 months	**(49)**	(52)
Deferred tax asset to be recovered within 12 months	**(500)**	(336)
Deferred tax liabilities	**1 237**	1 533
Deferred tax liability to be recovered after more than 12 months	**1 125**	1 385
Deferred tax liability to be recovered within 12 months	**112**	148
Net deferred tax liability	**688**	1 145

* Restated due to the change in the final purchase price allocation related to the Moab Khotsong acquisition. Refer to note 12 for detail.

Deferred tax liabilities and assets on the balance sheet as of 30 June 2019 and 30 June 2018 relate to the following:

Figures in million	SA rand 2019	2018 Restated
Gross deferred tax liabilities	**1 237**	1 533
Amortisation and depreciation	**1 229**	1 440
Derivative assets	**—**	90
Other	**8**	3
Gross deferred tax assets	**(549)**	(388)
Unredeemed capital expenditure	**(4 044)**	(4 266)
Provisions, including non-current provisions	**(844)**	(680)
Derivative financial instruments	**(87)**	—
Tax losses	**(1 209)**	(758)
Deferred tax asset not recognised[1]	**5 635**	5 316
Net deferred tax liability	**688**	1 145

[1] The majority of the deferred tax asset not recognised (2019: R5 293 million (2018: R5 109 million)) relates to Harmony's PNG operations.

Movement in the net deferred tax liability recognised in the balance sheet as follows:

Figures in million	SA rand 2019	2018 Restated
Balance at beginning of year	**1 145**	1 702
Credit per income statement	**(282)**	(439)
Tax directly charged to other comprehensive income	**(176)**	(193)
Moab Khotsong acquisition	**—**	75
Balance at end of year	**688**	1 145

10 TAXATION continued

DEFERRED TAX continued

Figures in million	SA rand 2019	2018
As at 30 June, the group had the following potential future tax deductions:		
Unredeemed capital expenditure available for utilisation against future mining taxable income[1]	**39 725**	38 711
Tax losses carried forward utilisable against mining taxable income[2]	**5 494**	4 334
Capital Gains Tax (CGT) losses available to be utilised against future CGT gains[4]	**571**	571
As at 30 June, the group has not recognised the following deferred tax asset amounts relating to the above:	**12 935**	12 215
The unrecognised temporary differences are:		
Unredeemed capital expenditure[3]	**35 038**	34 021
Tax losses[2]	**5 109**	4 196
CGT losses[4]	**571**	571

[1] Includes Avgold R19 086 million (2018: R16 991 million), Randfontein R2 134 million (2018: R2 163 million), Moab Khotsong R1 755 million (2018: R2 091 million) and Hidden Valley R16 333 million (2018: R17 030 million). These have an unlimited carry-forward period.
[2] Relates mainly to Hidden Valley and the PNG exploration operations. These have an unlimited carry-forward period.
[3] Relates to Avgold and Hidden Valley.
[4] The CGT losses relate to the gross CGT losses available to be utilised against future CGT gains.

DIVIDEND TAX (DT)

The withholding tax on dividends remained unchanged at 20%.

11 EARNINGS/(LOSS) PER SHARE

BASIC EARNINGS/(LOSS) PER SHARE

Basic earnings/(loss) per share is calculated by dividing the net income attributable to shareholders by the weighted number of ordinary shares in issue during the year.

	2019	2018	2017
Ordinary shares in issue ('000)	**539 841**	500 252	439 957
Adjustment for weighted number of ordinary shares in issue ('000)	**(12 974)**	(54 304)	(1 077)
Weighted number of ordinary shares in issue ('000)	**526 867**	445 948	438 880
Treasury shares ('000)	**(3 058)**	(52)	(437)
Basic weighted average number of ordinary shares in issue ('000)	**523 809**	445 896	438 443

	SA rand 2019	2018	2017
Total net earnings/(loss) attributable to shareholders (millions)	**(2 607)**	(4 473)	362
Total basic earnings/(loss) per share (cents)	**(498)**	(1 003)	82

DILUTED EARNINGS/(LOSS) PER SHARE

For diluted earnings/(loss) per share, the weighted average number of ordinary shares in issue is adjusted to assume conversion of all potential dilutive ordinary shares as a result of share options granted to employees under the share option schemes in issue. A calculation is performed to determine the number of shares that could have been acquired at fair value, determined as the average annual market share price of the company's shares, based on the monetary value of the subscription rights attached to the outstanding share options. The number of shares calculated as above is compared with the number of shares that would have been issued assuming the exercise of the share options.

11 EARNINGS/(LOSS) PER SHARE continued

DILUTED EARNINGS/(LOSS) PER SHARE continued

	2019	2018	2017
Weighted average number of ordinary shares in issue ('000)	**523 809**	445 896	438 443
Potential ordinary shares[1] ('000)	**9 537**	19 423	20 777
Weighted average number of ordinary shares for diluted earnings per share[1] ('000)	**533 346**	465 319	459 220

	SA rand		
	2019	2018	2017
Total diluted earnings/(loss) per share (cents)[2]	**(500)**	(1 004)	79

[1] Due to the net loss attributable to shareholders in 2019, the inclusion of the share options as potential ordinary shares had an anti-dilutive (2018: anti-dilutive and 2017: dilutive) effect on the loss (2018: loss and 2017: earnings) per share and were therefore not taken into account in the current year calculation. The issue price and the exercise price of share options issued to employees include the fair value of any service to be supplied to the entity in the future under the share option or other share-based payment arrangement.

[2] The dilution is as a result of the potential reduction in earnings attributable to equity holders of the parent company as a result of the exercise of the Tswelopele Beneficiation Operation (TBO) option.TBO contributed a profit and therefore the reduction in earnings attributable to Harmony would increase the loss and loss per share.

HEADLINE EARNINGS PER SHARE

The calculation of headline earnings, net of tax, per share is based on the basic earnings per share calculation adjusted for the following items:

	SA rand		
Figures in million	2019	2018	2017
Net profit/(loss)	**(2 607)**	(4 473)	362
Adjusted for:			
Gain on bargain purchase[1]	**—**	—	(848)
Loss on liquidation of subsidiary[1]	**—**	—	14
Impairment of assets	**3 898**	5 336	1 718
Taxation effect on impairment of assets	**(239)**	(99)	(26)
Profit on sale of property, plant and equipment	**(5)**	(2)	(42)
Taxation effect on profit on sale of property, plant and equipment	**—**	—	7
Loss on scrapping of property, plant and equipment	**21**	1	140
Taxation effect on loss on scrapping of property, plant and equipment	**(1)**	—	(19)
Headline earnings	**1 067**	763	1 306
Basic headline earnings per share (cents)	**204**	171	298
Diluted headline earnings per share (cents)[2]	**197**	163	284

[1] There is no taxation effect on these items.

[2] The inclusion of the share options as potential ordinary shares had a dilutive effect on the headline earnings per share. The diluted headline earnings per share also include the potential impact of exercising the Tswelopele Beneficiation Operation option as explained above.

DIVIDENDS

ACCOUNTING POLICY

Dividends declared are recognised in the period in which they are approved by the board of directors. Dividends are payable in South African rand.

Cash flows from dividends paid are classified under financing activities in the cash flow statement.

11 EARNINGS/(LOSS) PER SHARE continued

DIVIDENDS continued

- On 17 August 2017, the board declared a final dividend of 35 cents cents for the year ended 30 June 2017. R154 million was paid on 16 October 2017.
- On 31 January 2017, the board declared an interim dividend of 50 cents. R221 million was paid on 20 March 2017.
- On 15 August 2016, the board declared a final dividend of 50 cents for the year ended 30 June 2016. R218 million was paid on 19 September 2016.

	SA rand		
	2019	2018	2017
Dividend declared (millions)	—	154	439
Dividend per share (cents)	—	35	100

12 ACQUISITIONS AND BUSINESS COMBINATIONS

ACQUISITION OF THE MOAB KHOTSONG OPERATIONS

Effective 1 March 2018 the group acquired the Moab Khotsong and Great Noligwa mines and related infrastructure as well as gold-bearing tailings and the Nufcor uranium plant (collectively the Moab Khotsong operations) from AngloGold Ashanti Limited on a going concern basis. The addition of the Moab Khotsong operations increased the group's production ounces, free cash flows and average underground gold recovery grade. The combined assets acquired and liabilities assumed constitute a business as defined by IFRS 3, *Business Combinations*.

The cash consideration paid to acquire the Moab Khotsong operations amounted to R3 474 million ($300 million). The group incurred acquisition-related costs of R98 million on advisory and legal fees. These costs are recognised as acquisition-related costs in the income statement. Furthermore, the group incurred R63 million on the integration of the operation in 2018 and R8 million in 2019. These costs are recognised as corporate, administration and other expenditure in the income statement for the year ended 30 June 2018.

Identifiable assets acquired and liabilities assumed

For the year ended 30 June 2018, the purchase price allocation (PPA) was initially prepared on a provisional basis in accordance with IFRS 3. Subsequent to the issue of the 2018 financial statements, the PPA was finalised and the final amounts of the identifiable assets acquired and liabilities assumed are reported below. A decrease of R32 million was made to the mineral right value capitalised following the finalisation of the effective date tax values and deferred tax calculation. This increased the amount of goodwill recognised as part of the acquisition. The comparative figures as at 30 June 2018 have been restated for this change.The measurement period has now closed and the accounting for the acquisition has been concluded.

The fair value of the identifiable net assets acquired was determined on the expected discounted cash flows based on the life-of-mine plans of the Moab Khotsong operations at post-tax real discount rates ranging between 8.20% and 11.30%, exchange rates ranging between R/US$11.86 and R/US$15.82, gold prices ranging between $1 249/oz and $1 302/oz and uranium prices ranging between $30.44/lb and $37.47/lb. The valuation was performed as at 1 March 2018.

The fair values as at the effective date are as follows:

	SA rand	
Figures in million	**2019**	2018 Restated
Property, plant and equipment	—	3 691
Environmental rehabilitation trust funds	—	382
Inventories	—	72
Deferred tax liabilities	—	(75)
Provision for environmental rehabilitation	—	(663)
Retirement benefit obligation	—	(10)
KOSH decant provision (refer to note 28)	—	(37)
Leave liabilities	—	(140)
Other payables	—	(48)
Fair value of net identifiable assets acquired	—	3 172

12 ACQUISITIONS AND BUSINESS COMBINATIONS continued

ACQUISITION OF THE MOAB KHOTSONG OPERATIONS continued

Goodwill

Goodwill arising from the acquisition has been recognised as follows:

	SA rand	
Figures in million	**2019**	2018 Restated
Consideration paid	—	3 474
Fair value of net identifiable assets acquired	—	(3 172)
Goodwill	—	302

The goodwill has been allocated to the Moab Khotsong operations. The goodwill is attributable mainly to the skills and technical talent of the Moab Khotsong operations' work force. None of the goodwill recognised is deductible for tax purposes.

ACQUISITION OF FULL OWNERSHIP OF HIDDEN VALLEY

The group had a 50% interest in certain mining and exploration assets located in the Morobe province, PNG. Newcrest Mining Limited (Newcrest) owned the remaining 50% interest in these assets. The assets included the Hidden Valley mine and the Wafi-Golpu project. On 19 September 2016 Harmony announced the agreement to purchase Newcrest PNG 1 Ltd, the wholly owned subsidiary of Newcrest which held Newcrest's 50% interest in the Hidden Valley joint venture, for a cash consideration of US$1. As part of the transaction, Newcrest made a once-off contribution of $22.5 million (R309 million) towards Hidden Valley's future estimated environmental liability. The transaction was conditional upon certain regulatory approvals which were obtained on 25 October 2016 and Harmony gained control over Hidden Valley from this date.

The step-up transaction from joint control to control has been accounted for in terms of IFRS 3.

As a result of the acquisition of Hidden Valley, a gain on bargain purchase of R848 million was recognised in 2017. The gain on bargain purchase is calculated as the difference between the consideration paid of US$1 and the fair value of the net identifiable assets acquired of R848 million.

13 PROPERTY, PLANT AND EQUIPMENT

	SA rand	
Figures in million	**2019**	2018 Restated*
Mining assets	**20 549**	24 203
Mining assets under construction	**2 964**	2 528
Undeveloped properties	**3 965**	3 974
Other non-mining assets	**271**	264
Total property, plant and equipment	**27 749**	30 969

* Restated due to the change in the final purchase price allocation related to the Moab Khotsong acquisition. Refer to note 12 for detail.

MINING ASSETS

ACCOUNTING POLICY

Mining assets including mine development costs and mine plant facilities are initially recorded at cost, where after they are measured at cost less accumulated depreciation and impairment. Costs include expenditure that is directly attributable to the acquisition of the items. Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the group and the cost of the item can be measured reliably.

The net assets of operations placed on care and maintenance are impaired to their recoverable amount. Expenditure on the care and maintenance of these operations is charged against income, as incurred. Mineral and surface use rights represent mineral and surface use rights for parcels of land both owned and not owned by the group.

13 PROPERTY, PLANT AND EQUIPMENT continued

MINING ASSETS continued

ACCOUNTING POLICY continued

Mineral and surface rights include acquired mineral use rights in production, development and exploration phase properties. The amount capitalised related to a mineral and surface right, either as an individual asset purchase or as part of a business combination, is the fair value at acquisition.

The group's mineral use rights are enforceable regardless of whether proved or probable reserves have been established. In certain limited situations, the nature of use changes from an exploration right to a mining right upon the establishment of proved and probable reserves. The group has the ability and intent to renew mineral use rights where the existing term is not sufficient to recover all identified and valued proved and probable reserves and/or undeveloped mineral interests.

Depreciation

Depreciation of mining assets is computed principally by the units-of-production method over life-of-mine based on estimated quantities of economically recoverable proved and probable reserves, which can be recovered in future from known mineral deposits.

In most instances, proved and probable reserves provide the best indication of the useful life of the group's mines (and related assets). However, in some instances, proved and probable reserves may not provide a realistic indication of the useful life of the mine (and related assets). This may be the case, for example, where management is confident that further inferred resources will be converted into measured and indicated resources and if they are economically recoverable, they can also be classified as proved and probable reserves. Management is approaching economic decisions affecting the mine on this basis, but has chosen to delay the work required to designate them formally as reserves.

In assessing which resources to include so as to best reflect the useful life of the mine, management considers resources that have been included in the life-of-mine plan. To be included in the life-of-mine plan, resources need to be above the cut-off grade set by management, which means that the resource can be economically mined and is therefore commercially viable. This consistent systematic method for inclusion in the life-of-mine plan takes management's view of the gold price, exchange rates as well as cost inflation into account.

In declaring the resource, management would have had to obtain a specified level of confidence of the existence of the resource through drilling as required by the South African Code for Reporting Exploration Results, Mineral Resources and Mineral Reserves (SAMREC).

Additional confidence in the existence, commercial viability and economical recovery of such resources may be based on historical experience and available geological information, such as geological information obtained from other operations that are contiguous to the group's as well as where the group mines continuations of these other operations' orebodies and reefs. This is in addition to the drilling results obtained by the group and management's knowledge of the geological setting of the surrounding areas, which would enable simulations and extrapolations to be done with a reasonable degree of accuracy.

In instances where management is able to demonstrate the economic recovery of such resources with a high level of confidence, such additional resources, which may also include certain, but not all, of the inferred resources, as well as the associated future development costs of accessing those resources, are included in the calculation of depreciation. The future development costs are those costs that need to be incurred to access these inferred resources, for example the costs to complete a decline or level, which may include infrastructure and equipping costs. These amounts have been extracted from the cash flow projections for the life-of-mine plans.

Mineral rights associated with production phase mineral interests are amortised over the life of mine using the units-of-production method in order to match the amortisation with the expected underlying future cash flows.

Impairment

Testing for impairment is done in terms of the group policy as discussed in note 2.5.

Stripping activities

The removal of overburden and other mine waste materials is often necessary during the initial development of a mine site, in order to access the mineral ore deposit. The directly attributable cost of this activity is capitalised in full within mining assets under construction, until the point at which the mine is considered to be capable of commercial production.

The removal of waste material after the point at which a mine is capable of commercial production is referred to as production stripping.

13 PROPERTY, PLANT AND EQUIPMENT continued

MINING ASSETS continued

ACCOUNTING POLICY continued

Stripping activities continued

When the waste removal activity improves access to ore extracted in the current period, the costs of production stripping are charged to the income statement as operating costs in accordance with the principles of IAS 2, *Inventories*.

Where production stripping activity both produces inventory and improves access to ore in future periods the associated costs of waste removal are allocated between the two elements. The portion which benefits future ore extraction is capitalised within stripping and development capital expenditure. If the amount to be capitalised cannot be specifically identified it is determined based on the volume of waste extracted compared with expected volume for the identified component of the orebody. Components are specific volumes of a mine's orebody that are determined by reference to the life-of-mine plan.

In certain instances significant levels of waste removal may occur during the production phase with little or no associated production. The cost of this waste removal is capitalised in full.

All amounts capitalised in respect of waste removal are depreciated using the units-of-production method based on proved and probable ore reserves of the component of the orebody to which they relate.

The effects of changes to the life-of-mine plan on the expected cost of waste removal or remaining reserves for a component are accounted for prospectively as a change in estimate.

Scrapping of assets

Where significant adverse changes have taken place relating to the useful life of an asset, that asset is tested for impairment in terms of the group policy as discussed in note 2.5. Whether or not an impairment is recognised, it is then necessary to review the useful lives and residual values of the assets within the CGU – this is reviewed at least annually. Where necessary, the useful lives and residual values of the individual assets are revised.

Where the useful life of an asset is nil as a result of no future economic benefit expected from the use or disposal of that asset, it is necessary to derecognise the asset. The loss arising from the derecognition is included in profit or loss in the period in which the asset was derecognised.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS – GOLD MINERAL RESERVES AND RESOURCES

Gold mineral reserves and resources are estimates of the amount of ounces that can be economically and legally extracted from the group's properties. In order to calculate the gold mineral reserves and resources, estimates and assumptions are required about a range of geological, technical and economic factors, including quantities, grades, production techniques, recovery rates, production costs, commodity prices and exchange rates.

Estimating the quantities and/or grade of the reserves and resources requires the size, shape and depth of the orebodies to be determined by analysing geological data such as the logging and assaying of drill samples. This process may require complex and difficult geological judgements and calculations to interpret the data.

Because the economic assumptions used to estimate the gold mineral reserves and resources change from year to year, and because additional geological data is generated during the course of operations, estimates of the mineral reserves and resources may change from year to year. Changes in the reserves and resources may affect the group's financial results and financial position in a number of ways, including:
- Asset carrying values may be affected due to changes in estimated cash flows;
- Scrapping of assets to be recorded in the income statement following the derecognition of assets as no future economic benefit expected;
- Depreciation and amortisation charged in the income statement may change as they are calculated on the units-of-production method;
- Environmental provisions may change as the timing and/or cost of these activities may be affected by the change in mineral reserves; and
- Useful life and residual values may be affected by the change in mineral reserves.

At the end of each financial year, the estimate of proved and probable gold mineral reserves and resources is updated. Depreciation of mining assets is prospectively adjusted, based on these changes.

13 PROPERTY, PLANT AND EQUIPMENT continued

MINING ASSETS continued

SENSITIVITY ANALYSIS - GOLD MINERAL RESERVES AND RESOURCES EFFECT ON DEPRECIATION

The group includes certain inferred resources in the denominator and future development costs in the numerator when performing the depreciation calculation for certain of its operations, where proved and probable reserves alone do not provide a realistic indication of the useful life of mine (and related assets). During periods presented, this mainly related to Doornkop. Had the group only used proved and probable reserves in its calculations, depreciation for 2019 would have amounted to R4 116 million (2018: R2 753 million) (2017: R2 727 million), compared with the reported totals of R4 054 million (2018: R2 570 million) (2017: R2 519 million).

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS – PRODUCTION START DATE

Various relevant criteria are considered in order to assess when the mine is substantially complete and ready for its intended use and moves into the production phase. Some of the criteria would include but are not limited to the following:

- The level of capital expenditure compared to the total project cost estimates;
- The ability to produce gold in a saleable form (where more than an insignificant amount of gold has been produced); and
- The ability to sustain the ongoing production of gold.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS – STRIPPING ACTIVITIES

The determination of the volume of waste extracted and the expected volume for the identified component of the orebody is dependent on an individual mine's design and life-of-mine plan and therefore changes to the design or life-of-mine plan will result in changes to these estimates. Identification of the components of a mine's orebody is made by reference to the life-of-mine plan. The assessment depends on a range of factors including each mine's specific operational features and materiality.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS – IMPAIRMENT OF ASSETS

The recoverable amount of mining assets is generally determined utilising real discounted future cash flows. Management also considers such factors as the quality of the individual orebody, market risk, asset specific risks and country risk in determining the fair value.

Key assumptions for the calculations of the mining assets' recoverable amounts are the commodity prices, resource values, marketable discount rates, costs to sell, exchange rates and the annual life-of-mine plans. In determining the commodity prices and resource values to be used, management assesses the long-term views of several reputable institutions on commodity prices and based on this, derives the commodity prices and resource values.

The life-of-mine plans are based on the proved and probable reserves as included in the Reserve Declaration, which are determined in terms of SAMREC, as well as resources where management has high confidence in the orebody and economical recovery of gold, based on historic and similar geological experience.

13 PROPERTY, PLANT AND EQUIPMENT continued

MINING ASSETS continued

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS – IMPAIRMENT OF ASSETS continued

During the year under review, the group calculated the recoverable amounts (generally fair value less costs to sell) based on updated life-of-mine plans and the following gold price, silver price and exchange rates assumptions:

	2019	2018	2017
US$ gold price per ounce			
– Year 1	**1 325**	1 250	1 200
– Year 2	**1 310**	1 250	1 200
– Long term (year 3 onwards)	**1 290**	1 250	1 200
US$ silver price per ounce			
– Year 1 and year 2	**15.75**	17.00	17.00
– Long term (year 3 onwards)	**17.00**	17.00	17.00
Exchange rate (R/US$)			
– Year 1	**14.43**	13.30	13.61
– Year 2	**14.25**	13.30	13.61
– Long term (year 3 onwards)	**14.11**	13.30	13.61
Exchange rate (PGK/US$)	**3.34**	3.17	3.16
Rand gold price (R/kg)			
– Year 1	**615 000**	535 000	525 000
– Year 2	**600 000**	535 000	525 000
– Long term (year 3 onwards)	**585 000**	535 000	525 000

The following is the attributable gold resource value assumption:

	South Africa			**Hidden Valley**		
US dollar per ounce	**2019**	2018	2017	**2019**	2018	2017
Measured	**25.00**	25.00	32.69	**n/a**	n/a	n/a
Indicated	**8.00**	8.00	18.68	**8.00**	5.84	5.84
Inferred	**2.80**	2.80	4.67	**n/a**	5.84	5.84

The recoverable amount of mining assets is determined utilising real discounted future cash flows or resource multiples in the case of undeveloped properties and certain resource bases.

One of the most significant assumptions that influence the group's operations' life-of-mine plans, and therefore impairment, is the expected gold price. During this year's planning and testing, commodity price and exchange rate assumptions as per the table above were used. Due to the increase in the US$ commodity price and weakening of the rand against the US$ dollar at the end of the financial year, management decided it would be appropriate to differentiate between short, medium and long term assumptions used in the models.

The post-tax real discount rate for Hidden Valley was 10.13% (2018: 9.91%) (2017:11.92%) and the post-tax real discount rates for the South African operations ranged between 8.90% and 11.10% (2018: 8.35% and 10.25%) (2017: 8.98% and 11.81%), depending on the asset, were used to determine the recoverable amounts. Cash flows used in the impairment calculations are based on life-of-mine plans which exceed five years for the majority of the mines. Cash flows from potential projects, life-of-mine extensions and residual ounces can also be included in the impairment assessment where deemed appropriate. An additional risk premium is added to the post-tax real discount rates in these instances.

Refer to note 6 for details of impairments recorded.

Should management's estimate of the future not reflect actual events, further impairments may be identified.

13 PROPERTY, PLANT AND EQUIPMENT continued

MINING ASSETS continued

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS – IMPAIRMENT OF ASSETS continued

Factors affecting the estimates include:
- Changes to proved and probable ore reserves;
- Economical recovery of resources;
- The grade of the ore reserves may vary significantly from time to time;
- Review of strategy;
- Unforeseen operational issues at the mines;
- Differences between actual commodity prices and commodity price assumptions;
- Changes in the discount rate and foreign exchange rates;
- Changes in capital, operating mining, processing and reclamation costs;
- Mines' ability to convert resources into reserves;
- Potential production stoppages for indefinite periods; and
- Carbon tax.

SENSITIVITY ANALYSIS - IMPAIRMENT OF ASSETS

One of the most significant assumptions that influence the life-of-mine plans and therefore impairments is the expected commodity prices. The sensitivity scenario of a 10% decrease or increase in the commodity price used in the discounted cash flow models and the resource values used (with all other variables held constant) would have resulted in the following impairment being recorded as at 30 June 2019 and 2018:

	SA rand	
Figures in million	**2019**	2018
- 10% decrease		
Tshepong Operations	**7 155**	5 174
Moab Khotsong[1]	**2 758**	1 636
Kusasalethu	**1 962**	2 716
Doornkop	**1 350**	2 052
Target 1	**1 278**	1 684
Joel	**984**	882
Hidden Valley	**749**	752
Target 3	**337**	141
Bambanani[1]	**331**	222
Target North	**291**	1 826
Other surface operations	**178**	540
Masimong	**105**	386
Unisel	**45**	525
Kalgold	**39**	—
+ 10% increase		
Target 3	**300**	—
Masimong	**—**	59
Target North	**—**	1 090
Unisel	**—**	433

[1] The carrying amounts of these CGUs include goodwill and any impairment losses are allocated first to goodwill and then to the identifiable assets.

At all other operations, a 10% increase in the gold price would have resulted in no impairments being recorded.

13 PROPERTY, PLANT AND EQUIPMENT continued

MINING ASSETS continued

The movement in the mining assets is as follows:

	SA rand	
Figures in million	**2019**	2018 Restated*
Cost		
Balance at beginning of year	**49 741**	40 570
Fully depreciated assets no longer in use derecognised	**(302)**	—
Additions[1]	**4 113**	2 546
Acquisition of Moab Khotsong	**—**	3 554
Disposals	**(16)**	(68)
Scrapping of assets	**(117)**	(2)
Adjustment to rehabilitation asset	**(439)**	(175)
Transfers and other movements	**801**	3 117
Translation	**(152)**	199
Balance at end of year	**53 629**	49 741
Accumulated depreciation and impairments		
Balance at beginning of year	**25 538**	19 263
Fully depreciated assets no longer in use derecognised	**(302)**	—
Impairment of assets	**3 880**	3 460
Disposals	**(16)**	(67)
Scrapping of assets	**(96)**	(1)
Depreciation	**4 184**	2 789
Translation	**(108)**	94
Balance at end of year	**33 080**	25 538
Net carrying value	**20 549**	24 203

* Relates to a change in the fair value of assets acquired - refer to note 12 for detail.
[1] Included in additions for 2019 is an amount of R173 million (2018: R12 million) for capitalised depreciation associated with stripping activities at the Hidden Valley operations.

Acquisition of assets

On 1 March 2018 the group acquired Moab Khotsong. Included in this acquisition was property, plant and equipment with a fair value of R3 691 million. Of the total acquisition costs, R3 554 million relates to mining assets and R137 million relates to other non-mining assets respectively. Refer to note 12 for more information relating to the acquisition.

Loss on scrapping of property, plant and equipment

Refer to note 7 for details.

Stripping activities

Included in the balance for mining assets is an amount of R1 208 million (2018: R261 million) relating to Kalgold and Hidden Valley. Depreciation of R13 million (2018: R4 million) was also recorded.

Transfer of assets

Transfer of assets relates to assets under construction transferred to mining assets. During the 2019 year this included an amount of R607 million transferred to mining assets at Hidden Valley. During 2018 amounts of R2 707 million and R410 million were transferred for Hidden Valley and Tshepong Operations respectively.

13 PROPERTY, PLANT AND EQUIPMENT continued

MINING ASSETS UNDER CONSTRUCTION

ACCOUNTING POLICY

At the group's surface mines, when it has been determined that a mineral property can be economically developed as a result of establishing proved and probable reserves, costs incurred to develop the property are capitalised as incurred until the mine is considered to have moved into the production phase. These costs include costs to further delineate the orebody and remove overburden to initially expose the orebody. At the group's underground mines, all costs incurred to develop the property, including costs to access specific ore blocks or other areas of the underground mine, are capitalised to the extent that such costs will provide future economic benefits. These costs include the cost of shaft sinking and access, the costs of building access ways, lateral development, drift development, ramps, box cuts and other infrastructure development. Revenue earned during the pre-production phase is credited to the asset.

Where a depreciable asset is used in the construction or extension of a mine, the depreciation is capitalised against the mine's cost.

Exploration properties acquired are recognised in the balance sheet within development cost and are shown at cost less provisions for impairment determined in accordance with the group's accounting policy on impairment of non-financial assets.

Mineral interests associated with development and exploration phase mineral interests are not amortised until such time as the underlying property is converted to the production stage.

Capitalisation of pre-production costs ceases when commercial levels of production are reached. Commercial levels of production are discussed under "production start date" above.

The movement in the mining assets under construction is as follows:

	SA rand	
Figures in million	**2019**	2018
Cost		
Balance at beginning of year	**2 528**	3 104
Additions[1]	**1 070**	1 988
Depreciation capitalised[2]	**50**	312
Finance costs capitalised[3]	**133**	183
Transfers and other movements	**(802)**	(3 123)
Translation	**(15)**	64
Balance at end of year	**2 964**	2 528

[1] For 2019 pre-production revenue of Rnil (2018: R1 288 million) was credited against additions.
[2] Relates primarily to Hidden Valley.
[3] Refer to note 9 for further detail on the capitalisation rate applied.

UNDEVELOPED PROPERTIES

ACCOUNTING POLICY

Undeveloped properties are initially recognised at cost, which is generally based on the fair value of resources obtained through acquisitions. The carrying values of these properties are tested annually for impairment. Once development commences, these properties are transferred to mining properties and accounted for in accordance with the related accounting policy.

13 PROPERTY, PLANT AND EQUIPMENT continued

UNDEVELOPED PROPERTIES continued

The movement in the undeveloped properties is as follows:

Figures in million	SA rand 2019	SA rand 2018
Cost		
Balance at beginning of year	**5 446**	5 442
Translation	**(9)**	4
Balance at end of year	**5 437**	5 446
Accumulated depreciation and impairments		
Balance at beginning and end of year	**1 472**	14
Impairment[1]	**—**	1 458
Balance at end of year	**1 472**	1 472
Net carrying value	**3 965**	3 974

[1] The impairment for 2018 year relates to Target North.

OTHER NON-MINING ASSETS

ACCOUNTING POLICY

Land is shown at cost and not depreciated. Other non-mining fixed assets are shown at cost less accumulated depreciation and accumulated impairment losses. Other non-mining fixed assets are depreciated on a straight-line basis over their estimated useful lives as follows:

- Vehicles at 20% per year.
- Computer equipment at 33.3% per year.
- Furniture and equipment at 16.67% per year.

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each balance sheet date.

The movement in the non-mining assets is as follows:

Figures in million	SA rand 2019	SA rand 2018
Cost		
Balance at beginning of year	**609**	441
Fully depreciated assets no longer in use derecognised	**(9)**	—
Additions	**59**	37
Acquisition of Moab Khotsong	**—**	137
Transfers and other movements	**1**	(6)
Translation	**(2)**	—
Balance at end of year	**658**	609

13 PROPERTY, PLANT AND EQUIPMENT continued

OTHER NON-MINING ASSETS continued

Figures in million	SA rand 2019	2018
Accumulated depreciation and impairments		
Balance at beginning of year	**345**	236
Fully depreciated assets no longer in use derecognised	**(9)**	—
Depreciation	**39**	56
Impairment	**12**	51
Translation	**—**	2
Balance at end of year	**387**	345
Net carrying value	**271**	264

14 INTANGIBLE ASSETS

ACCOUNTING POLICY

Intangible assets consist of all identifiable non-monetary assets without physical substance. They are stated at cost less accumulated amortisation and accumulated impairment losses, if any. The following are the main categories of intangible assets:

Goodwill

Goodwill is an intangible asset with an indefinite useful life which is not amortised but tested for impairment on an annual basis, or when there is an indication of impairment. The excess of consideration transferred over the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previously held equity interest in the acquiree over the fair value of the group's share of the identifiable net assets acquired is recorded as goodwill. Goodwill on acquisition of subsidiaries, joint ventures and businesses is included in intangible assets. Goodwill on acquisition of associates is included in investments in associates and tested for impairment as part of the overall balance.

Goodwill is tested annually for impairment and carried at cost less accumulated impairment losses. Goodwill is allocated to cash generating units for the purpose of impairment testing. The allocation is made to those cash generating units or groups of cash generating units that are expected to benefit from the business combination in which the goodwill arose. If the composition of one or more cash generating units to which goodwill has been allocated changes due to a re-organisation, the goodwill is re-allocated to the units affected.

The gain or loss on disposal of an entity includes the carrying amount of goodwill relating to the entity sold.

Technology-based assets

Acquired computer software licences that require further internal development are capitalised on the basis of costs incurred to acquire and bring to use the specific software. These technology-based assets are classified as intangible assets with a finite useful life. These assets are amortised on a straight-line basis over their estimated useful lives, which are reviewed annually, as follows:
- Computer software at 20% per year.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS - IMPAIRMENT OF GOODWILL

Due to the wasting nature of mining assets and the finite life of a mine's reserves, the allocation of goodwill to a shaft will eventually result in an impairment charge for the goodwill. The group tests annually whether separately identifiable goodwill has suffered any impairment in accordance with the accounting policy stated in note 2.5. These calculations use estimates as per note 13.

14 INTANGIBLE ASSETS continued

Figures in million	SA rand **2019**	 2018 Restated*
Goodwill	**520**	526
Technology-based assets	**13**	19
Total intangible assets	**533**	545

* The goodwill on acquisition of the Moab Khotsong operations was restated for the 2018 financial year as a result of the change in the fair value of net identifiable assets acquired amounting to R30 million. Refer to note 12.

GOODWILL

The movement in goodwill is as follows:

Figures in million	SA rand **2019**	 2018 Restated*
Cost		
Balance at beginning of year	**2 675**	2 373
Acquisition of Moab Khotsong	**—**	302
Balance at end of year	**2 675**	2 675
Accumulated amortisation and impairments		
Balance at beginning of year	**2 149**	1 782
Impairment[1]	**6**	367
Balance at end of year	**2 155**	2 149
Net carrying value	**520**	526
The net carrying value of goodwill has been allocated to the following cash generating units:		
Bambanani	**218**	224
Moab Khotsong	**302**	302
Net carrying value	**520**	526

[1] In 2019 an impairment of R6 million (2018: Rnil) on goodwill was recorded for Bambanani, Rnil (2018: R326 million) for Tshepong Operations and Rnil (2018: R41 million) for Joel as the carrying values exceeded the recoverable values of the related cash generating units. Refer to note 6 for further details on the impairment assessment.

14 INTANGIBLE ASSETS continued

TECHNOLOGY-BASED ASSETS

The movement in technology-based assets is as follows:

	SA rand	
Figures in million	**2019**	2018
Cost		
Balance at beginning of year	**48**	33
Fully depreciated assets no longer in use derecognised	**(10)**	—
Transfers and other movements	**—**	6
Additions	**1**	9
Balance at end of year	**39**	48

	SA rand	
Figures in million	**2019**	2018
Accumulated amortisation and impairments		
Balance at beginning of year	**29**	21
Fully depreciated assets no longer in use derecognised	**(10)**	—
Amortisation charge	**7**	8
Balance at end of year	**26**	29
Net carrying value	**13**	19

ACCOUNTING POLICY - FINANCIAL ASSETS (APPLICABLE TO NOTES 15, 16, 17, 18, AND 19)

Accounting policy applicable from 1 July 2018

Financial assets are initially recognised when the group becomes a party to their contractual arrangements. On initial recognition, a financial asset is classified as measured at:
- Amortised cost;
- Fair value through other comprehensive income (FVTOCI); or
- Fair value through profit or loss (FVTPL).

A financial asset is classified as measured at amortised cost if it is held within the business model whose objective is to hold assets to collect contractual cash flows and its contractual terms give rise, on specified dates, to cash flows that are solely payments of principal and interest on the principal amount outstanding.

The group measures a financial asset initially at its fair value plus, in the case of a financial asset not at FVTPL, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at FVTPL are expensed. The subsequent measurement of financial assets is discussed below.

Financial asset category	Description
Debt instruments at amortised cost	Financial assets at amortised cost consist of restricted cash, restricted investments, loans, trade receivables and cash and cash equivalents. Interest income from these financial assets is included in investment income using the effective interest rate method. Any gain or loss arising on derecognition is recognised directly in profit or loss. Impairment losses are presented in other operating expenses in the income statement.
Debt instruments at fair value through profit or loss	Equity-linked investments which are held to meet rehabilitation liabilities are classified as FVTPL. Debt instruments where the contractual cash flows fail to meet the solely payments of principal and interest (SPPI) criteria are also classified as FVTPL. A gain or loss on a debt investment that is subsequently measured at FVTPL is recognised in profit or loss and presented net within investment income in the period in which it arises. On derecognition of a financial asset, the difference between the proceeds received or receivable and the carrying amount of the asset is included in profit or loss.
Equity instruments designated at fair value through OCI	The group's equity investments are designated as FVTOCI. The group subsequently measures all equity investments at fair value. Where the group's management has elected to present fair value gains and losses on equity investments in OCI, there is no subsequent reclassification of fair value gains and losses to profit or loss following the derecognition of the investment. Dividends from such investments are recognised when the group's right to receive payments is established either in profit or loss as other income or as a deduction against the asset if the dividend clearly represents a recovery of part of the cost of the investment. Residual values in OCI are reclassified to retained earnings on derecognition of the related FVTOCI instruments.

Impairment losses on financial assets at amortised cost are assessed using the forward-looking expected credit loss (ECL) approach. ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the entity in accordance with the contract and the cash flows that the group expects to receive). At each reporting date, the group assesses whether financial assets carried at amortised cost are credit impaired. A financial asset is "credit-impaired" when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred. Trade receivable loss allowances are measured at an amount equal to lifetime ECLs. Loss allowances are deducted from the gross carrying amount of the assets.

Financial assets and liabilities are offset and the net amount reported in the balance sheet when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis, or realise the asset and settle the liability simultaneously.

Accounting policy applicable before 1 July 2018

Financial assets are initially measured at fair value when the group becomes a party to their contractual arrangements, with the exception of loans and receivables which are recognised on origination date. Transaction costs are included in the initial measurement of financial instruments, with the exception of financial instruments classified at fair value through profit or loss. The subsequent measurement of financial assets is discussed below.

A financial asset is derecognised when the right to receive cash flows from the asset has expired or the group has transferred its rights to receive cash and either (a) has transferred substantially all the risks and rewards of the asset, or (b) has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the assets.

On derecognition of a financial asset, the difference between the carrying amount and the sum of the consideration received and any cumulative gain or loss recognised in equity is recognised in profit or loss.

Financial assets and liabilities are offset and the net amount reported in the balance sheet when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis, or realise the asset and settle the liability simultaneously.

ACCOUNTING POLICY - FINANCIAL ASSETS (APPLICABLE TO NOTES 15, 16, 17, 18 AND 19) continued

Accounting policy applicable before 1 July 2018 continued

The group classifies financial assets as follows:

- **Loans and receivables** are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They arise when the group provides money, goods or services directly to a debtor with no intention of trading the receivable. Loans and receivables are subsequently measured at amortised cost using the effective interest method. Loans and receivables include trade and other receivables (excluding VAT and prepayments), restricted cash and cash and cash equivalents.
  - **Cash and cash equivalents** are defined as cash on hand, deposits held at call with banks and short-term highly liquid investments with original maturities of three months or less. Cash and cash equivalents exclude restricted cash.
  - **Trade and other receivables** are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method, less provision for impairment. If collection of the trade receivable is expected in one year or less it is classified as current assets. If not, it is presented as non-current assets. A provision for impairment of receivables is established when there is objective evidence that the group will not be able to collect all amounts due according to the original terms of receivables. The amount of the provision is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the effective interest rate. The carrying amount of the asset is reduced through the use of a provision for impairment (allowance account) and the amount of the loss is recognised in the income statement. When a trade receivable is uncollectible, it is written off against the allowance account for trade receivables. Subsequent recoveries of amounts previously written off are credited in the income statement.

- **Available-for-sale financial assets** are non-derivatives that are either designated in this category or not classified in any of the other categories. They are included in non-current assets unless the investment matures or management intends to dispose of the investment within 12 months of the balance sheet date. Available-for-sale financial assets are subsequently carried at fair value. The fair values of quoted investments are based on current bid prices. If the fair value for a financial instrument cannot be obtained from an active market, the group establishes fair value by using valuation techniques. The group assesses at each balance sheet date whether there is objective evidence that a financial asset or a group of financial assets is impaired.

- **Held-to-maturity** investments are non-derivative financial assets with fixed or determinable payments and fixed maturities that the group's management has the positive intention and ability to hold to maturity. The group's held-to-maturity investments are subsequently measured at amortised cost using the effective interest method. The group assesses at the end of each reporting period whether there is objective evidence that a held-to-maturity investment is impaired as a result of an event.

  A portion of restricted investments held by the trust funds (refer to note 16) are classified as held-to-maturity investments.

- **Financial assets at fair value through profit or loss** have two sub-categories: financial assets held-for-trading, and those designated at fair value through profit or loss at inception. Derivative assets are categorised as held for trading unless designated as hedging instruments (refer to note 2.3). These assets are subsequently measured at fair value with gains or losses arising from changes in fair value recognised in the income statement in the period in which they arise.

15 RESTRICTED CASH

	SA rand	
Figures in million	**2019**	2018
Non-current (a)	**92**	77
Current (b)	**44**	38
Total restricted cash	**136**	115

(a) The amount primarily relates to funds set aside to serve as collateral against guarantees made to the Department of Mineral Resources and Energy (DMRE) in South Africa for environmental and rehabilitation obligations. Refer to note 25. The funds are invested equally in short term money market funds and call accounts.

(b) Cash of R20 million (2018: R19 million) relates to monies released from the environmental trusts as approved by the DMRE which may only be used for further rehabilitation. Cash of R24 million (2018: R19 million) relates to monies set aside for affected communities in the group's PNG operations.

16 RESTRICTED INVESTMENTS

Figures in million	SA rand 2019	2018
Investments held by environmental trust funds	**3 273**	3 238
Investments held by social trust funds	**28**	33
Total restricted investments	**3 301**	3 271

ENVIRONMENTAL TRUST FUNDS

ACCOUNTING POLICY

Contributions are made to the group's environmental trust funds, created in accordance with statutory requirements, to fund the estimated cost of pollution control, rehabilitation and mine closure at the end of the life of the group's mines. The trusts are consolidated into the group as the group exercises control of the trusts. The measurement of the investments held by the trust funds is dependent on their classification under financial assets. Income received and gains are treated in accordance with these classifications. The equity-linked notes are classified and measured at fair value through profit or loss whilst the interest-bearing short-term investments are classified and measured as debt instruments at amortised cost.

The environmental trust funds are irrevocable trusts under the group's control. Contributions to the trusts are invested in interest-bearing short-term and medium-term cash investments and medium term equity-linked notes issued by commercial banks that provide guaranteed interest and additional interest or growth linked to the growth of the Top 40 index of the JSE. These investments provide for the estimated cost of rehabilitation at the end of the life of the group's mines. Income earned on the investments is retained in the funds and reinvested.

The environmental trust funds consist of:

Figures in million	SA rand 2019	2018
Fixed deposits	**2 015**	2 335
Cash and cash equivalents	**30**	23
Equity-linked deposits	**1 228**	880
Total environmental trust funds	**3 273**	3 238

Reconciliation of the movement in the investments held by environmental trust funds:

Figures in million	SA rand 2019	2018
Balance at beginning of year	**3 238**	2 621
Interest income	**168**	157
Fair value gain	**48**	79
Moab Khotsong acquisition[1]	**—**	382
Equity-linked deposits acquired	**300**	—
(Maturity)/acquisition of fixed deposits	**(481)**	6
Net transfer of cash and cash equivalents	**183**	(7)
Withdrawal of funds for rehabilitation work performed	**(183)**	—
Balance at end of year	**3 273**	3 238

[1] Refer to note 12 for further information. The amount includes R58 million relating to Nufcor SA. Upon receipt the funds were invested in fixed deposits.

16 RESTRICTED INVESTMENTS continued

THE SOCIAL TRUST FUND

The social trust fund is an irrevocable trust under the group's control. The purpose of the trust is to fund the social plan to reduce the negative effects of restructuring on the group's workforce, to put measures in place to ensure that the technical and life skills of the group's workforce are developed and to develop the group's workforce in such a manner as to avoid or minimise the effect of job losses and a decline in employment through turnaround or redeployment strategies.

The social trust fund investment comprises a unit trust portfolio that is exposed to the fair value changes in the equity market and is classified as a fair value through profit or loss investment.

17 OTHER NON-CURRENT ASSETS

	SA rand	
Figures in million	**2019**	2018
Debt instruments	**274**	253
Loans to associates (a)	**116**	116
Loan to ARM BBEE Trust (b)	**271**	256
Other loans	**3**	—
Loss allowance (a) (b)	**(116)**	(119)
Equity instruments	**59**	8
Rand Mutual Assurance (c)	**52**	—
Other investments	**7**	8
Other non-current assets	**1**	3
Total other non-current assets	**334**	264

The movement in the loss allowance for debt instruments during the year is as follows:

	SA rand	
Figures in million	**2019**	2018
Balance at beginning of year	**119**	162
Impact of adoption of IFRS 9 (b)	**(3)**	—
Reversal of loss allowance	**—**	(43)
Balance at end of year	**116**	119

(a) A loan of R116 million (2018: R116 million) owed by Pamodzi Gold Limited (Pamodzi) who were placed into liquidation during 2009 was provided for in full. Harmony is a concurrent creditor in the Pamodzi Orkney liquidation.

(b) During 2016, Harmony advanced R200 million to the ARM BBEE Trust, a shareholder of African Rainbow Minerals Limited (ARM). The trust is controlled and consolidated by ARM, who holds 13.8% of Harmony's shares. Harmony is a trustee of the ARM BBEE Trust. The loan is subordinated and unsecured. The interest is market related (3 months JIBAR plus 4.25%) and is receivable on the maturity of the loan on 31 December 2022. On adoption of IFRS 9, it was assessed that the contractual cash flows fail the solely payments of principal and interest (SPPI) characteristics and that the loan will therefore be carried at fair value through profit or loss (refer to note 2) and the previously recognised provision was derecognised. At 30 June 2019 the loan was remeasured to its fair value of R271 million using a discounted cash flow model. The fair value adjustment is recorded in gains on financial instruments - refer to note 8.

17 OTHER NON-CURRENT ASSETS continued

(c) The movement in the investment in Rand Mutual Assurance is as follows:

	SA rand	
Figures in million	**2019**	2018
Balance at beginning of year	**—**	—
Fair value on adoption of IFRS 9	**82**	—
Capital dividend received	**(30)**	—
Balance at end of year	**52**	—

On adoption of IFRS 9 on 1 July 2018, the investment was remeasured to fair value. Refer to note 2. On 7 September 2018, RMA declared the proceeds from the sale of shares in one of its subsidiaries as a dividend to shareholders. The dividend is seen as a recovery of capital as it reduced Harmony's effective share in the underlying subsidiary which gave rise to the initial revaluation.

18 DERIVATIVE FINANCIAL INSTRUMENTS

The group has the following derivative financial instruments:

	SA rand			
Figures in million	**Rand gold hedging contracts**	**US$ commodity contracts (a)**	**Foreign exchange hedging contracts (b)**	**Total**
30 June 2019				
Derivative financial assets	**45**	**5**	**456**	**506**
Non-current	**23**	**1**	**173**	**197**
Current	**22**	**4**	**283**	**309**
Derivative financial liabilities	**(383)**	**(57)**	**(2)**	**(442)**
Non-current	**(158)**	**(14)**	**—**	**(172)**
Current	**(225)**	**(43)**	**(2)**	**(270)**
Net derivative financial instruments	**(338)**	**(52)**	**454**	**64**
Unamortised day one net loss included above	**36**	**5**	**—**	**41**
Realised gains included in revenue	**453**	**—**	**—**	**453**
Unrealised losses included in other reserves	**165**	**49**	**—**	**214**
Gains/(losses) included in gains on derivatives	**(51)**	**13**	**554**	**516**
Day one loss amortisation	**(31)**	**(1)**	**—**	**(32)**
Total gains on derivatives	**(82)**	**12**	**554**	**484**
Hedge effectiveness				
Cumulative changes in the fair value of the hedging instrument used as the basis for recognising hedge ineffectiveness	**288**	**(49)**	**—**	**239**
Cumulative changes in the fair value of the hedged item used as the basis for recognising hedge ineffectiveness.	**(288)**	**49**	**—**	**(239)**

18 DERIVATIVE FINANCIAL INSTRUMENTS continued

	SA rand			
Figures in million	Rand gold hedging contracts	US$ commodity contracts (a)	Foreign exchange hedging contracts (b)	Total
30 June 2018				
Derivative financial assets	482	74	67	623
Non-current	70	11	3	84
Current	412	63	64	539
Derivative financial liabilities	(12)	—	(203)	(215)
Non-current	(10)	—	—	(10)
Current	(2)	—	(203)	(205)
Net derivative financial instruments	470	74	(136)	408
Unamortised day one net loss included above	11	—	—	11
Realised gains included in revenue	1 197	—	—	1 197
Unrealised gains included in other reserves	413	—	—	413
Gains/(losses) included in gains on derivatives	(12)	35	113	136
Day one loss amortisation	(37)	—	—	(37)
Total gains on derivatives	(49)	35	113	99

	SA rand			
Figures in million	Rand gold hedging contracts	US$ commodity contracts (a)	Foreign exchange hedging contracts (b)	Total
30 June 2017				
Realised gains included in revenue	728	—	—	728
Gains/(losses) included in gains on derivatives	—	20	1 083	1 103
Hedge ineffectiveness	16	—	—	16
Day one loss amortisation	(94)	—	—	(94)
Total gains on derivatives	(78)	20	1 083	1 025

Hedge accounting
Harmony has entered into gold forward sale derivative contracts to hedge the risk of lower gold prices. Cash flow hedge accounting is applied to the majority of these contracts, resulting in the effective portion of the unrealised gains and losses being recorded in other comprehensive income (other reserves - refer to note 24). Refer to note 4 for a summary of the risk management strategy applied and the balances relating to designated hedging instruments as at reporting date. Hedge effectiveness is determined at the inception of the hedge relationship and through periodic prospective effectiveness assessments. The group enters into gold forward contracts that have similar terms as the hedged item, such as notional amount, maturity date and reference gold spot price thereby ensuring that an economic relationship exists between the hedging instrument and the hedged item and resulting in a hedge ratio of 1:1. Potential sources of hedge ineffectiveness include counterparty credit risk, day one gains and losses, a mismatch in the timing of the derivative and underlying gold sale maturities, location differential and the refining margin. A negligible amount of hedge ineffectiveness was however experienced during 2019 and 2018 as all the critical terms of the hedging instruments and hedged items matched.

The loss from derivative contracts to which hedge accounting is not applied is included in gains on derivatives.

18 DERIVATIVE FINANCIAL INSTRUMENTS continued

(a) Harmony maintains a hedging programme for Hidden Valley by entering into commodity hedging contracts. The contracts comprise US$ gold forward sale derivative contracts as well as silver zero cost collars which establish a minimum (floor) and maximum (cap) silver sales price. Hedge accounting is applied to all US$ gold forward sale derivative contracts entered into from 1 January 2019. None of these contracts matured during the current financial period. Hedge accounting is not applied to gold contracts entered into before this date as well as the silver collars.

(b) Harmony maintains a foreign exchange hedging programme in the form of zero cost collars, which sets a floor and cap rand/US$ exchange rate at which to convert US dollars to rands, and foreign exchange forward contracts. Hedge accounting is not applied to these contracts.

The following table shows the open position at the reporting date:

	FY2020				FY2021				TOTAL
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Foreign exchange contracts									
Zero cost collars									
US$m	**71**	**69**	**64**	**62**	**49**	**48**	**37**	**14**	**414**
Floor	**14.48**	**14.59**	**14.80**	**14.96**	**15.30**	**15.28**	**15.37**	**15.55**	**14.92**
Cap	**15.19**	**15.35**	**15.57**	**15.75**	**16.11**	**16.27**	**16.36**	**16.55**	**15.74**
Forward contracts									
US$m	**69**	**69**	**66**	**60**	**61**	**35**	**24**	**6**	**390**
Forward rate	**14.71**	**15.00**	**15.27**	**15.44**	**15.89**	**15.82**	**15.96**	**16.23**	**15.35**
R/gold									
'000 oz	**19**	**14**	**6**	**—**	**—**	**—**	**—**	**—**	**39**
'000 oz - cash flow hedge	**76**	**80**	**88**	**96**	**71**	**71**	**73**	**33**	**588**
R'000/kg	**626**	**641**	**648**	**661**	**668**	**674**	**689**	**702**	**659**
US$/gold									
'000 oz	**6**	**4**	**—**	**—**	**—**	**—**	**—**	**—**	**10**
'000 oz - cash flow hedge	**6**	**8**	**12**	**12**	**8**	**6**	**3**	**1**	**56**
US$/oz	**1 351**	**1 363**	**1 357**	**1 370**	**1 376**	**1 387**	**1 404**	**1 414**	**1 368**
Total gold									
'000 oz	**107**	**106**	**106**	**108**	**79**	**77**	**76**	**34**	**693**
US$/silver									
'000 oz	**90**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**90**
Floor	**17.40**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**17.40**
Cap	**18.40**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**18.40**

Refer to note 4 for the details on the fair value measurements.

19 TRADE AND OTHER RECEIVABLES

	SA rand	
Figures in million	**2019**	2018
Financial assets		
Trade receivables (metals)	**448**	542
Other trade receivables	**230**	123
Loss allowance	**(68)**	(60)
Trade receivables - net	**610**	605
Interest and other receivables	**7**	7
Employee receivables	**10**	14
Non-financial assets		
Prepayments	**67**	76
Value added tax	**281**	316
Income and mining taxes	**89**	121
Total trade and other receivables	**1 064**	1 139

The movement in the loss allowance for trade and other receivables during the year was as follows (refer to note 4 for details):

	SA rand	
Figures in million	**2019**	2018
Balance at beginning of year	**60**	51
Increase in loss allowance recognised during the year	**47**	11
Reversal of loss allowance during the year	**(39)**	(2)
Balance at end of year	**68**	60

The loss allowance for trade and other receivables stratified according to ageing profile at the reporting date is as follows:

	SA rand	
Figures in million	**Gross**	**Loss allowance**
30 June 2019		
Not past due[1]	**562**	**—**
Past due by 1 to 30 days	**3**	**—**
Past due by 31 to 60 days	**30**	**—**
Past due by 61 to 90 days	**9**	**—**
Past due by more than 90 days	**12**	**11**
Past due by more than 361 days	**62**	**57**
	678	**68**
30 June 2018		
Not past due	586	16
Past due by 1 to 30 days	10	—
Past due by 31 to 60 days	21	—
Past due by 61 to 90 days	6	5
Past due by more than 90 days	10	10
Past due by more than 361 days	32	29
	665	60

[1]Includes the full trade receivables (metals) balance.

19 TRADE AND OTHER RECEIVABLES continued

During 2018 and 2019 there was no renegotiation of the terms of any receivable. As at 30 June 2019 and 30 June 2018, there was no collateral pledged or held for any of the receivables.

20 INVESTMENTS IN ASSOCIATES

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

The investments in associates are evaluated for impairment by comparing the entire carrying value of the investment (including loans to associates and preference shares) to the recoverable amount, which is the higher of value in use or fair value less costs to sell. Discounted cash flow models are used to calculate the net present value of the investments. The cash flows in the models include expected interest and capital payments on loans, dividends, redemption amounts and proceeds on disposal.

(a) Harmony acquired a 32.4% interest in Pamodzi on 27 February 2008, initially valued at R345 million. Pamodzi was listed on the JSE and had interests in operating gold mines in South Africa. Pamodzi was placed in liquidation in March 2009. As at 30 June 2019, the liquidation process has not been concluded. Refer to note 17(a) for details of the loan and provision of impairment of the loan.

(b) Rand Refinery provides precious metal smelting and refining services in South Africa. Harmony holds a 10.38% share in Rand Refinery. This investment is a strategic investment for the group as Rand Refinery is the only company that provides such services in South Africa. Although the group holds less than 20% of the equity shares of Rand Refinery, the group is able to exercise significant influence by virtue of having a right to appoint a director on the board. Through the 10.38% shareholding and the right to appoint a director on the board, the investment has been accounted for as an associate.

In December 2014, Rand Refinery drew down on a shareholder's loan of which Harmony's portion thereof was R120 million. Following an amended loan agreement signed in June 2017, the loan was converted into cumulative redeemable preference shares of no par value. During 2019, Rand Refinery redeemed preference shares to the value of R32 million.

Rand Refinery has a 31 August year-end.

The movement in the investments in associates during the year is as follows:

	SA rand	
Figures in million	**2019**	2018
Balance at beginning of year	**84**	46
Redemption of preference shares	**(32)**	—
Share of profit/(loss) in associate	**59**	54
Impairment loss[1]	**—**	(16)
Balance at end of year	**110**	84

[1]The impairment in 2018 relates to Rand Refinery. The recoverable amount of R84 million was determined using a pre-tax discount rate of 15.7%.

21 INVESTMENT IN JOINT OPERATIONS

The group has a 50% interest in certain mining and exploration assets located in the Morobe province, PNG. Newcrest owns the remaining 50% interest in these assets. The asset in the joint arrangement is the Wafi-Golpu project. The joint arrangement is accounted for as a joint operation.

22 INVENTORIES

ACCOUNTING POLICY

Inventories, which include bullion on hand, gold-in-process, gold in lock-up, ore stockpiles and consumables, are measured at the lower of cost and net realisable value. Net realisable value is assessed at each reporting date and is determined with reference to relevant market prices.

The cost of bullion, gold-in process and gold in lock-up is determined by reference to production cost, including amortisation and depreciation at the relevant stage of production. Ore stockpiles are valued at average production cost. Stockpiles and gold in lock-up are classified as non-current assets where the stockpile exceeds current processing capacity and where a portion of static gold in lock-up is expected to be recovered more than 12 months after balance sheet date.

Gold in-process inventories represent materials that are currently in the process of being converted to a saleable product. In-process material is measured based on assays of the material fed to process and the projected recoveries at the respective plants. In-process inventories are valued at the average cost of the material fed to process attributable to the source material coming from the mine or stockpile plus the in-process conversion costs, including the applicable depreciation relating to the process facility, incurred to that point in the process. Gold in-process includes gold in lock-up which is generally measured from the plants onwards. Gold in lock-up is expected to be extracted when plants are demolished at the end of their useful lives, which is largely dependent on the estimated useful life of the operations feeding the plants.

At the group's open pit operations, gold in-process represents production in broken ore form.

Consumables are valued at weighted average cost value after appropriate allowances for slow moving and redundant items.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

Judgement is applied in estimating the provision for stock obsolescence. The provision is recognised on items not considered critical as a percentage of the value of the inventory depending on the period elapsed since the inventory was purchased or issued. Inventory held for longer than five years is written down to zero unless there is sufficient evidence of a recoverable amount.

	SA rand	
Figures in million	**2019**	2018
Gold in lock-up	**43**	46
Gold in-process, ore stockpiles and bullion on hand[1]	**780**	620
Consumables at weighted average cost (net of provision)[2]	**1 187**	1 139
Total inventories	**2 010**	1 805
Non-current portion of gold in lock-up and gold in-process	**(43)**	(46)
Total current portion of inventories	**1 967**	1 759
Included in the balance above is:		
Inventory valued at net realisable value	**334**	205

[1] Gold in process increased R137 million year on year due to the timing of the plant clean-up at year-end which resulted in the first possible dispatch day falling in the 2020 financial period. The balance includes uranium stock of R23 million (2018: R40 million) for the Moab Khotsong operations.
[2] Certain maintenance services were in-sourced at the Hidden Valley operations resulting in an increase in the consumables balance.

During the year, a decrease of R1 million (2018: R32 million increase) to the provision for slow-moving and redundant stock was made. The total provision at 30 June 2019 was R281 million (2018: R282 million).

23 SHARE CAPITAL

ACCOUNTING POLICY

Ordinary shares are classified as equity, incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

The cost of treasury shares is eliminated against the share capital balance.

AUTHORISED

1 200 000 000 (2018: 1 200 000 000) ordinary shares with no par value.
4 400 000 (2018: 4 400 000) convertible preference shares with no par value.

ISSUED

539 841 195 (2018: 500 251 751) ordinary shares with no par value. All issued shares are fully paid.
4 400 000 (2018: 0) convertible preference shares with no par value.

SHARE ISSUES

Accelerated bookbuild
During June 2018, Harmony conducted a placement of new ordinary shares to qualifying investors to raise up to R1.26 billion, which represented approximately 15 per cent of the group's existing issued ordinary share capital prior to the placement. The placement was conducted through an accelerated bookbuild. The net proceeds of the placement were used to pay down part of the outstanding bridge loan raised for the acquisition of the Moab Khotsong operations. A total of 55 055 050 new ordinary shares were placed with existing and new institutional investors at a price of R19.12 per share, raising gross proceeds of R1.05 billion. Costs directly attributable to the issue of the shares amounted to R49 million.

As part of the accelerated bookbuild, ARM subscribed for an additional 11 032 623 shares at R19.12 a share in July 2018. The issue raised a further R211 million and resulted in ARM maintaining its shareholding of 14.29% post the placement of shares.

Share issues relating to employee share options
An additional 21 856 821 (2018: 5 239 502) shares were issued to settle the exercise of share options by employees relating to Harmony's management share option schemes. In the current financial year, Harmony implemented a new employee share option scheme referred to as the Sisonke Employee Share Ownership Plan. An amount of 6 700 000 shares were issued to the Harmony ESOP Trust as part of the new scheme. Note 33 sets out the details in respect of the share option schemes.

Convertible preference shares
On 20 February 2019, Harmony issued 4 400 000 convertible preference shares to the Harmony Gold Community Trust. The convertible preference shares carry a minimum annual preference dividend of R2 per share and are convertible into ordinary shares on a 1:1 basis after the tenth anniversary of the date on which the shares were issued. The conversion is at the election of Harmony.

TREASURY SHARES

Included in the total of issued shares are the following treasury shares:

	Number of shares	
	2019	2018
Ordinary shares		
Lydenburg Exploration Limited[1]	**335**	335
Kalgold Share Trust[2]	**47 046**	47 046
Harmony ESOP Trust[2]	**6 592 900**	—
Convertible preference shares		
Harmony Gold Community Trust[3]	**4 400 000**	—

[1] A wholly-owned subsidiary
[2] Trust controlled by the group
[3] The issue of the convertible preference shares did not impact the group's consolidated financial statements as the Harmony Gold Community Trust is controlled by the group.

24 OTHER RESERVES

Figures in million	SA rand 2019	2018
Foreign exchange translation reserve (a)	**2 389**	2 439
Hedge reserve (b)	**(214)**	413
Share-based payments (c)	**2 764**	2 534
Post-retirement benefit actuarial gain/(loss) (d)	**(19)**	(12)
Acquisition of non-controlling interest in subsidiary (e)	**(381)**	(381)
Equity component of convertible bond (f)	**277**	277
Repurchase of equity interest (g)	**(98)**	(98)
Equity instruments designated at fair value through other comprehensive income (h)	**79**	—
Fair value movement of available-for-sale financial assets (i)	**—**	(3)
Other	**(24)**	(24)
Total other reserves	**4 773**	5 145

(a) The balance of the foreign exchange translation reserve movement represents the cumulative translation effect of the group's off-shore operations.

(b) Harmony has entered into gold hedging contracts. Cash flow hedge accounting is applied to these contracts, resulting in the effective portion of the unrealised gains and losses being recorded in other comprehensive income (other reserves). Refer to note 18 for further information. The reconciliation of the hedge reserve is as follows:

Figures in million	SA rand 2019	2018
Balance at beginning of year	**413**	1 143
	(274)	216
Net gain/(loss) on gold contracts	**(351)**	273
Deferred tax thereon	**77**	(57)
	(353)	(946)
Released to revenue	**(453)**	(1 197)
Deferred tax thereon	**100**	251
Balance at end of year	**(214)**	413
Attributable to:		
Rand gold hedging contracts	**(165)**	413
US dollar gold hedging contracts	**(49)**	—

(c) The reconciliation of the movement in the share-based payments is as follows:

Figures in million	SA rand 2019	2018
Balance at beginning of year	**2 534**	2 160
Share-based payments expensed (i)	**230**	374
Balance at end of year	**2 764**	2 534

(i) The group issues equity-settled instruments to certain qualifying employees under an employee share option scheme and employee share ownership plan (ESOP) to award shares from the company's authorised but unissued ordinary shares. Equity share-based payments are measured at the fair value of the equity instruments at the grant date and are expensed over the vesting period, based on the group's estimate of the shares that are expected to vest. Refer to note 33 for more details.

24 OTHER RESERVES continued

(d) The actuarial gains or losses related to the post-retirement benefit obligation will not be reclassified to the income statement. The movement is as follows:

	SA rand	
Figures in million	**2019**	2018
Balance at beginning of year	**(12)**	(25)
Actuarial gain/(loss)	**(7)**	14
Deferred tax	**—**	(1)
Balance at end of year	**(19)**	(12)

(e) On 15 March 2004, Harmony announced that it had made an off-market cash offer to acquire all the ordinary shares, listed and unlisted options of Abelle Limited, held by non-controlling interests. The excess of the purchase price of R579 million over the carrying amount of non-controlling interest acquired, amounting to R381 million, has been accounted for under other reserves.

(f) On 24 May 2004, the group issued a convertible bond. The amount representing the value of the equity conversion component is included in other reserves, net of deferred income taxes. The equity conversion component is determined on the issue of the bonds and is not changed in subsequent periods. The convertible bonds were repaid in 2009.

(g) On 19 March 2010, Harmony Gold Mining Company Limited concluded an agreement with African Vanguard Resources (Proprietary) Limited (AVRD), for the purchase of its 26% share of the mining titles of the Doornkop South Reef. The original sale of the 26% share in the mining titles was accounted for as an in-substance call option by AVRD over the 26% mineral right. The agreement to purchase AVRD's 26% interest during the 2010 financial year is therefore considered to be a repurchase of the option (equity interest). The 26% interest was transferred from AVRD to Harmony in exchange for Harmony repaying the AVRD Nedbank loan and the issue of 2 162 359 Harmony shares. The difference between the value of the shares issued of R152 million, the liability to the AVRD and transaction costs, have been taken directly to equity.

(h) Includes R82 million related to the fair value movement of Harmony's interest in Rand Mutual Assurance. Refer to note 17.

(i) In accordance with the transitional provisions in IFRS 9, comparative figures were not restated. On adoption of the standard, the reserve attributable to fair value movement of available-for-sale financial assets was transferred to equity instruments designated at fair value through other comprehensive income.

ACCOUNTING POLICY - PROVISIONS (APPLICABLE TO NOTES 25, 26, 27 AND 28)

Provisions are recognised when the group has a present legal or constructive obligation as a result of past events where it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate of the amount of the obligation can be made.

The amount recognised as a provision is the net present value of the best estimate of the expenditure required to settle the present obligation at balance sheet date using a pre-tax rate that reflects current market assessment of the time value of money and the risks specific to the obligation. The estimate takes into account the associated risks and uncertainties. The increase in the provision due to the passage of time is recognised as interest expense.

Provisions are reviewed at each balance sheet date and adjusted to reflect the current best estimate. If it is no longer probable that an outflow of economic benefits will be required, the provision is reversed.

25 PROVISION FOR ENVIRONMENTAL REHABILITATION

ACCOUNTING POLICY

Estimated long-term environmental obligations, comprising pollution control, rehabilitation and mine closure, are based on the group's environmental management plans in compliance with current technological, environmental and regulatory requirements.

Based on disturbances to date, the net present value of expected rehabilitation cost estimates is recognised and provided for in full in the financial statements. The estimates are reviewed annually and are discounted using a pre-tax risk-free rate that is adjusted to reflect the current market assessments of the time value of money and the risks specific to the obligation.

Annual changes in the provision consist of finance costs relating to the change in the present value of the provision and inflationary increases in the provision estimate, as well as changes in estimates. The present value of environmental disturbances created are capitalised to mining assets against an increase in the rehabilitation provision. If a decrease in the liability exceeds the carrying amount of the asset, the excess is recognised immediately in the income statement. If the asset value is increased and there is an indication that the revised carrying value is not recoverable, impairment is performed in accordance with the accounting policy dealing with impairments of non-financial assets (refer to note 2.5). Rehabilitation projects undertaken included in the estimates are charged to the provision as incurred. The cost of ongoing current programmes to prevent and control pollution is charged against income as incurred. Over time, the liability is increased to reflect an interest element, and the capitalised cost is depreciated over the life of the related asset.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

Significant judgement is applied in estimating the ultimate rehabilitation cost that will be required in future to rehabilitate the group's mines. Ultimate cost may significantly differ from current estimates. The following rates were used in the calculation of the provision:

	2019 %	2018 %	2017 %
South African operations			
Inflation rate	**5.25**	5.50	6.50
Discount rates			
- 12 months	**6.50**	6.70	7.50
- one to five years	**6.85**	7.00	7.60
- six to nine years	**8.50**	8.20	8.40
- ten years or more	**9.60**	8.60	9.10
PNG operations:			
Inflation rate	**5.00**	6.00	6.60
Discount rate	**6.25**	6.25	6.25

The group's mining and exploration activities are subject to extensive environmental laws and regulations. The group has made, and expects to make in the future, expenditures to comply with such laws and regulations, but cannot predict the full amount of such future expenditures. Estimated future reclamation costs are based principally on legal and regulatory requirements.

25 PROVISION FOR ENVIRONMENTAL REHABILITATION continued

The following is a reconciliation of the total provision for environmental rehabilitation:

	SA rand	
Figures in million	**2019**	2018
Balance at beginning of year	**3 309**	2 638
Change in estimate - Balance sheet[1]	**(439)**	(175)
Change in estimate - Income statement	**33**	67
Utilisation of provision	**(86)**	(94)
Time value of money and inflation component of rehabilitation costs	**208**	191
Acquisitions[2]	**—**	663
Transfer[3]	**37**	—
Translation	**(8)**	19
Balance at end of year	**3 054**	3 309

[1] The biggest contributor was Moab Khotsong, where a decrease of R240 million was recognised following on alignment of the methodology and other assumptions including rates.
[2] The 2018 acquisition relates to the Moab Khotsong operations (refer to note 12).
[3] Refer to note 28 for details.

The provision for environmental rehabilitation for PNG amounts to R994 million (2018: R969 million) and is unfunded.

While the ultimate amount of rehabilitation costs to be incurred in the future is uncertain, the group has estimated that, based on current environmental and regulatory requirements, the total undiscounted cost for the operations, in the current monetary terms, is as follows:

	SA rand	
Figures in million	**2019**	2018
Future net undiscounted obligation		
Ultimate estimated rehabilitation cost	**4 139**	4 338
Amounts invested in environmental trust funds (refer to note 16)	**(3 273)**	(3 238)
Total future net undiscounted obligation	**866**	1 100

With the introduction of the National Environmental Management Act (NEMA) Regulations on Financial Provisioning, effective from February 2020, there may be changes to the estimate of the liability and the way in which the group funds the obligation.

The group intends to finance the ultimate rehabilitation costs from the money invested in environmental trust funds as well as the proceeds on sale of assets and gold from plant clean-up at the time of mine closure. The group has guarantees in place, some cash-backed, relating to some of the environmental liabilities. Refer to notes 15 and 35.

26 PROVISION FOR SILICOSIS SETTLEMENT

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

Significant judgement is applied in estimating the cost that will be required in future to settle any claims against cartain of the group's mines. The ultimate cost may differ from current estimates.

The provision amount was based on estimates of number of potential claimants, levels of disease progression and take-up rates. These estimates were informed by historic information, published academic research and professional opinion. The key assumptions that were made in the determination of the provision amount include:
• Silicosis prevalence rates;
• Estimated settlement per claimant;
• Benefit take-up rates;
• Disease progression rates; and
• Timing of cash flows.

26 PROVISION FOR SILICOSIS SETTLEMENT continued

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS continued

A discount rate of 8.5% (2018:8.5%) (2017: 8.0%) was used, based on government bonds with similar terms to the obligation.

There is uncertainty with regards to the rate at which potential claims would be reported as well as the benefit take-up rates. Refer to sensitivity analysis on the key assumptions below.

Consolidated class action.
Harmony and certain of its subsidiaries (Harmony group), together with other mining companies, are named in a class action for silicosis and tuberculosis which was certified by the Johannesburg High Court in May 2016.

A gold mining industry working group which includes Harmony (the working group) was formed in November 2014 to address issues relating to the compensation and medical care for occupational lung diseases in the gold mining industry in South Africa. The working group engaged all stakeholders on these matters and on 3 May 2018, announced that they have reached an agreement with the lawyers representing the claimants in the silicosis class action litigation. The settlement is subject to certain suspensive conditions, including the agreement being approved by the South Gauteng High Court. Refer to note 36 for events after the reporting date.

Annual changes in the provision consist of time value of money (recognised as finance costs) and changes in estimates (other operating expenses). The change in estimate for 2019 is a gain of R62 million due to a change in the timing of expected cash flows. The contributions are expected to be settled by cash flows from the group's South African operations and will occur over a number of years. The nominal amount for Harmony group is R1.3 billion.

The following is a reconciliation of the total provision for the silicosis settlement:

	SA rand	
Figures in million	**2019**	2018
Balance at beginning of year	**925**	917
Change in estimate	**(62)**	(68)
Time value of money and inflation component	**79**	76
Balance at end of year	**942**	925

Sensitivity analysis

The impact of a reasonable change in certain key assumptions would increase or decrease the provision amount by the following amounts:

	SA rand	
Figures in million	**2019**	2018
Effect of an increase in the assumption:		
Change in benefit take-up rate[1]	**66**	65
Change in silicosis prevalence[2]	**66**	65
Change in disease progression rates[3]	**33**	31
Effect of a decrease in the assumption:		
Change in benefit take-up rate[1]	**(66)**	(65)
Change in silicosis prevalence[2]	**(66)**	(65)
Change in disease progression rates[3]	**(33)**	(31)

[1] Change in benefit take-up rate: the take-up rate does not affect the legal cost allocation, but a 10% change results in a proportionate change in the other values.
[2] Change in the silicosis prevalence: the assumptions that will result in a change in the estimated number of cases are either a 10% change in the assumed labour number or a 10% change in the disease risk.
[3] Change in disease progression rates: a one year shorter/longer disease progression period was used. This assumption is not applicable to the dependant or TB classes.

26 PROVISION FOR SILICOSIS SETTLEMENT continued

The above sensitivity analysis is based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. A change in the settlement claim amount would result in a change in the provision amount on a rand for rand basis.

The ultimate outcome of this matter remains uncertain, with a possible failure to fulfill all the suspensive conditions. The provision recorded in the financial statements is consequently subject to adjustment or reversal in the future.

27 RETIREMENT BENEFIT OBLIGATION

ACCOUNTING POLICY

The group provides medical cover to current employees and certain retirees through certain funds. The medical accounting costs for the defined benefit plan are assessed using the projected unit credit method. The health care obligation is measured at the present value of the estimated future cash outflows using government bond interest rates consistent with the terms and risks of the obligation. Actuarial gains and losses as a result of these valuations are recognised in other comprehensive income (OCI) at revaluation date. Actuarial gains and losses recognised in OCI will not be recycled to profit or loss. The future liability for current and retired employees and their dependants is accrued in full based on actuarial valuations obtained annually.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

An updated actuarial valuation is carried out at the end of each financial year. Assumptions used to determine the liability include a discount rate of 9.7%, no increases in employer subsidies (in terms of the agreement), mortality rates according to the SA 1956/62 mortality table (SA “”a mf”” tables) (retirement age of 60) and a medical inflation rate of 7.8% (2018: discount rate of 9.8%, retirement age of 60 and 7.9% inflation rate) (2017: discount rate of 10%, retirement age of 60 and 8.0% inflation rate).

Management determined the discount rate by assessing government bonds with similar terms to the liability. The changes to the discount rate and medical inflation rate are similar to changes in interest and inflation rates in South Africa.

(a) Pension and provident funds

The group contributes to several pension and provident funds governed by the Pension Funds Act, 1956 for the employees of its South African subsidiaries. The pension funds are multi-employer defined contribution industry plans. The group’s liability is therefore limited to its monthly determined contributions. The provident funds are funded on a “monetary accumulative basis” with the member’s and employer’s contributions having been fixed in the constitution of the funds.

The Australian group companies make contributions to each employee’s superannuation (pension) funds in accordance with the Superannuation Guarantee Scheme (SGS). The SGS is a Federal Government initiative enforced by law which compels employers to make regular payments to regulated funds providing for each employee on their retirement. The SGS were set at a minimum of 9.5% of gross salary and wages for the 2019 year (2018: 9.5%). The fund is a defined contribution plan.

The PNG Superannuation Act 2002 requires a compulsory employer contribution of 8.4% (2018: 8.4%) into an approved superannuation (pension) fund if an employee is appointed for a period of three months or more. The approved superannuation funds are defined contribution plans.

Substantially all the group’s employees are covered by the above mentioned retirement benefit plans. Funds contributed by the group for the 2019 financial year amounted to R766 million (2018: R638 million).

(b) Post-retirement benefits other than pensions

Harmony inherited a post-retirement medical benefit obligation, which existed at the time of the Freegold acquisition in 2002. The group also inherited various post-retirement medical benefit obligations with the acquisition of the Moab Khotsong operations (refer to note 12). Given the insignificant values attributed to the Moab Khotsong obligations, the details have not been included in the discussion below. Except for the abovementioned employees, Harmony has no other post-retirement obligation for the other group employees.

The group’s obligation is to pay a subsidy of 2% for every completed year of employment up to a maximum of 50% of total medical aid contributions, commencing on date of retirement. Should the employee die, either in service or after retirement, this benefit will transfer to his/her dependants. The medical aid tariffs are based on the Bestmed medical scheme (Bestmed) options.

27 RETIREMENT BENEFIT OBLIGATION continued

(b) Post-retirement benefits other than pensions continued

The principal actuarial assumptions used to determine the present value of unfunded obligations are discussed above. In addition the following was also considered:

- It is assumed that all Continuation and Widow Members (CAWMs) will remain on the current benefit option and income band. For employed members, post-employment contributions were assumed to be equal to the average payable for the current CAWMs membership;
- It is assumed that not all employed members will remain employed until retirement therefore estimated resignation and ill-health retirement rates are also taken into account;
- It is assumed that 90% of employed members will be married at retirement or earlier death and that wives are four years younger than their husbands.

Through the post-employment medical plan, the group is exposed to a number of risks, the most significant of which are discussed below:

- **Change in bond yields:** A decrease in the bond yields will increase the plan liability.
- **Inflation risk:** The obligation is linked to inflation and higher inflation will lead to a higher liability.
- **Life expectancy:** The obligation is to provide benefits for the life of the member, so increases in life expectancy will result in an increase in the plan's liabilities.

The liability is unfunded and will be settled out of cash and cash equivalents when it becomes due. The liability is based on an actuarial valuation conducted during the year ended 30 June 2019, using the projected unit credit method. The next actuarial valuation will be performed on 30 June 2020.

	SA rand	
Figures in million	**2019**	2018
Present value of all unfunded obligations	**201**	186
Current employees	**54**	62
Retired employees	**147**	124
The movement in the retirement benefit obligation is as follows:		
Balance at beginning of year	**186**	179
Contributions paid	**(12)**	(10)
Other expenses included in staff costs/current service cost	**3**	2
Finance costs	**17**	18
Net actuarial (gain)/loss recognised during the year	**7**	(13)
Moab Khotsong acquisition (refer to note 12)	**—**	10
Balance at end of year	**201**	186

The net actuarial loss for 2019 was mainly due to subsidy inflation being higher than expected (2018: net actuarial gain was mainly due to exits of employed and retired members being higher than expected). The net actuarial (gain)/loss has been recorded in other comprehensive income.

	SA rand	
Figures in million	**2019**	2018
The net liability of the defined benefit plan is as follows:		
Present value of defined benefit obligation	**201**	186
Fair value of plan assets	**—**	—
Net liability of defined benefit plan	**201**	186

27 RETIREMENT BENEFIT OBLIGATION continued

(b) Post-retirement benefits other than pensions continued

The effect of a percentage point increase and decrease in the assumed medical cost trend rate is as follows:

	SA rand	
Figures in million	**2019**	2018
Effect of a 1% increase on:		
Aggregate of service cost and finance costs	**2**	2
Defined benefit obligation	**23**	21
Effect of a 1% decrease on:		
Aggregate of service cost and finance costs	**(2)**	(2)
Defined benefit obligation	**(19)**	(18)

The above sensitivity analysis is based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. The analysis is performed on the same basis for 2018.

The group expects to contribute approximately R13 million to the benefit plan in 2020.

The weighted average duration of the defined benefit obligation is 13.8 years.

28 OTHER NON-CURRENT LIABILITIES

	SA rand	
Figures in million	**2019**	2018
KOSH deep groundwater pollution liability (a)	**—**	37
Sibanye Beatrix ground swap royalty	**2**	1
Other	**3**	3
Total non-current liabilities	**5**	41

(a) KOSH deep groundwater pollution liability

In 2018, Harmony purchased selected mining infrastructure in the Klerksdorp, Orkney, Stilfontein, Hartebeesfontein (KOSH) area from AngloGold Ashanti Limited as part of the Moab Khotsong acquisition (refer to note 12). During an assessment of the environmental liabilities associated with this purchase, a risk related to the potential decant and pollution of deep ground mine water from the re-watered underground workings was identified.

Due to the interconnected nature of mining operations, any proposed solution needs to be a combined one supported by all the mines located in these gold fields. As a result, the Mineral and Petroleum Resources Development Act (MPRDA) requires that the affected mining companies develop a Regional Mine Closure Strategy to be approved by the Department of Mineral Resources. Harmony has commissioned a detailed assessment of the mine void after closure to provide clarity on the locality and volume of water expected to decant after mine closure and the quality of the decant water. Simulations have shown that the potential impact from this decant is low and that it will not impact on any down-gradient receptors, including the Vaal River.

A contingent liability acquired in a business combination is recognised in the acquisition accounting if it is a present obligation and its fair value can be measured reliably. Based on Harmony's assessment, a liability of R37 million has been raised as part of the liabilities assumed in the business combination.

In 2019, the liability was transferred from other non-current liabilities and included in the group's provision for environmental rehabilitation. Refer to note 25.

ACCOUNTING POLICY - FINANCIAL LIABILITIES (APPLICABLE TO NOTES 29 AND 30)

Financial liabilities are initially measured at fair value when the group becomes a party to their contractual arrangements. Transaction costs are included in the initial measurement of financial liabilities, with the exception of financial liabilities classified at fair value through profit or loss. The subsequent measurement of financial liabilities is discussed below. A financial liability is derecognised when the obligation under the liability is discharged, cancelled or expires. The group classifies financial liabilities as follows:

- **Borrowings** are initially recognised at fair value net of transaction costs incurred and subsequently measured at amortised cost, comprising original debt less principal payments and amortisation, using the effective yield method. Any difference between proceeds (net of transaction cost) and the redemption value is recognised in the income statement over the period of the borrowing using the effective interest rate method.

  Fees paid on the establishment of the loan facilities are capitalised as a pre-payment and amortised over the period of the facility to which it relates, to the extent it is probable that some or all of the facility will be drawn down. To the extent there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is expensed.

  Borrowings are classified as current liabilities unless the group has an unconditional right to defer settlement of the liability for at least 12 months after the balance sheet date.

- **Trade and other payables** are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method. Payables are classified as current liabilities if payment is due within a year or less. If not, they are presented as non-current liabilities.

29 BORROWINGS

SUMMARY OF FACILITIES' TERMS

	Commenced	Tenor (Years)	Matures	Secured	Security	Interest payment basis	Interest charge	Repayment term	Repaid
R1 billion revolving credit facility	February 2017	Three	February 2020	Yes	Cession and pledge of operating subsidiaries' shares and claims	Variable	JIBAR + 3.15%	On maturity	November 2018
R2 billion facility	November 2018	Four	November 2022	Yes	Cession and pledge of operating subsidiaries' shares and claims	Variable			
- R600 million term loan							JIBAR + 2.9%	Eight equal quarterly instalments with the final instalment on maturity	
- R1.4 billion revolving credit facility							JIBAR + 2.8%	On maturity	
US$350 million facility	July 2017	Three	July 2020	Yes	Cession and pledge of operating subsidiaries' shares and claims	Variable		On maturity	
- US$175 million revolving credit facility							LIBOR + 3.0%		
- US$175 million term loan							LIBOR + 3.15%		
US$200 million bridge loan	October 2017	One	October 2018	Yes	Cession and pledge of operating subsidiaries' shares and claims	Variable		On maturity	July 2018
						First 6 months	LIBOR + 2.5%		
						Next 3 months	LIBOR + 3.0%		
						Last 3 months	LIBOR + 3.5%		
US$24 million Westpac loan	July 2018	Four	July 2022	Yes	Cession and pledge of vehicles and machinery	Variable	LIBOR + 3.2%	Quarterly instalments	

29 BORROWINGS continued

DEBT COVENANTS

The debt covenant tests for both the rand and US dollar facilities are as follows:

- The group's interest cover ratio shall be more than five (EBITDA[1]/ Total interest paid);
- Tangible Net Worth[2] to total net debt ratio shall not be less than four times or six times when dividends are paid;
- Leverage[3] shall not be more than 2.5 times.

[1] Earnings before interest, taxes, depreciation and amortisation (EBITDA) as defined in the agreement excludes unusual items such as impairment and restructuring cost.
[2] Tangible Net Worth is defined as total equity less intangible assets.
[3] Leverage is defined as total net debt to EBITDA.

At the time of entering into the bridge loan the Tangible Net Worth to total net debt ratio covenant was renegotiated and relaxed from six times to four times for the full term of the bridge loan. With the refinancing of the rand facility in November 2018, the ratio was set at 4.5 times and subsequently set at four times or from eight to six times if dividends are paid at the start of the US$ facility refinancing process in May 2019 (refer to note 36). No breaches of the covenants were identified during the tests in the 2018 and 2019 financial years.

INTEREST BEARING BORROWINGS

	SA rand	
Figures in million	**2019**	2018
Non-current borrowings		
R1 billion revolving credit facility	**—**	497
Balance at beginning of year	**497**	299
Draw down	**500**	500
Repayments	**—**	(300)
Refinancing	**(997)**	—
Issue cost	**—**	(2)
R2 billion facility	**1 489**	—
Refinancing	**1 000**	—
Draw down	**700**	—
Repayments	**(200)**	—
Issue cost	**(16)**	—
Amortisation of issue cost	**5**	—
Westpac fleet loan	**194**	—
Draw down	**322**	—
Repayments	**(64)**	—
Transferred to current liabilities	**(89)**	—
Translation	**25**	—
US$350 million facility	**4 143**	4 427
Balance at beginning of year	**4 427**	—
Draw down	**—**	4 127
Repayments	**(422)**	—
Issue cost	**—**	(94)
Amortisation of issue costs	**44**	33
Translation	**94**	361
Total non-current borrowings	**5 826**	4 924

29 BORROWINGS continued

INTEREST BEARING BORROWINGS continued

	SA rand	
Figures in million	**2019**	2018
Current borrowings		
R1 billion revolving credit facility	**—**	3
Balance at beginning of year	**3**	3
Refinancing	**(3)**	—
US$250 million revolving credit facility	**—**	—
Balance at beginning of year	**—**	1 831
Repayments	**—**	(1 847)
Amortisation of issue costs	**—**	4
Translation	**—**	12
Westpac fleet loan	**89**	—
Transferred from non-current liabilities	**89**	—
US$200 million bridge loan	**—**	687
Balance at beginning of year	**687**	—
Draw down	**—**	2 310
Repayments	**(667)**	(1 916)
Issue cost	**—**	(3)
Translation	**(20)**	296
Total current borrowings	**89**	690
Total interest-bearing borrowings	**5 915**	5 614

	SA rand	
Figures in million	**2019**	2018
The maturity of borrowings is as follows:		
Current	**89**	702
Between one to two years	**4 232**	497
Between two to four years	**1 594**	4 415
	5 915	5 614

	SA rand	
Figures in million	**2019**	2018
Undrawn committed borrowing facilities:		
Expiring within one year	**—**	—
Expiring after one year	**1 277**	845
	1 277	845

29 BORROWINGS continued

EFFECTIVE INTEREST RATES

	2019 %	2018 %
R1 billion revolving credit facility	**10.1**	10.2
R2 billion facility	**10.0**	—
Westpac fleet loan	**5.5**	—
US$250 million revolving credit facility	**—**	4.2
US$350 million facility	**5.6**	4.8
US$200 million bridge loan	**5.1**	4.5

30 TRADE AND OTHER PAYABLES

ACCOUNTING POLICY

The group accrues for the cost of the leave days granted to employees during the period in which the leave days accumulate.

	SA rand	
Figures in million	**2019**	2018
Financial liabilities		
Trade payables	**763**	587
Other liabilities (a)	**167**	182
Non-financial liabilities		
Payroll accruals	**548**	569
Leave liabilities (b)	**540**	504
Shaft related accruals	**556**	577
Other accruals	**148**	201
Value added tax	**98**	84
Income and mining tax	**55**	—
Total trade and other payables	**2 875**	2 704

(a) Includes a loan from Village Main Reef Limited of R53 million. The loan was taken on with the acquisition of the Moab Khotsong operations. The loan is unsecured, interest free and has no fixed terms of payment.

(b) Employee entitlements to annual leave are recognised on an ongoing basis. An accrual is made for the estimated liability for annual leave as a result of services rendered by employees up to the balance sheet date. The movement in the liability recognised in the balance sheet is as follows:

	SA rand	
Figures in million	**2019**	2018
Balance at beginning of year	**504**	395
Benefits paid	**(537)**	(425)
Total expense per income statement	**575**	391
Acquisition[1]	**—**	140
Translation (gain)/loss	**(2)**	3
Balance at end of year	**540**	504

[1] Acquisition of Moab Khotsong operations in 2018.

31 CASH GENERATED BY OPERATIONS

	SA rand		
Figures in million	**2019**	2018	2017
Reconciliation of profit/(loss) before taxation to cash generated by operations:			
Profit/(loss) before taxation	**(2 746)**	(4 707)	(148)
Adjustments for:			
Amortisation and depreciation	**4 054**	2 570	2 519
Impairment of assets	**3 898**	5 336	1 718
Share-based payments	**230**	363	391
Net decrease in provision for post-retirement benefits	**(12)**	(10)	(9)
Net decrease in provision for environmental rehabilitation	**(53)**	(27)	(111)
Profit on sale of property, plant and equipment	**(5)**	(2)	(42)
Loss on scrapping of property, plant and equipment	**21**	1	140
(Profit)/loss from associates	**(59)**	(38)	22
Gain on bargain purchase	**—**	—	(848)
Investment income	**(308)**	(343)	(268)
Finance costs	**575**	330	234
Inventory adjustments	**(166)**	(211)	422
Foreign exchange translation difference	**95**	668	(224)
Non cash portion of gains on derivatives	**(429)**	549	(100)
Day one loss amortisation	**32**	37	94
Silicosis settlement provision	**(62)**	(68)	917
Other non-cash adjustments	**(11)**	(70)	(88)
Effect of changes in operating working capital items			
Receivables	**32**	(106)	(409)
Inventories	**(88)**	(351)	24
Payables	**54**	368	112
Cash generated by operations	**5 052**	4 289	4 346

ADDITIONAL CASH FLOW INFORMATION

The income and mining taxes paid in the statement of cash flow represents actual cash paid less refunds received. Investment income from restricted investments is considered non-cash for the purposes of the cash flow statement. Included in investment income is interest earned from restricted investments of R168 million (2018: R157 million) (2017: R153 million).

At 30 June 2019, R1 277 million (2018: R845 million) (2017: R2 142 million) of borrowing facilities had not been drawn down and is therefore available for future operation activities and future capital commitments. Refer to note 29.

a) Acquisitions of investments/business

The conditions precedent for the acquisition of Moab Khotsong operations in 2018 and full ownership of Hidden Valley in 2017 were fulfilled and the transaction were completed in the respective years. Refer to note 12 for details on the acquired assets, including cash acquired and assumed liabilities.

b) Principal non-cash transactions

Share-based payments (refer to note 33).

32 EMPLOYEE BENEFITS

ACCOUNTING POLICY

- **Pension, provident and medical benefit plans** are funded through monthly contributions. The group pays fixed contributions into a separate entity in terms of the defined contribution pension, provident and medical plans which are charged to the income statement in the year to which they relate. The group's liability is limited to its monthly determined contributions and it has no further liability, legal or constructive, if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. Refer to note 27 for details of the post-retirement medical benefit plan.

- **Termination benefits** are payable when employment is terminated before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The group recognises termination benefits at the earlier of the following dates: (a) when the group can no longer withdraw the offer of those benefits; and (b) when the entity recognises costs for a restructuring that is within the scope of IAS 37, *Provisions, Contingent Liabilities and Contingent Assets*, and involves the payment of termination benefits. In the case of an offer made to encourage voluntary redundancy, the termination benefits are measured based on the number of employees expected to accept the offer. Benefits falling due more than 12 months after balance sheet date are discounted to present value.

	2019	2018
Number of permanent employees as at 30 June:		
South African operations	**31 199**	32 520
International operations[1]	**1 638**	1 511
Total number of permanent employees	**32 837**	34 031

	SA rand	
Figures in million	2019	2018
Aggregate earnings		
The aggregate earnings of employees including executive directors were:		
Salaries and wages and other benefits (excluding share-based payments)	**10 623**	8 930
Retirement benefit costs	**766**	638
Medical aid contributions	**259**	227
Total aggregated earnings[2]	**11 648**	9 795

[1] The Wafi-Golpu joint operation's employees included in the total is 194 (2018: 114).
[2] These amounts have been included in cost of sales, corporate expenditure and capital expenditure.

During the 2019 financial year, R248 million (2018: R216 million) was included in the payroll costs for termination costs. Termination costs include the cost relating to the voluntary retrenchment and restructuring process as well as retrenchments due to shaft closures (refer to note 6).

33 SHARE-BASED PAYMENTS

ACCOUNTING POLICY

The group operates the following employee share incentive plans where the group granted share options to certain employees in exchange for services received:
- the 2006 equity-settled share-based payments plan; and
- the equity-settled Sisonke Employee Share Ownership Plan (ESOP) awarded in 2019.

Equity-settled share-based payments are measured at fair value that includes market performance conditions but excludes the impact of any service and non-market performance conditions of the equity instruments at the date of the grant. The share-based payments are expensed over the vesting period, based on the group's estimate of the shares that are expected to eventually vest. The group used an appropriate option pricing model in determining the fair value of the options granted. Non-market vesting conditions are included in assumptions about the number of options that are expected to vest. At each balance sheet date, the estimates of the number of options that are expected to become exercisable are revised.

The impact of the revision of original estimates, if any, is recognised in the income statement, with a corresponding adjustment to equity. The proceeds received (if any) net of any directly attributable transaction costs are credited to share capital and premium when the options are exercised.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

The fair value of options granted under the 2006 plan was determined using a Monte Carlo valuation model. The significant inputs into the model are: vesting period, risk free interest rate, volatility, price on date of grant and dividend yield. There were no options granted under the 2006 plan in the current financial period. The fair value of the options granted under the Sisonke ESOP was based on the Harmony spot share price of R28.29 at grant date as there were no market condition attached to the grant.

EMPLOYEE SHARE-BASED PAYMENTS

The objective of these schemes is to recognise the contributions of employees to the group's financial position and performance and to retain key employees.

The total cost relating to employee share-based payments is made up as follows:

	SA rand	
Figures in million	**2019**	2018
2006 share plan	**197**	363
Sisonke ESOP	**33**	—
Total employee share-based payments	**230**	363

The directors are authorised to issue up to 60 011 669 ordinary shares to participants who have received awards in accordance with Harmony's employee share incentive schemes. Subsequent to the annual general meeting held on 1 December 2010, 37 546 904 shares have been issued in terms of the various share schemes. At 30 June 2019, 27 720 640 share option awards are outstanding in terms of the authorisation and relate to the 2006 share plan.

In December 2018, the board approved the new Total Incentive Plan for management which includes share options. The first allocations under the new plan is expected to occur in October 2019.

33 SHARE-BASED PAYMENTS continued

EMPLOYEE SHARE-BASED PAYMENTS continued

Options granted under the 2006 share plan

The 2006 share plan consists of share appreciation rights (SARs), performance shares (PS) and restricted shares (RS). The share plan is equity-settled.

Award	Vesting	Performance criteria
SARs	SARs will vest in equal thirds in year three, four and five, subject to the performance conditions having been satisfied. The SARs will have an expiry date of six years from the grant date and the offer price equals the closing market prices of the underlying shares on the trading date immediately preceding the grant.	*2012 to 2014 allocation:* The group's headline earnings per share must have grown since the allocation date by more than the South African Consumer Price Index (CPI).
PS	The PS will vest after three years from the grant date, if and to the extent that the performance conditions have been satisfied.	*2015 to 2017 allocation:* • 50% of the number of rights awarded are linked to the total shareholder return of the group on an absolute basis. • 50% of the number of rights awarded are linked to the total shareholder return of the group as compared to that of the South African gold index. *2014 allocation:* • the number of the rights awarded are linked to the group's performance in comparison to the South African Gold Index.
RS	The RS will vest after three years from grant date.	The participant is still employed within the group.

Termination of employees' participation in the share plan is based on "no fault" and "fault" definitions.

• Fault	All unvested and unexercised SARs and all PS and RS not yet vested are lapsed and cancelled.
• No fault	Accelerated vesting occurs and all unvested and unexercised share options are settled in accordance with the rules of the plan

Executive management is encouraged to retain performance shares when they vest and a minimum shareholding requirement has been introduced to achieve this. This shareholding is meant to align shareholder and executive objectives to grow total shareholder return.

33 SHARE-BASED PAYMENTS continued

EMPLOYEE SHARE-BASED PAYMENTS continued

Options granted under the 2006 share plan continued

Activity on share options

	SARs		PS	RS
Activity on options and rights granted but not yet exercised	**Number of options and rights**	**Weighted average option price (SA rand)**	**Number of rights**	**Number of rights**
For the year ended 30 June 2019				
Balance at beginning of year	**9 847 860**	**50.20**	**42 427 284**	**550 996**
Options exercised	**(1 564 486)**	**27.50**	**(20 166 093)**	**(550 996)**
Options forfeited and lapsed	**(1 570 330)**	**56.29**	**(1 253 595)**	**—**
Balance at end of year	**6 713 044**	**26.45**	**21 007 596**	**—**

	SARs		PS	RS
Activity on options and rights granted but not yet exercised	**Number of options and rights**	**Weighted average option price (SA rand)**	**Number of rights**	**Number of rights**
For the year ended 30 June 2018				
Balance at beginning of year	12 476 697	32.60	37 848 573	701 412
Options granted	—	—	14 406 437	—
Options exercised	(794 351)	24.37	(3 873 467)	(120 000)
Options forfeited and lapsed	(1 834 486)	52.86	(5 954 259)	(30 416)
Balance at end of year	9 847 860	50.20	42 427 284	550 996

	SARs		PS and RS	
Options and rights vested but not exercised at year end	**2019**	2018	**2019**	2018
Options and rights vested but not exercised	**5 692 965**	5 331 335	**—**	—
Weighted average option price (SA rand)	**27.89**	36.26	**n/a**	n/a

33 SHARE-BASED PAYMENTS continued

EMPLOYEE SHARE-BASED PAYMENTS continued

Options granted under the 2006 share plan continued

Activity on share options continued

List of options and rights granted but not yet exercised (listed by grant date)	Number of options and rights	Award price (SA rand)	Remaining life (years)
As at 30 June 2019			
Share appreciation rights			
15 November 2013	3 652 807	33.18	0.4
17 November 2014	3 060 237	18.41	1.4
	6 713 044		
Performance shares			
29 November 2016	7 944 126	n/a	0.4
15 November 2017	13 063 470	n/a	1.4
	21 007 596		
Total options and rights granted but not yet exercised	27 720 640		

Figures in million	SA rand 2019	2018
Gain realised by participants on options and rights traded during the year	484	164
Fair value of options and rights exercised during the year	489	181

Options granted under the Sisonke ESOP

In December 2017 Harmony approved the establishment of the Sisonke ESOP with the aim to facilitate beneficial interest and ownership by non-managerial employees in South Africa (the beneficiaries) of Harmony shares in order to:
- facilitate economic empowerment of Harmony's employees;
- incentivise Harmony's employees, so as to promote the shared interests of employees and shareholders in the value growth of Harmony; and
- further align the interests of the Harmony shareholders and those of the employees of Harmony.

The shares were issued to the Harmony ESOP Trust (the Trust) on 15 January 2019 which is also the date on which the required service period of three years commenced. Each beneficiary under the scheme was awarded 225 Participation Units (PU). The Sisonke ESOP is equity-settled.

Award	Vesting	Performance criteria
PU*	The PU will vest after three years from the date on which the service period commenced	The participant is still employed within the group

*The term Participation Units means the vested rights of a beneficiary to an equal number of Harmony shares held by the Trust.

Termination of employees' participation in the share plan is based on "no fault" and "fault" definitions.

- Fault — All unvested and unexercised PU not yet vested are lapsed and cancelled.
- No fault — Accelerated vesting occurs and all unvested and unexercised PU are settled in accordance with the rules of the plan

33 SHARE-BASED PAYMENTS continued

EMPLOYEE SHARE-BASED PAYMENTS continued

Options granted under the Sisonke ESOP continued

Activity on share options

Activity on PU granted but not exercised	Number of PU 2019	2018
Balance at beginning of year	—	—
PU granted	**6 974 500**	—
Options vested	**(107 100)**	—
Options forfeited and lapsed	**(48 375)**	—
Balance at end of year	**6 819 025**	—

	2019	2018
Gain realised by participants on options exercised during the year (R'million)	**3**	n/a
Weighted average share price at the date of exercise (SA rand)	**27.16**	n/a
Remaining life (years)	**2.5**	n/a

OTHER SHARE-BASED PAYMENTS

On 20 March 2013 Harmony signed transaction and funding agreements to give effect to an empowerment transaction to dispose of 30% of its Free State based Phoenix operation (Phoenix) to BEE shareholders, which includes a free-carry allocation of 5% to a community trust that has been created and is currently controlled by Harmony. The transaction closed on 25 June 2013, following the fulfilment of the last condition precedent. In terms of the agreements Phoenix was transferred to a newly incorporated subsidiary; 'PhoenixCo' which subsequently changed its name to Tswelopele Beneficiation Operation (TBO).

The awards to the BEE partners have been accounted for as in-substance options as the BEE partners will only share in the upside, and not the downside of their equity interest in TBO until the date the financing provided by Harmony is fully repaid. On this date the options will be exercised and a non-controlling interest in TBO will be recognised. The award of the options to the BEE partners is accounted for by the group as an equity-settled share-based payment arrangement. The in-substance options carry no vesting conditions and the fair value of the options of R23 million was expensed on the grant date, 25 June 2013.

34 RELATED PARTIES

None of the directors or major shareholders of Harmony or, to the knowledge of Harmony, their families, had an interest, directly or indirectly, in any transaction from 1 July 2016 or in any proposed transaction that has affected or will materially affect Harmony or its subsidiaries, other than as stated below.

DIRECTORS AND OTHER KEY MANAGEMENT

Key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the group, directly or indirectly, including any director (whether executive or otherwise) of the group.

34 RELATED PARTIES continued

DIRECTORS AND OTHER KEY MANAGEMENT continued

The directors' remuneration is as follows:

Figures in million	SA rand Executive directors	Non-executive directors
2019		
Salaries	**18**	**—**
Retirement contributions	**3**	**—**
Bonuses	**14**	**—**
Exercise/settlement of share options	**30**	**—**
Directors' fees	**—**	**12**
	65	**12**
2018		
Salaries	**17**	**—**
Retirement contributions	**2**	**—**
Bonuses	**13**	**—**
Exercise/settlement of share options	**3**	
Directors' fees	**—**	**10**
	35	**10**

The following directors and prescribed officers owned shares in Harmony at year-end:

Name of director/prescribed officer	Number of shares **2019**	2018
Directors		
Peter Steenkamp[1]	**512 000**	—
Andre Wilkens	**101 301**	101 301
Frank Abbott [1]	**1 142 010**	747 817
Harry 'Mashego' Mashego[2]	**593**	593
Ken Dicks	**35 000**	35 000
Prescribed officers		
Beyers Nel	**42 486**	42 486
Johannes van Heerden [1]	**160 000**	75 000
Philip Tobias [1]	**169 294**	42 916

[1] The movement in shares for the 2019 financial year includes the vesting of performance shares that were voluntarily locked up in terms of the minimum shareholding requirement of the 2006 Share Plan but remain beneficially owned.
[2] Sold 593 shares post year end on 21 August 2019.

Modise Motloba, Harmony's deputy chairman, is a director of Tysys Proprietary Limited (Tysys). Tysys entered into a contract with the group during the 2017 financial year to provide services relating to the group's small and medium enterprise development projects. The contract has a value of up to R5 million per annum. Approximately R4 million (2018: R6 million) was paid during FY19 relating to services rendered in the current and prior financial years. The contract has a 30-day notice period.

34 RELATED PARTIES continued

OTHER RELATED PARTIES

All the production of the group's South African operations is sent to Rand Refinery in which Harmony holds a 10.38% interest. Refer to note 20.

	SA rand	
Figures in million	**2019**	2018
Sales and services rendered to related parties		
Joint operations	**3**	11
Total	**3**	11

	SA rand	
Figures in million	**2019**	2018
Purchases and services acquired from related parties		
Directors	**4**	6
Associates	**40**	41
Total	**44**	47

35 COMMITMENTS AND CONTINGENCIES

COMMITMENTS AND GUARANTEES

	SA rand	
Figures in million	**2019**	2018
Capital expenditure commitments		
Contracts for capital expenditure	**313**	215
Share of joint venture's contracts for capital expenditure	**105**	58
Authorised by the directors but not contracted for	**1 499**	1 719
Total capital commitments	**1 917**	1 992

Contractual obligations in respect of mineral tenement leases amount to R83 million (2018: R59 million). This includes R81 million (2018: R58 million) for the Wafi-Golpu joint operation.

	SA rand	
Figures in million	**2019**	2018
Guarantees		
Guarantees and suretyships	**143**	143
Environmental guarantees[1]	**479**	479
Total guarantees	**622**	622

[1] At 30 June 2019, R89 million (2018: R75 million) has been pledged as collateral for environmental guarantees in favour of certain financial institutions. Refer to note 15.

35 COMMITMENTS AND CONTINGENCIES continued

CONTINGENT LIABILITIES

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

Contingencies will only realise when one or more future events occur or fail to occur. The exercise of significant judgement and estimates of the outcome of future events are required during the assessment of the impact of such contingencies.

Litigation and other judicial proceedings as a rule raise difficult and complex legal issues and are subject to uncertainties and complexities including, but not limited to, the facts and circumstances of each particular case, issues regarding the jurisdiction in which the suit is brought and differences in applicable law. Upon resolution of any pending legal matter, the group may be forced to incur charges in excess of the presently established provisions and related insurance coverage. It is possible that the financial position, results of operations or cash flows of the group could be materially affected by the outcome of the litigation.

The following contingent liabilities have been identified:

(a) On 1 December 2008, Harmony issued 3 364 675 Harmony shares to Rio Tinto Limited (Rio Tinto) for the purchase of Rio Tinto's rights to the royalty agreement entered into prior to our acquisition of the Wafi deposits in PNG. The shares were valued at R242 million on the transaction date. An additional US$10 million in cash will be payable when the decision to mine is made. Of this amount, Harmony is responsible for paying the first US$6 million, with the balance of US$4 million being borne equally by the joint operators.

(b) The group may have a potential exposure to rehabilitate groundwater and radiation that may exist where the group has and/or continues to operate. The group has initiated analytical assessments to identify, quantify and mitigate impacts if and when (or as and where) they arise. Numerous scientific, technical and legal studies are underway to assist in determining the magnitude of the contamination and to find sustainable remediation solutions. The group has instituted processes to reduce future potential seepage and it has been demonstrated that Monitored Natural Attenuation (MNA) by the existing environment will contribute to improvement in some instances. Water treatment facilities were successfully implemented at Doornkop, Tshepong Operations and Kusasalethu. These facilities are now assisting in reducing our dependency on state supplied potable water and will be key in managing any post closure decant should it arise.

In terms of Free State operations, Harmony has taken the initiative to develop a comprehensive regional closure plan in addition to updating the regional water balance, which will ensure that there is sufficient water for our organic growth initiatives. The geohydrological studies confirm that there is no risk of decant in Welkom.

Should the group determine that any part of these contingencies require them being recorded and accounted for as liabilities, that is where they become estimable and probable, it could have a material impact on the financial statements of the group.

(c) Due to the interconnected nature of mining operations in South Africa, any proposed solution for potential flooding and potential decant risk posed by deep groundwater needs to be a combined one, supported by all the mines located in these goldfields. As a result, the Department of Mineral Resources and Energy and affected mining companies require the development of a regional mine closure strategy. Harmony operations have conducted a number of specialist studies and the risk of surface decant due to rising groundwater levels has been obviated at the entire Free State region and Kalgold. In addition, the decant from the KOSH groundwater system tied with our Moab Khotsong operation has been managed through an appropriate groundwater closure plan and sufficient provision has been set aside for this. Therefore, there is no contingency arising from these operations. Additional studies have been commissioned at Doornkop and Kusasalethu. In view of the limitation of current information for accurate estimation of a liability, no reliable estimate can be made for these operations.

(d) The individual Harmony mining operations have applied for the respective National Water Act, Section 21 Water Use Licenses (WUL) to the Department of Water and Sanitation (DWS). The respective Water Use License Applications (WULA's) have subsequently not yet been approved by DWS. Two WUL have been issued by DWS for Kalgold and Kusasalethu (amendment currently being drafted for both operations), with neither licence having any material impact to the operation. The remaining WULA's have not yet been approved by DWS. The WUL conditions for the respective operations are subsequently not yet known and the subsequent potential water resource impact liability as part of the mine rehabilitation and closure process (to which DWS is an important participant and decision maker) is uncertain. The existing WUL for Moab Khotsong, which was recently acquired by Harmony, has already been approved by the DWS. The transferral of the licence and its conditions to Harmony is currently being processed.

(e) In terms of the sale agreements entered into with Rand Uranium, Harmony retained financial exposure relating to environmental disturbances and degradation caused by it before the effective date, in excess of R75 million of potential claims. Rand Uranium is therefore liable for all claims up to R75 million and retains legal liability. The likelihood of potential claims cannot be determined presently and no provision for any liability has been made in the financial statements.

(f) Legal proceedings commenced in December 2010 against the Hidden Valley mine in PNG over alleged damage to the Watut River (which runs adjacent to the Hidden Valley mine), alleged to have been caused by waste rock and overburden run-off from the mine. The damages sought by the plaintiffs were not specified. No active steps had been taken by the plaintiffs in this proceeding for more than five years. During 2019, the court dismissed the case as there had been no furtherance of the issue by the plaintiffs.

36 SUBSEQUENT EVENTS

(a) On 26 July 2019, the Johannesburg High Court approved the R5.2 billion settlement of the silicosis and tuberculosis class action suit between the Occupational Lung Disease Working Group – representing Gold Fields, African Rainbow Minerals, Anglo American SA, AngloGold Ashanti, Harmony and Sibanye Stillwater – and lawyers representing affected mineworkers. After a mandatory three-month period, during which potential beneficiaries can opt out of the settlement agreement, the settlement funds will be used to establish the Tshiamiso Trust. The trust will track and trace class members, process all submitted claims, including the undertaking of benefit medical examinations, and pay benefits to eligible claimants. The approval does not impact on the amount of the provision recognised. Refer to note 26.

(b) On 19 August 2019, Harmony and a syndicate of local and international lenders entered into a loan facility agreement which was jointly arranged by Nedbank Limited and ABSA Bank Limited, comprising a revolving credit facility (RCF) of up to US$200 million and a term portion of up to US$200 million. The tenor of the facility is three years with an option to extend by another one year. The rate for the term loan is LIBOR plus 3.05% and LIBOR plus 2.90% for the RCF. Conditions precedent were fulfilled on 26 September 2019 and financial close was on 2 October 2019, with US$5 million (R76 million) being drawn on, resulting in an outstanding balance of US$300 million (R4.6 billion) and undrawn balance of US$100 million (R1.4 billion).

37 SEGMENT REPORT

ACCOUNTING POLICY

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker (CODM). The chief operating decision-maker has been identified as the CEO's office.

The group has one main economic product, being gold. In order to determine operating and reportable segments, management reviewed various factors, including geographical location as well as managerial structure. It was determined that an operating segment consists of a shaft or a group of shafts or open pit mine managed by a single general manager and management team.

After applying the qualitative and quantitative thresholds from IFRS 8, *Operating Segments*, the reportable segments were determined as: Tshepong Operations, Bambanani, Joel, Doornkop, Moab Khotsong, Hidden Valley, Target 1, Kusasalethu, Masimong and Unisel. All other operating segments have been grouped together under all other surface operations.

The CODM has been identified as the CEO's office consisting of the chief executive officer, financial director, director corporate affairs, chief operating officer: new business, chief executive officer: South-east Asia and chief operating officer: South Africa. When assessing profitability, the CODM considers the revenue and production costs of each segment. The net of these amounts is the production profit or loss. Therefore, production profit has been disclosed in the segment report as the measure of profit or loss. The CODM also considers capital expenditure, gold production and tonnes milled when assessing the overall economic sustainability of each segment. The CODM, however, does not consider depreciation or impairment and therefore these amounts have not been disclosed in the segment report.

Segment assets consist of mining assets and mining assets under construction included under property, plant and equipment which can be attributed to the segment. Current and non-current group assets that are not allocated at a segment level form part of the reconciliation to total assets.

A reconciliation of the segment totals to the group financial statements has been included in note 38.

37 SEGMENT REPORT continued

	Revenue 30 June			Production cost 30 June			Production profit/(loss) 30 June			Mining assets 30 June			Capital expenditure[#] 30 June			Kilograms produced* 30 June			Tonnes milled* 30 June		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
	Rand million			Rand million			Rand million			Rand million			Rand million			Kg			t'000		
South Africa																					
Underground																					
Tshepong Operations	**4 685**	5 389	5 062	**3 973**	3 799	3 671	**712**	1 590	1 391	**6 297**	8 078	8 466	**1 130**	1 008	717	**7 967**	9 394	8 828	**1 612**	1 716	1 695
Moab Khotsong	**4 470**	1 672	—	**3 101**	952	—	**1 369**	720	—	**3 634**	3 670	—	**559**	173	—	**7 928**	3 296	—	**970**	327	—
Bambanani	**1 477**	1 616	1 576	**994**	896	871	**483**	720	705	**562**	659	745	**61**	64	77	**2 515**	2 821	2 750	**230**	233	231
Joel	**957**	954	1 309	**971**	920	936	**(14)**	34	373	**947**	995	909	**187**	250	243	**1 567**	1 635	2 246	**429**	454	514
Doornkop	**1 931**	1 958	1 553	**1 564**	1 411	1 241	**367**	547	312	**2 759**	2 721	2 979	**308**	274	243	**3 273**	3 429	2 673	**730**	696	641
Target 1	**1 585**	1 630	1 506	**1 491**	1 318	1 345	**94**	312	161	**1 076**	1 260	2 021	**297**	309	324	**2 653**	2 854	2 669	**588**	680	745
Kusasalethu	**2 975**	2 483	2 575	**2 395**	2 026	2 080	**580**	457	495	**1 300**	2 151	2 846	**316**	289	289	**4 989**	4 429	4 394	**742**	670	607
Masimong	**1 359**	1 505	1 452	**1 205**	1 154	1 113	**154**	351	339	**106**	57	433	**109**	129	119	**2 309**	2 623	2 538	**602**	647	640
Unisel	**713**	733	915	**564**	771	838	**149**	(38)	77	**46**	38	529	**45**	85	78	**1 212**	1 280	1 595	**256**	376	394
Surface																					
All other surface operations	**2 403**	2 009	1 816	**1 938**	1 521	1 404	**465**	488	412	**724**	553	486	**84**	136	261	**4 099**	3 570	3 178	**15 931**	14 143	11 045
Total South Africa	**22 555**	19 949	17 764	**18 196**	14 768	13 499	**4 359**	5 181	4 265	**17 451**	20 182	19 414	**3 096**	2 717	2 351	**38 512**	35 331	30 871	**22 090**	19 942	16 512
International																					
Hidden Valley (a)	**3 591**	409	1 500	**1 362**	234	1 313	**2 229**	175	187	**3 694**	3 884	2 290	**1 591**	1 563	1 335	**6 222**	2 862	2 965	**3 886**	2 499	2 889
Total international	**3 591**	409	1 500	**1 362**	234	1 313	**2 229**	175	187	**3 694**	3 884	2 290	**1 591**	1 563	1 335	**6 222**	2 862	2 965	**3 886**	2 499	2 889
Total operations	**26 146**	20 358	19 264	**19 558**	15 002	14 812	**6 588**	5 356	4 452	**21 145**	24 066	21 704	**4 687**	4 280	3 686	**44 734**	38 193	33 836	**25 976**	22 441	19 401
Reconciliation of segment information to the consolidated income statement and balance sheet	**766**	94	230	**766**	82	230	**—**	12	—	**15 591**	15 455	17 179									
	26 912	20 452	19 494	**20 324**	15 084	15 042	**6 588**	5 368	4 452	**36 736**	39 521	38 883	**4 687**	4 280	3 686	**44 734**	38 193	33 836	**25 976**	22 441	19 401

[#] Capital expenditure for international operations excludes expenditure spent on Wafi-Golpu of R350 million (2018: R288 million) (2017: R197 million).
[(a)] Capital expenditure for 2018 comprises of expenditure of R2 609 million net of capitalised revenue of R1 046 million. No revenue was capitalised in 2017 or 2019.
* Production statistics are unaudited.

38 RECONCILIATION OF SEGMENT INFORMATION TO CONSOLIDATED INCOME STATEMENTS AND BALANCE SHEETS

	SA rand		
Figures in million	**2019**	2018	2017
Reconciliation of production profit to consolidated profit/(loss) before taxation			
Revenue per segment report	**26 146**	20 358	19 264
Revenue per income statement	**26 912**	20 452	19 494
Other metal sales treated as by-product credits in the segment report	**(766)**	(93)	(230)
Other adjustments	**—**	(1)	—
Production costs per segment report	**(19 558)**	(15 002)	(14 812)
Production costs per income statement	**(20 324)**	(15 084)	(15 042)
Other metal sales treated as by-product credits in the segment report	**766**	93	230
Other adjustments	**—**	(11)	—
Production profit per segment report	**6 588**	5 356	4 452
Revenue not included in segments	**—**	1	—
Production costs adjustments not included in segments	**—**	11	—
Cost of sales items other than production costs	**(8 545)**	(8 512)	(4 827)
Amortisation and depreciation of mining assets	**(3 961)**	(2 468)	(2 441)
Amortisation and depreciation of assets other than mining assets	**(93)**	(102)	(78)
Rehabilitation expenditure	**(33)**	(67)	(23)
Care and maintenance cost of restructured shafts	**(134)**	(128)	(109)
Employment termination and restructuring costs	**(242)**	(208)	(74)
Share-based payments	**(155)**	(244)	(391)
Impairment of assets	**(3 898)**	(5 336)	(1 718)
Other	**(29)**	41	7
Gross profit/(loss)	**(1 957)**	(3 144)	(375)
Corporate, administration and other expenditure	**(731)**	(813)	(517)
Exploration expenditure	**(148)**	(135)	(241)
Gain on derivatives	**484**	99	1 025
Other operating expenses	**(186)**	(667)	(886)
Operating profit/(loss)	**(2 538)**	(4 660)	(994)
Gain on bargain purchase	**—**	—	848
Loss on liquidation of subsidiaries	**—**	—	(14)
Share on profit/(loss) from associate	**59**	38	(22)
Acquisition-related costs	**—**	(98)	—
Investment income	**308**	343	268
Finance costs	**(575)**	(330)	(234)
Profit/(loss) before taxation	**(2 746)**	(4 707)	(148)

38 RECONCILIATION OF SEGMENT INFORMATION TO CONSOLIDATED INCOME STATEMENTS AND BALANCE SHEETS continued

	SA rand		
Figures in million	**2019**	2018	2017
Reconciliation of total segment assets to consolidated assets includes the following:			
Non-current assets			
Property, plant and equipment	**6 604**	6 903	8 340
Intangible assets	**533**	545	603
Restricted cash	**92**	77	64
Restricted investments	**3 301**	3 271	2 658
Investments in associates	**110**	84	46
Inventories	**43**	46	38
Other non-current assets	**334**	264	189
Derivative financial asset	**197**	84	306
Current assets			
Inventories	**1 967**	1 759	1 127
Restricted cash	**44**	38	18
Trade and other receivables	**1 064**	1 139	1 003
Derivative financial assets	**309**	539	1 541
Cash and cash equivalents	**993**	706	1 246
	15 591	15 455	17 179

COMPANY INCOME STATEMENTS
for the years ended 30 June 2019

Figures in million	Notes	SA rand 2019	2018 Restated
Revenue	2	**2 685**	2 691
Cost of sales	3	**(2 664)**	(3 951)
Production costs		**(2 259)**	(2 367)
Amortisation and depreciation		**(234)**	(407)
Impairment of assets		**—**	(1 003)
Other items		**(171)**	(174)
Gross profit/(loss)		**21**	(1 260)
Corporate, administration and other expenditure		**(16)**	(90)
Gains on derivatives	13	**84**	94
Other operating expenses	4	**(269)**	(618)
Operating loss		**(180)**	(1 874)
Impairment of investments in subsidiaries	15	**(3 887)**	(1 530)
Reversal of impairment of investments in subsidiaries	15	**—**	214
Investment income	5	**541**	300
Finance costs	6	**(487)**	(328)
Loss before taxation		**(4 013)**	(3 218)
Taxation	7	**(19)**	24
Loss for the year		**(4 032)**	(3 194)

These are the separate financial statements of Harmony Gold Mining Company Limited. For the group financial statements refer to page 25 to 111.

The accompanying notes are an integral part of these financial statements.

COMPANY STATEMENTS OF COMPREHENSIVE INCOME

for the years ended 30 June 2019

		SA rand	
Figures in million	Notes	**2019**	2018
Net loss for the year		**(4 032)**	(3 194)
Other comprehensive income for the year, net of income tax		**(6)**	5
Items that may be reclassified subsequently to profit or loss		**(3)**	—
Remeasurement of gold hedging contracts	20	**(3)**	—
Items that will not be reclassified to profit or loss:		**(3)**	5
Remeasurement of retirement benefit obligation	20	**(3)**	5
Total comprehensive income for the year		**(4 038)**	(3 189)

The accompanying notes are an integral part of these financial statements.

COMPANY BALANCE SHEETS

SA rand

Figures in million	Notes	**At 30 June 2019**	At 30 June 2018
ASSETS			
Non-current assets			
Property, plant and equipment	8	**885**	849
Intangible assets	9	**13**	19
Restricted cash	10	**89**	75
Restricted investments	11	**427**	459
Investments in subsidiaries	15	**24 400**	28 161
Investments in associates	16	**39**	71
Inventories	18	**3**	3
Loans to subsidiaries	15	**122**	131
Other non-current assets	14	**330**	276
Derivative financial instruments	13	**19**	10
Total non-current assets		**26 327**	30 054
Current assets			
Inventories	18	**266**	262
Loans to subsidiaries	15	**5 823**	5 833
Trade and other receivables	12	**616**	530
Derivative financial instruments	13	**33**	68
Cash and cash equivalents		**613**	615
Total current assets		**7 351**	7 308
Total assets		**33 678**	37 362
EQUITY AND LIABILITIES			
Share capital and reserves			
Share capital and premium	19	**29 551**	29 340
Other reserves	20	**2 560**	2 119
Accumulated loss	27	**(11 882)**	(7 850)
Total equity		**20 229**	23 609
Non-current liabilities			
Deferred tax liabilities	7	**—**	8
Provision for environmental rehabilitation	21	**608**	552
Provision for silicosis settlement	22	**738**	724
Retirement benefit obligation	23	**23**	19
Other non-current liabilities	24	**106**	125
Borrowings	25	**5 632**	4 924
Derivative financial instruments	13	**14**	1
Total non-current liabilities		**7 121**	6 353
Current liabilities			
Borrowings	25	**—**	690
Loans from subsidiaries	15	**5 409**	5 861
Trade and other payables	26	**888**	824
Derivative financial instruments	13	**31**	25
Total current liabilities		**6 328**	7 400
Total equity and liabilities		**33 678**	37 362

The accompanying notes are an integral part of these financial statements.

COMPANY STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

for the years ended 30 June 2019

	Number of ordinary shares issued	Share capital and premium	Accumulated loss	Other reserves	Total
Notes	19	19		20	
Figures in million (SA rand)					
Balance - 30 June 2017	439 957 199	28 336	(4 502)	1 751	25 585
Issue of shares					
- Shares issued and fully paid	55 055 050	1 004	—	—	1 004
- Exercise of employee share options	5 239 502	—	—	—	—
Share-based payments	—	—	—	363	363
Net loss for the year	—	—	(3 194)	—	(3 194)
Other comprehensive income for the year	—	—	—	5	5
Dividends paid[1]	—	—	(154)	—	(154)
Balance - 30 June 2018	500 251 751	29 340	(7 850)	2 119	23 609
Impact of adopting IFRS 9 (refer to note 1)				**82**	82
Restated opening balance - 1 July 2018	**500 251 751**	**29 340**	**(7 850)**	**2 201**	**23 691**
Issue of shares					
- Shares issued and fully paid	**11 032 623**	**211**	**—**	**—**	**211**
- Exercise of employee share options	**21 856 821**	**—**	**—**	**—**	**—**
- Harmony ESOP Trust	**6 700 000**	**—**	**—**	**—**	**—**
Share-based payments	**—**	**—**	**—**	**365**	**365**
Net loss for the year	**—**	**—**	**(4 032)**	**—**	**(4 032)**
Other comprehensive income for the year	**—**	**—**	**—**	**(6)**	**(6)**
Balance - 30 June 2019	**539 841 195**	**29 551**	**(11 882)**	**2 560**	**20 229**

[1] Dividends per share is disclosed under the earnings per share note. Refer to note 11 of the group financial statements.

The accompanying notes are an integral part of these financial statements.

COMPANY CASH FLOW STATEMENTS
for the years ended 30 June 2019

Figures in million	Notes	SA rand 2019	SA rand 2018
CASH FLOW FROM OPERATING ACTIVITIES			
Cash generated by operations	27	**283**	354
Interest received		**192**	105
Dividends received		**4**	4
Interest paid		**(365)**	(205)
Income and mining taxes paid		**(23)**	(71)
Cash generated by operating activities		**91**	187
CASH FLOW FROM INVESTING ACTIVITIES			
Increase in restricted cash		**(11)**	(11)
Decrease in amounts invested in restricted investments	11	**61**	5
Increase in loans to subsidiaries		**(92)**	(3 921)
Redemption of preference shares from associates	16	**32**	—
Capital distributions from investments	14	**30**	—
Additions to intangible assets		**(1)**	(9)
Additions to property, plant and equipment		**(234)**	(318)
Cash utilised by investing activities		**(215)**	(4 254)
CASH FLOW FROM FINANCING ACTIVITIES			
Borrowings raised	25	**1 200**	6 937
Borrowings paid	25	**(1 289)**	(4 063)
Issue of shares		**211**	1 003
Dividends paid		**—**	(154)
Cash generated by financing activities		**122**	3 723
Net decrease in cash and cash equivalents		**(2)**	(344)
Cash and cash equivalents - beginning of year		**615**	959
Cash and cash equivalents - end of year		**613**	**615**

The accompanying notes are an integral part of these financial statements.

NOTES TO THE COMPANY FINANCIAL STATEMENTS
for the years ended 30 June 2019

1 ACCOUNTING POLICIES

The accounting policies applied in the company financial statements are consistent with the group accounting policies. Refer to note 2 of the group financial statements as well as the relevant notes for the detailed discussions.

New standards, amendments to standards and interpretations to existing standards adopted by the group

The new standards, amendments to standards and interpretations to existing standards that were adopted by the company, and the impact thereof, is consistent with those described in note 2 of the group financial statements. The revaluation of unlisted investments with a cost of R0 to fair value of R82 million in the group financial statements relates to an investment held by the company. The difference between the carrying amounts of financial instruments before the adoption of IFRS 9 and the new carrying amount calculated in accordance with the standard at 1 July 2018 was recognised directly in the opening balance of equity. Refer to the statements of changes in shareholders' equity.

Change in accounting policy - classification of by-products

Previously, income from silver sales was considered by-product revenue and was classified as a credit to cost of sales. In line with the change in group policy, income from by-product sales is now considered to be part of the company's revenue.

The change in accounting policy results in an increase in revenue and a consequential increase in costs of sales and therefore does not have an impact on previously reported gross profit or loss. The company has applied the change retrospectively to each prior reporting period presented in accordance with IAS 8, *Accounting Policies, Changes in Accounting Estimates and Errors.* The impact on revenue and cost of sales is as follows:

Figures in million	SA rand 2018
Revenue as previously reported	2 690
By-product revenue	1
Revenue (restated)	**2 691**
Cost of sales as previously reported	3 950
By-product revenue	1
Cost of sales (restated)	**3 951**

2 REVENUE

Figures in million	SA rand **2019**	 2018 Restated*
Revenue from contracts with customers	**2 685**	2 691
Gold[1]	**2 684**	2 690
Silver	**1**	1
Total revenue	**2 685**	2 691

* Relates to a change in accounting policy - refer to note 1 for detail.
[1] Revenue is recognised when gold is delivered and a certificate of sale is issued.

3 COST OF SALES

Figures in million	SA rand 2019	2018 Restated*
Production costs (a)	**2 259**	2 367
Amortisation and depreciation of mining assets (b)	**158**	328
Amortisation and depreciation of assets other than mining assets (c)	**76**	79
Rehabilitation expenditure (d)	**75**	38
Care and maintenance costs of restructured shafts	**38**	41
Employment termination and restructuring costs (e)	**34**	60
Share-based payments (f)	**26**	36
Impairment of assets (g)	**—**	1 003
Other	**(2)**	(1)
Total cost of sales	**2 664**	3 951

* Relates to a change in accounting policy - refer to note 1 for detail.

(a) Production costs include mine production and transport and refinery costs, applicable general administrative costs, movement in inventories and ore stockpiles and ongoing environmental rehabilitation costs. Employee termination costs are included, except for employee termination costs associated with major restructuring and shaft closures, which are separately disclosed.

Production costs, analysed by nature, consist of the following:

Figures in million	SA rand 2019	2018 Restated*
Labour costs, including contractors	**1 443**	1 500
Consumables	**462**	471
Water and electricity	**306**	325
Transportation	**40**	42
Change in inventory	**(18)**	(7)
Capitalisation of mine development costs	**(139)**	(151)
Royalty expense	**14**	15
Other	**151**	172
Total production costs	**2 259**	2 367

* Relates to a change in accounting policy - refer to note 1 for detail.

(b) Depreciation is lower for the 2019 year owing mainly to the impact of the impairment that was recognised for Unisel and Masimong at the end of the 2018 year.

(c) Amortisation and depreciation of assets other than mining assets relates to the following:

Figures in million	SA rand 2019	2018
Other non-mining assets	**24**	32
Intangible assets	**7**	8
Amortisation of issue costs	**45**	39
Total amortisation and depreciation of assets other than mining assets	**76**	79

(d) For the assumptions used to calculate the rehabilitation costs, refer to note 25 of the group financial statements. This expense includes the change in estimate for the rehabilitation provision where an asset no longer exists as well as rehabilitation costs. During 2019, rehabilitation costs incurred amounted to R46 million (2018: R36 million). Refer to note 21.

(e) During the 2019 and 2018 financial years, the group offered voluntary severance packages to management.

(f) Refer to note 29 for details on the share-based payment schemes implemented by the company. Due to the approval of the new management share plan, no new issue for the management share incentive scheme was made following the 2015 issue maturing in November 2018.

3 COST OF SALES continued

(g) There was no impairment recognised for the 2019 financial year. For the 2018 financial year the impairment of assets consists of the following:

	SA rand
Figures in million	2018
Unisel	487
Masimong	329
Doornkop[1]	41
Other mining assets	146
Total impairment of assets	1 003

[1] The impairment relates to the company's effective share of the recoverable amount attributable to the Doornkop Joint Venture (Doornkop JV).

There were no reversals of impairment recorded in the 2019 or 2018 financial years.

4 OTHER OPERATING EXPENSES

	SA rand	
Figures in million	**2019**	2018
Bad debts provision credit (a)	**(27)**	(17)
Social investment expenditure	**61**	18
Harmony Community Trust Preference Shares issued (b)	**191**	—
Foreign exchange translation (c)	**84**	674
Silicosis settlement provision (d)	**(48)**	(53)
Other expenses - net	**8**	(4)
Total other operating expenses	**269**	618

(a) The reversal in 2019 resulted mainly due to a repayment by ARMgold on its intercompany loan. In 2018 the provision relating to the ARM BBEE Trust was reversed following an increase in African Rainbow Minerals Limited's share price and dividends paid in the period between July 2017 and June 2018, which form part of the recoverability test at 30 June 2018.

(b) During the current financial period, Harmony issued 4 400 000 convertible preference shares to the Harmony Community Trust. The transaction is an equity-settled share-based payment arrangement that vested on the date of issue of the preference shares. Refer to note 29. A once-off charge of R136 million was recognised on this date. The preference shares also carry a minimum preference dividend which was provided for on the issue date. The provision totalled R55 million - refer to note 24.

(c) Refer to note 25 for details on the US$ borrowings.

(d) Refer to note 22 for details on the movement in the silicosis settlement provision.

5 INVESTMENT INCOME

Figures in million	SA rand 2019	2018
Interest income	**516**	292
Financial assets at amortised cost (a)	**516**	290
South African Revenue Service (SARS)	**—**	2
Dividend income (b)	**4**	4
Net gain on financial instruments (c)	**21**	4
Total investment income	**541**	300

(a) Included in the total interest income are the following:
- An amount of R102 million (2018: R14 million) related to interest on-charged to Harmony's subsidiaries at the relevant interest rate plus an additional margin of 0.5%.
- Interest of R296 million (2018: R120 million) charged on a loan of R3.5 billion to Harmony Moab Khotsong Operations Proprietary Limited for the purchase of the Moab Khotsong assets (refer to note 15). Interest on the loan is calculated at JIBAR plus 2.9%.
- Interest income on the loans to Tswelopele Beneficiation Operation (Proprietary) Limited (TBO), a subsidiary, and the BEE partners to purchase their portion of TBO amounted to R22 million (2018: R21 million) and R3 million (2018: R5 million) respectively in the 2019 financial year. Refer to notes 12, 15 and 29.

(b) During the 2019 financial year, dividends of R4 million (2018: R4 million) were received from TBO.

(c) Included in the net gain on financial instruments is the fair value movement of R15 million for the ARM BBEE Trust loan. Refer to note 14.

6 FINANCE COSTS

Figures in million	SA rand 2019	2018
Financial liabilities		
Borrowings	**381**	227
Other creditors and liabilities	**2**	1
Loan from subsidiary (a)	**—**	2
Total finance costs from financial liabilities	**383**	230
Non-financial liabilities		
Post-retirement benefits	**2**	2
Time value of money component of silicosis provision	**62**	60
Time value of money and inflation component of rehabilitation costs	**40**	36
Total finance costs from non-financial liabilities	**104**	98
Total finance costs	**487**	328

(a) Relates to interest on outstanding net amounts received on behalf of TBO charged at overnight call money-market related interest rates. This loan cannot be offset against the amount owed for the purchase of the Phoenix operation.

7 TAXATION

Figures in million	SA rand 2019	2018
Non-mining tax (a)		
- current year	**(26)**	—
Deferred tax (b)		
- current year	**7**	24
Total taxation (expense)/credit	**(19)**	24

(a) Non-mining taxable income is taxed at 28%.

(b) The deferred tax rate used to calculate deferred tax is based on the current estimate of future profitability when temporary differences will reverse based on tax rates and tax laws that have been enacted at the balance sheet date. Depending on the profitability of the operations, the deferred tax rate can consequently be significantly different from year to year.

INCOME AND MINING TAX RATES

The tax rate remained unchanged for the 2019 and 2018 years.

Major items causing the income statement provision to differ from the mining statutory tax rate of 34% were:

Figures in million	SA rand 2019	2018
Tax on net loss at the mining statutory tax rate	**1 364**	1 094
Non-allowable deductions		
Impairment of investments in subsidiaries	**(1 322)**	(520)
Reversal of impairment of investments in subsidiaries	**—**	73
Finance costs	**(68)**	(54)
Share based payments	**(78)**	(18)
Impairment of assets	**—**	(94)
Other	**(57)**	(56)
Movement in deferred tax asset not recognised	**128**	(397)
Effect on temporary differences due to changes in effective tax rate[1]	**—**	(4)
Difference between non-mining tax rate and statutory mining rate on non-mining income	**8**	—
Difference between effective mining tax rate and statutory mining rate on mining income	**6**	—
Income and mining taxation	**(19)**	24
Effective income and mining tax rate (%)	**—**	1

[1] The deferred tax rate used for the 2019 financial year was 25.7% (2018: 10.5%).

7 TAXATION continued

DEFERRED TAX

The analysis of deferred tax assets and liabilities is as follows:

	SA rand	
Figures in million	**2019**	2018
Deferred tax assets	**(143)**	(55)
Deferred tax asset to be recovered after more than 12 months	**(53)**	(51)
Deferred tax asset to be recovered within 12 months	**(90)**	(4)
Deferred tax liabilities	**143**	63
Deferred tax liability to be recovered after more than 12 months	**—**	54
Deferred tax liability to be recovered within 12 months	**143**	9
Net deferred tax liability	**—**	8

The net deferred tax liabilities on the balance sheet at 30 June 2019 and 30 June 2018 relate to the following:

	SA rand	
Figures in million	**2019**	2018
Gross deferred tax liabilities	**143**	63
Amortisation and depreciation	**140**	54
Derivative assets	**—**	8
Other	**3**	1
Gross deferred tax assets	**(143)**	(55)
Unredeemed capital expenditure	**(74)**	(38)
Provisions, including non-current provisions	**(294)**	(109)
Tax losses	**—**	(31)
Deferred tax asset not recognised	**225**	123
Net deferred tax liability	**—**	8

Movement in the net deferred tax liability recognised in the balance sheet is as follows:

	SA rand	
Figures in million	**2019**	2018
Balance at beginning of year	**8**	31
Tax charged directly to other comprehensive income	**(1)**	1
Total credit per income statement	**(7)**	(24)
Balance at end of year	**—**	8

As at 30 June 2019, the company has no mining tax losses (2018: R8 million) and no non-mining tax losses (2018: R288 million), available for utilisation against future taxable income and future non-mining taxable income respectively.

As at 30 June 2019, the company has a capital gains tax (CGT) loss of R231 million (2018: R231 million) available for utilisation against future capital gains.

The unrecognised deferred tax asset arises from deductible temporary differences for which future taxable profits are uncertain and not considered probable. The deductible temporary differences arose as a result of foreign exchange losses on the US dollar loan facility and the silicosis provision.

DIVIDEND TAX (DT)

The withholding tax on dividends remains unchanged at 20% in 2018 and 2019.

8 PROPERTY, PLANT AND EQUIPMENT

Figures in million	SA rand 2019	2018
Mining assets	**807**	795
Other non-mining assets	**78**	54
Total property, plant and equipment	**885**	849

MINING ASSETS

Figures in million	SA rand 2019	2018
Cost		
Balance at beginning of year	**5 252**	4 962
Fully depreciated assets no longer in use derecognised	**(104)**	—
Additions[1]	**186**	301
Adjustment to rehabilitation asset	**(13)**	(9)
Scrapping of assets[2]	**(63)**	(2)
Balance at end of year	**5 258**	5 252
Accumulated depreciation and impairment		
Balance at beginning of year	**4 457**	3 139
Fully depreciated assets no longer in use derecognised	**(104)**	—
Impairment of assets[3]	**—**	991
Scrapping of assets[2]	**(60)**	(1)
Depreciation[4]	**158**	328
Balance at end of year	**4 451**	4 457
Net carrying value	**807**	795

[1] Includes R31 million (2018: R29 million) attributable to Doornkop JV.
[2] During 2019 and 2018 financial years, the abandonment of individual surface assets that are no longer core to the business or in use and unprofitable areas resulted in derecognition of property, plant and equipment as no future economic benefits are expected from their use or disposal.
[3] The total for 2018 relates to assets attributable to Doornkop JV, Unisel, Other Harmony assets and Masimong. Refer to note 3.
[4] Includes R21 million (2018: R11 million) attributable to Doornkop JV. Refer to note 17.

OTHER NON-MINING ASSETS

Figures in million	SA rand 2019	2018
Cost		
Balance at beginning of year	**145**	122
Fully depreciated assets no longer in use derecognised	**(9)**	—
Additions	**48**	29
Transfers	**—**	(6)
Balance at end of year	**184**	145
Accumulated depreciation and impairment		
Balance at beginning of year	**91**	47
Fully depreciated assets no longer in use derecognised	**(9)**	—
Impairment of assets	**—**	12
Depreciation	**24**	32
Balance at end of year	**106**	91
Net carrying value	**78**	54

9 INTANGIBLE ASSETS

Figures in million	SA rand 2019	2018
Cost		
Balance at beginning of year	**48**	33
Fully depreciated assets no longer in use derecognised	**(10)**	—
Transfers and movements	**—**	6
Additions	**1**	9
Balance at end of year	**39**	48
Accumulated amortisation and impairments		
Balance at beginning of year	**29**	21
Fully depreciated assets no longer in use derecognised	**(10)**	—
Amortisation charge	**7**	8
Balance at end of year	**26**	29
Net carrying value	**13**	19

10 RESTRICTED CASH

Figures in million	SA rand 2019	2018
Environmental guarantees	**89**	75

The amount primarily relates to funds set aside to serve as collateral against guarantees made to the Department of Mineral Resources and Energy (DMRE) in South Africa for environmental and rehabilitation obligations. Refer to note 21. The funds are invested equally in short term money market funds and call accounts.

11 RESTRICTED INVESTMENTS

Figures in million	SA rand 2019	2018
Investments held by environmental trust fund	**399**	426
Fixed deposits	**273**	301
Cash and cash equivalents	**1**	1
Equity-linked deposits	**125**	124
Investments held by social trust fund	**28**	33
Total restricted investments	**427**	459

ENVIRONMENTAL TRUST FUND

The environmental trust fund is an irrevocable trust under the company's control. Contributions to the trust are invested in interest-bearing short-term and medium-term cash investments and medium-term equity-linked notes issued by commercial banks that provide guaranteed interest and additional interest or growth linked to the growth of the Top 40 index of the JSE. These investments provide for the estimated cost of rehabilitation at the end of the life of the company's mines. Income earned on the investments is retained in the funds and reinvested.

11 RESTRICTED INVESTMENTS continued

ENVIRONMENTAL TRUST FUND continued

Reconciliation of the movement in the investments held by environmental trust fund:

	SA rand	
Figures in million	**2019**	2018
Balance at beginning of year	**426**	392
Interest income	**23**	23
Fair value gain	**6**	11
Acquisition/(maturity) of fixed deposits	**(56)**	1
Net transfer of cash and cash equivalents	**55**	(1)
Withdrawal of funds	**(55)**	—
Balance at end of year	**399**	426

SOCIAL TRUST FUND

The social trust fund is an irrevocable trust under the company's control. The purpose of the trust is to fund the social plan to reduce the negative effects of restructuring on the group's workforce, to put measures in place to ensure that the technical and life skills of the group's workforce are developed and to develop the group's workforce in such a manner as to avoid or minimise the effect of job losses and a decline in employment through turnaround or redeployment strategies.

The social trust fund investment comprises a unit trust portfolio that is exposed to the fair value changes in the equity market and is classified as a fair value through profit or loss investment.

Reconciliation of the movement in the investment held by the social trust fund:

	SA rand	
Figures in million	**2019**	2018
Balance at beginning of year	**33**	37
Interest income	**1**	8
Fair value loss	**—**	(7)
Claims paid	**(6)**	(5)
Balance at end of year	**28**	33

12 TRADE AND OTHER RECEIVABLES

Figures in million	SA rand 2019	2018
Current assets		
Financial assets		
Trade receivables (metals)	**448**	437
Other trade receivables	**66**	21
Loss allowance	**(14)**	(12)
Trade receivables - net	**500**	446
Interest and other receivables	**5**	31
Employee receivables	**10**	14
Other loans receivable	**11**	23
Non-financial assets		
Prepayments	**22**	16
Income and mining taxes	**68**	—
Total trade and other receivables	**616**	530

The movement in the loss allowance for trade and other receivables during the year was as follows (refer to note 32 for details):

Figures in million	SA rand 2019	2018
Balance at beginning of year	**12**	3
Loss allowance recognised during the year	**2**	9
Balance at end of year	**14**	12

The loss allowance for trade and other receivables stratified according to ageing profile at the reporting date is as follows:
`

	30 June 2019 SA rand		**30 June 2018** SA rand	
Figures in million	Gross	Loss allowance	Gross	Loss allowance
Not past due	**474**	**—**	442	—
Past due by 1 to 30 days	**1**	**—**	4	—
Past due by 31 to 60 days	**19**	**—**	—	—
Past due by 61 to 90 days	**6**	**—**	—	—
Past due by more than 90 days	**4**	**4**	7	7
Past due by more than 361 days	**10**	**10**	5	5
	514	**14**	458	12

Refer to note 4 of the group financial statements for details on how the provision was calculated.

During the 2019 and 2018 years there was no renegotiation of the terms of any receivable. The company does not hold any collateral in respect of these receivables.

13 DERIVATIVE FINANCIAL INSTRUMENTS

	SA rand		
Figures in million	Rand gold hedging contracts (a)	Foreign exchange hedging contracts (b)	Total
30 June 2019			
Derivative financial assets	**6**	**46**	**52**
Non-current	**2**	**17**	**19**
Current	**4**	**29**	**33**
Derivative financial liabilities	**(40)**	**(5)**	**(45)**
Non-current	**(14)**	**—**	**(14)**
Current	**(26)**	**(5)**	**(31)**
Net derivative financial instruments	**(34)**	**41**	**7**
Unamortised day one net loss included above	**5**	**—**	**5**
Unrealised losses included in other reserves	**(4)**	**—**	**(4)**
Gains/(losses) included in gains on derivatives	**(34)**	**122**	**88**
Day one loss amortisation	**(4)**	**—**	**(4)**
Total gains on derivatives	**(38)**	**122**	**84**
Hedge effectiveness			
Cumulative change in the fair value of the hedging instrument used as the basis for recognising hedge ineffectiveness	**(4)**	**—**	**(4)**
Cumulative change in the fair value of the hedged item used as the basis for recognising hedge ineffectiveness.	**4**	**—**	**4**
30 June 2018			
Derivative financial assets	69	9	78
Non-current	10	—	10
Current	59	9	68
Derivative financial liabilities	(1)	(25)	(26)
Non-current	(1)	—	(1)
Current	—	(25)	(25)
Net derivative financial instruments	68	(16)	52
Unamortised day one net loss included above	2	—	2
Gains/(losses) included in gains on derivatives	74	25	99
Day one loss amortisation	(5)	—	(5)
Total gains on derivatives	69	25	94

a) Harmony has entered into rand gold forward sale derivative contracts to hedge the risk of lower gold prices. Cash flow hedge accounting is applied to portion of these contracts, resulting in the effective portion of the unrealised gains and losses being recorded in other comprehensive income (other reserves - refer to note 20). Refer to note 32 for a summary of the risk management strategy applied and the balances relating to the designated hedging instruments as at reporting date. Hedge effectiveness is determined at the inception of the hedge relationship and through periodic prospective effectiveness assessments. The group enters into gold forward contracts that have similar terms as the hedged item, such as notional amount, maturity date and reference gold spot price thereby ensuring that an economic relationship exists between the hedging instrument and the hedged item and resulting in a hedge ratio of 1:1.

13 DERIVATIVE FINANCIAL INSTRUMENTS continued

a) Rand gold hedging contracts continued
Potential sources of hedge ineffectiveness include counterparty credit risk, day one gains and losses, a mismatch in the timing of the derivative and underlying gold sale maturities, location differential and the refining margin. A negligible amount of hedge ineffectiveness was however experienced during 2019 and 2018 as all the critical terms of the hedging instruments and hedged items matched.

The gains and losses from the remainder of the rand gold forward sale contracts to which hedge accounting is not applied is included in gains on derivatives above.

At 30 June 2019, all open contracts have an average forward sale price of R659 420/kg. The following table shows the open position of rand gold forward contacts at the reporting date:

	Nominal value	**Duration**
- Cash flow hedge accounted	1 608kg (51 700oz)	1 year
- All rand gold forward contracts	3 164kg (101 720oz)	2 years

b) Included in the foreign exchange hedging contracts (forex hedging contracts) are zero cost collars and forward exchange contracts. The zero cost collars establish a floor and cap rand/US$ exchange rate at which to convert US dollars to rands. The nominal value of the open zero cost collars at 30 June 2019 is US$41 million (30 June 2018: US$22 million). The weighted average prices for the forward exchange contracts are as follows: cap R15.74 and floor R14.92.

The nominal value of open forex forwards at 30 June 2019 is US$38 million (30 June 2018: US$32 million) and the weighted average exchange rate is R15.35.

As hedge accounting is not applied to these contracts, the resulting gains and losses have been recorded in gains on derivatives in the income statement.

The derivatives are classified as held for trading and the fair value is based upon market valuations. Refer to note 32 for details of the fair value measurements.

14 OTHER NON-CURRENT ASSETS

	SA rand	
Figures in million	**2019**	2018
Non-current assets		
Debt instruments	**275**	273
Loans to associates (a)	**116**	116
Loan to ARM BBEE Trust (b)	**271**	256
Other loans receivable	**4**	20
Loss allowance (a) (b)	**(116)**	(119)
Equity instruments	**55**	3
Rand Mutual Assurance (c)	**52**	—
Other	**3**	3
Total other non-current assets	**330**	276

(a) The balance relates to a loan of R116 million (2018: R116 million) owed by Pamodzi. Pamodzi was placed into liquidation during 2009 and the loan was provided in full. The company is a concurrent creditor in the Pamodzi Orkney liquidation.

(b) During 2016, Harmony advanced R200 million to the ARM BBEE Trust, shareholder of African Rainbow Minerals Limited (ARM). The trust is controlled and consolidated by ARM, who holds 13.8% of Harmony's shares. Harmony is a trustee of the ARM BBEE Trust. The loan is subordinated and unsecured. The interest is market related (3 months JIBAR plus 4.25%) and is receivable on the maturity of the loan on 31 December 2022. On adoption of IFRS 9, it was assessed that the contractual cash flows fail the solely payments of principal and interest (SPPI) characteristics and that the loan will therefore be carried at fair value through profit or loss . As the loan is no longer subject to the impairment requirements of the new standard, the provision of R3 million that was recognised at 30 June 2018 was derecognised. At 30 June 2019 the loan was remeasured to its fair value of R271 million.

(c) Refer to note 17 in the group financial statements.

14 OTHER NON-CURRENT ASSETS continued

The movement in the loss allowance for debt instruments during the year was as follows:

	SA rand	
Figures in million	**2019**	2018
Balance at beginning of year	**119**	162
Impact of adopting IFRS 9 (refer to (b) above)	**(3)**	—
Loss allowance reversed	**—**	(43)
Balance at end of year	**116**	119

15 INVESTMENTS IN SUBSIDIARIES AND LOANS TO/FROM SUBSIDIARIES

ACCOUNTING POLICY

Investments in subsidiaries are accounted for at cost less impairment. Harmony charges its subsidiaries for the employee share incentive plans granted to the subsidiaries' employees. The movement in equity in the company's financial statements relating to the recharge of the share-based payments of subsidiaries is accounted for against investments in subsidiaries. Investments in subsidiaries are tested annually for impairment or when there is an indication of impairment and an impairment loss is recognised for the amount by which the carrying amount of the investment in a subsidiary exceeds its recoverable amount. The recoverable amount of investments in subsidiaries are generally determined with reference to future cash generated by the subsidiaries. For further detail, see critical accounting estimates and judgements below. Any impairment losses are included in impairment of investments in subsidiaries in the income statement.

Loans to/from subsidiaries are measured initially at fair value. Loans to subsidiaries held within a business model with the objective to hold assets to collect contractual cash flows and with contractual terms giving rise, on specified dates, to cash flows that are solely payments of principal and interest on the principal amount outstanding, are subsequently measured at amortised cost. All other loans to subsidiaries are measured subsequently at fair value. The company currently has no such loans. Loans from subsidiaries are subsequently measured at amortised cost. The loans to subsidiaries are subject to the expected credit loss model.

The recoverability of loans to subsidiaries are assessed at each reporting period using a forward-looking expected credit loss (ECL) approach. The ECL is measured as the probability-weighted estimate of credit losses, which is the present value of all cash shortfalls (i.e. the difference between the cash flows due to the company in accordance with the contract and the cash flows that the company expects to receive). This was measured using the probability of default (PD), loss given default (LGD), exposure at default (EAD) methodology. The LGD depends on the expected cash flows generated by each operating subsidiary with reference to the approved life-of-mine plans of each operation. The estimations of future cash generated by subsidiaries takes into account forward-looking information as described under critical accounting estimates and judgements below. Any impairment losses are included in other operating expenses in the income statement.

Investments in and loans to dormant subsidiaries with no significant assets are written off as the carrying amount cannot be recovered and the counterparties do not have the capacity to meet their contractual obligations.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

The recoverable amount of an investment in a subsidiary is the higher of the investment's fair value less costs to sell and value in use. Fair value less cost to sell is generally determined by using discounted estimated after-tax future cash flows. Future cash flows are estimated based on the assumptions described below.

For loans to subsidiaries, as these loans are repayable on demand, the expected credit losses are based on the assumption that repayment of the loan is demanded at the reporting date. Given the liquidity situations of most of the operating subsidiaries, the probability that the entities would not be able to repay immediately is almost certain, hence the expected manner of recovery was determined based on the ability to repay the loan over time, taking into account the future cash flows the company expects to receive.

Future cash flows are estimated based on quantities of recoverable minerals, expected gold prices (considering current and historical prices, price trends and related factors), production levels and cash costs of production, all based on life-of-mine (LoM) plans. Future cash flows are discounted to their present value using a post-tax discount rate that reflects current market assessments of the time value of money and risk specific to the subsidiaries' operations. Refer to note 13 of the group financial statements for the detail on the critical accounting estimates and judgements applied in calculating the future cash flows.

Cash flows are allocated to recover firstly any loans to subsidiaries and thereafter the investments in subsidiaries.

15 INVESTMENTS IN SUBSIDIARIES AND LOANS TO/FROM SUBSIDIARIES continued

	SA rand	
Figures in million	**2019**	2018
Shares at cost less accumulated impairment (a)	**24 400**	28 161
Shares at cost	**30 128**	30 002
Accumulated impairment	**(5 728)**	(1 841)
Loans to subsidiaries	**5 945**	5 964
Gross non-current loan to subsidiary (b)(i)	**122**	131
Gross current loans to subsidiary companies (b)(i) and (iii)	**7 486**	7 521
Provision for irrecoverable loans (b)(ii)	**(1 663)**	(1 688)
Loans from subsidiaries	**(5 409)**	(5 861)
Total investments in subsidiaries	**24 936**	28 264

(a) (i) At 30 June 2019, an impairment of R2.8 billion (2018: a reversal of R214 million) was recorded against Harmony's investment in African Rainbow Minerals Gold Limited (ARMgold). The impairment mainly relates to the decreased estimated profitability of the Freegold operations. The recoverable amount of the net assets was R3.8 billion (2018: R6.5 billion).

(ii) An impairment of R1.1 billion (2018: R1.5 billion) was recorded against Harmony's investment in Avgold Limited. The impairment mainly relates to the reduction of outside LOM years and grade at its Target 1 operation.

(iii) At 30 June 2018, Harmony capitalised R2.0 billion of the loan to Harmony Copper Limited in exchange for 306 236 no par value shares.

(iv) Includes amounts relating to the share-based payment expense for the subsidiary companies' employees Refer to note 29.

(b) (i) Included in loans to subsidiaries is a loan to TBO of R181 million (2018: R201 million). The non-current portion of this loan is R122 million (2018: R131 million). Refer to note 29 for details on the Phoenix transaction. The fair value of the loan is not materially different to its carrying amount since interest charged is at a floating interest rate. The fair value of the loan is based on discounted cash flows using a current interest rate. The determination of the fair value is level 3 in the fair value hierarchy due to the use of unobservable inputs.

(ii) Included in the provision for irrecoverable loans amount is a reversal relating to the loan to ARMgold. Refer to note 4.

(iii) In 2018, the company advanced a loan of R3.5 billion to a subsidiary company, Harmony Moab Khotsong Operations Proprietary Limited (formerly known as Coreland Property Investment Company (Proprietary) Limited), for the purchase of assets. The loan is unsecured and repayable on demand. Interest on the loan is charged at JIBAR + 2.9%. Refer to note 12 of the group financial statements for more information on the transaction.

The majority of the loans to/from subsidiaries are repayable on demand and therefore not past due. Refer to Annexure A for a detailed listing of the company's investments in subsidiaries and the loans to and from these companies.

16 INVESTMENTS IN ASSOCIATES

ACCOUNTING POLICY

Investments in associates are accounted for at cost and are adjusted for impairments where appropriate.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

The investments in associates are evaluated for impairment by comparing the entire carrying value of the investment (including loans to associates and preference shares) to the recoverable amount, which is the higher of value in use or fair value less costs to sell. Discounted cash flow models are used to calculate the net present value of the investments. The cash flows in the models include expected interest and capital payments on loans, dividends, redemption amounts and proceeds on disposal.

(a) Pamodzi was a gold mining company listed on the JSE with operations in South Africa. Harmony acquired 32.4% of Pamodzi when the group sold the Orkney operation in 2008 in exchange for a consideration of 30 million Pamodzi shares, initially valued at R345 million. Pamodzi was placed in liquidation in March 2009. The company had historically recognised accumulated impairments of R345 million reducing the carrying value of the investment to Rnil. Refer to note 17 of the group financial statements for further details. Refer to note 14 for detail of loans and receivables provided for by the company.

16 INVESTMENTS IN ASSOCIATES continued

(b) Rand Refinery provides precious metal smelting and refining services in South Africa. Harmony holds a 10.38% share in Rand Refinery. This investment is a strategic investment for the group as Rand Refinery is the only company that provides such services in South Africa. Although the group holds less than 20% of the equity shares of Rand Refinery, the group is able to exercise significant influence by virtue of having a right to appoint a director on the board. Through the 10.38% shareholding and the right to appoint a director on the board, the investment has been accounted for as an associate.

In December 2014, Rand Refinery drew down on a shareholder's loan of which Harmony's portion thereof was R120 million. Following an amended loan agreement signed on 5 June 2017, the loan was converted into cumulative redeemable preference shares of no par value. During 2019 Rand Refinery redeemed preference shares to the value of R32 million.

The movement in the investment in associate during the year is as follows:

	SA rand	
Figures in million	**2019**	2018
Balance at beginning of year	**71**	71
Redemption of preference shares	**(32)**	—
Balance at end of year	**39**	71

17 INVESTMENT IN JOINT OPERATIONS

DOORNKOP JV AGREEMENT

During the 2010 financial year, Harmony and Randfontein Estates Limited, a subsidiary of Harmony, entered into a joint arrangement for the operation of the Doornkop mine following Harmony's purchase of a 26% interest in the Doornkop mining right from African Vanguard Resources (Proprietary) Limited (AVRD) for a purchase consideration of R398 million. Harmony recognised the cost of the mineral rights as part of property, plant and equipment. The joint venture agreement entitles the company to a 16% share of the production profit or loss of the Doornkop mine.

For the 2018 financial year, an impairment of R11 million was recognised on the company's effective share of the recoverable amount attributable to the Doornkop JV as well as R30 million on the mining right from African Vanguard Resources (Proprietary) Limited (AVRD). Refer to note 3 for details. There was no impairment recorded for the 2019 financial year.

18 INVENTORIES

	SA rand	
Figures in million	**2019**	2018
Gold in-process and bullion on hand	**43**	30
Consumables at weighted average cost (net of provision)	**223**	232
Total current inventories	**266**	262
Inventory valued at net realisable value[1]	**3**	10

[1] During the 2019 financial year, a revaluation of Rnil (2018: R1 million) was recorded for the net realisable value adjustment for gold in lock-up. The balance at 30 June 2019 is R3 million (2018: R3 million) and is classified as non-current.

The total provision for slow-moving and redundant stock at 30 June 2019 was R17 million (2018: R17 million).

19 SHARE CAPITAL

AUTHORISED

1 200 000 000 (2018: 1 200 000 000) ordinary shares with no par value.
4 400 000 (2018: 4 400 000) convertible preference shares with no par value.

ISSUED

539 841 195 (2018: 500 251 751) ordinary shares with no par value. All issued shares are fully paid.
4 400 000 (2018: 0) convertible preference shares with no par value.

19 SHARE CAPITAL continued

SHARE ISSUES

Accelerated bookbuild
During June 2018, Harmony conducted a placement of new ordinary shares to qualifying investors to raise up to R1.26 billion, which represented approximately 15 per cent of the group's existing issued ordinary share capital prior to the placement. The placement was conducted through an accelerated bookbuild. The net proceeds of the placement were used to pay down part of the outstanding bridge loan raised for the acquisition of the Moab Khotsong operations. A total of 55 055 050 new ordinary shares were placed with existing and new institutional investors at a price of R19.12 per share, raising gross proceeds of R1.05 billion. Costs directly attributable to the issue of the shares amounted to R49 million.

As part of the accelerated bookbuild, ARM subscribed for an additional 11 032 623 shares at R19.12 a share in July 2018. The issue raised a further R211 million and resulted in ARM maintaining its shareholding of 14.29% post the placement of shares.

Share issues relating to employee share options
An additional 21 880 348 (2018: 5 239 502) shares were issued to settle the exercise of share options by employees relating to Harmony's management share option schemes. In the current financial year, Harmony implemented a new employee share option scheme referred to as the Sisonke Employee Share Ownership Plan. An amount of 6 700 000 shares were issued to the Harmony ESOP Trust as part of the new scheme. Note 29 sets out the details in respect of the share option schemes.

Convertible preference shares
On 20 February 2019, Harmony issued 4 400 000 million convertible preference shares to the Harmony Gold Community Trust. The convertible preference shares carry a minimum annual preference dividend of R2 per share and are convertible into ordinary shares on a 1:1 basis after the tenth anniversary of the date on which the shares were issued. The conversion is at the election of Harmony.

TREASURY SHARES

Included in the total of issued shares are the following treasury shares:

	Number of shares	
	2019	2018
Ordinary shares		
Lydenburg Exploration Limited[1]	**335**	335
Kalgold Share Trust[2]	**47 046**	47 046
Harmony ESOP Trust[2]	**6 592 900**	—
Convertible preference shares		
Harmony Gold Community Trust[2]	**4 400 000**	—

[1] A wholly-owned subsidiary of Harmony
[2] Trust controlled by the group of which Harmony is the parent company

20 OTHER RESERVES

	SA rand	
Figures in million	**2019**	2018
Equity instruments designated at fair value through other comprehensive income (a)	**80**	(2)
Repurchase of equity interest (b)	**3**	3
Equity component of convertible bond (c)	**277**	277
Share-based payments (d)	**2 199**	1 834
Post-retirement benefit actuarial gain/(loss) (e)	**4**	7
Hedge reserve (f)	**(3)**	—
Total other reserves	**2 560**	2 119

(a) Includes R82 million related to the fair value movement of Harmony's interest in Rand Mutual Assurance. Refer to note 14.

(b) The sale of 26% of the AVRD mining titles resulted in a R3 million repurchase of a call option (equity interest) by the company. Refer to note 24 of the group financial statements.

(c) Refer to note 24 of the group financial statements.

20 OTHER RESERVES continued

(d) The reconciliation of the movement in share-based payments is as follows:

	SA rand	
Figures in million	**2019**	2018
Balance at beginning of year	**1 834**	1 471
Share-based payments expensed (i)	**171**	53
Subsidiary employees share-based payments (ii)	**194**	310
Balance at the end of year	**2 199**	1 834

(i) Refer to note 33 in the group financial statements as well as note 29 in the company's financial statements.

(ii) Awards offered to employees providing services related to their employment in the group resulted in an increase in investment in subsidiaries. Refer to note 15.

(e) The actuarial gains or losses related to the post-retirement benefit obligation will not be reclassified to the income statement. The movement is as follows:

	SA rand	
Figures in million	**2019**	2018
Balance at beginning of year	**7**	2
Actuarial gain/(loss) for the year	**(4)**	6
Deferred tax	**1**	(1)
Balance at the end of year	**4**	7

(f) Harmony entered into rand gold hedging contracts. Cash flow hedge accounting is applied to certain of these contracts, resulting in the effective portion of the unrealised gains and losses being recorded in other comprehensive income (other reserves). Refer to note 13 for further information. Included in 2019 is a loss of R4 million, net of tax of R1 million.

21 PROVISION FOR ENVIRONMENTAL REHABILITATION

The company's mining and exploration activities are subject to extensive environmental laws and regulations. The company has made, and expects to make in the future, expenditures to comply with such laws and regulations, but cannot predict the full amount of such future expenditures. Estimated future reclamation costs are based principally on legal and regulatory requirements.

The following is a reconciliation of the total provision for environmental rehabilitation:

	SA rand	
Figures in million	**2019**	2018
Balance at beginning of year	**552**	521
Change in estimate - Balance sheet	**(13)**	(9)
Change in estimate - Income statement	**75**	40
Utilisation of provision	**(46)**	(36)
Time value of money and inflation component of rehabilitation costs	**40**	36
Balance at end of year	**608**	552

Refer to note 25 of the group financial statements for estimations and judgements used in the calculation.

21 PROVISION FOR ENVIRONMENTAL REHABILITATION continued

While the ultimate amount of rehabilitation costs to be incurred in the future is uncertain, the company has estimated its undiscounted cost for the operations, based on current environmental and regulatory requirements, as follows:

	SA rand	
Figures in million	**2019**	2018
Future net undiscounted obligation		
Ultimate estimated rehabilitation cost	**709**	660
Amounts invested in environmental trust funds (refer to note 11)	**(399)**	(426)
Total future net undiscounted obligation	**310**	234

The company intends to finance the ultimate rehabilitation costs from the money invested with environmental trust funds, as well as the proceeds on sale of assets and gold from plant clean-up at the time of mine closure. The company has guarantees, some cash-backed, in place relating to some of the environmental liabilities. Refer to note 10 and 31.

22 PROVISION FOR SILICOSIS SETTLEMENT

Refer to note 26 of the group financial statements for a discussion on the settlement provision. Refer to note 34 for the events after the reporting date. The following is a reconciliation of the company's provision for the silicosis settlement:

	SA rand	
Figures in million	**2019**	2018
Balance at beginning of year	**724**	717
Change in estimate	**(48)**	(53)
Time value of money and inflation component	**62**	60
Balance at end of year	**738**	724

The group's obligation has been allocated to the companies within the group based on the number of employees at an operation over a period of time. As holding company of the group, Harmony is liable for and will be obligated to settle the portion for companies that no longer form a part of the group.

Sensitivity analysis

The impact of a reasonable change in certain key assumptions would increase or decrease the provision amount by the following:

	SA rand	
Figures in million	**2019**	2018
Effect of an increase in the assumption:		
Change in benefit take-up rate[1]	**52**	51
Change in silicosis prevalence[2]	**52**	51
Change in disease progression rates[3]	**26**	25
Effect of a decrease in the assumption:		
Change in benefit take-up rate[1]	**(52)**	(51)
Change in silicosis prevalence[2]	**(52)**	(51)
Change in disease progression rates[3]	**(26)**	(25)

[1] Change in benefit take-up rate: the take-up rate does not affect the legal cost allocation, but a 10% change results in a proportionate change in the other values.
[2] Change in silicosis prevalence: the assumptions that will result in a change in the estimated number of cases are either a 10% change in the assumed labour number or a 10% change in the disease risk.
[3] Change in disease progression rates: a one year shorter/longer disease progression period was used. This assumption is not applicable to the dependant or TB classes.

23 RETIREMENT BENEFIT OBLIGATION

Pension and provident funds: Refer to note 27(a) of the group financial statements. Funds contributed by the company for the 2019 financial year amounted to R135 million (2018: R131 million).

Post-retirement benefits other than pensions: Refer to note 27(b) of the group financial statements for a discussion of the obligation, risk and assumption used. The disclosure below relates to the company only.

	SA rand	
Figures in million	**2019**	2018
Present value of unfunded obligations	**23**	19
Current employees	**10**	10
Retired employees	**13**	9
The reconciliation of the liability is as follows:		
Balance at beginning of year	**19**	23
Contributions paid	**(2)**	(1)
Other expenses included in staff costs/current services cost	**—**	1
Finance costs	**2**	2
Net actuarial (gain)/loss recognised during the year[1]	**4**	(6)
Balance at end of year	**23**	19

[1] The net actuarial gain/loss has been recorded in other comprehensive income.

	SA rand	
Figures in million	**2019**	2018
The net liability of the defined benefit plan is as follows:		
Present value of defined benefit obligation	**23**	19
Fair value of plan assets	**—**	—
Net liability of defined benefit plan	**23**	19

The impact of a percentage point increase and decrease in the assumed medical cost trend rate is as follows:

	SA rand	
Figures in million	**2019**	2018
Effect of a 1% increase on:		
Aggregate of service cost and finance costs	**—**	—
Defined benefit obligation	**3**	2
Effect of a 1% decrease on:		
Aggregate of service cost and finance costs	**—**	—
Defined benefit obligation	**(2)**	(2)

The above sensitivity analysis is based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. The analysis is performed on the same basis for 2018.

The weighted average duration of the defined benefit obligation is 13.8 years. The company expects to contribute approximately R1 million to the benefit plan in 2020.

24 OTHER NON-CURRENT LIABILITES

	SA rand	
Figures in million	**2019**	2018
Non-financial liabilities		
TBO share-based payment liability (a)	**58**	125
Preference share liability (b)	**48**	—
Total other non-current liabilities	**106**	125

(a) The liability relates to the disposal of an equity interest of TBO to BEE shareholders by Harmony on 25 June 2013. The award to the BEE partners has been accounted for as in-substance options, as the BEE partners will only share in the upside, and not the downside, of their equity interest in TBO until the date the financial assistance provided by Harmony is fully paid. The award of the options to the BEE partners is accounted for as a cash-settled share-based payment arrangement in the company financial statements as the award will be settled through the issue of shares in TBO. Refer to note 29 for more information.

(b) During the current financial year, Harmony issued 4 400 000 convertible preference shares to the Harmony Community Trust. The shares carry a minimum preference dividend of R2 per annum for the duration of a lock-in period of ten years and are convertible into ordinary shares at Harmony's election after the expiry of the lock-in period. The liability represents the non-current portion of the present value of the future preference divided payments. The current portion is included in trade and other payables. Refer to note 34(c) for subsequent events.

25 BORROWINGS

SUMMARY OF FACILITIES' TERMS

	Commenced	Tenor (Years)	Matures	Secured	Security	Interest payment basis	Interest charge	Repayment term	Repaid
R1 billion revolving credit facility	February 2017	Three	February 2020	Yes	Cession and pledge of operating subsidiaries' shares and claims	Variable	JIBAR + 3.15%	On maturity	November 2018
R2 billion facility	November 2018	Four	November 2022	Yes	Cession and pledge of operating subsidiaries' shares and claims	Variable			
- R600 million term loan							JIBAR + 2.9%	Eight equal quarterly instalments with the final instalment on maturity	
- R1.4 billion revolving credit facility							JIBAR + 2.8%	On maturity	
US$350 million facility	July 2017	Three	July 2020	Yes	Cession and pledge of operating subsidiaries' shares and claims	Variable		On maturity	
- US$175 million revolving credit facility							LIBOR + 3.0%		
- US$175 million term loan							LIBOR + 3.15%		
US$200 million bridge loan	October 2017	One	October 2018	Yes	Cession and pledge of operating subsidiaries' shares and claims	Variable		On maturity	July 2018
						First 6 months	LIBOR + 2.5%		
						Next 3 months	LIBOR + 3.0%		
						Last 3 months	LIBOR + 3.5%		

25 BORROWINGS

DEBT COVENANTS

The debt covenant tests for both the rand and US dollar revolving credit facilities are as follows:

- The group's interest cover ratio shall be more than five (EBITDA[1]/Total interest paid);
- Tangible Net Worth[2] to total net debt ratio shall not be less than four times or six times when dividends are paid;
- Leverage[3] shall not be more than 2.5 times.

[1] Earnings before interest, taxes, depreciation and amortisation (EBITDA) as defined in the agreement excludes unusual items such as impairment and restructuring cost.
[2] Tangible Net Worth is defined as total equity less intangible assets.
[3] Leverage is defined as total net debt to EBITDA.

At the time of entering into the bridge loan the Tangible Net Worth to total net debt ratio covenant was renegotiated and relaxed from six times to four times for the full term of the bridge loan. With the refinancing of the rand facility in November 2018, the ratio was set at 4.5 times and subsequently set at four times or from eight to six times if dividends are paid at the start of the US$ facility refinancing process in May 2019 (see note 34). No breaches of the covenants were identified during the tests in the 2018 and 2019 financial years.

INTEREST BEARING BORROWINGS

	SA rand	
Figures in million	**2019**	2018
Non-current borrowings		
R1 billion revolving credit facility	**—**	497
Balance at beginning of year	**497**	299
Draw down	**500**	500
Repayments	**—**	(300)
Refinancing	**(997)**	—
Issue cost	**—**	(2)
R2 billion facility	**1 489**	—
Refinancing	**1 000**	—
Draw down	**700**	—
Repayments	**(200)**	—
Issue costs	**(16)**	—
Amortisation of issue costs	**5**	—
US$350 million facility	**4 143**	4 427
Balance at beginning of year	**4 427**	—
Draw down	**—**	4 127
Repayments	**(422)**	—
Issue cost	**—**	(94)
Amortisation of issue costs	**44**	33
Translation	**94**	361
Total non-current borrowings	**5 632**	4 924

26 TRADE AND OTHER PAYABLES

Figures in million	SA rand **2019**	 2018
Financial liabilities		
Trade payables	**254**	144
Other liabilities	**59**	50
Non-financial liabilities		
Payroll accruals	**310**	345
Leave liability (a)	**87**	83
Shaft related and other accruals	**80**	118
Value added tax	**98**	84
Total trade and other payables	**888**	824

(a) Leave liabilities

Employee entitlements to annual leave are recognised on an ongoing basis. An accrual is made for the estimated liability for annual leave as a result of services rendered by employees up to the balance sheet date. The movement in the liability recognised in the balance sheet is as follows:

Figures in million	SA rand **2019**	 2018
Balance at beginning of year	**83**	74
Benefits paid	**(93)**	(88)
Total expense per income statement	**97**	97
Balance at end of year	**87**	83

26 TRADE AND OTHER PAYABLES

	SA rand	
Figures in million	**2019**	2018
Financial liabilities		
Trade payables	**254**	144
Other liabilities	**60**	50
Non-financial liabilities		
Payroll accruals	**310**	345
Leave liability (a)	**87**	83
Shaft related and other accruals	**80**	118
Value added tax	**98**	84
Total trade and other payables	**889**	824

(a) Leave liabilities

Employee entitlements to annual leave are recognised on an ongoing basis. An accrual is made for the estimated liability for annual leave as a result of services rendered by employees up to the balance sheet date. The movement in the liability recognised in the balance sheet is as follows:

	SA rand	
Figures in million	**2019**	2018
Balance at beginning of year	**83**	74
Benefits paid	**(93)**	(88)
Total expense per income statement	**97**	97
Balance at end of year	**87**	83

27 CASH GENERATED BY OPERATIONS

Figures in million	SA rand **2019**	 2018
Reconciliation of loss before taxation to cash generated by operations:		
Loss before taxation	**(4 013)**	(3 218)
Adjustments for:		
Amortisation and depreciation	**234**	407
Impairment of assets	**—**	1 003
Share-based payments	**172**	53
Net increase/(decrease) in provision for environmental rehabilitation	**29**	1
Impairment of investment in subsidiaries	**3 887**	1 530
Reversal of impairment of investments in subsidiaries	**—**	(214)
Net gain on financial instruments	**(21)**	(4)
Dividends received	**(4)**	(4)
Interest received	**(516)**	(292)
Finance costs	**487**	328
Inventory adjustment	**(18)**	(6)
Provision for doubtful debts expense	**(27)**	9
Silicosis settlement provision	**(48)**	(53)
Foreign exchange translation	**74**	668
Non-cash portion of gains on derivatives	**(47)**	161
Preference share dividend liability expense	**55**	—
Other non-cash adjustments	**81**	(23)
Effect of changes in operating working capital items		
Receivables	**(74)**	(122)
Inventories	**13**	(49)
Payables	**19**	179
Cash generated by operations	**283**	354

ADDITIONAL CASH FLOW INFORMATION

The income and mining taxes paid in the statement of cash flow represents actual cash paid less refunds received.

At 30 June 2019, R1 277 million (2018: R845 million) of borrowing facilities had not been drawn down and is therefore available for future operating activities and future capital commitments. Refer to note 25.

Principal non-cash transactions

Share-based payments (refer to note 29).

Investment in subsidiaries arising from share-based payments (refer to note 15).

Capitalisation of the Harmony Copper intercompany loan (refer to note 15).

28 EMPLOYEE BENEFITS

Figures in million	SA rand 2019	SA rand 2018
Aggregate earnings		
The aggregate earnings of employees including executive directors were:		
Salaries and wages and other benefits (excluding share-based payments)	**1 734**	1 809
Retirement benefit costs	**135**	138
Medical aid contributions	**53**	51
Total aggregated earnings*	**1 922**	1 998
Number of permanent employees as at 30 June	**4 457**	4 906

* These amounts have been included in cost of sales, corporate expenditure and capital expenditure.

Remuneration for directors and executive management is fully disclosed in Annexure B of this report.

During the 2019 financial year R35 million (2018: R62 million) was included in the payroll cost for termination costs. Termination costs include the costs relating to the voluntary retrenchment process as well as retrenchments due to shaft closures.

29 SHARE-BASED PAYMENTS

The total cost relating to share-based payments for the company is made up as follows:

Figures in million	SA rand 2019	SA rand 2018
2006 share plan	**32**	53
Sisonke Employee Share Ownership Plan	**4**	—
Harmony Community Trust Preference Shares	**136**	—
Total share-based payments	**172**	53

EMPLOYEE SHARE-BASED PAYMENTS

The objective of the group's share-based payment schemes is to recognise the contributions of employees to the group's financial position and performance and to retain key employees.

Options granted under the 2006 share plan

Refer to note 33 of the group financial statements for the information relating to the 2006 share plan. The following information relates specifically to the company.

29 SHARE-BASED PAYMENTS continued

EMPLOYEE SHARE-BASED PAYMENTS continued

Options granted under the 2006 share plan continued

Activity on share options

	SARs		PS	RS
Activity on options and rights granted but not yet exercised	**Number of options and rights**	**Weighted average option price (SA rand)**	**Number of rights**	**Number of rights**
For the year ended 30 June 2019				
Balance at beginning of year	**5 144 886**	**30.30**	**24 964 324**	**394 056**
Options exercised	**(731 607)**	**27.29**	**(11 726 525)**	**(394 056)**
Options forfeited and lapsed	**(856 739)**	**56.97**	**(475 346)**	**—**
Balance at end of year	**3 556 540**	**26.39**	**12 762 453**	**—**
For the year ended 30 June 2018				
Balance at beginning of year	6 291 929	32.83	22 092 730	459 048
Options granted	—	—	8 377 135	—
Transfers	(101 180)	30.30	(757 564)	23 008
Options exercised	(421 823)	18.41	(2 255 849)	(88 000)
Options forfeited and lapsed	(624 040)	63.92	(2 492 128)	—
Balance at end of year	5 144 886	30.30	24 964 324	394 056

	SARs		PS and RS	
Options and rights vested but not exercised at year end	**2019**	2018	**2019**	2018
Options and rights vested but not exercised	**3 011 432**	2 806 294	**—**	—
Weighted average option price (SA rand)	**27.83**	36.62	**n/a**	n/a

List of options and rights granted but not yet exercised (listed by allocation date)	**Number of options and rights**	**Award price (SA rand)**	**Remaining life (years)**
As at 30 June 2019			
Share appreciation rights			
15 November 2013	**1 921 216**	**33.18**	**0.4**
17 November 2014	**1 635 324**	**18.41**	**1.4**
	3 556 540		
Performance shares			
29 November 2016	**4 840 246**	**n/a**	**0.4**
15 November 2017	**7 922 207**	**n/a**	**1.4**
	12 762 453		
Total options and rights granted but not yet exercised	**16 318 993**		

29 SHARE-BASED PAYMENTS continued

EMPLOYEE SHARE-BASED PAYMENTS continued

Options granted under the 2006 share plan continued

Activity on share options continued

	SA rand	
Figures in million	**2019**	2018
Gain realised by participants on options and rights traded during the year	**278**	98
Fair value of options and rights exercised during the year	**280**	110

Options granted under the Sisonke ESOP

Refer to note 33 of the group financial statements for the information relating to the Sisonke ESOP. The following information relates specifically to the company.

Activity on share options

	Number of PU	
Activity on PU granted	**2019**	2018
Balance at beginning of year	**—**	—
PU granted and accepted	**784 684**	—
Options exercised	**(19 718)**	—
Options forfeited and lapsed	**(3 058)**	—
Balance at end of year	**761 908**	—

	2019	2018
Gain realised by participants on options exercised during the year (R'million)	**1**	—
Weighted average share price at the date of exercise (SA rand)	**26.98**	—
Remaining life (years)	**2.5**	—

OTHER SHARE-BASED PAYMENTS

Harmony Community Trust Preference Shares

During the current financial period, Harmony issued 4 400 000 convertible preference shares to the Harmony Community Trust (the HCT). The purpose of the transaction is to increase the benefits flowing to the communities in which Harmony operates. The preference shares rank *pari passu* with the ordinary shares of the company except for the following:
- The HCT is prohibited from disposing of the preference shares for a restricted period of ten years;
- The preference shares are convertible in to ordinary shares after the expiry of the restricted period at the company's election;
- For the duration of the restricted period, the HCT is entitled to exercise and enjoy the benefit of all voting and dividend and other rights attached to the preference shares;
- For the duration of the restricted period, the preference shares will be entitled to a minimum dividend of R2 per preference share;
- On expiry of the restricted period, the company has the first option to purchase the shares should the HCT intend to dispose of its shareholding.

Measurement

The transaction is an equity-settled share-based payment arrangement and vested on the date of issue of the preference shares. An amount of R136 million is included in the share-based payment reserve relating to the transaction. The amount was determined with reference to the spot share price of R30.83 on the vesting date as there were no vesting conditions attached to the issue.

29 SHARE-BASED PAYMENTS continued

OTHER SHARE-BASED PAYMENTS continued

Phoenix option

On 20 March 2013 Harmony signed transaction and funding agreements to give effect to an empowerment transaction to dispose of 30% of its Free State based Phoenix operation (Phoenix) to BEE shareholders, which includes a free-carry allocation of 5% to a community trust that has been created and is currently controlled by Harmony. The transaction closed on 25 June 2013, following the fulfilment of the last condition precedent. In terms of the agreements Phoenix was transferred to a newly incorporated subsidiary Tswelopele Beneficiation Operation (TBO).

The awards to the BEE partners have been accounted for as in-substance options as the BEE partners will only share in the upside, and not the downside of their equity interest in TBO until the date the financing provided by Harmony is fully repaid. On this date the options will be exercised. The award of the options to the BEE partners is accounted for by the company as a cash-settled share-based payment arrangement, as the company is settling the transaction in TBO's shares and not its own equity instruments.

The cash-settled share-based payment has been recognised as a liability in the balance sheet, the fair value of which will be remeasured at each reporting date. Any changes in fair value are recognised against the company's investment in TBO.

At 30 June 2019, the carrying value of the liability is R58 million (2018: R125 million). Refer to note 24.

Measurement

The share-based cost was calculated using the Monte Carlo simulation. The fair value of the option is the difference between the expected future enterprise value of TBO and the expected loan balances at redemption date, and the present value of the trickle dividend determined in accordance with the cash flow waterfall per the signed transaction and funding arrangements.

The following assumptions were applied:

	2019	2018
Business value (R'million)	**370**	517
Exercise price (R'million)	**2**	2
Risk-free interest rate	**6.94%**	7.41%
Expected volatility*	**51.68%**	55.00%
Expected dividend yield	**1.84%**	9.90%
Vesting period (from grant date)	**7.5 years**	7.5 years
Equity value attributable to the BEE partners	**25.00%**	25.00%
Expected redemption date	**31 December 2020**	31 December 2020

* The volatility is measured in relation to a comparable listed company's share price volatility.

30 RELATED PARTIES

Refer to note 34 in the group financial statements for a discussion on related parties. The services rendered to the subsidiary companies relate primarily to general administration and financial functions.

All the production of the company is sent to Rand Refinery in which Harmony holds a 10.38% interest. Refer to note 16.

All loans except as stated otherwise are unsecured and interest-free and there are no special terms and conditions that apply.

Annexure A of this report contains a full list of the loans to and from subsidiaries. Refer to note 15 for details of provisions made against these loans.

	SA rand	
Figures in million	**2019**	2018
Sales and services rendered to related parties		
Direct subsidiaries	**20 050**	15 757
Indirect subsidiaries	**816**	780
Total	**20 866**	16 537
Purchases and services acquired from related parties		
Direct subsidiaries	**1**	1
Directors	**4**	6
Total	**5**	7

	SA rand	
Figures in million	**2019**	2018
Outstanding balances due by related parties		
Direct subsidiaries	**5 945**	5 955
Indirect subsidiaries	**—**	9
Total	**5 945**	5 964
Outstanding balances due to related parties		
Direct subsidiaries	**4 908**	5 283
Indirect subsidiaries	**501**	578
Total	**5 409**	5 861

31 COMMITMENTS AND CONTINGENCIES

COMMITMENTS AND GUARANTEES

	SA rand	
Figures in million	**2019**	2018
Capital expenditure commitments		
Contracts for capital expenditure	**30**	22
Authorised by the directors but not contracted for	**19**	59
Total capital commitments	**49**	81

This expenditure will be financed from existing resources and, where appropriate, borrowings.

31 COMMITMENTS AND CONTINGENCIES continued

COMMITMENTS AND GUARANTEES continued

Figures in million	SA rand 2019	2018
Guarantees		
Guarantees and suretyships	**7**	7
Environmental guarantees	**317**	317
Total guarantees	**324**	324

At 30 June 2019, R89 million (2018: R75 million) has been pledged as collateral for environmental guarantees in favour of certain financial institutions. Refer to note 10.

Refer to note 35 (b), (c) and (d) of the group financial statements for a discussion on contingent liabilities relevant to the company.

32 FINANCIAL RISK MANAGEMENT

The company's financial instruments expose it to a variety of financial risks: market risk (including currency risk, cash flow interest rate risk and other price risk), credit risk and liquidity risk. The company may use derivative financial instruments to hedge certain risk exposures.

Risk management is carried out by a central treasury department (Group treasury) under policies approved by the board of directors. Group treasury identifies, evaluates and hedges certain selected financial risks in close cooperation with the group's operating units.

The audit and risk committee and the board provides written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest rate risk, credit risk, use of derivative financial instruments and non-derivative financial instruments, and the investment of excess liquidity.

The company's financial assets and liabilities are set out below:

Figures in million (SA rand)	Debt instruments at amortised cost	Equity instruments designated at fair value through OCI	Derivatives designated as cash flow hedges*	Derivatives at fair value through profit or loss	Debt instruments at fair value through profit or loss	Financial liabilities at amortised cost
At 30 June 2019						
Financial assets						
Restricted cash	**89**	**—**	**—**	**—**	**—**	**—**
Restricted investments	**274**	**—**	**—**	**—**	**153**	**—**
Loans to subsidiaries	**5 945**	**—**	**—**	**—**	**—**	**—**
Other non-current assets	**4**	**55**	**—**	**—**	**271**	**—**
Non-current derivative financial instruments	**—**	**—**	**—**	**19**	**—**	**—**
Current derivative financial instruments	**—**	**—**	**2**	**31**	**—**	**—**
Trade and other receivables	**526**	**—**	**—**	**—**	**—**	**—**
Cash and cash equivalents	**613**	**—**	**—**	**—**	**—**	**—**
Financial liabilities						
Non-current derivative financial instruments	**—**	**—**	**—**	**14**	**—**	**—**
Current derivative financial instruments	**—**	**—**	**5**	**26**	**—**	**—**
Borrowings	**—**	**—**	**—**	**—**	**—**	**5 632**
Loans from subsidiaries	**—**	**—**	**—**	**—**	**—**	**5 409**
Trade and other payables	**—**	**—**	**—**	**—**	**—**	**314**

32 FINANCIAL RISK MANAGEMENT continued

The company's financial assets and liabilities are set out below:

Figures in million (SA rand)	Loans and receivables	Available-for-sale financial assets	Held-to-maturity investments	Hedging instruments	Fair value through profit or loss	Financial liabilities at amortised cost
At 30 June 2018						
Financial assets						
Restricted cash	75	—	—	—	—	—
Restricted investments	1	—	301	—	157	—
Investments in financial assets	—	—	—	—	—	—
Loans to subsidiaries	5 964	—	—	—	—	—
Other non-current assets	273	3	—	—	—	—
Non-current derivative financial instruments	—	—	—	—	10	—
Current derivative financial instruments	—	—	—	—	68	—
Trade and other receivables	514	—	—	—	—	—
Cash and cash equivalents	615	—	—	—	—	—
Financial liabilities						
Non-current derivative financial instruments	—	—	—	—	1	—
Current derivative financial instruments	—	—	—	—	25	—
Borrowings	—	—	—	—	—	5 614
Loans from subsidiaries	—	—	—	—	—	5 861
Trade and other payables	—	—	—	—	—	194

* Relates to a portion of the rand gold hedging contracts. Refer to note 13.

MARKET RISK

Foreign exchange risk

Foreign exchange risk arises from future commercial transactions and recognised assets and liabilities. Foreign exchange risk arises when future commercial transactions or recognised assets or liabilities are denominated in a currency that is not the entity's functional currency. There is foreign exchange risk arising from borrowings denominated in a currency other than the functional currency of that entity. In addition, foreign exchange risk arises from various currency exposures, primarily with respect to the US dollar (US$). Harmony's revenues are sensitive to the R/US$ exchange rate as all revenues are generated by gold sales denominated in US$.

Harmony maintains a foreign currency hedging programme in order to manage the foreign exchange risk. Refer to note 13 for details of the contracts. The audit and risk committee review the details of the programme quarterly. The company is exposed to foreign exchange risk arising from borrowings and cash denominated in a currency other than its functional currency.

The company has reviewed its foreign currency exposure on financial assets and financial liabilities as at 30 June 2019 and 2018 and has identified the following sensitivities for a change of 10% in the exchange rate that would affect profit or loss. Management considers a range between 10% and 20% to be a reasonable change given the recent volatility in the market. The analysis has been performed on the same basis for 2018.

32 FINANCIAL RISK MANAGEMENT continued

MARKET RISK continued

Foreign exchange risk continued

	SA rand	
Figures in million	**2019**	2018
Sensitivity analysis - borrowings		
Rand against US$		
Balance at 30 June	**4 143**	5 114
Strengthen by 10%	**414**	511
Weaken by 10%	**(414)**	(511)
Closing rate	**14.13**	13.81
Sensitivity analysis - financial instruments		
Rand against US$		
Balance at 30 June	**41**	(16)
Strengthen by 10%	**51**	96
Weaken by 10%	**(136)**	(90)
Closing rate	**14.13**	13.81

Commodity price sensitivity

The profitability of the company's operations, and the cash flows generated by those operations, are affected by changes in the market price of gold. Harmony entered into derivative contracts to manage the variability in cash flows from the company's production, in order to create cash certainty and protect the company against lower commodity prices. The general limit for gold hedging currently set by the Board is 20% for a 24-month period for the Harmony group. In response to the increase in the rand gold price, this limit was temporarily increased to 24% just before year-end to accommodate additional hedging for certain more marginal operations. The additional hedging includes Harmony company's Unisel and Masimong operations for which cash flow hedging is applied to 50% of these operation's production for the 2020 financial year. This increased limit normalises back to 20% by the end of the 2020 financial year.

Management continues to top up these programmes as and when opportunities arise to lock in attractive margins for the business, but are not required to maintain hedging at these levels. The audit and risk committee review the details of the programme quarterly.

Refer to note 13 and the fair value determination for financial assets and liabilities section below for further detail on these contracts.

The company has reviewed its exposure to commodity linked instruments and has identified the following sensitivities for a 10% change in the commodity price specified per contract that would affect other comprehensive income or profit and loss . Management considers a range between 10% and 20% to be a reasonable change given the recent volatility in the market. The analysis has been performed on the same basis for 2018.

	SA rand	
Figures in million	**2019**	2018
Sensitivity analysis		
Rand gold derivatives		
Profit or loss		
Increase by 10%	**(23)**	(75)
Decrease by 10%	**22**	74
Other comprehensive income		
Increase by 10%	**(102)**	—
Decrease by 10%	**104**	—

32 FINANCIAL RISK MANAGEMENT continued

MARKET RISK continued

Other price risk

The company is exposed to the risk of fluctuations in the fair value of the fair value through profit or loss financial assets as a result of changes in market prices (other than changes in interest rates and foreign currencies). Harmony generally does not use any derivative instruments to manage this risk.

Sensitivity analysis

Certain of the restricted investments are linked to the Top 40 Index on the JSE. A 10% increase in the Top 40 index at the reporting date, with all other variables held constant, would have increased profit or loss by R5 million (2018: R6 million); an equal change in the opposite direction would have decreased profit or loss by R1 million (2018: R5 million).

Interest rate risk

The company's interest rate risk arises mainly from long-term borrowings. The company has variable interest rate borrowings. Variable rate borrowings expose the company to cash flow interest rate risk. The company has not entered into interest rate swap agreements as this is a risk that management is prepared to take. The audit and risk committee reviews the exposures quarterly.

Interest rate risk arising from long-term borrowings is offset by cash, restricted cash and restricted investments held at variable rates.

A change of 100 basis points in interest rates at the reporting date would have increased/(decreased) profit or loss before tax by the amounts shown below. This analysis assumes that all other variables remain constant. The analysis was performed on the same basis for 2018.

	SA rand	
Figures in million	**2019**	2018
Sensitivity analysis - borrowings (finance costs)		
Increase by 100 basis points	**(58)**	(56)
Decrease by 100 basis points	**58**	56
Sensitivity analysis - financial assets (interest received)		
Increase by 100 basis points	**50**	10
Decrease by 100 basis points	**(50)**	(10)

CREDIT RISK

Credit risk is the risk that a counterparty may default or not meet its obligations timeously. Financial instruments which subject the company to concentrations of credit risk consist predominantly of restricted cash, restricted investments, derivative financial assets, trade and other receivables (excluding non-financial instruments) and cash and cash equivalents.

Exposure to credit risk on trade and other receivables is monitored on a regular basis. The credit risk arising from restricted cash, cash and cash equivalents and restricted investments is managed by ensuring amounts are only invested with financial institutions of good credit quality. The contracts for derivative financial assets were entered into with counterparties that satisfy the criterion set by the board. The company has policies that limit the amount of credit exposure to any one financial institution. The audit and risk committee reviews the exposure on a quarterly basis.

Refer to note 4 in the group financial statements for a discussion on South Africa's credit ratings.

32 FINANCIAL RISK MANAGEMENT continued

CREDIT RISK continued

Financial institutions' credit rating by exposure (Source: Fitch Ratings and Global Credit Ratings)

	SA rand	
Figures in million	**2019**	2018
Cash and cash equivalents		
AA	**613**	615
	613	615
Restricted cash		
AA+	**—**	53
AA	**89**	22
	89	75
Restricted investments (environmental trusts)		
AA+	**—**	273
AA	**399**	153
	399	426
Derivative financial assets		
AA+	**—**	19
AA	**40**	50
AA-	**7**	9
A+	**5**	—
	52	78

The social plan trust fund of R28 million (2018: R33 million) has been invested in unit trusts comprising shares in listed companies.

The company's maximum exposure to credit risk is represented by the carrying amount of all financial assets determined to be exposed to credit risk, amounting to R1 982 million as at 30 June 2019 (2018: R2 017 million).

Expected credit loss assessment

The company determines expected credit losses on cash and cash equivalents, restricted cash, restricted investments and trade and other receivables on the same basis as described in note 4 of the consolidated financial statements. Expected credit losses on loans to subsidiaries are determined as described in note 15 of the company financial statements. The majority of the loans to subsidiaries are repayable on demand and therefore not past due.

LIQUIDITY RISK

Prudent liquidity risk management implies maintaining sufficient cash and marketable securities, and the availability of funding through an adequate amount of committed credit facilities.

In the ordinary course of business, the company receives cash from its operations and is required to fund working capital and capital expenditure requirements. Management prepares cash flow forecasts weekly and ensures that surplus funds are invested in a manner to achieve market related returns and to provide sufficient liquidity at the minimum risk. The group maintains and refinances committed credit facilities as medium-term forecasts require. The audit and risk committee reviews the updated forecasts quarterly. The company is able to actively source financing at competitive rates. Where necessary, funds will be drawn from its revolving credit facilities (refer to note 25).

32 FINANCIAL RISK MANAGEMENT continued

LIQUIDITY RISK continued

The following are the undiscounted contractual maturities of financial liabilities (including principal and interest payments assuming the closing R/US$ exchange rate and interest rate at year end):

Figures in million	SA rand Current	SA rand More than 1 year
2019		
Trade and other payables (excluding non-financial liabilities)	**314**	**—**
Derivative financial liabilities	**29**	**20**
Borrowings		
Due between 0 to six months	**192**	**—**
Due between six to 12 months	**192**	**—**
Due between one to two years	**—**	**4 483**
Due between two to four years	**—**	**1 512**
	727	**6 015**
2018		
Trade and other payables (excluding non-financial liabilities)	194	—
Derivative financial liabilities	15	12
Borrowings		
Due between 0 to six months	702	—
Due between six to 12 months	—	—
Due between one to two years	—	584
Due between two to five years	—	5 002
	911	5 598

CAPITAL RISK MANAGEMENT

The primary objective of managing the company's capital is to ensure that there is sufficient capital available to support the funding requirements of the company, in a way that optimises the cost of capital and matches the current strategic business plan.

The company manages and makes adjustments to the capital structure, which consists of debt and equity as and when borrowings mature or when funding is required. This may take the form of raising equity, market or bank debt or hybrids thereof. In doing so, the group ensures it stays within the debt covenants agreed with lenders (refer to note 25 for details on the covenants). The company may also sell assets to reduce debt or schedule projects to manage the capital structure.

During 2018 the level of gearing increased with R3 825 million due to the funding required for the acquisition by the group of the Moab Khotsong operations (refer to note 12 of the group financial statements). However, the group continues to follow a conservative approach to debt and prefers to maintain low levels of gearing.

Net debt is as follows:

Figures in million	SA rand 2019	SA rand 2018
Cash and cash equivalents	**613**	615
Borrowings	**(5 632)**	(5 614)
Net debt	**(5 019)**	(4 999)

There were no changes to the company's approach to capital management during the year.

32 FINANCIAL RISK MANAGEMENT continued

FAIR VALUE DETERMINATION OF FINANCIAL ASSETS AND LIABILITIES

The fair value levels of hierarchy are as follows:

Level 1: Quoted prices (unadjusted) in active markets for identical assets;
Level 2: Inputs other than quoted prices included within level 1 that are observable for the asset, either directly (that is, as prices) or indirectly (that is, derived from other prices);
Level 3: Inputs for the asset that are not based on observable market data (that is, unobservable inputs).

The following table sets out the company's assets and liabilities measured at fair value by level within the fair value hierarchy:

	SA rand			
Figures in million	**At 30 June 2019**		**At 30 June 2018**	
	Level 2	**Level 3**	**Level 2**	**Level 3**
Fair value through other comprehensive income				
Other non-current assets (a)	**—**	**55**	—	3
Fair value through profit or loss				
Restricted investments (b)	**153**	**—**	157	—
Derivative financial assets (c)	**52**	**—**	78	—
Derivative financial liabilities (c)	**(45)**	**—**	(26)	—
Other non-current assets (d)	**—**	**271**	—	—

(a) The increase in level 3 fair value measurement relates to the equity investment in Rand Mutual Assurance previously carried at cost. Refer to note 1. The fair value of the investment was estimated with reference to an independent valuation. The valuation was performed using a discounted cash flow model. In valuating the company's share of the business, common practice marketability and minority discounts as well as additional specific risk discounts were applied.

(b) The majority of the balance is directly derived from the Top 40 index on the JSE, and is discounted at market interest rate. This relates to equity-linked deposits in the group's environmental rehabilitation trust funds. The balance of the environmental trust funds are carried at amortised cost and therefore not disclosed here.

(c) The mark-to market remeasurement of the derivative contracts was determined as follows:
- Forex hedging contracts comprise of zero cost collars and FECs:
  The zero cost collars were valued using a Black-Scholes valuation technique derived from spot rand/US$ exchange rate inputs, implied volatilities on the rand/US$ exchange rate, rand/US$ inter-bank interest rates and discounted at market interest rate (zero-coupon interest rate curve). The value of the FECs is derived from the forward rand/US$ exchange rate and discounted at market interest rate (zero-coupon interest rate curve).
- Rand gold hedging contracts (forward sale contracts): spot Rand/US$ exchange rate, Rand and dollar interest rates (forward points), spot US$ gold price, differential between the US interest rate and gold lease interest rate which is discounted at market interest rate.

(d) The increase in level 3 fair value measurement relates to the ARM BBEE loan that was previously carried at amortised cost. Refer to note 14. The fair value was calculated using a discounted cash flow model taking into account projected interest payments and the projected share price for African Rainbow Minerals Limited (ARM) on the expected repayment date.

The carrying values (less any impairment allowance) of short-term financial instruments are assumed to approximate their fair values.

The fair values of borrowings are not materially different to their carrying amounts since the interest payable on those borrowings is at floating interest rates. The fair value of borrowings are based on discounted cash flows using a current borrowing rate. The determination of the fair values are level 3 in the fair value hierarchy due to the use of unobservable inputs, including own credit risk.

33 GOING CONCERN

The financial statements are prepared on a going concern basis. In accordance with the solvency and liquidity test in terms of section 4 of the Companies Act, the board is of the opinion that the company has adequate resources and that:

* the company's assets, fairly valued, exceeds its liabilities, fairly valued; and
* the company will be able to pay its debts as they become due in the ordinary course of business for the 12 months following 30 June 2019.

34 SUBSEQUENT EVENTS

(a) On 26 July 2019, the Johannesburg High Court approved the R5.2bn settlement of the silicosis and tuberculosis class action suit between the Occupational Lung Disease Working Group – representing Gold Fields, African Rainbow Minerals, Anglo American SA, AngloGold Ashanti, Harmony and Sibanye Stillwater – and lawyers representing affected mineworkers. After a mandatory three-month period, during which potential beneficiaries can opt out of the settlement agreement, the settlement funds will be used to establish the Tshiamiso Trust. The trust will track and trace class members, process all submitted claims, including the undertaking of benefit medical examinations, and pay benefits to eligible claimants. The approval does not impact on the amount of the provision recognised. Refer to note 22.

(b) On 19 August 2019, Harmony and a syndicate of local and international lenders entered into a loan facility agreement which was jointly arranged by Nedbank Limited and ABSA Bank Limited, comprising a revolving credit facility (RCF) of up to US$200 million and a term portion of up to US$200 million. The tenor of the facility is three years with an option to extend by another one year. The rate for the term loan is LIBOR plus 3.05% and LIBOR plus 2.90% for the RCF. Conditions precedent were fulfilled on 26 September 2019 and financial close was on 2 October 2019, with US$5 million (R76 million) being drawn on, resulting in an outstanding balance of US$300 million (R4.6 billion) and undrawn balance of US$100 million (R1.4 billion).

(c) On 30 July 2019 Harmony declared a preference divided of R9m to the Harmony Gold Community Trust which was paid on 2 September 2019. Refer to note 24 (b).

ANNEXURE A

Statement of group companies at 30 June 2019

Company	Country incorporated in	Issued share capital R'000	Effective group interest 2019 %	Effective group interest 2018 %	Cost of investment by holding company 2019 Rm	Cost of investment by holding company 2018 Rm	Loans from/(to) holding company 2019 Rm	Loans from/(to) holding company 2018 Rm
Direct subsidiaries:								
Dormant								
Coreland Property Management (Proprietary) Limited[1]	(a)	#	**100**	100	**—**	—	**—**	—
Harmony Engineering (Proprietary) Limited[1]	(a)	#	**100**	100	**2**	2	**(4)**	(4)
Harmony Gold (Management Services) (Proprietary) Limited[1]	(a)	#	**100**	100	**—**	—	**—**	—
Harmony Gold Limited	(b)	#	**100**	100	**—**	—	**—**	—
Harmony Pharmacies (Proprietary) Limited[1]	(a)	#	**100**	100	**—**	—	**—**	—
Harmony Precision Casting Company (Proprietary) Limited	(a)	358	**100**	100	**—**	—	**—**	—
Musuku Beneficiation Systems (Proprietary) Limited[1]	(a)	#	**100**	100	**—**	—	**—**	—
Unisel Gold Mines Limited	(a)	23 136	**100**	100	**89**	89	**(89)**	(89)
Virginia Salvage (Proprietary) Limited[2]	(a)	2	**90**	90	**—**	—	**—**	—
Exploration								
Lydenburg Exploration Limited	(a)	42 792	**100**	100	**103**	103	**(106)**	(106)
Gold mining								
African Rainbow Minerals Gold Limited	(a)	96	**100**	100	**3 750**	6 521	**—**	—
Avgold Limited	(a)	6 827	**100**	100	**4 464**	5 557	**563**	220
Freegold (Harmony) (Proprietary) Limited	(a)	20	**100**	100	**705**	619	**(4 587)**	(5 058)
Randfontein Estates Limited	(a)	19 882	**100**	100	**1 700**	1 649	**2 121**	2 147
Tswelopele Beneficiation Operation (Proprietary) Limited	(a)	5 996	**100**	100	**59**	129	**182**	201
Harmony Moab Khotsong Operations (Proprietary) Limited[6]	(a)	#	**100**	100	**7**	—	**3 078**	3 386
Investment holding								
ARMgold/Harmony Joint Investment Company (Proprietary) Limited	(a)	#	**100**	100	**—**	—	**—**	—
Own Kind Mineral Resources (Pty) Limited	(d)	#	**100**	100	**—**	—	**—**	—
Harmony Copper Limited	(a)	12 955 523	**100**	100	**12 956**	12 956	**(96)**	—
West Rand Consolidated Mines Limited	(a)	17 967	**100**	100	**321**	321	**(26)**	(26)
Property holding and development								
La Riviera (Proprietary) Limited	(a)	#	**100**	100	**—**	—	**—**	—
Coreland Property Development Company (Proprietary) Limited	(a)	#	**100**	100	**—**	—	**1**	1
Lozitone (Proprietary) Limited	(a)	#	**100**	100	**—**	—	**—**	—
Indirect subsidiaries:								
Dormant								
Aurora Gold (WA) (Proprietary) Limited	(c)	163 115	**100**	100	**—**	—	**—**	—
Aurora Gold Australia (Proprietary) Limited	(c)	58	**100**	100	**—**	—	**—**	—

ANNEXURE A continued

Company	Country incorporated in	Issued share capital R'000	Effective group interest 2019 %	Effective group interest 2018 %	Cost of investment by holding company 2019 Rm	Cost of investment by holding company 2018 Rm	Loans from/(to) holding company 2019 Rm	Loans from/(to) holding company 2018 Rm
Indirect subsidiaries continued:								
Dormant continued:								
Australian Ores & Minerals (Proprietary) Limited	(c)	8 766	**100**	100	**—**	—	**—**	—
Carr Boyd Minerals (Proprietary) Limited	(c)	402 414	**100**	100	**—**	—	**—**	—
Harmony Gold No.1 Limited	(e)	#	**100**	100	**—**	—	**—**	—
Harmony Gold Securities (Proprietary) Limited	(c)	#	**100**	100	**—**	—	**—**	—
Harmony Gold WA (Proprietary) Limited	(c)	#	**100**	100	**—**	—	**—**	—
Jeanette Gold Mines (Proprietary) Limited	(a)	#	**87**	87	**—**	—	**—**	—
Loraine Gold Mines Limited	(a)	#	**100**	100	**—**	—	**—**	—
Middelvlei Development Company (Proprietary) Limited	(a)	#	**100**	100	**—**	—	**—**	—
New Hampton Goldfields Limited	(c)	196 248	**100**	100	**—**	—	**—**	—
Potchefstroom Gold Areas Limited[1]	(a)	8 407	**100**	100	**—**	—	**—**	—
Potchefstroom Gold Holdings (Proprietary) Limited[1]	(a)	2	**100**	100	**—**	—	**—**	—
Remaining Extent and Portion 15 Wildebeestfontein (Proprietary) Limited [1]	(a)	#	**67**	67	**—**	—	**—**	—
Venda Gold Mining Company (Proprietary) Limited[2]	(a)	#	**100**	100	**—**	—	**—**	—
Exploration								
Harmony Gold (Exploration) (Proprietary) Limited	(a)	10	**100**	100	**—**	—	**(3)**	(3)
Harmony Gold (PNG) Exploration Limited	(e)	#	**100**	100	**—**	—	**—**	—
Morobe Exploration Limited	(e)	1 104	**100**	100	**—**	—	**—**	—
Gold mining								
Harmony Gold PNG Limited	(e)	#	**100**	100	**—**	—	**—**	—
Kalahari Goldridge Mining Company Limited	(a)	1 275	**100**	100	**53**	49	**(498)**	(575)
Investment								
Abelle Limited	(c)	488 062	**100**	100	**—**	—	**—**	—
Aurora Gold Finance (Proprietary) Limited	(c)	#	**100**	100	**—**	—	**—**	—
Aurora Gold Limited	(c)	685 006	**100**	100	**—**	—	**—**	—
Aurora Gold (Wafi) (Proprietary) Limited	(c)	#	**100**	100	**—**	—	**—**	—
Harmony Gold Australia (Proprietary) Limited[3]	(c)	14 103 743	**100**	100	**191**	166	**—**	—
Harmony Gold Operations Limited	(c)	405 054	**100**	100	**—**	—	**—**	—
Mineral right investment								
Morobe Consolidated Goldfields Limited	(e)	#	**100**	100	**—**	—	**—**	—
Wafi Mining Limited	(e)	#	**100**	100	**—**	—	**—**	—
Property and development								
Quarrytown Limited	(a)	#	**100**	100	**—**	—	**—**	—
Mining related services								
Harmony Gold (PNG Services) (Proprietary) Limited	(c)	#	**100**	100	**—**	—	**—**	—
Harmony Gold Morobe Province Services Limited	(e)	#	**100**	100	**—**	—	**—**	—

Company	Country incorporated in	Issued share capital R'000	Effective group interest 2019 %	Effective group interest 2018 %	Cost of investment by holding company 2019 Rm	Cost of investment by holding company 2018 Rm	Loans from/(to) holding company 2019 Rm	Loans from/(to) holding company 2018 Rm
Other								
Nufcor Fuels Corporation of South Africa (Proprietary) Limited[4]	(a)	#	**100**	100	**—**	—	**—**	9
Margaret Water Company NPC[4]	(a)	#	**66**	66	**—**	—	**—**	—
Harmony BEE SPV (Proprietary) Limited[4]	(a)	#	**100**	100	**—**	—	**—**	—
Total					**24 400**	28 161	**536**	103
Total investments							**24 936**	28 264
Joint operations - indirect:								
Morobe Exploration Services Limited	(e)	$	**50**	50	**—**	—	**—**	—
Wafi Golpu Services Limited	(e)	$	**50**	50	**—**	—	**—**	—
Morobe Mining JV Services (Australia) (Proprietary) Limited	(c)	$	**50**	50	**—**	—	**—**	—

For its interest in joint operations, the group includes its share of the joint operations' individual income and expenses, assets and liabilities in the relevant components of the financial statements on a line-by-line basis.

Company	Country incorporated in	Issued share capital R'000	Effective group interest 2019 %	Effective group interest 2018 %	Cost of investment by holding company 2019 Rm	Cost of investment by holding company 2018 Rm	Loans from/(to) holding company 2019 Rm	Loans from/(to) holding company 2018 Rm
Associate company - direct:								
Gold mining company								
Pamodzi Gold Limited	(a)	30	**32**	32	**—**	—	**—**	—
Associate company - indirect:								
Gold refining								
Rand Refinery	(a)	786	**10**	10	**39**	71	**—**	—
Exploration								
Jelani Resources (Proprietary) Limited[5]	(a)	#	**35**	35	**—**	—	**—**	—

Investments in associates are accounted for by using the equity method of accounting. Equity accounting involves recognising in the income statement the group's share of associates' profit or loss for the period. The group's interest in the associate is carried on the balance sheet at an amount that reflects the cost of the investment, the share of post-acquisition earnings and other movement in the reserves.

[1] Liquidation process commenced.
[2] In final stages of liquidation order.
[3] The R191 million (2018: R166 million) relates to the share based payments from Harmony to employees of its indirect subsidiary, shown as an investment.
[4] Effective 1 March 2018 the Harmony group acquired the Moab Khotsong operations. Refer to note 12 of the group financial statements. This investment is owned by Harmony Moab Khotsong Operations Proprietary Limited, formerly Coreland Property Investment Company Proprietary Limited. As part of the transaction, 100% of the issued shares in the Nuclear Fuels Corporation of South Africa (Proprietary) Limited and a 67% members interest in the Margaret Water Company NPC were transferred to Harmony Moab Khotsong Operations Proprietary Limited. Harmony BEE SPV (Proprietary) Limited was incorporated to facilitate the pending BEE transaction relating to the Moab Khotsong acquisition.
[5] Friedshelf 1541 Proprietary Limited ("FS 1541") was previously a 100% owned subsidiary of Avgold with 1 issued share. Additional shares of 65, 10 and 24 were issued to White Rivers Exploration Proprietary Limited (a third party), Loraine Gold Mines Limited and Avgold Limited respectively in July 2017 and the company was renamed to Jelani Resources (Proprietary) Limited. Harmony therefore indirectly retained 35% of the company.

$ Indicates a share in the joint venture's capital assets

 # Indicates issued share capital of R1 000 or less

(a) Incorporated in the Republic of South Africa

(b) Incorporated in the Isle of Man

(c) Incorporated in Australia

(d) Incorporated in Zimbabwe

(e) Incorporated in Papua New Guinea

The above investments are valued by the directors at carrying value.

ANNEXURE B

Directors' emoluments (R000)

Name	Directors' fees FY19[1]	Salaries and benefits FY19	Retirement savings and contributions during the year (FY19)	Bonuses paid FY19[2]	Total FY19	Total FY18[5]
Non-executive						
Patrice Motsepe	**1 365**	**—**	**—**	**—**	**1 365**	1 288
Joachim Chissano	**570**	**—**	**—**	**—**	**570**	489
Fikile De Buck	**1 486**	**—**	**—**	**—**	**1 486**	1 255
Ken Dicks	**769**	**—**	**—**	**—**	**769**	653
Dr Simo Lushaba	**1 153**	**—**	**—**	**—**	**1 153**	817
Grathel Motau[3]	**79**	**—**	**—**	**—**	**79**	—
Modise Motloba	**1 406**	**—**	**—**	**—**	**1 406**	1 399
Mavuso Msimang	**960**	**—**	**—**	**—**	**960**	660
Karabo Nondumo	**969**	**—**	**—**	**—**	**969**	762
Vishnu Pillay	**1 096**	**—**	**—**	**—**	**1 096**	803
Given Sibaya[3]	**79**	**—**	**—**	**—**	**79**	—
Max Sisulu	**508**	**—**	**—**	**—**	**508**	125
John Wetton	**1 031**	**—**	**—**	**—**	**1 031**	1 053
Andre Wilkens	**971**	**—**	**—**	**—**	**971**	870
Executive						
Frank Abbott	**—**	**5 688**	**620**	**4 366**	**10 674**	10 349
Mashego Mashego	**—**	**4 012**	**573**	**3 151**	**7 736**	10 275
Peter Steenkamp	**—**	**8 023**	**1 373**	**6 531**	**15 927**	14 916
Prescribed officers						
Beyers Nel	**—**	**4 532**	**748**	**3 675**	**8 955**	9 100
Phillip Tobias	**—**	**4 682**	**615**	**3 674**	**8 971**	9 193
Johannes van Heerden[4]	**—**	**6 566**	**254**	**4 618**	**11 438**	12 786
Total	**12 442**	**33 503**	**4 183**	**26 015**	**76 143**	**76 793**

[1] *Directors' remuneration excludes value added tax*
[2] *Reflects amounts actually paid during the year*
[3] *Appointed as non-executive director on 13 May 2019*
[4] *Salary is paid in AUS$ and is influenced by the movement in the exchange rate*
[5] *Restated to the total single figure remuneration as required by King IV - refer to the Remuneration Report for more information*

ANNEXURE B continued

EXECUTIVE DIRECTORS AND MANAGEMENT SHARE INCENTIVES

As at 30 June 2019

	Executive directors						Prescribed officers						Other			
	Peter Steenkamp		Frank Abbott		Mashego Mashego		Johannes Van Heerden		Beyers Nel		Phillip Tobias		Other management		Total	
Movements on share incentives	Number of awards	Average price (Rands)	Number of awards	Average price (Rands)	Number of awards	Average price (Rands)	Number of awards	Average price (Rands)	Number of awards	Average price (Rands)	Number of awards	Average price (Rands)	Number of awards	Average price (Rands)	Number of awards	Average price (Rands)
Performance shares																
Opening balance at 1 July 2018	1 528 850	n/a	1 557 532	n/a	859 571	n/a	901 403	n/a	732 073	n/a	738 306	n/a	36 109 549	n/a	42 427 284	n/a
Awards granted	—	n/a	—	n/a	—	n/a	—	n/a	—	n/a	—	n/a	—	n/a	—	n/a
Awards exercised	(512 000)		(736 809)		(455 758)		(455 758)		(236 220)		(236 220)		(17 533 328)		(20 166 093)	
– Average sales price	—	n/a	—	22.88	—	22.88	—	22.88	—	22.88	—	22.88	—	23.33	—	23.28
– Gain realised on awards exercised and settled (SA rand)		—		16 858 190		10 427 743		10 427 743		5 404 714		5 404 714		409 106 172		457 629 276
Awards forfeited and lapsed	—	n/a	—	n/a	—	n/a	—	n/a	—	n/a	—	n/a	(1 253 595)	n/a	(1 253 595)	n/a
Closing balance at 30 June 2019	**1 016 850**	**n/a**	**820 723**	**n/a**	**403 813**	**n/a**	**445 645**	**n/a**	**495 853**	**n/a**	**502 086**	**n/a**	**17 322 626**	**n/a**	**21 007 596**	**n/a**
Restricted shares																
Opening balance at 1 July 2018	—	n/a	84 544	n/a	46 776	n/a	46 776	n/a	32 084	n/a	—	n/a	340 816	n/a	550 996	n/a
Awards exercised/vested	—		(84 544)		(46 776)		(46 776)		(32 084)		—		(340 816)		(550 996)	
– Average sales price	—	n/a	—	22.88	—	22.88	—	22.88	—	22.88	—	n/a	—	22.88	—	22.88
– Gain realised on awards exercised and settled (SA rand)		—		1 934 367		1 070 235		1 070 235		734 082		—		7 797 870		12 606 789
Closing balance at 30 June 2019	**—**	**n/a**	**—**	**n/a**	**—**	**n/a**	**—**	**n/a**	**—**	**n/a**	**—**	**n/a**	**—**	**n/a**	**—**	**n/a**
Share appreciation rights																
Opening balance at 1 July 2018	—	n/a	132 777	56.31	95 819	56.31	95 819	56.31	71 960	56.31	46 850	18.41	9 404 635	50.11	9 847 860	50.20
Rights exercised	—		—		—		(30 608)		—		—		(1 533 878)		(1 564 486)	
– Average sales price	—	n/a	—	n/a	—	n/a	—	30.55	—	n/a	—	n/a	—	27.44	—	27.50
– Gain realised on awards exercised and settled (SA rand)		—		—		—		371 623		—		—		13 793 692		14 165 315
Rights forfeited and lapsed	—	n/a	(16 204)	68.84	(11 694)	68.84	(11 694)	68.84	(8 021)	68.84	—	n/a	(1 522 717)	56.29	(1 570 330)	56.29
Closing balance at 30 June 2019	**—**	**n/a**	**116 573**	**25.12**	**84 125**	**25.12**	**53 517**	**28.96**	**63 939**	**24.52**	**46 850**	**18.41**	**6 348 040**	**26.55**	**6 713 044**	**26.45**
Gain realised on awards exercised (SA rand)		—		18 792 557		11 497 978		11 869 601		6 138 796		5 404 714		430 697 734		484 401 380

Outstanding awards (listed by allocation date)																
Performance shares	**1 016 850**		**820 723**		**403 813**		**445 645**		**495 853**		**502 086**		**17 322 626**		**21 007 596**	
29 November 2016	420 423	n/a	330 833	n/a	152 091	n/a	152 091	n/a	177 366	n/a	177 366	n/a	6 533 956	n/a	7 944 126	n/a
15 November 2017	596 427	n/a	489 890	n/a	251 722	n/a	293 554	n/a	318 487	n/a	324 720	n/a	10 788 670	n/a	13 063 470	n/a
Share appreciation rights	**—**		**116 573**		**84 125**		**53 517**		**63 939**		**46 850**		**6 348 040**		**6 713 044**	
15 November 2013	—	n/a	52 951	33.18	38 212	33.18	38 212	33.18	26 459	33.18	—	n/a	3 496 973	33.18	3 652 807	33.18
17 November 2014	—	n/a	63 622	18.41	45 913	18.41	15 305	18.41	37 480	18.41	46 850	18.41	2 851 067	18.41	3 060 237	18.41
Closing balance at 30 June 2019	**1 016 850**		**937 296**		**487 938**		**499 162**		**559 792**		**548 936**		**23 670 666**		**27 720 640**	

SHAREHOLDER INFORMATION

STOCK EXCHANGE LISTINGS AND TICKER CODES

Harmony's primary listing is on the Johannesburg Stock Exchange. It is also quoted in the form of American depositary receipts on the New York Stock Exchange.

Harmony's ticker codes on these exchanges are as follows:

Johannesburg Stock Exchange	HAR
New York Stock Exchange	HMY

SHARE INFORMATION

Sector		Resources
Sub-sector		Gold
Issued share capital as at 30 June 2019		539 841 195
Market capitalisation		
at 30 June 2019		R17.1 billion or US$1.2 billion
at 30 June 2018		R10.6 billion or US$769 million
Share price statistics – FY19		
Johannesburg Stock Exchange:	12-month high	R31.74
	12-month low	R21.14
	Closing price as at 30 June 2019	R31.74
New York Stock Exchange:	12-month high	US$2.27
	12-month low	US$1.62
	Closing price as at 30 June 2019	US$2.27
Free float		100%
ADR ratio		1:1

Shareholder spread as at 30 June 2019

Shareholder spread	Number of shareholders	% of shareholders	Number of shares	% of issued share capital
1—1,000 shares	8 924	84.50	1 308 082	0.24
1,001—10,000 shares	1 165	11.03	3 790 264	0.70
10,001—100,000 shares	315	2.98	10 089 440	1.87
100,001—1,000,000 shares	119	1.13	38 593 946	7.15
1,000,001 shares and above	38	0.36	486 059 463	90.04
Total	**10 561**	**100.00**	**539 841 195**	**100.00**

Analysis of ordinary shares

Shareholder type	Number of shareholders	% of shareholders	Number of shares	% of issued share capital
Public shareholders	10 551	99.91	390 924 112	72.41
Non-public shareholders	10	0.09	148 917 083	27.59
Share option scheme	2	0.02	6 639 946	1.23
Holdings of more than 10%	2	0.02	140 485 898	26.03
Directors*	5	0.05	1 790 904	0.33
Subsidaries	1	0.00	335	0.00
Total	**10 561**	**100.00**	**539 841 195**	**100.00**

** Held by Peter Steenkamp, Frank Abbott, Ken Dicks, Mashego Mashego and André Wilkens*

Ownership summary as at 30 June 2019 – top 10 shareholders (by group)

Rank	Institution	% of total shares outstanding 30 June 2019
1	African Rainbow Minerals Ltd	13.83
2	VanEck Associates Corporation	12.21
3	Fairtree Capital	4.01
4	Public Investment Corporation of South Africa	3.93
5	Exor Investments (UK) LLP	3.48
6	Dimensional Fund Advisors, Inc.	3.19
7	The Vanguard Group, Inc.	2.91
8	Blackrock Inc	2.84
9	Old Mutual Ltd	2.01
10	Baker Steel Capital LLP	1.43

SHAREHOLDERS' DIARY

Financial year-end	**30 June**
Integrated Annual Report issued	24 October 2019
Form 20-F issued	24 October 2019
Annual general meeting	22 November 2019
Results presentations FY20:*	
Interim results	February 2020
Full-year results	August 2020

See website for diary updates

CONTACT

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CAUTIONARY STATEMENT ABOUT FORWARD-LOOKING STATEMENTS

CAUTIONARY STATEMENT ABOUT FORWARD-LOOKING STATEMENTS

This annual report contains forward-looking statements within the meaning of the safe harbour provided by Section 21E of the Exchange Act and Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), with respect to our financial condition, results of operations, business strategies, operating efficiencies, competitive positions, growth opportunities for existing services, plans and objectives of management, markets for stock and other matters.

These forward-looking statements, including, among others, those relating to our future business prospects, revenues, and the potential benefit of acquisitions (including statements regarding growth and cost savings) wherever they may occur in this annual report and the exhibits to this annual report, are necessarily estimates reflecting the best judgment of our senior management and involve a number of risks and uncertainties that could cause actual results to differ materially from those suggested by the forward-looking statements. As a consequence, these forward-looking statements should be considered in light of various important factors, including those set forth in this annual report. Important factors that could cause actual results to differ materially from estimates or projections contained in the forward-looking statements include, without limitation:

- overall economic and business conditions in South Africa, Papua New Guinea, Australia and elsewhere
- estimates of future earnings, and the sensitivity of earnings to the prices of gold and other metals prices
- estimates of future production and sales for gold and other metals
- estimates of future cash costs
- estimates of future cash flows, and the sensitivity of cash flows to the prices of gold and other metals
- estimates of provision for silicosis settlement
- estimates of future tax liabilities under the Carbon Tax Act
- statements regarding future debt repayments
- estimates of future capital expenditures
- the success of our business strategy, exploration and development activities and other initiatives
- future financial position, plans, strategies, objectives, capital expenditures, projected costs and anticipated cost savings and financing plans
- estimates of reserves statements regarding future exploration results and the replacement of reserves
- the ability to achieve anticipated efficiencies and other cost savings in connection with past and future acquisitions, as well as at existing operations
- fluctuations in the market price of gold
- the occurrence of hazards associated with underground and surface gold mining
- the occurrence of labour disruptions related to industrial action or health and safety incidents
- power cost increases as well as power stoppages, fluctuations and usage constraints
- supply chain shortages and increases in the prices of production imports and the availability, terms and deployment of capital
- our ability to hire and retain senior management, sufficiently technically-skilled employees, as well as our ability to achieve sufficient representation of historically disadvantaged persons in management positions
- our ability to comply with requirements that we operate in a sustainable manner and provide benefits to affected communities
- potential liabilities related to occupational health diseases
- changes in government regulation and the political environment, particularly tax and royalties, mining rights, health, safety, environmental regulation and business ownership including any interpretation thereof; court decisions affecting the mining industry, including, without limitation, regarding the interpretation of mining rights
- our ability to protect our information technology and communication systems and the personal data we retain
- risks related to the failure of internal controls
- the outcome of pending or future litigation or regulatory proceedings
- fluctuations in exchange rates and currency devaluations and other macroeconomic monetary policies
- the adequacy of the Group's insurance coverage
- any further downgrade of South Africa's credit rating
- socio-economic or political instability in South Africa, Papua New Guinea and other countries in which we operate

The foregoing factors and others described under "Risk Factors" should not be construed as exhaustive.

We undertake no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after the date of this annual report or to reflect the occurrence of unanticipated events, except as required by law. All subsequent written or oral forward-looking statements attributable to Harmony or any person acting on its behalf are qualified by the cautionary statements herein.

DIRECTORATE AND ADMINISTRATION

HARMONY GOLD MINING COMPANY LIMITED

Harmony Gold Mining Company Limited was incorporated and registered as a public company in South Africa on 25 August 1950

Registration number: 1950/038232/06

Corporate office

Randfontein Office Park
PO Box 2
Randfontein, 1760
South Africa

Corner Main Reef Road and Ward Avenue
Randfontein, 1759
South Africa

Telephone: +27 11 411 2000
Website: *www.harmony.co.za*

DIRECTORS

Dr PT Motsepe* (chairman)

JM Motloba* (deputy chairman)

M Msimang*^ (lead independent director)

PW Steenkamp ** (chief executive officer)

F Abbott ** (financial director)

HE Mashego** (executive director)

JA Chissano*[1]^

FFT De Buck*^

KV Dicks*^

Dr DSS Lushaba*^

HG Motau*^

KT Nondumo*^

VP Pillay*^

GR Sibiya*^

MV Sisulu*^

JL Wetton*^

AJ Wilkens*

** Non-executive*
*** Executive*
^ Independent
[1] Mozambican

INVESTOR RELATIONS

E-mail: HarmonyIR@harmony.co.za
Telephone: +27 11 411 2314
Website: *www.harmony.co.za*

COMPANY SECRETARY

Telephone: +27 11 411 2094
E-mail: companysecretariat@harmony.co.za

TRANSFER SECRETARIES

Link Market Services South Africa (Proprietary) Limited

(Registration number 2000/007239/07)

13th Floor, Rennie House,
Ameshoff Street, Braamfontein
PO Box 4844
Johannesburg, 2000
South Africa

Telephone: 0861 546 572
E-mail: info@linkmarketservices.co.za
Fax: +27 86 674 4381

ADR* DEPOSITARY

Deutsche Bank Trust Company Americas c/o American Stock Transfer and Trust Company

Deutsche Bank Trust Company Americas
c/o AST
Operations Centre
6201 15th Avenue
Brooklyn
NY11219

E-mail queries: db@astfinancial.com
Website: *www.astfinancial.com*

Toll free (within US): +1-886-249-2593
Int: +1-718-921-8124
Fax: +1-718-921-8334

**ADR: American Depositary Receipts*

SPONSOR

JP Morgan Equities South Africa (Pty) Ltd

1 Fricker Road, corner Hurlingham Road,
Illovo, Johannesburg, 2196
Private Bag X9936 Sandton, 2146

Telephone: +27 11 507 0300
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TRADING SYMBOLS

JSE: HAR
New York Stock Exchange: HMY
ISIN: ZAE 000015228

R&A 3922/19