**As filed with the Securities and Exchange Commission on October 26, 2017**

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**UNITED STATES**
**SECURITIES AND EXCHANGE COMMISSION**
**WASHINGTON, D.C. 20549**

# FORM 20-F

**(Mark One)**

☐ **REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934**

**OR**

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the fiscal year ended 30 June, 2017**
**OR**

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**OR**

☐ **SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**Date of event requiring this shell company report**
**For the transition period from___ to___**

**Commission file number: 001 — 31545**

## HARMONY GOLD MINING COMPANY LIMITED

**(Exact name of registrant as specified in its charter)**
**REPUBLIC OF SOUTH AFRICA**
**(Jurisdiction of incorporation or organization)**
**RANDFONTEIN OFFICE PARK, CNR WARD AVENUE AND MAIN REEF ROAD,**
**RANDFONTEIN, SOUTH AFRICA, 1759**
**(Address of principal executive offices)**
**Riana Bisschoff, Group Company Secretary**
**Tel: +27 11 411 6020, riana.bisschoff@harmony.co.za, fax: +27 (0) 11 696 9734,**
**Randfontein Office Park, CNR Ward Avenue and Main Reef Road, Randfontein, South Africa, 1759**
**(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)**
**Securities registered or to be registered pursuant to Section 12(b) of the Act:**
**Ordinary shares, with nominal value Rand 50 cents per share***
**(Title of Class)**
**American Depositary Shares (as evidenced by American Depositary Receipts),**
**each representing one ordinary share**
**(Title of Class)**

* Not for trading, but only in connection with the registration of American Depositary Shares, pursuant to the requirements of the Securities and Exchange Commission.

**Securities registered or to be registered pursuant to Section 12(g) of the Act:**
**None**
**Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:**
**None**

**The number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the last full fiscal year covered by this Annual Report was 437,299,479 ordinary shares, with nominal value of Rand 50 cents per share**

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Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES ☒ NO ☐

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. YES ☒ NO ☐

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. YES ☒ NO ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files)**. YES ☐ NO ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

US GAAP ☐ International Financial Reporting Standards as issued by the International Accounting Standards Board ☒ Other ☐

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow**:

Item 17 ☐ Item 18 ☐

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

YES ☐ NO ☒

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court**.

YES ☐ NO ☐

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This document comprises the annual report on Form 20-F for the year ended June 30, 2017 (“**Harmony 2017 Form 20-F**”) of Harmony Gold Mining Company Limited (“**Harmony**” or the “**Company**”). Certain of the information in the Harmony Integrated Annual Report 2017 included in Exhibit 15.1 (“**Integrated Annual Report for the 20-F 2017**”) is incorporated by reference into the Harmony 2017 Form 20-F, as specified elsewhere in this report, in accordance with Rule 12b-23(a) of the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”). With the exception of the items so specified, the Integrated Annual Report for the 20-F 2017 is not deemed to be filed as part of the Harmony 2017 Form 20-F.

Only (i) the information included in the Harmony 2017 Form 20-F, (ii) the information in the Integrated Annual Report for the 20-F 2017 that is expressly incorporated by reference in the Harmony 2017 Form 20-F and (iii) the exhibits to the Harmony 2017 Form 20-F that are required to be filed pursuant to the Form 20-F (the “**Exhibits**”), shall be deemed to be filed with the Securities and Exchange Commission (“**SEC**”) for any purpose. Any information in the Integrated Annual Report for the 20-F 2017 which is not referenced in the Harmony 2017 Form 20-F or filed as an Exhibit, shall not be deemed to be so incorporated by reference.

Financial and other material information regarding Harmony is routinely posted on and accessible at the Harmony website, *www.harmony.co.za*. References in the Harmony 2017 Form 20-F and the Exhibits to the Harmony website, unless otherwise expressly stated, are not incorporated by reference into this document.

## USE OF TERMS AND CONVENTIONS IN THIS ANNUAL REPORT

Harmony Gold Mining Company Limited is a corporation organized under the laws of the Republic of South Africa. As used in this Harmony 2017 Form 20-F, unless the context otherwise requires, the terms "**Harmony**" and "**Company**" refer to Harmony Gold Mining Company Limited; the term "**South Africa**" refers to the Republic of South Africa; the terms "**we**", "**us**" and "**our**" refer to Harmony and, as applicable, its direct and indirect subsidiaries as a "**Group**".

In this annual report, references to "**R**", "**Rand**" and "**c**", "**cents**" are to the South African Rand, the lawful currency of South Africa, "**A$**" and "Australian dollars" refers to Australian dollars, "**K**" or "**Kina**" refers to Papua New Guinean Kina and references to "**$**", "**US$**" and "**US dollars**" are to United States dollars.

This annual report contains information concerning our gold reserves. While this annual report has been prepared in accordance with the regulations contained in the SEC's Industry Guide 7, it is based on assumptions which may prove to be incorrect. See Item 3: *"Key Information-Risk Factors-Estimations of Harmony's reserves are based on a number of assumptions, including mining and recovery factors, future cash costs of production and the price of gold. As a result, quantities of gold produced may differ from current estimates."*

This annual report contains descriptions of gold mining and the gold mining industry, including descriptions of geological formations and mining processes. We have explained some of these terms in the Glossary of Mining Terms included in this annual report. This glossary may assist you in understanding these terms.

## PRESENTATION OF FINANCIAL INFORMATION

We are a South African company and the majority of our operations are located in our home country. Accordingly, our books of account are maintained in South African Rand and our annual and interim financial statements are prepared in accordance with International Financial Reporting Standards ("**IFRS**") as issued by the International Accounting Standards Board ("**IASB**"). This annual report includes our consolidated financial statements prepared in accordance with IFRS, translated into US dollars. All financial information, except as otherwise noted, is stated in accordance with IFRS.

In this annual report, we also present "cash costs", "cash costs per ounce", "all-in sustaining costs" and "all-in sustaining costs per ounce", which are non-GAAP measures. An investor should not consider these items in isolation or as alternatives to production costs, cost of sales or any other measure of financial performance presented in accordance with IFRS. The calculation of cash costs, cash costs per ounce, all-in sustaining costs and all-in sustaining costs per ounce may vary significantly among gold mining companies and, by themselves, do not necessarily provide a basis for comparison with other gold mining companies. For further information, see Item 5:*"Operating and Financial Review and Prospects-Costs-Reconciliation of Non-GAAP Measures"*.

We have included the US dollar equivalent amounts of certain information and transactions in Rand, Kina and A$. Unless otherwise stated, we have translated: (i) assets and liabilities at the closing rate as reported by Reuters on the last business day of the period (R13.11 per US$1.00 as at June 30, 2017, R14.72 per US$1.00 as at June 30, 2016 and R12.16 per US$1.00 as at June 30, 2015), (ii) acquisitions, disposals and specific items such as impairments at the rate prevailing at the dates applicable to such transactions (iii) income statement items at the average rate for the year (R13.60 per US$1.00 for fiscal 2017, R14.50 per US$1.00 for fiscal 2016 and R11.45 per US$1.00 for fiscal 2015) and (iv) equity items are translated at historic rates. Profit from discontinued operations in fiscal 2013 is translated from Rand to US dollars at the average exchange rate for the eight month period (R8.55 per US$1.00 for the period July 1, 2012 to February 28, 2013). Capital expenditures for fiscal 2018 have been translated at an exchange rate of R13.74 per US$1.00. By including these US dollar equivalents in this annual report, we are not representing that the Rand, Kina and A$ amounts actually represent the US dollar amounts, as the case may be, or that these amounts could be converted at the rates indicated. For further information, see Item 3:*"Key Information-Selected Financial Data-Exchange Rates".*

## CAUTIONARY STATEMENT ABOUT FORWARD-LOOKING STATEMENTS

This annual report contains forward-looking statements within the meaning of the safe harbor 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 include all statements other than statements of historical fact, including, without limitation, any statements preceded by, followed by, or that include the words "targets", "believes", "expects", "aims", "intends", "will", "may", "anticipates", "would", "should", "could", "estimates", "forecast", "predict", "continue" or similar expressions or the negative thereof.

These forward-looking statements, including, among others, those relating to our future business prospects, revenues and income, 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 gold and other metals prices;
- estimates of future gold and other metals production and sales;
- estimates of future cash costs;
- estimates of future cash flows, and the sensitivity of cash flows to the gold and other metals prices;
- estimates of provision for silicosis settlement;
- statements regarding future debt repayments;
- estimates of future capital expenditures;
- the success of our business strategy, development activities and other initiatives;
- 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;
- fluctuations in the market price of gold;
- the occurrence of hazards associated with underground and surface gold mining;
- the occurrence of labor disruptions;
- 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;
- changes in government regulation, particularly mining rights and environmental regulation;
- fluctuations in exchange rates;
- the adequacy of the Group's insurance coverage;
- socio-economic or political instability in South Africa, Papua New Guinea, Australia and other countries in which we operate.

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.

# PART I

## ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not applicable.

## ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

## ITEM 3. KEY INFORMATION

### A. SELECTED FINANCIAL DATA

*The selected consolidated financial data below should be read in conjunction with, and are qualified in their entirety by reference to, our consolidated financial statements, and the notes thereto, set forth beginning on page F-1, and with Item 3:"Key Information-Risk Factors" and Item 5: "Operating and Financial Review and Prospects". Historical results are not necessarily indicative of results to be expected for any future period.*

**Selected Historical Consolidated Financial Data**

We are a South African company and the majority of our operations are located in our home country. Accordingly, our books of account are maintained in South African Rand and our annual and interim financial statements are prepared in accordance with IFRS. This annual report includes our consolidated financial statements prepared in accordance with IFRS, translated into US dollars. The selected historical consolidated income statement and balance sheet data for the last five fiscal years are, unless otherwise noted, stated in accordance with IFRS, and have been extracted from the more detailed information and financial statements prepared in accordance with IFRS. The financial data as at June 30, 2017 and 2016 and for each of the years in the three-year period ended June 30, 2017 should be read in conjunction with, and is qualified in its entirety by reference to our audited consolidated financial statements set forth beginning on page F-1. Financial data as at June 30, 2015, 2014 and 2013 and for the years ended June 30, 2014 and 2013 have been derived from our previously published consolidated financial statements, which are not included in this document.

Discontinued operations for the periods below include the Evander operations in South Africa. The assets and liabilities of the Evander operation were classified as held for sale in fiscal 2012 following the signing of a sale of shares and claims agreement with Pan African Resources plc ("**Pan African**"). The results of this operation have been presented as a discontinued operation. The reclassifications in respect of discontinued operations were done in terms of IFRS 5 - Non-Current Assets Held for Sale and Discontinued Operations. The sale of Evander was concluded in fiscal 2013.

| | Fiscal year ended June 30, | | | | |
|---|---|---|---|---|---|
| | 2017 | 2016 | 2015 | 2014 | 2013 |
| | *($ in millions, except per share amounts, cash costs per ounce and all-in sustaining costs per ounce)* | | | | |
| **Income Statement Data** | | | | | |
| Revenue | 1,416 | 1,264 | 1,348 | 1,515 | 1,803 |
| (Impairment)/reversal of impairment of assets | (131) | 3 | (285) | (135) | (274) |
| Operating profit/(loss) | (81) | 111 | (433) | (146) | (193) |
| Gain on bargain purchase | 60 | — | — | — | — |
| Profit/(loss) from associates | (1) | — | (2) | (10) | — |
| Profit/(loss) from continuing operations before taxation | (20) | 109 | (436) | (145) | (191) |
| Taxation | 37 | (43) | 62 | 27 | (69) |
| Profit/(loss) from continuing operations | 17 | 66 | (374) | (118) | (260) |
| Profit/(loss) from discontinued operations | — | — | — | — | 36 |
| Net profit/(loss) | 17 | 66 | (374) | (118) | (224) |
| Basic (loss)/earnings per share from continuing operations (US cents) | 4 | 15 | (86) | (27) | (60) |
| Diluted earnings/(loss) per share from continuing operations (US cents) | 4 | 15 | (86) | (27) | (60) |
| Basic earnings/(loss) per share (US cents) | 4 | 15 | (86) | (27) | (52) |
| Diluted earnings/(loss) per share (US cents) | 4 | 15 | (86) | (27) | (52) |
| Weighted average number of shares used in the computation of basic earnings/(loss) per share | 438,401,156 | 435,738,577 | 434,423,747 | 433,212,423 | 431,880,814 |

| | | | | | |
|---|---|---|---|---|---|
| Weighted average number of shares used in the computation of diluted earnings/(loss) per share | 459,220,318 | 446,398,380 | 438,091,109 | 434,715,373 | 432,716,622 |
| Dividends per share (US cents)[1] | 8 | — | — | — | 12 |
| Dividends per share (SA cents)[1] | 100 | — | — | — | 100 |
| **Other Financial Data** | | | | | |
| Cash costs per ounce of gold from continuing operations ($/oz)[2] | 1,000 | 841 | 1,003 | 988 | 1,146 |
| Total cash costs per ounce of gold ($/oz)[2] | 1,000 | 841 | 1,003 | 988 | 1,137 |
| All-in sustaining costs per ounce of gold from continuing operations ($/oz)[2] | 1,182 | 1,003 | 1,232 | 1,223 | 1,495 |
| **Balance Sheet Data** | | | | | |
| *Assets* | | | | | |
| Property, plant and equipment | 2,292 | 2,033 | 2,430 | 3,116 | 3,279 |
| Total assets | 2,966 | 2,515 | 2,972 | 3,852 | 4,221 |
| Net assets | 2,234 | 1,914 | 2,200 | 2,925 | 3,229 |
| *Equity and liabilities* | | | | | |
| Share capital | 4,036 | 4,036 | 4,035 | 4,035 | 4,035 |
| Total equity | 2,234 | 1,914 | 2,200 | 2,925 | 3,229 |
| Borrowings (current and non-current) | 163 | 159 | 280 | 270 | 254 |
| Other liabilities | 569 | 442 | 492 | 657 | 738 |
| Total equity and liabilities | 2,966 | 2,515 | 2,972 | 3,852 | 4,221 |

1 Dividends per share relates to the dividends recorded and paid during the fiscal year.

2 Cash costs per ounce and all-in sustaining costs per ounce are non-GAAP measures. Cash costs per ounce and all-in sustaining cost per ounce have been calculated on a consistent basis for all periods presented. The all-in sustaining costs per ounce for fiscal 2013 to 2015 have been restated to exclude share-based payments charge and include capitalized stripping costs for Kalgold. Changes in cash costs per ounce and all-in sustaining costs per ounce are affected by operational performance, as well as changes in the currency exchange rate between the Rand and the US dollar. Because cash cost per ounce and all-in sustaining costs per ounce are non-GAAP measures, these measures should therefore not be considered by investors in isolation or as an alternative to production costs, cost of sales, or any other measure of financial performance calculated in accordance with IFRS. The calculation of cash costs, cash costs per ounce, all-in sustaining costs and all-in sustaining costs per ounce may vary from company to company and may not be comparable to other similarly titled measures of other companies. For further information, see *Item 5:"Operating and Financial Review and Prospects-Costs-Reconciliation of Non-GAAP measures*".

### Exchange Rates

Unless otherwise stated, balance sheet item amounts are translated from Rand to US dollars at the exchange rate prevailing on the last business day of the period (R13.11 per US$1.00 as at June 30, 2017 and R14.72 per US$1.00 as at June 30, 2016), except for acquisitions, disposals and specific items such as impairments that are converted at the exchange rate prevailing on the dates of the transactions. Income statement item amounts that are translated from Rand to US dollars at the average exchange rate for the period (R13.60 per US$1.00 for fiscal 2017, R14.50 per US$1.00 for fiscal 2016 and R11.45 per US$1.00 for fiscal 2015). During fiscal 2017, the Rand/dollar closing exchange rate ranged between R12.42 and R14.75 per US $1.00.

The following table sets forth, for the past five fiscal years, the average and period end rates for Rand expressed in Rand per US$1.00. The exchange rates are sourced from Reuters, being the closing rate at period end.

As of October 19, 2017, the exchange rate per US$1.00 was R13.48(1).

| Fiscal Year Ended June 30, | Average[2] | Period End[1] |
|---|---|---|
| 2013 | 8.82 | 9.98 |
| 2014 | 10.35 | 10.61 |
| 2015 | 11.45 | 12.16 |
| 2016 | 14.50 | 14.72 |
| 2017 | 13.60 | 13.11 |

| Month of | High | Low |
|---|---|---|
| May 2017 | 13.65 | 12.85 |
| June 2017 | 13.11 | 12.63 |
| July 2017 | 13.56 | 12.89 |
| August 2017 | 13.45 | 12.98 |
| September 2017 | 13.59 | 12.76 |
| October 2017 (through October 19, 2017) | 13.79 | 13.25 |

[1] Based on the interbank rate as reported by Reuters.

[2] The daily average of the closing rate during the relevant period as reported by Reuters.

Fluctuations in the exchange rate between Rand and the US dollar will affect the dollar equivalent of the price of ordinary shares on the Johannesburg Stock Exchange ("**JSE**"), which may affect the market price of the American Depositary Shares ("**ADSs**") evidenced by American Depositary Receipts ("**ADRs**") on the New York Stock Exchange Inc. ("**NYSE**"). These fluctuations will also affect the dollar amounts received by owners of ADSs on the conversion of any dividends on ordinary shares paid in Rand.

**B. CAPITALIZATION AND INDEBTEDNESS**

**Not applicable.**

**C. REASONS FOR THE OFFER AND USE OF PROCEEDS**

**Not applicable.**

**D. RISK FACTORS**

*In addition to the other information included in this annual report and the exhibits, you should also carefully consider the following factors related to our ordinary shares and ADSs. There may be additional risks that we do not currently know of or that we currently deem immaterial based on information currently available to us. Although Harmony has a formal risk policy framework in place, the maintenance and development of which is undertaken on an ongoing basis so as to help management address systematic categories of risk associated with its business operations, any of these risks could have a material adverse effect on our business, financial condition or results of operations, leading to a decline in the trading price of our ordinary shares or our ADSs. The risks described below may, in retrospect, turn out to be incomplete and therefore may not be the only risks to which we are exposed. Additional risks and uncertainties not presently known to us or that we now believe are immaterial (and have therefore not been included), could also adversely affect our business, results of operations or financial condition. The order of presentation of the risk factors below does not indicate the likelihood of their occurrence or the magnitude or the significance of the individual risks. The risks described below could occur individually or cumulatively and intensify in case of a cumulative occurrence.*

**Risks Relating to Our Business and the Gold Mining Industry**

***The profitability of our operations, and cash flows generated by those operations, are affected by changes in the price of gold. A fall in the gold price below our cash cost of production and capital expenditure required to sustain production for any sustained period may lead to losses and require Harmony to curtail or suspend certain operations.***

Substantially all of Harmony's revenues come from the sale of gold. Historically, the market price for gold has fluctuated widely and been affected by numerous factors, over which Harmony has no control, including:

- demand for gold for industrial uses, jewelry and investment;
- international or regional political and economic events and trends;
- strength or weakness of the US dollar (the currency in which gold prices generally are quoted) and of other currencies;
- monetary policies announced or implemented by central banks, including the US Federal Reserve;
- financial market expectations on the rate of inflation;
- interest rates;

- speculative activities;
- forward sales by gold producers;
- actual or expected purchases and sales of gold bullion held by central banks or other large gold bullion holders or dealers; and
- production and cost levels for gold in major gold-producing nations, such as South Africa, China, the United States and Australia.

In addition, current demand and supply affects the price of gold, but not necessarily in the same manner as current demand and supply affect the prices of other commodities. Historically, gold has retained its value in relative terms against basic goods in times of inflation and monetary crisis. As a result, central banks, financial institutions and individuals hold large amounts of gold as a store of value and production in any given year constitutes a very small portion of the total potential supply of gold. Since the potential supply of gold is large relative to mine production in any given year, normal variations in current production will not necessarily have a significant effect on the supply of gold or its price. Uncertainty on global economic conditions has impacted the price of gold significantly since fiscal 2013 and continued to do so in fiscal 2017, and is still relevant as is evidenced by the strategic risk profile of Harmony.

The volatility of gold prices is illustrated in the table, which shows the annual high, low and average of the afternoon London bullion market fixing price of gold in US dollars for each of the past ten years:

**Annual gold price: 2007 - 2017**

| | Price per ounce (US$) | | |
|---|---|---|---|
| Calendar year | High | Low | Average |
| 2007 | 841 | 608 | 695 |
| 2008 | 1,011 | 713 | 872 |
| 2009 | 1,213 | 810 | 972 |
| 2010 | 1,421 | 1,058 | 1,225 |
| 2011 | 1,895 | 1,319 | 1,572 |
| 2012 | 1,792 | 1,540 | 1,669 |
| 2013 | 1,694 | 1,192 | 1,411 |
| 2014 | 1,385 | 1,142 | 1,266 |
| 2015 | 1,296 | 1,049 | 1,160 |
| 2016 | 1,366 | 1,077 | 1,251 |
| 2017 | 1,346 | 1,151 | 1,253 |

On October 19, 2017, the afternoon fixing price of gold on the London bullion market was US$1,286/oz.

While the price volatility is difficult to predict, if gold prices should fall below Harmony's cash cost of production and capital expenditure required to sustain production and remain at these levels for any sustained period, Harmony may record losses and be forced to curtail or suspend some or all of its operations, which could materially adversely affect Harmony's business, operating results and financial condition.

In addition, Harmony would also have to assess the economic impact of low gold prices on its ability to recover any losses that may be incurred during that period and on its ability to maintain adequate reserves.

***Foreign exchange fluctuations could have a material adverse effect on Harmony's operational results and financial condition.***

Gold is priced throughout the world in US dollars and, as a result, Harmony's revenue is realized in US dollars, but most of our operating costs are incurred in Rand and other non-US currencies, including the Australian dollar and Kina. The strengthening of the US dollar against the Rand, Australian dollar and Kina lowers operating costs in US dollar terms. From time to time, Harmony may implement currency hedges intended to reduce exposure to changes in the foreign currency exchange, which it started doing in fiscal 2016 and will continue as long as it is strategically viable. Such hedging strategies may not however be successful, and any of Harmony's unhedged exchange payments will continue to be subject to market fluctuations. Any significant and sustained appreciation of the Rand and other non-US currencies against the dollar will materially reduce Harmony's Rand revenues and overall net income, which could materially adversely affect Harmony's operating results and financial condition.

***As Harmony has limitations for the volume of forward sales, commodity derivatives or hedging arrangements it may enter into for its future production, it is exposed to the impact of any significant decreases in the commodity prices on the majority of its production.***

As a rule, Harmony sells its gold and silver at the prevailing market price. In fiscal 2017, however, Harmony started a commodity hedging program. These contracts manage variability of cash flows for approximately 20% of the Group's total production over a two-year period for gold and 25% for silver. Such hedging strategies may not, however be successful.

Harmony's remaining unhedged future production may realize the benefit of any short-term increase in the commodity prices, but is not protected against decreases; if the gold or silver price should decrease significantly, Harmony's revenues may be materially adversely affected, which could materially adversely affect Harmony's , operating results and financial condition.

***Global economic conditions could adversely affect the profitability of Harmony's operations.***

Harmony's operations and performance depend on global economic conditions. A global economic downturn may have follow-on effects on our business. These could include:

- key suppliers becoming insolvent, resulting in a break-down in the supply chain; or
- the availability of credit being reduced-this may make it more difficult for Harmony to obtain financing for its operations and capital expenditure or make financing more expensive.

Coupled with the volatility of commodity prices as well as the rising trend of input costs, such factors could result in initiatives relating to strategic alignment, portfolio review, restructuring and cost-cutting, temporary or permanent shutdowns and divestments. Further, sudden changes in a life-of-mine plan or the accelerated closure of a mine may result in the recognition of impairments and give rise to the recognition of liabilities that are not anticipated.

In addition, uncertainty on global economic conditions may also increase volatility or negatively impact the market value of Harmony's securities. Any of these events could materially adversely affect Harmony's business, operating results and financial condition.

***A further downgrade of South Africa's credit rating may have an adverse effect on Harmony's ability to secure financing.***

The slowing economy, rising debt, escalating labor disputes and the structural challenges facing the mining industry and other sectors have resulted in the downgrading of South Africa's sovereign credit rating to one level above speculative investment grade, or junk. In April 2017, two of the three international ratings agencies, Standard and Poor's and Fitch, downgraded South Africa's long-term sovereign credit rating due to increased perception of political risk and the risk of policy shifts that could undermine fiscal and economic growth in South Africa. Fitch downgraded the national and foreign currency rating to sub-investment grade whereas Standard and Poor's only downgraded the foreign currency rating to sub-investment grade and downgraded the national currency rating by one notch, which is still investment grade. Moody's has kept the sovereign credit rating of South Africa as investment grade. This has led to the downgrade of various financial and parastatal institutions and companies in South Africa. This was largely limited to international scale ratings, not the national scale ratings. Further downgrading of South Africa's credit ratings to sub-investment grade by any of these agencies may adversely affect the South African mining industry and Harmony's business, operating results and financial condition by making it more difficult to obtain external financing or could result in any such financing being available only at greater cost or on more restrictive terms than might otherwise be available.

***Estimations of Harmony's reserves are based on a number of assumptions, including mining and recovery factors, future cash costs of production and the price of gold. As a result, metals produced may differ from current estimates.***

The mineral reserve estimates in this annual report are estimates of the mill-delivered quantity and grade of metals in Harmony's deposits and stockpiles. They represent the amount of metals that Harmony believes can be mined, processed and sold at prices sufficient to recover its estimated future cash costs of production, remaining investment and anticipated additional capital expenditures. Harmony's mineral reserves are estimated based on a number of factors, which have been stated in accordance with the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves ("**SAMREC Code**"), the Australian Code for the Reporting of Mineral Resources and Mineral Reserves ("**JORC**") and the SEC's Industry Guide 7. Calculations of Harmony's mineral reserves are based on estimates of:

- future cash costs;
- future commodity prices; and
- future currency exchange rates.

These factors, which significantly impact mineral reserve estimates, are beyond Harmony's control. As a result, reserve estimates in this annual report should not be interpreted as assurances of the economic life of Harmony's gold and other precious metal deposits or the future profitability of operations.

Since these mineral reserves are estimates based on assumptions related to factors detailed above, should there be changes to any of these assumptions, we may in future need to revise these estimates. In particular, if Harmony's cash operating and production costs increase or the gold price decreases, recovering a portion of Harmony's mineral reserves may become uneconomical. This will lead, in turn, to a reduction in estimated reserves. Any reduction in our mineral reserves estimate could materially adversely affect Harmony's business, operating results and financial condition.

***Harmony's operations have limited proved and probable reserves, and exploration and discovery are necessary to maintain current gold production levels at these operations. Exploration for gold and other precious metals is speculative in nature, may be unsuccessful and involves many risks.***

Risks include those related to:

- locating orebodies;
- geological nature of the orebodies;
- identifying the metallurgical properties of orebodies;
- estimating the economic feasibility of mining orebodies;
- developing appropriate metallurgical processes;
- obtaining necessary governmental permits; and
- constructing mining and processing facilities at any site chosen for mining.

Harmony's exploration efforts might not result in the discovery of mineralization, and any mineralization discovered might not result in an increase in proved and probable reserves. To access additional reserves, Harmony will need to complete development projects successfully, including extensions to existing mines and, possibly, new mines. Development projects would also be required to access any new mineralization discovered by exploration activities around the world. Harmony typically uses feasibility studies to determine whether to undertake significant development projects. Feasibility studies include estimates of expected or anticipated economic returns, which are based on assumptions about:

- future gold and other metal prices;
- anticipated tonnage, grades and metallurgical characteristics of ore to be mined and processed;
- anticipated recovery rates of gold and other metals from the ore; and
- anticipated total costs of the project, including capital expenditure and cash costs.

All projects are subject to project study risk. There is no certainty or guarantee that a feasibility study, if undertaken, will be successfully concluded or that the project the subject of the study will satisfy Harmony's economic, technical, risk and other criteria in order to progress that project to development.

A failure in our ability to discover new reserves, enhance existing reserves or develop new operations in sufficient quantities to maintain or grow the current level of our reserves could negatively affect our results, financial condition and prospects.

***Actual cash costs, capital expenditure, production and economic returns may differ significantly from those anticipated by feasibility studies for new development projects.***

It can take a number of years from the initial feasibility study until development is completed and, during that time, the economic feasibility of production may change. In addition, there are a number of inherent uncertainties in developing and constructing an extension to an existing mine or any new mine, including:

- availability and timing of necessary environmental and governmental permits;
- timing and cost of constructing mining and processing facilities, which can be considerable;
- availability and cost of skilled labor, power, water, fuel, mining equipment and other materials;
- accessibility of transportation and other infrastructure, particularly in remote locations;
- availability and cost of smelting and refining arrangements;
- availability of funds to finance construction and development activities; and
- spot and expected future commodity prices of metals including gold, silver, copper, uranium and molybdenum.

Competition with other mining companies and individuals for specialized equipment, components and supplies necessary for exploration and development, for mining claims and leases on exploration properties and for the acquisition of mining assets also impact existing operations and potential new developments. Competitors may have greater financial resources, operational experience and technical capabilities - all which could negatively affect the anticipated costs, which in turn could have a material adverse effect on our operating results and financial condition.

Harmony currently maintains a range of focused exploration programs, concentrating mainly on a number of prospective known gold and copper mineralized areas in the Independent State of Papua New Guinea ("**PNG**"). During fiscal 2016, fiscal 2015 and fiscal 2014, the bulk of exploration expenditure was allocated to activities in PNG. During fiscal 2017, an exploration program in South Africa was also started in addition to the projects in PNG. However, there is no assurance that any future development projects will extend the life of our existing mining operations or result in any new commercial mining operations.

***Costs associated with pumping water inflows from closed mines adjacent to our operations could adversely affect Harmony's operational results.***

Certain of our mining operations are adjacent to the mining operations of other companies. A mine closure can affect continued operations at an adjacent mine if appropriate preventative steps are not taken. In particular, this could include the ingress of underground water when pumping operations at the closed mine are suspended. This can result in damage to property, operational disruptions and additional pumping costs, which would adversely affect any one of our adjacent mining operations and, in turn could adversely affect our business, operating results and financial condition.

***Infrastructure constraints and ageing infrastructure could adversely affect Harmony's operations***

Mining, processing, development and exploration activities depend on adequate infrastructure. Reliable rail, ports, roads, bridges, power sources, power transmission facilities and water supply are critical to the Company's business operations and affect capital and operating costs. The infrastructure and services are often provided by third parties whose operational activities are outside the control of the Company.

Once a shaft or a processing plant has reached the end of its intended lifespan, higher than normal maintenance and care is required. Maintaining this infrastructure requires skilled human resources, capital allocation, management and planned maintenance. Although Harmony has implemented a comprehensive maintenance strategy, incidents resulting in production delays, increased costs or industrial accidents may occur. Such incidents may have an adverse effect on Harmony's operating results and financial condition.

***Fluctuations in input production prices linked to commodities may adversely affect Harmony's operational results and financial condition.***

Fuel, energy and consumables, including diesel, heavy fuel oil, chemical reagents, explosives, tires, steel and mining equipment consumed in mining operations form a relatively large part of the operating costs and capital expenditure of a mining company. Harmony has no control over the costs of these consumables, many of which are linked to some degree to the price of oil and steel.

Fluctuations in oil and steel prices have a significant impact on operating cost and capital expenditure estimates and, in the absence of other economic fluctuations, could result in significant changes in the total expenditure estimates for new mining projects or render certain projects non-viable, either of which could have a material adverse effect on our business, operating results and financial condition.

***Disruptions to the supply of electricity and increases in the cost of power may adversely affect the results of our operations and our financial condition.***

In South Africa, each of our mining operations depends on electrical power generated by the South African state utility, Eskom, which holds a monopoly in the South African market. As a result of increased demand exceeding available generating capacity, South Africa has been subject to disruptions in electrical power supply. In fiscal 2008, electricity supply was interrupted by Eskom, halting production at certain of our mines. This led to management restructuring operating processes to control and reduce our consumption of electricity at all our operations. During November 2014, Eskom reintroduced a schedule of rolling blackouts, or "load shedding". In 2015, Eskom could not guarantee that there would be no power interruptions and we again faced very tight supply reserve margins. Load shedding events have, however, stabilized in 2016 and electricity supply from Eskom is expected to remain stable in the near future, largely as a result of the demand for electricity dropping as a result of market conditions. Should the implementation of load shedding resume, however, the reduced supply of electricity may affect our operational results and financial condition.

As a result of Eskom's planned capital expansion program to deal with power constraints, an average annual tariff increase of 8% for the five-year multi-year price determination period has been approved by the National Energy Regulator of South Africa ("**NERSA**"). The first increase was implemented on April 1, 2013. On March, 1, 2016, NERSA granted Eskom a tariff increase of 9.4% in respect of the average tariff for standard tariff customers for the 2016/2017 financial year. On August 16, 2016, however, the Gauteng Division, Pretoria, of the High Court set aside NERSA's decision to grant Eskom the tariff increase of 9.4% for the 2016/2017 financial year on the grounds that NERSA's multi-year price determination methodology had not been properly applied. During September 2016, NERSA and Eskom each delivered an application to the Gauteng Division, Pretoria, of the High Court for leave to appeal the judgment. Although Eskom has implemented the tariff increase following the delivery of its application for leave to appeal, it is uncertain as to what tariff will apply following the outcome of the application for leave to appeal or subsequent appeal. In addition, although not yet implemented and subject challenge, NERSA agreed that Eskom can adopt a methodology to calculate tariffs for the 2018/19 financial year that could result in an increase of 19.2% to tariffs. There can be no assurance as to when and to what extent tariffs will increase in the future. Any increase in electricity tariffs may adversely affect our results of operations and our financial condition.

In November 2015, a draft Carbon Tax Bill was published for public consultation - the draft bill anticipates that the carbon tax will be implemented on January 1, 2017. At this time it is not possible to determine the ultimate impact of the proposed carbon tax on the company. Energy is a significant input to our mining and processing operations, with our principal energy sources being electricity and it is likely that the proposed carbon tax will affect our operations. In order both to facilitate the carbon tax legal regime and to provide for greater regulation of greenhouse gas (“**GHG**”) emissions outside of the carbon tax, the Department of Environmental Affairs has initiated the implementation of a mandatory GHG reporting system, for certain identified data providers.

PNG has limited power generation and distribution capacity, supplied by the state utility, PNG Power. This capacity is increasing but it is subject to disruptions in electrical power supply. Currently, Harmony mines and projects still partially or entirely rely on our own diesel-generated power. The cost of this power will fluctuate with changes in the oil price.

Also, see Item 5:*“Operating and Financial Review and Prospects-Electricity in South Africa.”* and *“Integrated Annual Report for the 20-F 2017-Harmony in Action-Environmental performance”* on pages 71 to 97*.*

***We may experience problems in identifying, financing and managing new acquisitions and integrating them with our existing operations.***

Acquiring new gold mining operations involves a number of risks including:

- our ability to identify appropriate assets for acquisition and/or to negotiate acquisitions on favorable terms;
- obtaining the financing necessary to complete future acquisitions;
- difficulties in assimilating the operations of the acquired business;
- the changing regulatory environment as it relates to the Mining Charter and the general policy uncertainty in South Africa;
- difficulties in maintaining our financial and strategic focus while integrating the acquired business;
- problems in implementing uniform quality, standards, controls, procedures and policies;
- increasing pressures on existing management to oversee a rapidly expanding company; and
- to the extent we acquire mining operations outside South Africa, Australia or PNG, encountering difficulties relating to operating in countries in which we have not previously operated.

Our ability to make successful acquisitions and any difficulties or time delays in achieving successful integration of any of such acquisitions could have a material adverse effect on our business, operating results, financial condition and share price.

***Certain factors may affect our ability to support the carrying value of our property, plant and equipment, goodwill and other assets on our balance sheet, resulting in impairments.***

Harmony reviews and tests the carrying value of its assets when events or changes in circumstances suggest that this amount may not be recoverable and impairments may be recorded as a result of testing performed.

Our market capitalization on any reporting date is calculated on the basis of the price of our shares and ADSs on that date. Our shares and ADSs may trade in a wide range through the fiscal year depending on the changes in the market, including trader sentiment on various factors including gold price. Therefore, there may be times where our market capitalization is greater than the value of our net assets, or “book value”, and other times when our market capitalization is less than our book value. Where our market capitalization is less than our net asset or book value, this could indicate a potential impairment and we may be required to record an impairment charge in the relevant period.

At least on an annual basis for goodwill, and when there are indications that impairment of property, plant and equipment and other assets may have occurred, estimates of expected future cash flows for each group of assets are prepared in order to determine the recoverable amounts of each group of assets. These estimates are prepared at the lowest level at which identifiable cash flows are considered as being independent of the cash flows of other mining assets and liabilities. Expected future cash flows are inherently uncertain, and could materially change over time. Such cash flows are significantly affected by reserve and production estimates, together with economic factors such as spot and forward gold prices, discount rates, currency exchange rates, estimates of costs to produce reserves and future capital expenditures.

As at June 30, 2017, Harmony had substantial amounts of property, plant and equipment, goodwill and other assets on its consolidated balance sheets. Impairment charges relating to property, plant and equipment and other assets were recorded in fiscal 2017. If management is required to recognize further impairment charges, this could affect Harmony’s results of operations and financial condition. See Item 5: *“Operating and Financial Review and Prospects-Critical Accounting Estimates-Impairment of Property, Plant and Equipment”* and “*-Carrying Value of Goodwill.”*

***Given the nature of mining and the type of gold mines we operate, we face a material risk of liability, delays and increased cash costs of production from environmental and industrial accidents and pollution compliance breaches.***

The business of gold mining involves significant risks and hazards, including environmental hazards and industrial accidents. In particular, hazards associated with underground mining include:

- rock bursts;
- seismic events;
- underground fires;

- cave-ins or fall-of-ground;
- discharges of gases and toxic chemicals;
- release of radioactive hazards;
- flooding;
- mining of pillars (integrity of shaft support structures may be compromised and cause increased seismicity);
- processing plant fire and explosion;
- critical equipment failures;
- accidents and fatalities; and
- other conditions resulting from drilling, blasting and the removal and processing of material from a deep-level mine.

Hazards associated with opencast mining (also known as open-pit mining) include:

- flooding of the open-pit;
- collapse of open-pit walls or slope failures;
- processing plant fire and explosion;
- accidents associated with operating large open-pit and rock transportation equipment;
- accidents associated with preparing and igniting of large-scale open-pit blasting operations; and
- major equipment failures.

Hazards associated with construction and operation of waste rock dumps and tailings storage facilities include:

- accidents associated with operating a waste dump and rock transportation;
- production disruptions caused by weather;
- wall or slope failures; and
- contamination of ground or surface water.

We are at risk from any or all of these environmental and industrial hazards. In addition, the nature of our mining operations presents safety risks. Harmony's operations are subject to health and safety regulations, which could impose additional costs and compliance requirements. Harmony may face claims and liability for breaches, or alleged breaches, of such regulations and other applicable laws. The occurrence of any of these events could delay production, increase cash costs and result in financial liability to Harmony, which, in turn, may adversely affect our results of operations and our financial condition.

***The nature of our mining operations presents safety risks.***

The environmental and industrial risks identified above also present safety risks for Harmony's operations and its employees and could lead to the suspension and potential closure of operations for indeterminate periods. Safety risks, even in situations where no injuries occur, can have a material adverse effect on Harmony's results of operations and financial condition. See Item 4: "*Information on the Company-Business Overview-Regulation-Health and Safety - South Africa*" and *"Integrated Annual Report for the 20-F 2017 - Harmony in Action - Safety and health"* on pages 38 to 53.

***Illegal mining, or criminal mining, as well as theft of gold and copper bearing material at our operations could pose a threat to the safety of employees, result in damage to property and could expose the Company to liability.***

Civil disturbances and criminal activities such as trespass, illegal mining, sabotage, theft and vandalism could lead to disruptions at certain of Harmony's operations.

The activities of illegal and artisanal miners, which include theft and shrinkage, could cause damage to Harmony's properties, including by way of pollution, underground fires, or personal injury or death, for which Harmony could potentially be held responsible. Illegal mining could result in the depletion of mineral deposits, potentially making the future mining of such deposits uneconomic.

Rising gold and copper prices may result in an increase in gold and copper thefts. The occurrence of any of these events could have a material adverse effect on Harmony's financial condition on results of its operations.

***Harmony's insurance coverage may prove inadequate to satisfy future claims against it.***

Harmony has third-party liability coverage for most potential liabilities, including environmental liabilities. Harmony may be subject to liability for pollution (excluding sudden and accidental pollution) or other hazards against which we have not insured or cannot insure, including those for past mining activities. Harmony also maintains property and liability insurance consistent with industry practice, but this insurance contains exclusions and limitations on coverage. In addition, there can be no assurance that insurance will be available at economically acceptable premiums. As a result, Harmony's insurance coverage may not cover the claims against it for environmental or industrial accidents or pollution, which could have a material adverse effect on Harmony's financial condition.

***Harmony's operations may be negatively impacted by inflation.***

Harmony's operations have been materially affected by inflation. Inflation in South Africa has fluctuated in a narrow band in recent years from 5.5% at the end of fiscal 2013, remaining within or just outside the inflation range of 3% - 6% set by the South African Reserve Bank. At the end of fiscal 2015, 2016 and fiscal 2017, inflation was 4.7%, 6.3% and 5.1%, respectively. However, working costs, in particular wages have increased in recent years, resulting in significant cost pressures for the mining industry. As a result of Eskom's planned capital expansion program to deal with power constraints, an average annual tariff increase of 8% for the five-year multi-year price determination period has been approved by NERSA with effect from April 1, 2013. An average annual increase of 12.69% was effected in April 2015, 9.4% was affected in April 2016 and 2.2% was affected in April 2017. There is a risk that further tariff increases in 2018 and in the future will have a negative effect on the profitability of our operations.

The inflation rate in PNG ended fiscal 2015 at 6.1% and 2016 at 6.4%, while the annualized inflation stood at 6.6% at the end of fiscal 2017.

Harmony's profits and financial condition could be adversely affected when cost inflation is not offset by devaluation in operating currencies or an increase in the price of gold.

The occurrence of any of these events could adversely affect our results of operations and our financial condition.

***The socio-economic framework in the regions in which Harmony operates may have an adverse effect on its operations and profits.***

Harmony has operations in South Africa and PNG. As a result, changes to or instability in the economic or political environment in either of these countries or in neighboring countries could affect an investment in Harmony. These risks could include terrorism, civil unrest, nationalization, political instability, change in legislative, regulatory or fiscal frameworks, renegotiation or nullification of existing contracts, leases, permits or other agreements, restrictions on repatriation of earnings or capital and changes in laws and policy, as well as other unforeseeable risks.

In PNG, a mining legislative and tax regime review has been commissioned whereby various PNG government agencies are involved in the process. The legislation being reviewed includes the Mining Act 1992, Mining (Safety) Act 1977 (PNG), Income Tax Act 1959 and Environment Act 2000, and applicable regulations. Mineral Policy and mining-specific sector policies including offshore mining policy, sustainable development policy, involuntary relocation policy and mine closure policy, and the State's right to acquire an interest in a mine discovery, the percentage extent of such right and the consideration payable for it, are also being reviewed. The Chamber of Mines and Petroleum of PNG, as the representative industry body, has been collating information from industry participants regarding the review of current legislation and policy and engaging with the State as part of the response to the governments mining legislation review.

Pursuant to the tax regime review, certain adverse changes to the fiscal regime were introduced with effect from January 1, 2017, with the main changes being the introduction of an Additional Profit Tax, the cessation of the double deduction allowance for exploration expenditure, and an increase in the rates of interest withholding and dividend withholding taxes. It is difficult to predict the future political, social and economic environment in these countries, or any other country in which Harmony operates, and the impact government decisions may have on its business.

***Actual and potential shortages of production inputs may affect Harmony's operations and profits.***

Harmony's operational results may be affected by the availability and pricing of consumables such as fuel, chemical reagents, explosives, steel and other essential production inputs. Issues with regards to availability of consumables may result from shortages as well as long lead times to deliver, which could result in production delays and production shortfalls. These shortages and delayed deliveries may be experienced where industrial action affects Harmony's suppliers. These issues could also affect the pricing of the consumables, especially if shortages are experienced. The price of consumables may be substantially affected by changes in global supply and demand, along with weather conditions, governmental controls and other factors. A sustained interruption to the supply of any of these consumables would require Harmony to find acceptable substitute suppliers and could require it to pay higher prices for such materials. Any significant increase in the prices of these consumables would increase operating costs and adversely affect profitability, which could adversely affect our results of operations and our financial condition.

***Harmony's ability to service its debt will depend on its future financial performance.***

Harmony's financial performance will be affected by its operating performance as well as by financial and other factors, and in particular the gold price, certain of which are beyond the control of the Company. Various financial and other factors may result in an increase in Harmony's indebtedness, which could adversely affect the Company in several respects, including:

- limiting its ability to access the capital markets;
- hindering its flexibility to plan for or react to changing market, industry or economic conditions;
- limiting the amount of cash flow available for future operations, acquisitions, dividends, or other uses;
- making it more vulnerable to economic or industry downturns, including interest rate increases;

- increasing the risk that it will need to sell assets, possibly on unfavorable terms, to meet payment obligations; or
- increasing the risk that it may not meet the financial covenants contained in its debt agreements or timely make all required debt payments.

The occurrence of any of these events could adversely affect our results of operations and our financial condition.

***We compete with mining and other companies for key human resources.***

Harmony competes with mining and other companies globally to attract and retain key human resources at all levels with the appropriate technical skills and operating and managerial experience necessary to continue operating its business. The need to recruit, develop and retain skilled employees is particularly critical with historically disadvantaged South Africans ("**HDSAs**"), women in mining in South Africa, and recruiting and training local landowners in PNG. The global shortage of key mining specialists, including geologists, mining engineers, mechanical and electrical engineers, metallurgists and skilled artisans has been exacerbated by increased mining activity across the globe. There can be no assurance that Harmony will attract and retain skilled and experienced employees. Should Harmony lose any of its key personnel, its business may be harmed and its operational results and financial condition could be adversely affected. See Item 4: "*Information on the Company-Business Overview-Regulation-Employees*" and *"Integrated Annual Report for the 20-F 2016 - Harmony in Action - Employees and communities"* on pages 54 to 70.

***Since Harmony's labor force has substantial trade union participation, Harmony faces the risk of disruption from labor disputes and non-procedural industrial action.***

Despite a history of constructive engagement with labor unions, there are periods when various stakeholders are unable to agree on dispute resolution processes. Disruptive activities on the part of labor, which normally differ in intensity, then become unavoidable. Due to the high level of union membership among our employees, we are at risk of production stoppages for indefinite periods due to strikes and other disputes, especially wildcat strikes. Inter-union rivalry may increase the risk of labor relations instability. In October 2015, Harmony concluded a three year wage agreement with unions representing the majority of the Company's employees. This agreement was extended to all employees irrespective of union affiliation. We are not able to predict whether we will experience significant labor disputes in future, or what the financial impact of any such disputes may be. See Item 4: "*Information on the Company-Business Overview-Regulation-Employees*", *"Integrated Annual Report for the 20-F 2017-Harmony in Action-Employees and communities"* on pages 54 to 70. South African employment law sets out minimum terms and conditions of employment for employees. Although these may be improved by agreements between us and the trade unions, prescribed minimum terms and conditions form the benchmark for all employment contracts. See *"Integrated Annual Report for the 20-F 2017 - Understanding Harmony - Material issues and stakeholder engagement"* on pages 32 to 37*.*

We are required to submit a report under South African employment law detailing the progress made towards achieving employment equity in the workplace. If this report is not submitted, we could incur substantial penalties.

Developments in South African employment law may increase our cash costs of production or alter our relationship with our employees and trade unions, which may have an adverse effect on our business, operating results and financial condition.

***HIV/AIDS poses risks to us in terms of productivity due to sick absenteeism as a result of tuberculosis co-infection and costs.***

The HIV/AIDS epidemic in South Africa and PNG poses risks to us in terms of potentially reduced productivity, and increased medical and other costs. If there is a significant increase in the incidence of HIV/AIDS infection and related diseases among the workforce over the next several years, this may have an adverse impact on our results of operations and financial condition. See *"Integrated Annual Report for the 20-F 2017 - Harmony in Action - Safety and health"* on pages 38 to 53.

***The cost of occupational healthcare services and the potential liabilities related to occupational health diseases may increase in future and may be substantial.***

Harmony's operations are subject to health and safety regulations which could impose significant cost burdens. In South Africa, the present Mine Health and Safety Act 29 of 1996 imposes various duties on mines and grants the authorities broad powers to, among others, close unsafe mines and order corrective action on health and safety matters. Operations in PNG are subject to similar duties and powers, including under the following laws and regulations: PNG Mining Act 1992, PNG Mining (Safety) Act 1977 (PNG), PNG Mining Safety Regulation 1935 (updated 2006) and PNG Environment Act 2000.

There is a risk that the cost of providing health services, complying with applicable regulations, including the Compensation for Occupational Injuries and Diseases Act 130 of 1993 ("**COIDA**") and the Occupational Diseases in Mines and Works Act 78 of 1973 ("**ODMWA**"), and implementing various programs could increase in future, depending on changes to underlying legislation, legal claims and the profile of our employees. This increased cost, should it transpire, could be substantial, but is currently indeterminate.

In addition, on May 13, 2016, the South Gauteng High Court certified a class action by current and former mineworkers against gold mining companies in South Africa, including Harmony. The action consists of two classes: the silicosis class and the tuberculosis "**TB**" class. Each class also includes dependents whose parents died after contracting silicosis and/or TB while working at the mines. While issues, such as negligence and causation, need to be proved by the claimant on a case- by-case basis, such a ruling could expose Harmony to claims related to occupational hazards and diseases (including silicosis and TB, which may be in the form of an individual claim, a class action or a similar group claim). See *"Item 8: Financial Information-*

*Consolidated Statements and Other Financial Information-Legal Proceedings"* and *"Integrated Annual Report for the 20-F 2017-Harmony in Action-Safety and health"* on pages 38 to 53 for further information. See note 27 *"Provision for silicosis settlement*" to our consolidated financial statements set forth beginning on page F-1.

If Harmony or any of its subsidiaries were to face a significant number of such claims and the claims were suitably established against it, the payments of compensation to the claimants could have a material adverse effect on Harmony's results of operations and financial condition. In addition, Harmony may incur significant additional costs, including costs relating to the payment of fees, levies or other contributions in respect of compensatory or other funds established (if any), and expenditures arising out of its efforts to resolve any such claims or other potential action.

***Laws governing mineral rights affect our business and could impose significant costs and burdens.***

Our operations in South Africa and PNG are subject to legislation regulating mineral rights. Certain of the Company's properties may be subject to the rights or the asserted rights of various community stakeholders, including indigenous people. The presence of those stakeholders may therefore have an impact on Harmony's ability to develop or operate its mining interests.

In South Africa, we are governed by the South African Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) ("**MPRDA**"). See Item 4: "*Information on the Company -Business Overview-Regulation-Mineral Rights - South Africa"* for a description of the principal objectives set out in the MPRDA.

The MPRDA was promulgated as effective legislation on May 1, 2004 and sought to transfer ownership of mineral resources to the South African people, with the South African government acting as custodian in order to, among other things, promote equitable access to the nation's mineral resources by South Africans, expand opportunities to historically disadvantaged persons who wish to participate in the South African mining industry and advance social and economic development. We currently continue to comply with the requirements of the MPRDA and the Broad-Based Socio-Economic Empowerment Charter for the South African mining industry published by the Minister of Mineral Resources ("**Minister**") in October 2002 ("**Original Mining Charter**"). Any failure to comply with the conditions of our mining rights, whether intentional or unintentional, could have a material adverse effect on our operations and financial condition.

On June 21, 2013, the Minister introduced the Mineral and Petroleum Resources Development Amendment Bill, 2013 (the **"MPRDA Bill**") into Parliament. The South African Department of Mineral Resources ("**DMR**") briefed the National Assembly's Portfolio Committee on Mineral Resources on July 30 and 31, 2013. The MPRDA Bill was passed by both the National Assembly and the National Council of Provinces, or NCOP, on March 27, 2014. In January 2015, the President referred the MPRDA Bill back to Parliament for reconsideration and on November 1, 2016, the Portfolio Committee on Mineral Resources tabled non-substantial revisions to the MPRDA Bill in the National Assembly and a slightly revised version of the MPRDA Bill was passed by the National Assembly and referred to the NCOP. There is a large degree of uncertainty regarding the changes that will be brought about should the MPRDA Bill be made law. Among other things, the MPRDA Bill seeks to require the consent of the Minister of Mineral Resources for the transfer of any interest in an unlisted company or any controlling interest in a listed company where such companies hold a prospecting right or mining right and to give the Minister of Mineral Resources broad discretionary powers to prescribe the levels required for beneficiation in promoting the beneficiation of minerals. We cannot yet determine the full impact that the MPRDA Bill may have on our business and there can be no assurance that such changes will not have a material adverse effect on our operations and financial condition.

The Original Mining Charter was followed by a Revised Mining Charter (the "**Revised Mining Charter**"), which was published by the Minister on September 13, 2010. Among other things, the Original Mining Charter required each mining company to achieve a 15% HDSA ownership of mining assets within five years of the Mining Charter coming into effect and a 26% HDSA ownership of mining assets within 10 years of the Mining Charter coming into effect. The Revised Mining Charter contains guidelines envisaging, among other things, that mining companies should achieve a minimum of 40% HDSA representation at executive management (board) level, senior management (executive committee) level, core and critical skills, middle management level and junior management level and 10% participation by women in the mining industry, in each case in five years.

In March 2015, the DMR made an interim report of consolidated results of the self-assessment by reporting companies of compliance with the Mining Charter, reporting relatively broad compliance with the non-ownership requirements of the Revised Mining Charter. However, the DMR did not report the results of compliance with the HDSA ownership guidelines of the Mining Charter and noted that there is no consensus on certain applicable principles. It is therefore unclear what the outcomes were. It is also unclear whether or not the information provided during the audit process will be considered or used by the DMR for any purpose in the future.

"**BEE participation**" (black economic empowerment, i.e., increased participation by black South Africans) is an absolute requirement for the conversion of a mining right. Mining companies are required to achieve an effective HDSA ownership of 26% of mining companies. Harmony believes that it has complied with the requirements of the Revised Mining Charter's to achieve a minimum of 26% effective HDSA ownership of mining assets by 2014. *See "Integrated Annual Report for the 20-F 2017 - Harmony In Action - Mining Charter compliance scorecard"* on pages 98 to 99.

The DMR and the mining industry disagree on the interpretation of the Revised Mining Charter's ownership requirement, specifically the applicability of the "*once empowered, always empowered principle*", and have separately approached the High Court of South Africa for a declaratory order in this regard. The aforementioned proceedings are still pending. Should the DMR, based on the declaratory order, find that Harmony is not in compliance with the Revised Mining Charter in relation to the ownership requirement, the Company may challenge the decision in court. The outcome of such court action is uncertain.

The Minister recently published on June 15, 2017 the Broad Based Black Economic Empowerment Charter for the South African Mining and Minerals Industry, 2017 (**"2017 Mining Charter"**) which would have substantial impact on the South African mining industry in relation to BEE participation. The Chamber of Mines reacted with an urgent interdict application pending the final determination of an application to review and set aside the 2017 Mining Charter. On July 14, 2017 the Minister issued a written undertaking that he and the DMR will not implement or apply the provisions of the 2017 Mining Charter in any way pending judgment in the Chamber of Mines' urgent interdict application. In light of the written undertaking, the Chamber of Mines has agreed to provide the Minister more time to file its answering affidavit and the hearing of the interdict application is now likely to be heard late in the third quarter or early in the fourth quarter of 2017. The Company is engaging with the DMR and key industry stakeholders on the content of the 2017 Mining Charter.

Should Harmony breach its obligations in complying with the MPRDA, the Revised Mining Charter or any future amendments to the Revised Mining Charter (and the 2017 Mining Charter, to the extent implemented), its existing mining rights in South Africa could be suspended or cancelled by the Minister in accordance with the provisions of the MPRDA. It may also influence the Company's ability to obtain any new mining rights. Any such suspension or cancellation could have a material adverse effect on the results of operations as well as the Company's financial condition. Compliance with the 2017 Mining Charter could require Harmony to incur additional costs, which could have a material adverse effect on our results of operations and financial condition.

In PNG, we are governed by the Mining Act of 1992 (PNG). Minerals in PNG are owned by the State. PNG initially awards exploration licenses, but retains a right under the conditions of each exploration license, at any time prior to the commencement of mining, to acquire a participating interest of up to 30% in any mineral discovery at historical exploration cost. The PNG government administers mining tenements through the offices of the PNG Mineral Resources Authority. The types of tenements issued include: exploration license; mining lease; special mining lease; alluvial mining lease; lease for mining purpose; and mining easement. Mining companies must pay royalties to the State based on production (currently 2%).

The PNG permitting process for new mining operations can be very time consuming (approximately 18 to 24 months), and (subject to the applicable legislation) there is no assurance that a mining tenement will be granted.

The PNG government has commissioned a review of the mining regime, including the State's right to acquire an interest in a mine discovery, the percentage extent of such right and the consideration payable for it. The Chamber of Mines and Petroleum of PNG, as the representative industry body, has been collating information from industry participants and engaging with the State as part of the industry's response to the review proposals.

Any change to the PNG mining regime may result in the imposition of additional restrictions, obligations, operational costs, taxes or royalty payments could have a material adverse effect on Harmony's business, operating results and financial condition.

***Laws governing health and safety affect our business and could impose significant costs and burdens.***

In South Africa, the Mine Health and Safety Act 29 of 1996 ("**MHSA**") requires that employers take and implement various measures to ensure the safety and health of persons working at a mine. This obligation is extended to any contractor employees that may be working at a mine. These obligations include the identification and assessment of risk, implementation of codes of practice and standards setting out safe work procedures, proper and appropriate training, supervision, medical surveillance and the provision of safe equipment and personal protective equipment. Further, Harmony must ensure compliance with various licenses, permissions or consents that have been issued to it in terms of the various pieces of applicable legislation.

An employer may be subjected to significant penalties and/or administrative fines for non-compliance under the MHSA and other health and safety legislation. Depending on the particular circumstances, litigation (criminal and/or civil) may be instituted against the employer in respect of an accident or incident which has resulted in the death of an employee (or contractor employee).

Any further changes to the health and safety laws which increase the burden of compliance on the employer and impose higher penalties for non-compliance may result in incurring further significant costs, which could have a material adverse effect on our business, operating results and financial condition.

In PNG, the safety of employees and contractors at Harmony's mining operations is regulated by the Mining (Safety) Act 1977 (PNG) and the Regulations issued thereunder. In terms of section 6(1)(e)(i) of the Act, the inspector has the power to order the cessation of any part of the operations for such (unlimited) time as he or she considers may be necessary to satisfy the safety provisions of the Act. Such order for cessation can often result in lower or a total stoppage of production resulting in significant financial losses during the cessation.

***We are subject to extensive environmental regulations.***

As a gold mining company, Harmony is subject to extensive environmental regulation. We expect the trend of rising production costs due to compliance with South African and PNG environmental laws and regulations to continue.

In South Africa, the MPRDA, certain other environmental legislation and the administrative policies of the South African government regulate the impact of the Company's prospecting and mining operations on the environment. On the suspension, cancellation, termination or lapsing of a prospecting or mining right, Harmony will remain liable for compliance with the provisions of various relevant regulations, including any rehabilitation obligations until a closure certificate is issued by the DMR. This liability will continue until the appropriate authorities have (i) certified that the Company has complied with such provisions or (ii) authorized the transfer of liability to a competent party.

Estimates of ultimate closure and rehabilitation costs are significant and are based principally on current legal and regulatory requirements that may change materially. Environmental provisions are accrued when they become known, probable and can be reasonably estimated based on current contractor rates and in some instances based on industry good practice. In future, Harmony may incur significant costs for compliance with increasingly stringent requirements being imposed under new legislation. Harmony may also face increased environmental costs should other mines in the vicinity fail to meet their obligations on the pumping or treatment of water.

The South African government has reviewed requirements imposed on mining companies to ensure environmental restitution. For example, following the introduction of an environmental rights clause in South Africa's constitution, a number of environmental legislative reform processes have been initiated. Legislation passed as a result of these initiatives has tended to be materially more onerous than previous laws in South Africa. Examples of such legislation include the MPRDA, the National Nuclear Regulator Act 1999, the National Water Act 1998 and the National Environmental Management Act 1998 ("**NEMA**"), which include stringent 'polluter pays' provisions. The adoption of these or additional or more comprehensive and stringent requirements, particularly for the management of hazardous waste, pollution of ground and groundwater systems and duty to rehabilitate closed mines, may result in additional costs and liabilities. The financial provision regulations under NEMA which were published on November 20, 2015 are also likely to affect the amount of financial provision which is set aside for rehabilitation of the mine. These regulations place an emphasis on post closure water pumping and treatment and the need for upfront provision to be set aside for the management of these types of impacts. Existing mines are also required to comply with the financial provision requirement, and are required to substantively review and align their financial provision in accordance with these regulations during the relevant transitional period, the long-stop date of which currently expires on February 20, 2018.

Harmony's PNG operations are subject to the Environment Act 2000 (PNG), which governs the environmental permitting and regulatory aspects of mining projects. An environmental impact statement is required when projects are likely to have a significant adverse impact on the environment. This statement must be lodged with the PNG Conservation and Environment Protection Authority where, for large projects, it may be forwarded to the PNG Environment Council for review. Public consultation is an integral part of this review.

Compliance with existing or new environmental legislation, which increases the burden of compliance or the penalties for non-compliance may cause Harmony to incur further significant costs and could have a material adverse effect on our business, operating results and financial condition.

See "*Integrated Annual Report for the 20-F 2017-Harmony in Action-Environmental performance*" on pages 71 to 97 for further discussion on the applicable legislation and our policies on environmental matters.

***Mining companies aim to be more relevant to our host communities and countries by ensuring sustainable development of the communities and countries in which they operate.***

As a result of public concern about the perceived ill effects of economic globalization, businesses in general and large international companies such as Harmony, in particular, face increasing public scrutiny of their activities.

Like other mining companies, Harmony is under pressure to demonstrate that while it seeks a satisfactory return on investment for shareholders, other stakeholders including employees, communities surrounding the operations and the countries in which they operate, also benefit from their commercial activities. Such pressures tend to be particularly focused on companies whose activities are perceived to have a high impact on their social and physical environment. The potential consequences of these pressures include reputational damage, legal suits and social spending obligations.

Existing and proposed mining operations are often located at or near existing towns and villages, natural water courses and other infrastructure. Mining operations must therefore be designed to mitigate and/or manage their impact on such communities and the environment.

At our PNG operations, we are required under the Mining Act of 1992 (PNG) to pay landowners regulated levels of compensation for any adverse impact the mining operation may have. In addition, under a negotiated memorandum of agreement, the government of PNG distributes to landowner groups an agreed share of the royalties paid to the State in respect of our mining operation.

All new mining leases are subject to agreed national content and social performance plans addressing various aspects of employment and other community support.

The cost of implementing these and other measures to support sustainable development could increase capital expenditure and operating costs and therefore impact Harmony's operational results and financial condition.

***Compliance with emerging climate change regulations could result in significant costs for Harmony, and climate change may present physical risks to our operations.***

GHGs are emitted directly by Harmony's operations and indirectly as a result of consuming electricity generated by external utilities. Emissions from electricity consumption are indirectly attributable to Harmony's operations. There are currently a number of international and national measures to address or limit GHG emissions, including the Kyoto Protocol, the Copenhagen Accord and the Paris Agreement ("**PA**"), in various phases of discussion or implementation.

As of October 5, 2016, enough contracting parties to the PA have ratified the PA for it to take legal effect. South Africa ratified the PA on April 22, 2016. PNG ratified the PA on September 21, 2016.

In line with this aim, the country's key carbon-emitting sectors, including energy and transport, had until end 2015 to finalize 'carbon budgets' and appropriate strategies to support these targets. Adopting a carbon budget model reflects government's acceptance of the relative energy and carbon intensity of the economy and the need to create the setting required for industries to make the transition to a more carbon-constrained environment.

In November 2015, a draft Carbon Tax Bill was published for public consultation - the draft bill anticipated that the carbon tax will be implemented on January 1, 2017. National Treasury has indicated that they intend to table a Carbon Tax Bill during 2017 with a date to be communicated. At this time it is not possible to determine the ultimate impact of the proposed carbon tax on the Company. Nevertheless, Harmony has set its internal carbon price (for the South African operations) to match that of the proposed carbon tax. Harmony is at risk due to potential pass through costs from its suppliers in the short term from increased fuel prices. As the draft bill stands, carbon tax on liquid fuels will be imposed at the source. It is estimated that the increased fuel price would be R0.13/liter. This will have an impact on Harmony's operational expenses.

The Minister of Environmental Affairs noted that government would actively consult with industry on developing carbon budgets to identify an "optimal combination" of mitigation actions to strike a balance between South Africa's socio-economic imperatives, especially creating and preserving jobs, as well as the need to manage climate change impacts and contribute to global efforts to stabilize GHG concentrations.

From a medium and long-term perspective, we are likely to see an increase in costs relating to our energy-intensive assets and assets that emit significant amounts of GHG as a result of regulatory initiatives in South Africa. These regulatory initiatives will be either voluntary or mandatory and may impact our operations directly or by affecting our suppliers or customers. These costs may include, among others, emission measurement and reduction, audit processes and human resource costs. Non-compliance with statutory initiatives may result in monetary liabilities. Insurance premiums may increase and our position relative to industry competitors may change. Assessments of the potential impact of future climate change regulation are still uncertain, given the wide scope of potential regulatory change in South Africa. PNG's national office of climate change and environmental sustainability is studying the potential for future economic growth to be driven by renewable energy. PNG has adopted a climate change policy but implementation actions to date are very limited. The implications of the climate change policy on Harmony's operations in PNG have not yet been established but are not expected to have significant impacts.

The largest portion of GHG emissions is predominantly electricity-related, with electricity expenditure amounting to approximately 15% of Harmony's cash costs in South Africa. While cost management is clearly a strategic issue for Harmony, of even greater importance is that energy supply be constant and reliable, given the implications of loss of energy on both production and health and safety. GHG emissions regulations, which would increase the price of energy, will affect Harmony significantly, as will regulation that stipulates emission thresholds, or sets technology standards that may result in insecure energy supply. Already certain compliance costs from power suppliers are being passed on to the Group in the form of price increases. For instance, in South Africa since 2009, Harmony has paid a levy of R0.02 - R0.035 per kilowatt hour for electricity generated by fossil fuels. In the 2015 budget speech the Minister of Finance proposed an increase in the electricity levy by an additional R0.02 per kilowatt hour. The implementation of the proposed increase in the electricity levy is still to be determined. These levies may increase over time and additional levies may be introduced in future in South Africa or PNG, which could result in a significant increase in our costs.

See *"Integrated Annual Report for the 20-F 2017 -Harmony in Action-Environmental performance"* on pages 71 to 97 for disclosure regarding our GHG emissions.

***Our operations in South Africa are subject to water use licenses, which could impose significant costs.***

Under South African law, Harmony's local operations are subject to water use licenses that govern each operation's water use. These licenses require, among other issues, that mining operations achieve and maintain certain water quality limits for all water discharges, where these apply. Our South African operations are lawful users with existing water permits in terms of the Water Act of 1954 with some having been issued new order water use licenses. Nevertheless, the South African operations have applied to the relevant regional directors for water use licenses in terms of the National Water Act, 1998. Submissions were made as early as 2003 and Harmony has been working closely with the regional directors in the review process. A few operations have been issued with draft licenses for review and iteration. Kusasalethu and Kalgold received their water use licenses, subject to certain onerous conditions, which we have applied to be amended and are hopeful will be amended in our favor. For the remaining licenses we anticipate that the conditions of the licenses may require Harmony to consider and implement alternate water management measures that may have a significant cost implication for our business. We intend working collaboratively with the regional departments to get to an amicable outcome that is in the best interest of the licensee and the national water resource, as any failure on Harmony's part to achieve or maintain compliance with the requirements of these licenses for any of its operations may result in Harmony being subject to penalties, fees and expenses or business interruption due to revoked water licenses. Any of these could have a material effect on our business, operating results and financial condition.

There is a possibility of the South African National Treasury and Department of Water and Sanitation instituting an environmental levy for the management of acid mine drainage ("**AMD**") in future. AMD is a common occurrence on the gold mines of the Witwatersrand Basin. AMD is caused by the exposure of sulfide-rich ore to oxygen and water during the processes of mining, crushing, mineral recovery, and storage of the various waste streams. Any such environmental levy could have a material effect on our business, operating results and financial condition.

See *"Integrated Annual Report for the 20-F 2017 -Harmony in Action-Environmental performance"* on pages 71 to 97.

***We may have exposure to rehabilitate potential groundwater pollution, which may include salination, and radiation contamination that may exist where we have operated or continue to operate.***

Due to the interconnected nature of mining operations at Doornkop and Kusasalethu, any proposed solution for potential flooding and decant risk posed by deep groundwater needs to comprise a regional solution supported by all mines located in the goldfields and government in the event of legacy issues. As a result, the DMR and affected mining companies are involved in developing a regional mine closure strategy. In view of limited current information, no reliable estimate can be made for any possible obligations or liabilities for the Company, which could be material and have an adverse impact on Harmony's financial condition. The new financial provision regulations under NEMA published on November 20, 2015 are also likely to affect the amount of financial provision which is set aside for rehabilitation of the mine. These regulations (draft amendments to which are currently out for public comment) place an emphasis on post-closure water pumping and treatment and the need for upfront provision to be set aside for the management of these types of impacts. No provision for any potential liability has been made in the financial statements. If substantial costs are required to be incurred, this could have a material adverse effect on our results of operations and financial condition.

See *"Integrated Annual Report for the 20-F 2017 -Harmony in Action-Environmental performance"* on pages 71 to 97.

***The use of contractors at certain of the Company's operations may expose Harmony to delays or suspensions in mining activities and increases in mining costs.***

Harmony uses contractors at certain of its operations to mine and deliver ore to processing plants as well as for other purposes. At mines employing mining contractors, contracting costs represent a significant proportion of the total operating costs of these operations and the Company does not own all of the mining equipment.

Harmony's operations could be disrupted, resulting in additional costs and liabilities, if the mining contractors at affected mines have financial difficulties, if a dispute arises in renegotiating a contract, or if there is a delay in replacing an existing contractor and its operating equipment to meet business needs at expected cost levels. Increases in contract mining rates, in the absence of associated productivity increases, will also have an adverse impact on the Company's results of operations and financial condition.

In addition, Harmony's reduced control over those aspects of operations which are the responsibility of contractors, their failure to comply with applicable legal, human rights and regulatory requirements, or their inability to manage their workforce or provide high quality services or a high level of productivity could adversely affect Harmony's reputation, results of operations and financial condition, and may result in the Company incurring liability to third parties due to the actions of contractors, which could have a material adverse effect on Harmony's business, operating results and financial condition.

***Our jointly-controlled assets may not comply with our standards.***

Harmony does not have full management control over some of its assets, which are controlled and managed by joint venture participants in accordance with the provisions of their joint venture arrangements. The control environment of these assets may not align with our management and operating standards, controls and procedures. Failure to adopt equivalent standards, controls and procedures could lead to higher costs and reduced production, which could adversely affect our results of operations and reputation.

***Breaches in our information technology security processes and violations of data protection laws may adversely impact the conduct of our business activities.***

Harmony maintains global information technology ("**IT**") and communication networks and applications to support our business activities. Our extensive IT infrastructure and network may experience service outages that may adversely impact the conduct of our business activities. This includes potential cyber-attacks and disruptive technologies. IT security processes protecting Harmony's IT infrastructure and network may not prevent future malicious action or fraud by individuals, groups or organizations resulting in the corruption of operating systems, theft of commercially sensitive data, including commercial price outlooks, mergers and acquisitions and divestment transactions, misappropriation of funds and disruptions to our business operations.

***Investors in the United States may have difficulty bringing actions, and enforcing judgments, against us, our directors and our executive officers based on the civil liabilities provisions of the federal securities laws or other laws of the United States or any state thereof.***

We are incorporated in South Africa. Each of our directors and executive officers (and our independent registered public accounting firm) resides outside the United States. Substantially all of the assets of these persons and substantially all our assets are located outside the United States. As a result, it may not be possible for investors to enforce a judgment against these persons or ourselves obtained in a court of the United States predicated upon the civil liability provisions of the federal securities or other laws of the United States or any state thereof. A foreign judgment is not directly enforceable in South Africa, but constitutes a cause of action which will be enforced by South African courts provided that:

- the court that pronounced the judgment had jurisdiction to entertain the case according to the principles recognized by South African law with reference to the jurisdiction of foreign courts;
- the judgment is final and conclusive;
- the judgment has not lapsed;
- the recognition and enforcement of the judgment by South African courts would not be contrary to public policy, including observance of the rules of natural justice which require that the documents initiating the United States proceeding were properly served on the defendant and that the defendant was given the right to be heard and represented by counsel in a free and fair trial before an impartial tribunal;
- the judgment does not involve the enforcement of a penal or revenue law; and
- the enforcement of the judgment is not otherwise precluded by the provisions of the Protection of Business Act 99 of 1978, as amended, of the Republic of South Africa.

***Compliance with new and changing corporate governance and public disclosure requirements adds uncertainty to our compliance policies and increases our costs of compliance.***

Laws, regulations and standards relating to accounting, corporate governance and public disclosure, “conflict minerals” and “responsible” gold, new SEC regulations and other listing regulations applicable to us are subject to change and can create uncertainty for companies like us. New or changed laws, regulations and standards could lack specificity or be subject to varying interpretations. Their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty on compliance matters and higher costs of compliance as a result of ongoing revisions to such governance standards.

In terms of Section 404 of the Sarbanes-Oxley Act of 2002 (the “**Sarbanes-Oxley Act**”), we are required to furnish a report by our management on our internal control over financial reporting. The report in this annual report contains, among other matters, an assessment of the effectiveness of our internal control over financial reporting as of the end of the fiscal year, including a statement as to whether or not our internal controls over financial reporting are effective. If we fail to maintain the adequacy of our internal controls, we may not be able to ensure that we can conclude on an ongoing basis that we have effective internal control over financial reporting in accordance with the Sarbanes-Oxley Act. The requirement to evaluate and report on our internal controls also applies to companies that we may acquire and therefore, this assessment may be complicated by any future acquisitions. While we continue to dedicate resources and management time to ensuring that we have effective controls over financial reporting, failure to achieve and maintain an effective internal control environment could have a material adverse effect on the market’s perception of our business and our stock price. See Item 15: *“Controls and Procedures”* for management’s assessment as of June 30, 2017. In addition to management’s assessment of internal controls over financial reporting, we are required to have our independent registered public accounting firm publicly disclose their conclusions regarding the effectiveness of Harmony’s internal controls over financial reporting.

We are committed to maintaining high standards of corporate governance and public disclosure, and our efforts to comply with evolving laws, regulations and standards in this regard have resulted in, and are likely to continue to result in, increased general and administrative expenses.

***Failure to comply with laws, regulations, standards, contractual obligations whether following a breach or breaches in governance processes or fraud, bribery and corruption may lead to regulatory penalties, loss of licenses or permits, negative effects on our reported financial results, and adversely affect our reputation.***

Harmony operates in multiple jurisdictions, including those with less developed political and regulatory environments, and within numerous and complex frameworks. Our governance and compliance processes may not prevent potential breaches of law, accounting principles or other governance practices.

Harmony’s Code of Conduct and Behavioral Code, among other policies, standards and guidance, and training thereon may not prevent instances of unethical or unlawful behavior, including bribery or corruption, nor do they guarantee compliance with legal and regulatory requirements, and breaches may not be detected by management.

Sanctions for failure by the Company or others acting on its behalf to comply with these laws, regulations, standards and contractual obligations could include fines, penalties, imprisonment of officers, litigation, and loss of operating licenses or permits, suspensions of operations, negative effects on Harmony’s reported financial results and may damage the Company’s reputation. Such sanctions could have a material adverse impact on the Company’s financial condition and results of operations.

***To the extent that Harmony makes acquisitions, it may experience problems in executing the acquisitions or managing and integrating the acquisitions with its existing operations.***

In order to maintain or expand its operations and reserve base, Harmony may seek to make acquisitions of selected precious metal producing companies or assets. . Any such acquisition may change the scale of the Company’s business and operations and may expose it to new geographic, geological, political, social, operating, financial, legal, regulatory and contractual risks. There can be no assurance that any acquisition will achieve the results intended, and, as such, could have a material adverse effect on Harmony's business, operating results and financial condition.

***Investors may face liquidity risk in trading our ordinary shares on the JSE Limited.***

The primary listing of our ordinary shares is on the JSE Limited. Historically, the trading volumes and liquidity of shares listed on the JSE have been low relative to other major markets. The ability of a holder to sell a substantial number of our ordinary shares on the JSE in a timely manner, especially in a large block trade, may be restricted by this limited liquidity. See Item 9: *"The Offer and Listing-Listing Details-The Securities Exchange in South Africa.*"

***Sales of large quantities of our ordinary shares and ADSs, or the perception that these sales may occur, could adversely affect the prevailing market price of such securities.***

The market price of our ordinary shares or ADSs could fall if large quantities of ordinary shares or ADSs are sold in the public market, or there is a perception in the marketplace that such sales could occur. Subject to applicable securities laws, holders of our ordinary shares or ADSs may decide to sell them at any time. The market price of our ordinary shares or ADSs could also fall as a result of any future offerings it makes of ordinary shares, ADSs or securities exchangeable or exercisable for its ordinary shares or ADSs, or the perception in the marketplace that these sales might occur. We may make such offerings of additional ADS rights, letters of allocation or similar securities from time to time in the future.

***Shareholders outside South Africa may not be able to participate in future issues of securities (including ordinary shares) carried out by or on behalf of Harmony.***

Securities laws of certain jurisdictions may restrict Harmony's ability to allow participation by certain shareholders in future issues of securities (including ordinary shares) carried out by or on behalf of Harmony. In particular, holders of Harmony securities who are located in the United States (including those who hold ordinary shares or ADSs) may not be able to participate in securities offerings by or on behalf of Harmony unless a registration statement under the Securities Act is effective with respect to such securities or an exemption from the registration requirements of the Securities Act is available. Securities laws of certain other jurisdictions may also restrict Harmony's ability to allow the participation of all holders in such jurisdictions in future issues of securities carried out by Harmony. Holders who have a registered address or are resident in, or who are citizens of, countries other than South Africa should consult their professional advisors as to whether they require any governmental or other consents or approvals or need to observe any other formalities to enable them to participate in any offering of Harmony securities.

***The liquidity and price of our ADSs, and our ability to raise capital, may be negatively impacted if our ADSs are delisted from the NYSE and by the measures that we take to address non-compliance with the NYSE continued listing standards.***

Our ADSs are currently listed for trading on the NYSE. There are a number of continuing requirements that must be met in order for our ADSs to remain listed on the NYSE and the failure to meet these listing standards could result in the delisting of our ADSs from the NYSE. In 2015, we failed to comply with the NYSE's continued listing standard requiring a listed security to maintain a minimum average closing price of $1.00 per ADS over a consecutive 30-trading-day period. However, the trading price of our ADSs complied again with the NYSE's continued listing standard within the specified six months' notice period and therefore no action to delist our ADSs was taken. In the event we are not able to meet the minimum average closing price requirement or other any other requirements necessary for continued listing on the NYSE in the future, our ADSs could be subject to delisting from the NYSE. See Item 9: *"The Offer and Listing-A. Offer and Listing Details".*

If in the future our ADSs cease to be listed for trading on the NYSE for any reason, the liquidity of our ADSs may be materially reduced and result in a corresponding material reduction in the price of our ADSs. Furthermore, any such delisting could harm our ability to raise capital on terms acceptable to us, or at all, and may result in the potential loss of confidence by investors, suppliers, business partners, licensees, customers and employees. Such consequences may materially and adversely affect our business, financial condition and results of operations.

***As we have a significant number of outstanding share options, our ordinary shares are subject to dilution.***

We have an active employee share plan that came into effect in 2006. Our shareholders have authorized up to 60,011,669 of the issued share capital to be used for this plan, together with any other plan. As a result, shareholders' equity interests in us are subject to dilution to the extent of the potential future exercises of the options through share plan.

***We may not pay dividends or make similar payments to our shareholders in the future.***

Harmony's dividend policy is to pay cash dividends only if funds are available for that purpose. Whether funds are available depends on a variety of factors, including the amount of cash available, our capital expenditures and other current or future anticipated cash requirements existing at the time. Under South African law, we are only entitled to pay a dividend or similar payment to shareholders if we meet the solvency and liquidity tests set out in the Companies Act 71 of 2008 (as amended) including its Regulations (the "**Companies Act**") and our current Memorandum of Incorporation. Cash dividends or other similar payments may not be paid in the future.

On April 1, 2012, a dividends tax ("**Dividends Tax**") was introduced at a rate of 15% (increased to 20% effective from February 22, 2017) on dividends declared by South African companies to beneficial shareholders borne by the shareholder receiving the dividend. This replaced Secondary Tax on Companies. Although the substitution of Secondary Tax on Companies with Dividends Tax may reduce the tax payable on our South African operations, thereby increasing distributable earnings, the withholding tax will generally reduce the amount of dividends or other distributions received by shareholders.

In addition, Harmony's foreign shareholders face investment risk from currency exchange rate fluctuations affecting the market value of any dividends or distributions paid by the Company.

## ITEM 4. INFORMATION ON THE COMPANY

### A. HISTORY AND DEVELOPMENT OF THE COMPANY

The information set forth under the headings:

- "-About this report" on pages 4 to 5;
- "-Who we are" on pages 6;
- "-How we create value" on page 9;
- "-Our strategy" on page 27;
- "-Understanding Harmony-Our business context" on page 28;
- "-Harmony in Action-Operational performance" on pages 100 to 143; and
- "-Harmony in Action-Projects and exploration" on pages 142 to 152;

of the Integrated Annual Report for the 20-F 2017 is incorporated herein by reference. Also see note 19 *"Investments in Associates"* and note 20 *"Investments in Joint Operations"* of our consolidated financial statements, set forth beginning on page F-1.

In the 2017 fiscal year, we did not receive any public takeover offers by third parties or make any public takeover offers in respect of other companies' shares.

**Recent Developments**

***Developments since June 30, 2017***

Since the end of fiscal 2017, the following significant events have occurred:

- On August 15, 2017, the Harmony board declared a dividend of 35 SA cents (3 US cents) for the year ended June 30, 2017. US$11.6 million was paid on October 16, 2017.
- Subsequent to the reporting date, a new increased US$350 million, three-year facility was negotiated on similar terms to the previous facility of US$250 million. The new facility matures on 15 August 2020. The syndicate consists of Nedbank Limited, ABSA Bank Limited, JP Morgan Chase Bank, Caterpillar Financial Services Corporation, HSBC Bank plc, State Bank of India, Citibank as well as the Bank of China.

The key terms of the new facility are:

| | |
|---|---|
| Term Facility: | $175 million |
| Margin on term facility: | 3.15% over 3 month LIBOR |
| Revolving facility: | $175 million |
| Margin on revolving facility: | 3.00% over 3 month LIBOR |
| Maturity | Three years from close |
| Security | Same as existing facility |

*Acquisition*

On October 19, 2017, Harmony announced that it would acquire Anglogold Ashanti Limited's Moab Khotsong and Great Noligwa mines together with other assets and related infrastructure for a cash consideration of the Rand equivalent of US$300 million. The transaction is subject to approval from Harmony's shareholders and other conditions precedent, including regulatory approvals. The Board of Harmony has unanimously approved the transaction and has resolved to recommend the transaction to its shareholders.

US$100 million of the consideration will be settled from Harmony's existing US$350 million syndicated loan facility. The remaining US$200 million will be funded through a fully underwritten US$200 million bridge facility, which has a 12-month term with similar terms and covenants as the existing loan facilities. Harmony is assessing various alternatives to optimally repay the bridge, including a potential rights issue. The mandated bridge providers are UBS Limited, Nedbank Limited, Absa Bank Limited and JP Morgan Securities plc.

The assets and liabilities will be acquired by a wholly-owned subsidiary of Harmony. When all conditions precedent have been met, Harmony will apply the principles of IFRS 3, Business Combinations and the process of a purchase price allocation of the assets acquired and liabilities assumed will begin.

**B. BUSINESS OVERVIEW**

The information set forth under the headings:

- *"-Who we are"* on pages 6;
- *"-Understanding Harmony"* on pages 27 to 37;
- *"-Harmony in Action-Safety and health"* on pages 38 to 53;
- *"-Harmony in Action-Employees and communities*" on pages 54 to 70;
- *"-Harmony in Action-Environmental performance"* on pages 71 to 97;
- *"-Harmony in Action-Operational performance"* on pages 100 to 143; and
- *"-Harmony in Action-Projects and exploration"* on pages 142 to 152;

of the Integrated Annual Report for the 20-F 2017 is incorporated herein by reference.

**Capital Expenditures**

Capital expenditures for all operations and capitalized exploration incurred for fiscal 2017 amounted to US$286 million, compared with US$164 million in fiscal 2016 and US$226 million in fiscal 2015. During fiscal 2017, capital at PNG accounted for 40% of the total, with Tshepong accounting for 10%, Phakisa and Target 1 each accounting for 8% and Kusasalethu accounting for 7% of the total. During fiscal 2016, capital expenditure at PNG accounted for 13% of the total, with Kusasalethu accounting for 15%, Phakisa, Tshepong and Target 1 each accounting for 13% of the total. During fiscal 2015, capital expenditure at PNG accounted for 9% of the total, with Kusasalethu accounting for 19%, Phakisa accounting for 16% and Tshepong accounting for 13% of the total.

Capital expenditures for previous years excluded capitalized deferred stripping, for fiscal 2017 this was changed and is now included in capital. Deferred stripping cost for fiscal 2016 amounted to US$3 million and fiscal 2015 to US$21 million.

The focus of our capital expenditures in recent years has been underground development and plant improvement and upgrades. During fiscal 2017, the capital expenditure was funded from the Company's cash generated by operation. See Item 5: *"Operating and Financial Review and Prospects-Liquidity and Capital Resources".*

We have budgeted approximately US$339 million for capital expenditures in fiscal 2018. We currently expect that our planned operating capital expenditures will be financed from operations and new borrowings as needed. Details regarding the capital expenditure for each operation is included in the table below.

| | **Capital expenditure budgeted for fiscal 2018 (US$'million)** |
|---|---|
| **South Africa** | |
| Kusasalethu | 23 |
| Doornkop | 21 |
| Tshepong operations | 84 |
| Masimong | 8 |
| Target 1 | 28 |
| Bambanani | 5 |
| Joel | 17 |
| Unisel | 8 |
| Other - surface | 3 |
| **International** | |
| Hidden Valley | 122 |
| **Total operational capital expenditure** | **319** |
| Golpu | 20 |
| **Total capital expenditure** | **339** |

**Reserves**

As at June 30, 2017, we have declared attributable gold equivalent proved and probable reserves of 36.7 million ounces: 16.3 million ounces gold in South Africa and 20.5 million gold and gold equivalent ounces in PNG. In instances where individual deposits may contain multiple valuable commodities with a reasonable expectation of being recovered (for example gold and copper in a single deposit) Harmony computes a gold equivalent to more easily assess the value of the deposit against gold-only mines. Harmony does this by calculating the value of each of the commodity, then dividing the product by the price of gold. For example, the gold equivalent of a gold and copper deposit would be calculated as follows: ((gold ounces x gold price per ounce) + (copper pounds x copper price per pound)) / gold price per ounce. All calculations are done using metal prices as stipulated in the discussion below. Harmony assumes a 100% metallurgical recovery in its calculations unless otherwise stated. The year-on-year negative variance in mineral reserves is due to the following reasons:

- normal depletion of 1.2 million ounces; and
- a net increase of 1.0 million ounces in reserves due to Life of mine extensions and 100% of Hidden Valley

We use the SAMREC Code, which sets out the internationally recognized procedures and standards for reporting of mineral resources and mineral reserves. We use the term “mineral reserves” herein, which has the same meaning as “ore reserves”, as defined in the SAMREC Code. Our reporting of the PNG Mineral Reserves complies with the 2012 JORC code. This code is materially the same as the SAMREC Code. In reporting of reserves, we have complied with the SEC's Industry Guide 7.

For the reporting of Mineral Reserves the following parameters were applied:

- a gold price of US$1,200 per ounce;
- an exchange rate of R13.61per US dollar;
- the above parameters resulting in a gold price of R525,000/kg for the South African assets;
- the Hidden Valley Operation and Wafi-Golpu project in the Wafi Golpu Joint Venture used prices of US$1200/oz gold (“**Au”)**, US$18.00/oz silver (“**Ag**”), US$7.00/lb molybdenum (“**Mo**”) and US$3.00/lb copper (“**Cu**”) at an exchange rate of US$0.76 per A$;
- gold equivalent ounces are calculated assuming a US$1,200/oz Au, US$ 3.00/lb Cu and US$18.00/oz Ag with 100% recovery for all metals. These assumptions are based on those used in the 2016 feasibility study; and
- “gold equivalent” is computed as the value of the Company’s gold, silver and copper from all mineral resources/ reserves classifications divided by the price of gold. All calculations are done using metal prices as stipulated.

In order to define the proved and probable mineral reserve at our underground operations, we apply the concept of a cut-off grade. At our underground operations in South Africa, this is done by defining the optimal cut-off grade as the lowest grade at which an orebody can be mined such that the total profits, under a specified set of mining parameters, are maximized. The cut-off grade is determined using our Optimizer computer program which requires the following as input:

- the database of measured and indicated resource blocks (per operation);
- an assumed gold price which, for this mineral reserve statement, was taken as R525,000 per kilogram (gold price of US$1,200 per ounce and an exchange rate of R13.61per US dollar);
- planned production rates;
- the mine recovery factor which is equivalent to the mine call factor (“**MCF**”) multiplied by the plant recovery factor; and
- planned cash costs (cost per tonne).

Rand per tonne cash costs of the mines are historically based, but take into account distinct changes in the cost environment, such as the future production profile, restructuring, right-sizing, and cost reduction initiatives.

For the block cave reserve at Golpu (PNG), we used our consultants’ proprietary tool called “Block Cave mine optimizing software computer program” to define the optimal mine plan and sequencing.

The open pit reserve at Hidden Valley (PNG) is defined by a pit design based on the optimal output from Whittle open pit optimization software.

See the table below in this section for the cut-off grades and cost per tonne for each operation.

The mineral reserves represent that portion of the measured and indicated resources above cut-off in the life-of-mine plan and have been estimated after consideration of the factors affecting extraction, including mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. A range of disciplines which includes geology, survey, planning, mining engineering, rock engineering, metallurgy, financial management, human resources management and environmental management have been involved at each mine in the life-of-mine planning process and the conversion of resources into reserves. The oreflow-related modifying factors used to convert the mineral resources to mineral reserves through the life-of-mine planning process are stated for each individual operation. For these factors, historical information is used, except if there is a valid reason to do otherwise. Owing to depth and rock engineering requirements at our underground mines, some mines design stope support pillars into their mining layouts which accounts for approximately 7% to 10% discounting. Further discounting relates to the life-of-mine extraction to provide for geological losses.

Our standard for narrow reef sampling with respect to both proved and probable reserve calculations for underground mining operations in South Africa is generally applied on a 6 meter by 6 meter grid. Average sample spacing on development ends is at 2 meter intervals in development areas. For the massive mining at the Target 1 operation, our standard for sampling with respect to both proved and probable reserves are fan drilling with "B" sized diamond drill holes (43mm core) sited at 50 meter spaced sections along twin access drives. The Kalgold opencast operations are sampled on diamond drill and reverse circulation drill spacing of no more than 25 meters on average. Surface mining at South African operations other than Kalgold involves recovering gold from areas previously involved in mining and processing, such as metallurgical plants, waste rock dumps and tailing dams (slimes and sand) for which random sampling is used.

The PNG resources are hosted in large porphyry or related mesothermal geological systems. Data is gained through diamond drilling using PQ (85.0 mm diameter) down to NQ (47.6 mm diameter) sized core. The core is cut in half, one half sampled at a maximum of 2 meter intervals and the other half stored in designated core storage facilities. Drill spacing at our Hidden Valley operations is typically on less than 20 meter centers for measured category, 20 to 40 meter centers for the indicated category and greater than 40 meters for inferred category material. Due to the nature of the Golpu porphyry mineralization, drill spacing is increased to 100 to 200 meters for indicated and greater for inferred. Assaying for gold is by fire assay and various methods are used for copper and other elements. All assays informing the resource calculation are analyzed at a National Association of Testing Authorities ("**NATA**") accredited commercial laboratory. Extensive quality assurance/quality control work is undertaken and data is stored in an electronic database.

Our mining operations' reported total proved and probable reserves as of June 30, 2017 are set out below:

**Mineral Reserves statement (Imperial) as at June 30, 2017**

| **Operations Gold** | **PROVED RESERVES** | | | **PROBABLE RESERVES** | | | **TOTAL RESERVES** | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Tons (millions)** | **Grade (oz/ton)** | **Gold oz[1] (000)** | **Tons (millions)** | **Grade (oz/ton)** | **Gold oz[1] (000)** | **Tons (millions)** | **Grade (oz/ton)** | **Gold oz[1] (000)** |
| **South Africa Underground** | | | | | | | | | |
| Bambanani | 1.2 | 0.337 | 401 | — | — | — | 1.2 | 0.337 | 401 |
| Joel | 2.3 | 0.146 | 335 | 2.7 | 0.156 | 420 | 5.0 | 0.151 | 755 |
| Masimong | 2.3 | 0.122 | 281 | 0.3 | 0.094 | 31 | 2.6 | 0.119 | 312 |
| Unisel | 1.3 | 0.133 | 171 | 1.0 | 0.134 | 131 | 2.3 | 0.134 | 302 |
| Target 1 | 3.5 | 0.122 | 430 | 2.2 | 0.125 | 274 | 5.7 | 0.123 | 704 |
| Tshepong Operations | 23.2 | 0.173 | 4,002 | 5.0 | 0.156 | 785 | 28.2 | 0.170 | 4,787 |
| Doornkop | 2.4 | 0.145 | 343 | 2.7 | 0.145 | 392 | 5.1 | 0.145 | 735 |
| Kusasalethu | 4.7 | 0.203 | 959 | 0.7 | 0.180 | 129 | 5.4 | 0.200 | 1,088 |
| **Total South Africa Underground** | 40.9 | 0.169 | 6,922 | 14.6 | 0.148 | 2,162 | 55.5 | 0.164 | 9,084 |

**Mineral Reserves statement (Imperial) as at June 30, 2017**

| **Operations Gold** | **PROVED RESERVES** | | | **PROBABLE RESERVES** | | | **TOTAL RESERVES** | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Tons (millions)** | **Grade (oz/ton)** | **Gold oz[1] (000)** | **Tons (millions)** | **Grade (oz/ton)** | **Gold oz[1] (000)** | **Tons (millions)** | **Grade (oz/ton)** | **Gold oz[1] (000)** |
| **South Africa Surface** | | | | | | | | | |
| Kalgold | 4.9 | 0.028 | 138 | 24.4 | 0.033 | 796 | 29.3 | 0.032 | 934 |
| Free State Surface-Phoenix | 80.5 | 0.008 | 646 | — | — | — | 80.5 | 0.008 | 646 |
| St Helena | 119.7 | 0.008 | 933 | — | — | — | 119.7 | 0.008 | 933 |
| Central Plant | — | — | — | 74.2 | 0.008 | 574 | 74.2 | 0.008 | 574 |
| Other | — | — | — | 608.7 | 0.007 | 4,092 | 608.7 | 0.007 | 4,092 |
| **Total South Africa Surface** | **205.1** | **0.008** | **1,717** | **707.3** | **0.007** | **5,462** | **912.4** | **0.008** | **7,179** |
| **Total South Africa** | **246.0** | | **8,639** | **721.9** | | **7,624** | **967.9** | | **16,263** |
| **Papua New Guinea[2]** | | | | | | | | | |
| Hidden Valley | 0.5 | 0.030 | 14 | 26.9 | 0.047 | 1,277 | 27.4 | 0.047 | 1,291 |
| Hamata | 0.1 | 0.032 | 2 | 1.4 | 0.063 | 93 | 1.5 | 0.062 | 95 |
| Golpu | — | | — | 209.0 | 0.026 | 5,522 | 209.0 | 0.026 | 5,522 |
| **Total Papua New Guinea** | **0.6** | **0.030** | **16** | **237.3** | **0.029** | **6,892** | **237.9** | **0.029** | **6,908** |
| **Total** | **246.6** | | **8,655** | **959.2** | | **14,516** | **1,205.8** | | **23,171** |

1 Metal figures are fully inclusive of all mining dilutions and gold losses, and are reported as mill delivered tons and head grades. Metallurgical recovery factors have not been applied to the reserve figures.
2 Represents Harmony's attributable interest of 50%.
Note: 1 ton = 907 kg = 2,000 lbs.

In addition to the gold reserves, we also report our gold equivalents for reserves for silver and copper from our PNG operations. Gold equivalent ounces are calculated assuming a US$1,200/oz for gold, US$3.00/lb copper and US$18,00/oz for silver with 100% recovery for all metals.

**Gold Equivalents** [2]

| Silver | Proved reserves | | Probable reserves | | Total reserves | |
|---|---|---|---|---|---|---|
| | Tons (millions) | Gold Equivalents (oz)[1] (000) | Tons (millions) | Gold Equivalents (oz)[1] (000) | Tons (millions) | Gold Equivalents (oz)[1] (000) |
| **Hidden Valley** | 0.5 | 4 | 26.9 | 403 | 27.4 | 407 |
| **Copper** | **Proved reserves** | | **Probable reserves** | | **Total reserves** | |
| | Tons (millions) | Gold Equivalents (oz)[1] (000) | Tons (millions) | Gold Equivalents (oz)[1] (000) | Tons (millions) | Gold Equivalents (oz)[1] (000) |
| **Golpu** | — | — | 209.0 | 13,168 | 209.0 | 13,168 |
| **Total Gold Equivalents** | 0.5 | 4 | 235.9 | 13,571 | 236.4 | 13,575 |
| **Total Harmony including gold equivalents** | 246.6 | 8,659 | 959.2 | 28,087 | 1,205.8 | 36,746 |

In addition to the gold reserves, we also report our attributable reserves for silver and copper from our PNG operations. Metal prices are assumed at US$18.00/oz for silver, US$3.00/lb for copper, and molybdenum at US$7.00/lb.

**Papua New Guinea: Other**[2]

| Silver | Proved Reserves | | | Probable Reserves | | | Total Reserves | | |
|---|---|---|---|---|---|---|---|---|---|
| | Tons (millions) | Grade (oz/ton) | Silver oz[1] (000) | Tons (millions) | Grade (oz/ton) | Silver oz[1] (000) | Tons (millions) | Grade (oz/ton) | Silver oz[1] (000) |
| Hidden Valley | 0.5 | 0.575 | 272 | 26.9 | 0.998 | 26,835 | 27.4 | 0.991 | 27,107 |

| Copper | Tons (millions) | Grade (%) | Cu lb[1] (millions) | Tons (millions) | Grade (%) | Cu lb[1] (millions) | Tons (millions) | Grade (%) | Cu lb[1] (millions) |
|---|---|---|---|---|---|---|---|---|---|
| Golpu[2] | — | — | — | 209.0 | 1.144 | 5,269 | 209.0 | 1.144 | 5,269 |

1 Metal figures are fully inclusive of all mining dilutions and gold losses, and are reported as mill delivered tons and head grades. Metallurgical recovery factors have not been applied to the reserve figures.
2 Represents Harmony's attributable interest of 50%.
Note: 1 ton = 907 kg = 2,000 lbs

Our methodology for determining our reserves is subject to change and is based upon estimates and assumptions made by management regarding a number of factors as noted above in this section. Cost per tonne and cut-off grade per operation are as follows.

| Operations gold | Underground Operations | | Surface and Massive Mining | |
|---|---|---|---|---|
| | Cut-off grade (cmg/t) | Cut-off cost (R/Tonne) | Cut-off grade (g/t) | Cut-off cost (R/Tonne) |
| **South Africa Underground** | | | | |
| Bambanani | 1,781 | 3,690 | — | — |
| Joel | 772 | 1,899 | — | — |
| Masimong | 906 | 1,887 | — | — |
| Phakisa | 790 | 2,360 | — | — |
| Target 1 | — | — | 3.60 | 1,890 |
| Tshepong | 650 | 2,014 | — | — |
| Unisel | 945 | 1,894 | — | — |
| Doornkop | 735 | 1,985 | — | — |
| Kusasalethu | 1,073 | 2,857 | — | — |
| **South Africa Surface** | | | | |
| Kalgold | — | — | 0.54 | 375 |
| Free State Surface | — | — | 0.15 | 45 |
| | **Cut-off grade (%Cu)** | **Cut-off cost (A$/Tonne)** | **Cut-off grade (g/t)** | **Cut-off cost (A$/Tonne)** |
| **Papua New Guinea** | | | | |
| Hidden Valley | — | — | 0.91 | 32.5 |
| Hamata | — | — | 0.91 | 32.5 |
| Golpu | 0.2 | 22 | — | — |

| Operations silver and copper | Underground Operations | | Surface and Massive Mining | |
|---|---|---|---|---|
| | Cut-off grade (%Cu) | Cut-off cost (A$/Tonne) | Cut-off grade (g/t) | Cut-off cost (A$/Tonne) |
| **SILVER** | | | | |
| **Papua New Guinea** | | | | |
| Hidden Valley | — | — | 0.91 | 32.5 |
| **COPPER** | | | | |
| **Papua New Guinea** | | | | |
| Golpu | 0.2 | 22 | — | — |

**Notes on Cut-off:**

1) Surface and massive mining are stated in g/t (g/t is grams of metal per tonne of ore).
2) All SA underground operations are stated in cmg/t (cmg/t is the Reef Channel width multiplied by the g/t which indicates the gold content within the Reef Channel).

**Notes on Cut-off cost:**
Cut-off cost refers to the cost in R/Tonne or A$/Tonne to mine and process a tonne of ore.
**Notes on Copper:**
Cut-off is stated in % Cu.
**Notes on Golpu:**
Cut-off is based on 0.2% copper; molybdenum and gold mined as by-product.

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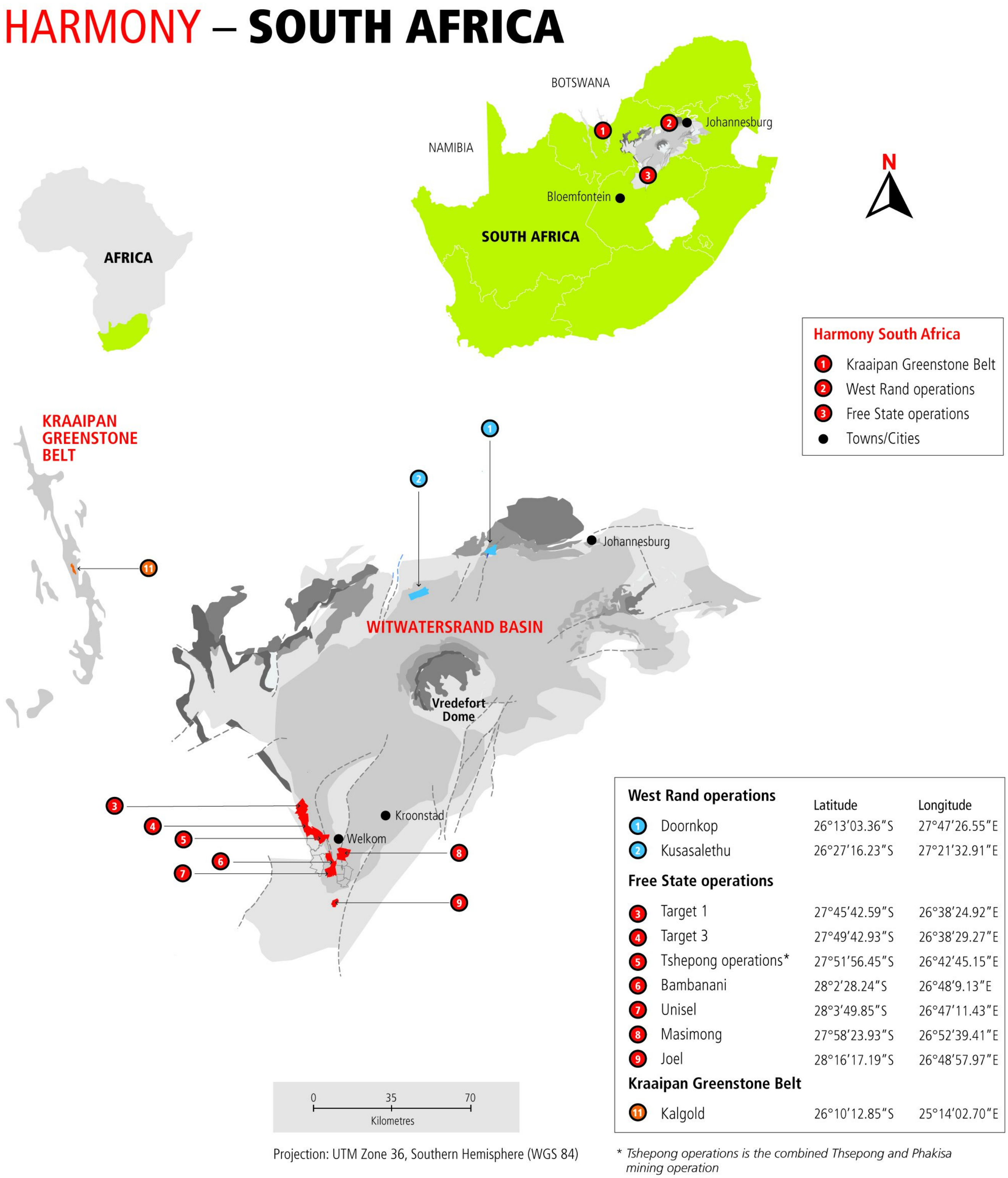
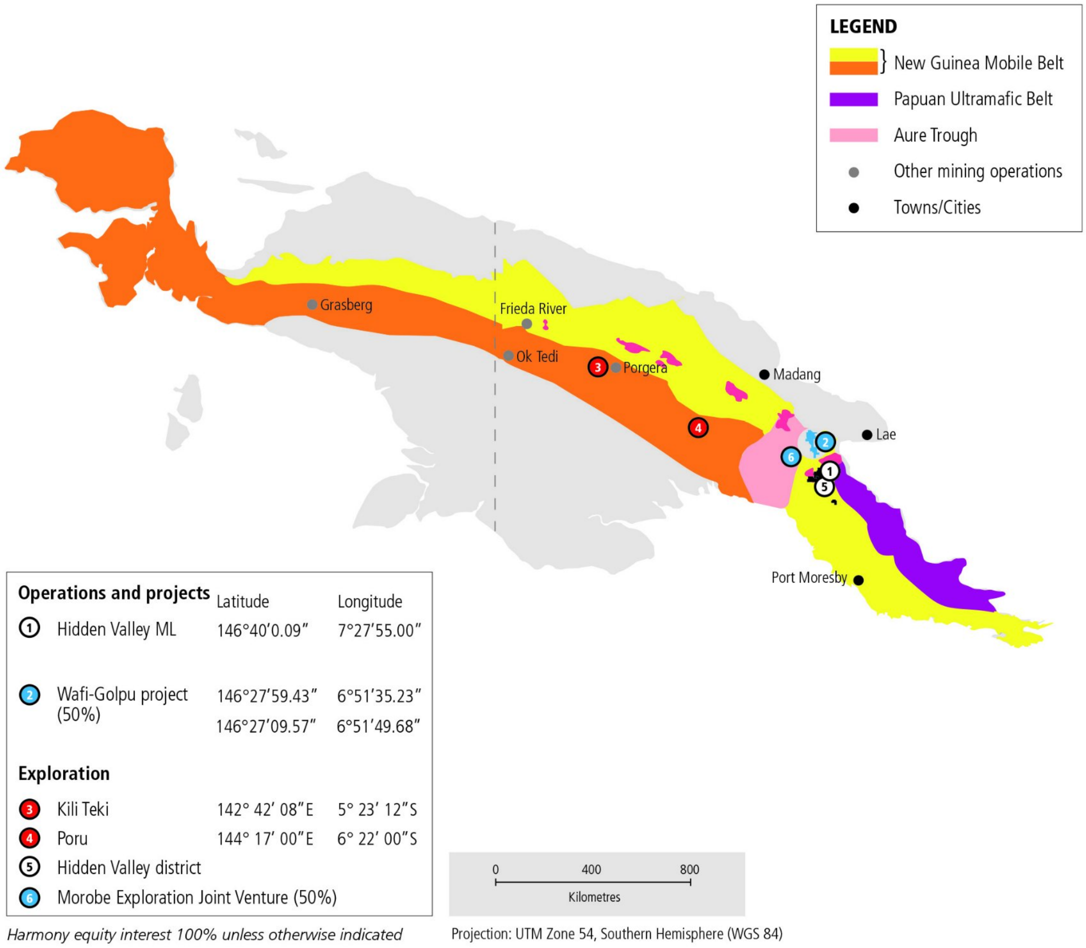
**Worldwide Operations**

The following is a map of our worldwide operations




| | | Latitude | Longitude |
|---|---|---|---|
| **West Rand operations** | | | |
| 1 | Doornkop | 26°13′03.36″S | 27°47′26.55″E |
| 2 | Kusasalethu | 26°27′16.23″S | 27°21′32.91″E |
| **Free State operations** | | | |
| 3 | Target 1 | 27°45′42.59″S | 26°38′24.92″E |
| 4 | Target 3 | 27°49′42.93″S | 26°38′29.27″E |
| 5 | Tshepong operations* | 27°51′56.45″S | 26°42′45.15″E |
| 6 | Bambanani | 28°2′28.24″S | 26°48′9.13″E |
| 7 | Unisel | 28°3′49.85″S | 26°47′11.43″E |
| 8 | Masimong | 27°58′23.93″S | 26°52′39.41″E |
| 9 | Joel | 28°16′17.19″S | 26°48′57.97″E |
| **Kraaipan Greenstone Belt** | | | |
| 11 | Kalgold | 26°10′12.85″S | 25°14′02.70″E |

** Tshepong operations is the combined Thsepong and Phakisa mining operation*




## Geology

The major portion of our South African gold production is derived from mines located in the Witwatersrand Basin in South Africa. The Witwatersrand Basin is an elongated structure that extends approximately 300 kilometers in a northeast-southwest direction and approximately 100 kilometers in a northwest-southeast direction. It is an Archean sedimentary basin containing a six kilometer thick stratigraphic sequence consisting mainly of quartzites and shales with minor volcanic units. The majority of production is derived from auriferous placer reefs situated at different stratigraphic positions and at varying depths below the surface in three of the seven defined goldfields of the Witwatersrand Basin.

Our Papua New Guinean gold production is derived exclusively from our Hidden Valley Operation in the Morobe Province of PNG. The Hidden Valley deposit comprises low sulphidation carbonate-base metal-gold epithermal deposits within the Morobe Goldfield. In the mine area, a batholith of Morobe Granodiorite (locally a coarse grained monzogranite) is flanked by fine metasediments of the Owen Stanley Metamorphics. Both are cut by dykes of Pliocene porphyry ranging from hornblende-biotite to feldspar-quartz porphyries. A number of commonly argillic altered and gold anomalous breccias are known, including both hydrothermal and over printing structural breccias. The Hidden Valley deposit is hosted in the Moribe Granodiorite, dominated by a series of post-Miocene faults, both north and north-west trending, control the gold mineralization.

Our Wafi-Golpu project (also in the Morobe Province of PNG) encompasses the Wafi and Golpu deposits. The Wafi deposit comprises sedimentary/volcaniclastic rocks of the Owen Stanley Formation that surround the Wafi Diatreme and host the gold mineralization. Gold mineralization occurs associated with an extensive zone of high-sulphidation epithermal alteration overprinting porphyry mineralization and epithermal style vein-hosted and replacement gold mineralization with associated wall-rock alteration. The Golpu deposit is located about one kilometer northeast of the Wafi deposit, and is a porphyry (diorite) copper-gold deposit. The host lithology is a diorite that exhibits a typical zoned porphyry copper alteration halo together with mineralization in the surrounding metasediment. The mineralized body can be described as a porphyry copper-gold "pipe". The Wafi gold mineralization and alteration partially overprints the upper levels of the Golpu porphyry copper-gold mineralization.

Our Kili Teke deposit is an advanced exploration play located in the Hela Province of PNG. The Kili Teke deposit comprises porphyry style copper-gold mineralization hosted in a multiphase calc-alkaline dioritic to monzonitic intrusive complex. Host rocks comprise interbedded siliciclastics and limestone of the Papuan Fold Belt. Uranium-lead zircon age dating highlight Pliocene age dates in the range of 3.5 ± 0.04 Ma (million year) to 3.59 ± 0.07 Ma for emplacement of the mineralized porphyry phases. Late-mineral porphyry phases have been identified in the drilling and impact grade continuity within the deposit, where they intrude and stope out the earlier more mineralized phases. Overall the geometry of the deposit reflects a relatively steeply plunging, pipe like body, with mineralization decreasing away from the central high grade stockwork zones of copper gold mineralization. Intense marbleization and copper-gold skarn mineralization is developed around the peripheral contact with the host sequence, and variably developed skarn mineralization also occurs along internal structural and contact zones within the complex.

**Mining and Exploration - Papua New Guinea**

Harmony has acquired 100% ownership of the Hidden Valley mining lease. With effect from July 1, 2017, all rights and interests to the mine and its operations have been amalgamated in Harmony's wholly-owned subsidiary, Morobe Consolidated Goldfields Limited and the previously existing Hidden Valley Joint Venture with Newcrest PNG 1 Limited (subsequently Harmony PNG 20 Limited) has terminated. The company has obligations under compensation agreements with landowners and a Memorandum of Agreement (MOA) with the State, Provincial and local government and the landowner association.

With regard to the Wafi-Golpu Project, Harmony's wholly-owned subsidiary, Wafi Mining Limited holds a 50% share in various exploration licenses, together with its joint operator in the Wafi-Golpu Joint Venture, Newcrest PNG 2 Limited, which holds the other 50% share. Both companies have entered into compensation agreements with landowners on its exploration licenses. On August 25, 2016, the joint venture participants submitted an application for a Special Mining Lease under section 35 of the Mining Act, and various other associated mining tenements. The application (SML 10) was registered on that date.

The project is technically challenging and the joint venture participants are undertaking further feasibility study update work, including detailed studies with regard to possible tailings management solutions (including deep sea tailings placement) and possible independent on-site bulk power generation. The outcomes of these studies could impact on the technical, commercial and economic profile of the project, and may necessitate the revision of the application and its supporting proposal for development.

With regard to our Kili Teke Project, all exploration licenses are 100% owned by Harmony's wholly-owned subsidiary, Harmony Gold (PNG) Exploration Limited. The company has entered into compensation agreements with landowners on its exploration licenses.

There has been a significant rationalization of Harmony's exploration tenement holding in PNG since fiscal 2014. As at June 30, 2017, Harmony's exploration tenement holding in PNG totaled 1,760 square kilometers (all titles excluding mining easements and ancillary mining purpose leases). The tenements form four main project areas: the Kili Teke in the Hela Province (Harmony 100% owned), the Poru project in the Southern Highlands Province (Harmony 100% owned), the Hidden Valley District in the Morobe Province (Harmony 100% owned) and Morobe Exploration Joint Venture tenement (Harmony 50% owned) over the area surrounding the Wafi-Golpu Deposit.

Harmony, through its wholly-owned subsidiary Harmony Gold Exploration (PNG) Limited, manages the exploration on all of these project areas. Prior to commencement of exploration work programs, the company enters into compensation agreements with landowners on its exploration licenses, in accordance with the Mining Act.

**Operations Recently Placed on Care and Maintenance**

***Target 3***

Target 3 (previously Loraine 3) and Freddies 7 and 9 shafts were acquired from Pamodzi Gold Free State (Proprietary) Limited (In Liquidation) ("**Pamodzi FS")** in February 2010. Target 3 is situated near the town of Allanridge in the Free State Province, some 270 kilometers southwest of Johannesburg. Located on the northern limit of the Welkom Goldfields, the site is accessed via the R30 motorway situated between the towns of Bothaville and Welkom.

**Geology**: At Target 3 Shaft there remains a mix of remnant ore blocks including shaft pillar blocks where scattered mining can be exploited, and a number of areas of virgin ground where conventional mining can take place, with the potential to exploit zone 3 in the Freddies 9 Shaft area.

The gold mineralization exploited by Target 3 is contained within the Basal Reef, B Reef, A Reef (Kimberly Formation) and Elsburg Reef, a succession of Elsburg a pebble conglomerate reefs hosted by the Van Heeverrust (Eldorado Formation). Synclinal fold forms the major structural feature and is manifested as an asymmetric syncline whose axis trends N 15° W, with a general plunge of 10-12° north.

The Target 3 Shaft orebody has characteristics that suit massive mining techniques in the Eldorados which enable design to be centered on a mechanized operation.

**Mining operations:** During fiscal 2015 the operation was placed on care and maintenance. This decision was taken based on the financial performance of the operation and the future capital that was required to extend the life of the mine.

**Production analysis**:

| Target 3 | Fiscal Year Ended June 30, 2017[1] | 2016[1] | 2015[1] |
|---|---|---|---|
| **Production** | | | |
| Tons (‘000) | — | — | 99 |
| Recovered grade (ounces/ton) | — | — | 0.156 |
| Gold produced (ounces) | — | — | 15,529 |
| Gold sold (ounces) | — | — | 16,140 |
| **Results of operations ($)** | | | |
| Product sales (‘000) | — | — | 19,432 |
| Cash cost (‘000) | — | — | (14,870) |
| Inventory movement (‘000) | — | — | (603) |
| Production profit (‘000) | — | — | 3,959 |
| **Cash costs** | | | |
| Per ounce of gold produced ($) | — | — | 958 |
| **All-in sustaining cost** | | | |
| Per ounce of gold sold ($) | — | — | 1,114 |
| **Capex** (‘000) ($) | — | — | 1,785 |

[1] Placed on care and maintenance in October 2014, therefore no discussion has been included for fiscal 2017, fiscal 2016 and fiscal 2015.

**Regulation**

*MPRDA*

The MPRDA is the primary legislation used to regulate the mining industry since it came into effect on May 1, 2004. The DMR is the national department tasked with implementing the MPRDA and regulating the mining industry. The MPRDA extinguished private ownership of minerals. The South African government’s role as custodian of South Africa’s mineral and petroleum resources was entrenched in system where the right to prospect and mine is granted by government through the Minister.

The principal objectives of the MPRDA are:

- to recognize the internationally accepted right of the South African government to exercise full and permanent sovereignty over all the mineral and petroleum resources within South Africa;
- to give effect to the principle of South Africa’s custodianship of its mineral and petroleum resources;
- to promote equitable access to South Africa’s mineral and petroleum resources to all the people of South Africa;
- to substantially and meaningfully expand opportunities for HDSA, including women, to enter the mineral and petroleum industry and to benefit from the to promote economic growth and mineral and petroleum resources development in South Africa;
- to promote employment and advance the social and economic welfare of all South Africans;
- to provide security of tenure in respect of prospecting, exploration, mining and production operations;
- to give effect to Section 24 of the South African Constitution by ensuring that South Africa’s mineral and petroleum resources are developed in an orderly and ecologically sustainable manner while promoting justifiable social and economic development; and
- to ensure that holders of mining and production rights contribute towards socio-economic development of the areas in which they are operating.

Owing to the change brought about by the MPRDA, provision for a transition from the old regime (in which the role of the South African government was regulatory in nature and in which the right to mine vested in the holder of the common law mineral rights) to the new regime (which provides for the South African government, acting through the Minister, to grant mining rights) has been made in the Transitional Provisions contained in Schedule II of the MPRDA (the “**Transitional Provisions**”). The Transitional Provisions provide for, among other things, the holders of then-existing “old order” mining rights to apply for the conversion of those old order rights into “new order” mining rights in accordance with the MPRDA within five years of May 1, 2004, or before the old order right expired, whichever was earlier.

Old order mining rights were converted into new order mining rights in accordance with the MPRDA provided that the holder of the old order right fulfilled the requirements specified in the MPRDA, its Regulations and the Original Mining Charter or the Revised. Revised Mining Charter, as the case may have been at the relevant juncture. Upon conversion, or failure to convert within the specified time periods, the old order rights cease to exist. In the event that the old order right was converted, the new order mining right could have been converted for a period up to 30 years which period may be renewed for further periods, each of which may not exceed 30 years at a time. A mining right for which an application for renewal has been lodged shall, despite its stated expiry date, remain in force until such time as such application has been granted or refused.

In accordance with the MPRDA, the holder of a mining right must comply with the terms of the right, the provisions of the MPRDA, the environmental authorization (issued under NEMA), the mining work program and the social and labor plan (the "**SLP**") approved as part of the right. The SLP relates to the obligations placed on the mining right holder to, among other things, train employees of the mine in accordance with prescribed training methodologies, achieve employment equity and human resource development in the mining company, improve housing and living conditions of employees and set up local economic development projects. Compliance with the provisions of the MPRDA, environmental authorization, mining work program and SLP is monitored by submission of monthly, bi-annual and annual returns and reports by the holder of the right to the DMR in accordance with the provisions of the MPRDA and the right.

We have been working on our program of licensing since 2004, which involved the compilation of a mineral assets register and the identification of all of our economic, mineral and mining rights. We actively carry out mining and exploration activities in all of our material mineral rights areas. Accordingly, the change in regime to that contained in the MPRDA has not had a significant impact on our mining and exploration activities as we applied for and were granted conversion of all of our old-order mining rights into new order mining rights in terms of the MPRDA. Our strategy has been to secure all strategic mining rights on a region-by-region basis, which we have achieved as we have secured all “old mining rights” and validated existing mining authorizations. We now have to continue complying with the required monthly, annual and bi-annual reporting obligation to the DMR.

On May 31, 2013, a notice was published in the Government Gazette recording the Minister's intention to introduce the MPRDA Bill into Parliament. The Bill was introduced into Parliament on June 21, 2013. The DMR briefed the National Assembly's Portfolio Committee on Mineral Resources on July 30 and 31, 2013 and various amendments to the MPRDA Bill have since been effected, however, the MPRDA Bill has not been assented to by the President and remains pending. There is a degree of uncertainty regarding the changes that will be brought about should the MPRDA Bill be made law and the MPRDA Bill raises some concerns as it relates to Harmony’s business:

- *Concentration of rights*

  The MPRDA Bill seeks to amend the MPRDA to provide that the Minister must refuse to provide a mining right or an exploration right if this will result in a concentration of rights under the control of the applicant.

- *Ownership of tailings created before May 1, 2004*

  The MPRDA provides that historic tailings are not regulated in terms of the MPRDA; however, the MPRDA Bill purports to amend the MPRDA so as to render historic tailings subject to regulation under the MPRDA, resulting in the South African government gaining custodianship of historic tailings.

- *Mineral beneficiation*

  A key change is that the MPRDA Bill now makes it mandatory for the Minister to “initiate or promote the beneficiation of minerals and petroleum resources in the Republic of South Africa”. The MPRDA Bill affords the Minister broad discretion over beneficiation, without providing any criteria under which such discretion should be exercised.

- *Issue of a closure certificate*

  The MPRDA Bill envisages that a rights holder will remain liable for any latent or residual environmental and associated damage caused by prospecting and mining operations, even after (and notwithstanding) the issue of a closure certificate by the Minister. This means that a rights holder will no longer be indemnified from liability after the issue of a closure certificate.

Harmony is, through the Chamber of Mines of South Africa, working closely with government to ensure that the MPRDA Bill is drafted to support continued investment in mining in South Africa.

*The Mining Charter*

The South African government has identified the South African mining industry as an industry in which significant BEE participation is required. One of the express objects of the MPRDA is to substantially and meaningfully encourage HDSAs , including women, to enter the mineral and petroleum industries and to benefit from the exploitation of the nation’s mineral and petroleum resources. Section 100 of the MPRDA provides that the Minister must, within six months from the date on which the MPRDA takes effect, develop a broad-based social empowerment charter. This sets the framework, targets and timetable for affecting the entry of HDSAs into the mining industry, and allow such South Africans to benefit from the exploitation of mining and mineral resources.

Mining right holders were initially required to comply with the Original Mining Charter for effecting entry of HDSAs into the mining industry. Among other things, the Original Mining Charter required (i) each mining company to achieve a 15% HDSA ownership of mining assets within five years of the Mining Charter coming into effect and a 26% HDSA ownership of mining assets within 10 years of the Mining Charter coming into effect, (ii) the mining industry as a whole to agree to assist HDSA companies in securing finance to fund participation in an amount of R100 billion over the first five years and (iii) mining companies to spell out plans for achieving employment equity at management level with a view to achieving a baseline of 40% HDSA participation at executive management (board) level, senior management (executive committee) level core and critical skills, middle management level and junior management level and 10% participation by women in the mining industry, in each case within five years.

On September 13, 2010, the Minister published the Amendment of the Revised Mining Charter and an updated Scorecard in respect thereof. The Revised Mining Charter's addresses ownership, procurement and enterprise development, beneficiation, employment equity, human resources development, mine community development, housing and living conditions, sustainable development and growth of the mining industry and reporting (monitoring and evaluation).

BEE participation is an absolute requirement for the conversion of a mining right. Mining companies are required to achieve an effective HDSA ownership of 26% of mining companies. The Revised Mining Charter does provide for a maximum 11% HDSA equity offset where a mining company undertakes beneficiation activities in relation to the mineral it extracts and mining companies are required to (i) procure a minimum of 40% of capital goods, 70% of services and 50% of consumer goods from HDSA suppliers (i.e. suppliers in which a minimum of 25% + 1 vote of their share capital must be owned by HDSAs) by 2014 (exclusive of non-discretionary procurement expenditure); (ii) ensure that multinational suppliers of capital goods contribute a minimum of 0.5% of their annual income generated from South African mining companies into a social development fund from 2010 towards the socio-economic development of South African communities; (iii) achieve a minimum of 40% HDSA demographic representation by 2014 at executive management (board) level, senior management (executive committee) level, core and critical skills, middle management level and junior management level, (iv) invest up to 5% of annual payroll in essential skills development activities and (v) implement measures to improve the standards of housing and living conditions for mineworkers by converting or upgrading mineworkers' hostels into family units, attaining an occupancy rate of one person per room and facilitating home ownership options for all mineworkers in consultation with organized labor, all of which must be achieved by 2014.

In addition, mining companies are required to monitor and evaluate their compliance with the Revised Mining Charter and must submit annual compliance reports to the DMR. The Scorecard attached to the Revised Mining Charter makes provision for a phased-in approach for compliance with the above targets over the five year period ended in 2014. For measurement purposes, the Scorecard allocates various weightings to the different elements of the Revised Mining Charter. Failure to comply with the provisions of the Revised Mining Charter will, according to the Revised Mining Charter ostensibly amount to a breach of the MPRDA and may result in the cancellation or suspension of a mining company's existing mining rights.

December 2014 marked the end of the five-year period of implementation of the Revised Mining Charter and, as such, all targets must have been achieved by the end of calendar 2014. In March 2015, the DMR made an interim report of consolidated results of the self-assessment by reporting companies of compliance with the Mining Charter, reporting relatively broad compliance with the non-ownership requirements of the Revised Mining Charter. However, the DMR did not report the results of compliance with the HDSA ownership guidelines of the Mining Charter and noted that there is no consensus on certain applicable principles.

Harmony believes that it had complied with the requirements of the Revised Mining Charter. Harmony will continue to comply with the Revised Mining Charter until a new Charter is applicable. *See "*Integrated Annual Report for the 20-F 2017-*Harmony in Action-Mining Charter compliance scorecard"* on pages 98 to 99.

In March 2015, the Minister released the assessment of the mining industry's compliance with the Mining Charter. Following the release, on April 15, 2016 the Minister published the draft Broad Based Black Economic Empowerment Charter for the South African Mining and Minerals Industry ("**draft Mining Charter**"). This publication was met with much industry discontent. Harmony notes the difference of opinion in how some BEE participation transactions are recognized and the applicability of the "*once empowered, always empowered principle*". To this end, the DMR and the mining industry agreed to jointly seek a 'declaratory order' from a South African court to determine whether the "*once empowered, always empowered principle*" is applicable to the BBE participation component of the Mining Charter. This was a proactive and necessary step to promote regulatory certainty for the mining industry, but the matter has not yet been heard in court. The parties opted instead to seek an amicable settlement of differences but before efforts in this regard was finally exhausted, the Minister published on June 15, 2017 the 2017 Mining Charter. Within days of its publication, the Chamber of Mines launched an urgent interdict application pending the final determination of an application to review and set aside the 2017 Mining Charter. On July 14, 2017 the Minister issued a written undertaking that he and the DMR will not implement or apply the provisions of the 2017 Mining Charter in any way pending judgment in the aforementioned urgent interdict application brought by the Chamber of Mines. In light of the written undertaking, the Chamber of Mines has agreed to provide the Minister more time to file its answering affidavit and the hearing of the interdict application is now likely to be heard late in the third quarter or early in the fourth quarter of 2017.

Soon after reaching agreement to postpone the hearing for an interdict of the 2017 Mining Charter, the Minister published on July 19, 2017 an invitation for representations by relevant stakeholders on a proposed restriction under section 49(1) of the MPRDA on the granting of any application for new prospecting and mining rights, applications for renewal of such rights, and section 11 applications. The Chamber of Mines urgently launched an interdict application and on the eve of the hearing, the Chamber of Mines and the Minister reached agreement for the matter to be postponed after the Minister formally stated that he would not take any steps contemplated in the aforementioned notice. The Minister's undertaking was made an order of court on August 4, 2017 and the matter was postponed *sine die.*

The fate of the 2017 Mining Charter is unclear with the application for a declaratory order on the "*once empowered, always empowered principle*" and the interdict and review proceedings in relation to the 2017 Mining Charter still pending and because it may still be subject to further change, however, we note that:

- the targets set in the 2017 Mining Charter have all been heightened and more stringent compliance requirements have been proposed (e.g., 30% black ownership in the case of mining rights and "50% + 1 vote black person shareholder" in the case of prospecting rights);
- as was the case with its predecessors, the draft Mining Charter contains six elements with which mining companies are expected to comply. In addition, an updated weighted scorecard has been included, however, that the Ownership, Housing and Living Conditions and Human Resource Development elements are now "**Ring Fenced Elements**", which means that mining companies must ensure strict compliance with these elements at all times. The Employment Equity, Procurement and Supplier Development and Mine Community Development elements are each weighted;
- existing right holders are given a maximum of one year from the effective date of the 2017 Mining Charter, to comply with the revised targets set out therein;
- the 2017 Mining Charter seeks to align itself with the Revised Codes of Good Practice on Black Economic Empowerment, 2013 published under the Broad-Based Black Economic Empowerment Act (Act 53 of 2003) ("**BBBEE Act**"). This is, however, done in an opaque fashion, as it relates only to the scorecard and ignores the important discrepancies in the manner that ownership by HDSAs is measured; and
- rights holders who have not complied with the Ring Fenced Elements and who fall "between level 5 and 8" of the scorecard are said to be in breach of the MPRDA.

*The Royalty Act*

The Mineral and Petroleum Royalty Act 28 of 2008 and the Mineral and Petroleum Royalty Administration Act 29 of 2008 were assented to on November 21, 2008 with the commencement date set as May 1, 2009. However, the date on which royalties became payable was deferred to March 1, 2010. Royalties are payable by the holders of mining rights to the government according to formula based on a defined earnings before interest and tax. This rate is then applied to a defined gross sales leviable amount to calculate the royalty amount due, with a minimum of 0.5% and a maximum of 5% for gold. For 2017, the average royalty rate for our South African operations was 0.7% of the gross sales leviable amount.

*The BBBEE Act and the BBBEE Amendment Act*

The BBBEE Act, which came into effect on April 21, 2004, established a national policy on broad-based black economic empowerment with the objective to (i) remedy historical racial imbalances in the South Africa economy and (ii) achieve economic transformation, by increasing the number of black people who participate in the mainstream South African economy. The BBBEE Act provides for various measures to promote BEE participation, including empowering the Minister of Trade and Industry to issue the BBBEE Codes, with which organs of state and public entities and parties interacting with them or obtaining rights and licenses from them would be required to comply. The BBBEE Codes were first published in 2007, and were revised in 2013 (although the revisions only came into effect in 2015). The BBBEE Codes sought to provide a standard framework, in the form of a "generic scorecard", for the measurement of BBBEE across all sectors and industries operating within the South African economy and sought to regularize such sectors and industries by providing clear and comprehensive criteria for the measurement of BBBEE.

On October 24, 2014, the BBBEE Amendment Act, No. 46 of 2013 (the "**BBBEE Amendment Act**") came into effect. The BBBEE Amendment Act inserted a new provision in the BBBEE Act, whereby the BBBEE Act would trump the provisions of any other law in South Africa which conflicts with the provisions of the BBBEE Act, provided such conflicting law was in force immediately prior to the effective date of the BBBEE Amendment Act. The BBBEE Amendment Act also stipulates that this provision would only be effective one year after the BBBEE Amendment Act is brought into effect, on October 24, 2015. On October 27, 2015, the Minister for Trade and Industry published a government gazette notice declaring an exemption in favor of the DMR from applying the requirements contained in section 10(1) of the BBBEE Act for a period of 12 months. There has been some debate as to whether or to what extent the mining industry was subject to the BBBEE Act and the policies and codes provided for thereunder. The BBBEE Codes apply in the absence of sector specific codes which have been agreed to by interested and affected parties active within a specific sector. By way of background, various sectors within the South African economy may negotiate and agree Codes of Good Practice which would govern transformation in that specific sector. In addition, certain codes fall outside of the regulatory framework established by the BBBEE Act and Codes promulgated by the Minister of Trade and Industry thereunder. One such sector is the mining industry, where the Mining Charter governs the implementation of BBBEE, among other things, within the mining industry. For purposes of the BBBEE Act, the Mining Charter is not a Sector Code. It is not clear at this stage how the Mining Charter and Code relate to each other. The government may designate the Mining Charter as a Sector Code, in which case it will be under the auspices of the BBBEE Act. On the other hand, the Mining Charter may remain a stand-alone document under the auspices of the MPRDA and may be subject to the trumping provision discussed above. This uncertainty may be resolved through either government clarification or judicial attention. The exemption by the Minister for Trade and Industry can be read as confirmation that the Department of Trade and Industry regards the BBBEE Codes as "applicable" to the Mining Industry after the exemption is lifted on October 27, 2016. On February 17, 2016, the Minister of Trade and Industry published a gazette notice which repealed and confirmed the validity of a number of Sector Codes. The omission of the Mining Charter from the notice can be interpreted as confirmation that the Mining Charter is not contemplated as a Sector Code. This supports the interpretation BBBEE Act did not intend to trump the Mining Charter. While it remains to be seen how this will be interpreted, it appears that the BBBEE Act and the BEE Codes will not overrule the Mining Charter in the future and, in any event, our view is that the DMR is likely to continue implementing the Mining Charter and it is unlikely that the DMR will begin applying the BBBEE Act and BBBEE Codes in administering the MPRDA.

***Mineral Rights - Papua New Guinea***

Mining in PNG is governed by the Mining Act of 1992 (PNG). The Act stipulates that all mineral rights in PNG belong to the State, and, subject to the Act, all land is available for exploration and mining. The PNG government issues and administers mining tenements under the Mining Act 1992, through the offices of the PNG Mineral Resources Authority, within the PNG Department of Mining.

Mining tenements include:

- exploration licenses, issued for a term not exceeding two years, renewable for further two year terms subject to compliance with expenditure and other conditions. Each license contains a condition conferring on the PNG government the right to make a single purchase up to 30% equitable interest in any mineral discovery under the license at a price pro rata to the accumulated exploration expenditure;
- mining leases, issued for a term not exceeding 20 years, renewable on application subject to compliance with issue conditions;
- special mining leases, issued for a term not exceeding 40 years, renewable on application subject to compliance with issue conditions;
- mining easements; and
- leases for mining purposes.

These tenements generally confer exclusive rights on the holder to exercise their rights thereunder. The key difference in PNG is that citizens have the right to carry out non-mechanized mining of alluvial minerals on land owned by them, provided that an alluvial mining lease is obtained and provided there is not already a mining lease or special mining lease over the subject land

Almost all land in PNG is owned by a person or group of persons under customary ownership, and is not generally overlaid by landowner title. The customary owners of the land have in some instances been formally identified through the work of the Land Titles Commission. However, there is often considerable difficulty in identifying landowners of a particular area of land because land ownership may arise from both contract and inheritance, and because of the absence of a formal written registration system.

Along with standard corporate and other taxes and levies, mining companies must pay royalties to the State based on production. Prior to commencing exploration, compensation for loss or damage must be agreed with the landowners. Prior to commencing mining, written agreements must be entered into with landowners dealing with compensation and, in company with the State as a party, a Memorandum of Agreement dealing with such other matters as the sharing of royalties and other mining benefits between landowner groups and Provincial and local government entities.

Mineral policy in PNG is administered by the Department of Mineral Policy and Geohazards Management, also within the PNG Department of Mining, The legislative and fiscal regime in PNG has been under review since 2012, including the Mining Act, Mining Safety Act q, Mineral Policy and various sector policies including offshore mining policy, sustainable development policy, involuntary relocation policy and mine closure policy. In its capacity as the representative industry body, the Chamber of Mines and Petroleum of PNG has collated information from industry participants and has lodged formal industry responses to the government’s proposals. Harmony is represented on the chamber’s sub-committee and is actively participating in its discussions.

***Health and Safety - South Africa***

For many years, the safety of persons working in South African mines and quarries was controlled by the Mines and Works Act of 1956 and then by the Minerals Act of 1991 which was replaced by the Mine Health and Safety Act 29 of 1996 (as amended, the "**MHSA**"). The objectives of the MHSA are:

- to protect the health and safety of persons at mines;
- to require employers and employees to identify hazards and eliminate, control and minimize the risks relating to health and safety at mines;
- to give effect to the public international law obligations of South Africa that concern health and safety at mines;
- to provide for employee participation in matters of health and safety through health and safety representatives and the health and safety committees at mines;
- to provide effective monitoring of health and safety measures at mines;
- to provide for enforcement of health and safety conditions at mines;
- to provide for investigations and inquiries to improve health and safety at mines;
- to promote a culture of health and safety in the mining industry;
- to promote training in health and safety in the mining industry; and

- to promote co-operation and consultation on health and safety matters between the South African, employers, employees and their representatives.

One of the most important objectives of the MHSA is to protect the health and safety of all persons at mines and not merely the health and safety of employees. An employer is obliged, in terms of the MHSA and the regulations binding in terms thereof, to protect, as far as reasonably practicable, the health and safety of non-employees (such as visitors to a mine) and employees (which includes employees of independent contractors) performing work at a mine. The word "*employer*" in section 102 of the MHSA is defined as the owner of the mine. In turn, an "*owner*" of a mine is defined to include: (i) the holder of the prospecting permit or mining authorization issued under the MPRDA; (ii) if a prospecting permit or mining authorization does not exist, the person for whom the activities in connection with the winning of a mineral are undertaken, but excluding an independent contractor; or (iii) the last person who worked the mine or that person's successor in title.

The aforesaid subsection was amended by section 30(f) of the Mine Health and Safety Amendment Act, No. 74 of 2008 by substituting the term "*Mineral and Petroleum Resources Development Act*" for the term "*Minerals Act*." Under the new system, mining authorizations do not exist. However, taking into account section 12 of the Interpretation Act, No. 33 of 1957, the word "*authorisation*" must be substituted by the words "*mining right or mining permit*." Accordingly, the holder of the "*mining right or mining permit*" is regarded the employer for the purposes of the MHSA and the regulations binding thereunder. The employer therefore remains responsible to ensure that applicable provisions of the MHSA and the regulations binding in terms thereof are complied with to ensure the health and safety of persons, as far as reasonably practicable and to prevent damage to property.

The MHSA prescribes general and specific duties for employers and others, determines penalties and a system of administrative fines, and provides for employee participation by requiring the appointment of health and safety representatives and the establishment of health and safety committees. It also entrenches the right of employees to refuse to work in dangerous conditions.

*See "Integrated Annual Report for the 20-F 2017-Harmony in Action-Safety and health"* on pages 38 to 53.

The Mine Health and Safety Inspectorate ("**MHSI**") within the DMR is responsible for the enforcement of the MHSA and the regulations binding in terms thereof and it also plays an important role in the promotion of health and safety at mines. The MHSI comprises of a Chief Inspector of Mines, Principal Inspectors of Mines for each region and various Inspectors of Mines for each region. Should employers or employees fail to comply with their obligations under the MHSA the MHSI may take a number of enforcement measures which include the following:

- the issuing of statutory instructions (for example notices in terms of section 54 or section 55 of the MHSA) if an Inspector of Mines has reason to believe that any occurrence, practice or condition at a mine endangers the health and safety of any person at a mine, alternatively if an Inspector of Mines has reason to believe that a provision of the MHSA has not been complied with. A notice in terms of section 54 of the MHSA may halt all mining operations undertaken at a mine or part thereof. If a mine receives notices in terms of section 54 of the MHSA regularly, the production stoppages and the additional costs incurred as a result thereof, will not only affect the production results of a mine but also the reputation and business of a mine. If, however, a notice in terms of section 54 of the MHSA has been issued unlawfully, the mine may appeal the said notice to the Chief Inspector of Mines. It must be noted that the aforesaid appeal does not suspend the operation of the notice issued in terms of section 54 of the MHSA. To suspend the operation of the notice in the above instance, a mine may lodge an urgent application to the Labour Court (being the court with jurisdiction) requesting the suspension of the operation of the notice issued in terms of section 54 of the MHSA pending the outcome of the appeal to the Chief Inspector of Mines;

- the Chief Inspector of Mines may suspend or cancel certificates of competency issued in terms of the MHSA if the holder of that certificate is guilty of gross negligence or misconduct or has not complied with the MHSA or the regulations binding thereunder;

- a Principal Inspector of Mines may recommend prosecution to the National Director of Public Prosecutions if satisfied that there is sufficient admissible evidence that an offence has been committed. Any person convicted of an offence in terms of the MHSA may be sentenced to a fine or imprisonment as may be prescribed; and

- a Principal Inspector of Mines may, after considering the recommendation of an Inspector of Mines and the written representations of the employer, impose an administrative fine for the failure to comply with, amongst others, the provisions of the MHSA and the regulations binding thereunder. In terms of Schedule 8 to the MHSA, the maximum administrative fine which may be imposed on an employer is one million ZAR per transgression. The MHSA does not make provision for any internal appeal against an administrative fine which has been issued unlawfully. However, if a mine receives an administrative fine which has been issued unlawfully, the mine may lodge an application in the Labour Court (being the court with jurisdiction) to review the decision of the Chief Inspector of Mines to impose an administrative fine.

Over and above the aforesaid, investigation and/or inquiry proceedings in terms of the MHSA are instituted by the MHSI following the occurrence of any accident or incident at a mine, which results in the death of any person.

In South Africa the COIDA and ODMWA established two statutory systems for the payment of compensation for occupationally related injuries and certain occupationally related diseases. COIDA applies to the compensation of all occupational injuries (including payment of compensation in the event of the death of the injured employee), whether or not it occurs in or outside the mining industry. ODMWA applies to diseases which are defined as "*compensatable diseases*", being primarily occupationally related lung diseases like silicosis. COIDA indemnifies the employer against claims by the employee or his/her dependents for damages incurred as a result of occupational injuries and diseases. The Constitutional Court held in *Mankayi v AngloGold Ashanti Limited* 2011 (3) SA 237 (CC) that although COIDA applies to occupational diseases in general, COIDA does not apply in instances where the disease in question is a compensatable disease in terms of ODMWA and which was contracted as a result of the performance of "*risk work*" at a "*controlled mine*". The Court further held that if an employee contracts a compensatable disease as defined in ODMWA, the employee would still be entitled to claim common law damages from the employer.

***Health and Safety - Papua New Guinea***

PNG has a significant mining industry, and a developing system of occupational health and safety. The Mining (Safety) Act 1977 (PNG) is the principal legislation, which addresses a range of issues such as working hours, minimum safety and reporting requirements. Other legislation and regulations also apply.

The PNG Mining (Safety) Act and Regulations are currently under review as part of the overall review of mining legislation in PNG.

*See "Integrated Annual Report for the 20-F 2017-Harmony in Action-Safety and health"* on pages 38 to 53*.*

***Laws and Regulations pertaining to Environmental Protection - South Africa***

The following is an overview of the South African environmental laws and regulations which are relevant to our operations in South Africa.

Four major pieces of legislation presently account for the majority of environmental management of mining operations in South Africa and are discussed in turn below. They are:

- NEMA;
- The National Water Act, 36 of 1998 ("**NWA**");
- The National Environmental Management: Air Quality Act, 39 of 2004 ; and
- The National Environmental Management: Waste Act, 59 of 2008 ("**Waste Act**").

South African environmental legislation commonly requires businesses whose operations may have an impact on the environment to obtain permits, authorizations and other approvals for those operations. The rationale behind this is to ensure that companies with activities that are reasonably expected to have environmental impacts, can initially assess the extent of the environmental impacts from such activities, as well as to put reasonable and practicable mitigation measures in place to manage these impacts.

*NEMA*

NEMA is the overarching legislation giving effect to the environmental right protected in section 24 of the Constitution of the Republic of South Africa, 1996, and which provides the underlying framework and principles underpinning the coordinated and integrated management of environmental activities. In terms of NEMA, an environmental authorization is required in order to commence a listed activity. These activities are currently listed in GNR 983-985 of December 8, 2014 ("**NEMA Listed Activities**"), as amended in GNR 324-327 of April 4, 2017. The commencement of a listed activity without an environmental authorization may be rectified via a section 24G application for authorization, however, such application will be subject to payment of an administrative penalty and may attract other liability.

Depending on the anticipated severity of the impact of undertaking a listed activity, the application process will require either a basic assessment report ("**BAR**") or a scoping and environmental impact assessment report ("**S&EIR**") to be prepared as part of the application for an environmental authorization. An activity requiring a mining right is considered to have a more severe environmental impact and requires an S&EIR prior to commencement. This listed activity was previously listed in the listing notices published prior to 2014; however, it was never brought into effect. As a result there was legal debate about the applicability of NEMA listed activities to mining and related activities and whether activities which were incidental to mining triggered other related activities under NEMA. Previously the approval of an Environmental Management Programme ("**EMPR**") served a relatively similar function under the MPRDA. Clarity has since been brought about by virtue of a number of amendments to NEMA and the MPRDA, as well as the listed activities under NEMA and it is clear that as of December 8, 2014, an environmental authorization is required for the commencement of any activity which requires a mining right or the commencement of any activity which requires a prospecting right. The issue of an environmental authorization is a condition prior to the grant of a prospecting or mining right. The DMR is the responsible authority for the issuing of an environmental authorization; however, the Department of Environmental Affairs remains the appeal authority in respect of any appeals to the issue of an environmental authorization. Applicants are also required to follow stringent requirements in the public participation process to enable consultation with all interested and affected parties.

As part of its application for an environmental authorization the applicant must demonstrate that it has complied with the prescribed financial provisioning requirements in terms of section 24P of NEMA. This means that the holder must set provisioning rehabilitation of the mining activities for concurrent rehabilitation, rehabilitation upon closure and the costs of managing latent and residual post closure impacts. Moreover every holder of a mining right must assess his or her environmental liability on an annual basis and must increase his or her financial provision to the satisfaction of the Minister for

Mineral Resources. The holder must also submit an audit report to the Minister on the adequacy of the financial provision from an independent auditor. The new financial provisions, regulations 2015 stipulate new procedures for how financial provision is to be made, audited and reviewed. Existing mines are also required to comply with the financial provision requirement, and are required to substantively review and align their financial provision in accordance with these regulations during the relevant transitional period, the long-stop date of which currently expires on February 20, 2018. These regulations have brought about a number of changes and clarifications to the previous legal regime, and they are likely to substantially increase the required quantum of financial provision set aside by existing operations, as well as the financial vehicles historically used by mining companies to put up these provisions. This is due to the qualification that latent or residual environmental impacts which may become known in the future now include the pumping and treatment of polluted or extraneous water. The mining industry has raised serious concerns about the intent of, and ability of the DMR to implement the new regulations. The proposed changes which have been published also seek to address some of the concerns that have been raised by the mining industry.

Lastly, NEMA imposes a statutory obligation on every person who has caused or is likely to cause significant contamination to take reasonable measures in relation thereto. This duty applies retrospectively to contamination caused prior to 1998. A failure to comply with this duty, as well as the requirement for an environmental authorization can result in significant fines of up to ZAR10 million and/or 10 years imprisonment being imposed. Directives or compliance notices can also be issued under NEMA for the temporary or permanent shut down of facilities at a mining operation or the entire mining operation. Directors and certain employees can also be held criminally liable for environmental offences in their personal capacity under NEMA if they fail to take reasonable measures to protect the environment.

*Waste management*

In relation to mining waste specifically, the Waste Act has recently been amended so as to apply to residue stockpiles and deposits and to prescribe certain management measures in respect thereof. A waste management license is now required for the establishment or reclamation of a residue stockpile or residue deposit resulting from activities which require a prospecting right or mining permit. This requirement only applies to facilities established or reclaimed after July 24, 2015. It does not apply retrospectively to existing stockpiles and deposits as the relevant transitional provisions (albeit drafted ambiguously) appear to suggest that if they were authorized in an EMPR in terms of the MPRDA prior to July 24, 2015, they will be considered lawful or authorized for the purposes of the Waste Act. Other waste management facilities constructed and/or operated by our operations may also be subject to licensing requirements, including hazardous waste disposal sites and central salvage yards.

In addition to licensing, mines must also comply with the management measures prescribed for residue stockpiles and deposits in the Regulations for Residue Stockpiles and Residue Deposits from a Prospecting, Mining, Exploration or Production Operation in GNR 632 of July 24, 2015. These regulations do not retrospectively apply to existing stockpiles and deposits, so long as they are in an approved EMPR. These regulations have notable cost implications for new residue stockpiles and deposits established after this date as they impose certain liner/barrier requirements for them.

As of May 2014, the Waste Act also regulates contaminated land, whether or not the contamination occurred before the commencement of the Waste Act or at a different time from the actual activity that caused the contamination. Consequently, historic, as well as present or future arising, contaminated land which is identified as an investigation area by the environmental authorities or which is notified as being contaminated by the land owner must be assessed and reported on. The direction of taking monitoring and management measures, or of undertaking site remediation, may follow depending on the level of risk associated with the contamination.

*Water use and pollution*

South Africa’s water resources are regulated by the NWA. The NWA has provisions governing the prevention and remediation of pollution, and provides for a liability regime similar to that of NEMA, as well as licensing requirements. Most mining operations require a water use license in order to conduct their operations, particularly for activities relating to water abstraction, storage, effluent discharge, diversions, and facilities which have the potential to pollute groundwater resources. Water use licenses are difficult to obtain and usually involve a lengthy and delayed application process. Mines are also required to comply with the regulations which were specifically published for the use of water for mining and related activities in GN 704 of June 4, 1999. These regulations provide for limitations on the location of mining infrastructure and requirements for separation of dirty and clean water systems and the design of certain water management infrastructure.

***Environment - Papua New Guinea***

In PNG, there are various laws and regulations relating to protection of the environment which are similar in scope to those of South Africa. The Environment Act 2000 (PNG) governs the environmental permitting and regulatory aspects of mining projects. An environmental impact statement is required when projects are likely to have a significant adverse impact on the environment. This statement must be lodged with the Conservation and Environment Protection Authority (previously the Department of Environmental Conservation) where, for large projects, it may be forwarded to the Environment Council for review. Public consultation is an integral part of this review.

Other environmental legislation includes the Water Resources Act 1982 and Regulations and the *Forestry Act* 1991 and Regulations

***Labor Relations***

*South Africa*

Employee relations in South Africa are guided by the Labour Relations Act as well as by company and mine-based recognition agreements. In South Africa, Harmony recognizes four labor unions. As at financial year-end, these unions and their corresponding representation were as follows, namely the National Union of Mineworkers (at 60%); the Association of Mineworkers and Construction Union (at 24%); the United Association of South Africa (at 8%) and Solidarity (at 2%). About 94% of our South African workforce is unionized, with the balance not belonging to a union. See *"Integrated Annual Report for the 20-F 2017-Harmony in Action-Employees and communities"* on pages 54 to 70.

*Australia*

Employee relations in Australia are regulated by a combination of federal and state statutes that stipulate minimum standards and provide for collective bargaining and action. All employment contracts are based on the Fair Work Act of 2009 and the National Employment Standards. Our Australian workforce is not unionized.

*Papua New Guinea*

Employee relations in PNG are regulated by the Employment Act of 1978 (PNG) and the Employment of Non-Citizens Act 1978 (PNG). Individual contracts are entered into, and the workforce is not unionized.

In PNG, wages are guided by independent market research that compares mining, oil and gas companies in the region. Industrial relations at Hidden Valley have been established through regular dialogue between management and employees via the Employee Relations Committee. Employees at PNG are not unionized, however, Hidden Valley Mine employment is guided by the Training and Localisation Policy appended to the Memorandum of Agreement ("**MOA**") between the company, the State, Provincial and local governments and the Landowner Association. The MOA governance process requires that, when qualifications and experience are equivalent, employment preference is given to local and landowner candidates before individuals from other provinces or countries. Compliance with this agreement is a critical issue in maintaining Hidden Valley Mine's license to operate.

**C. ORGANIZATIONAL STRUCTURE**

The information set forth under the heading:

- *"-Who we are"* on page 6

of the Integrated Annual Report for the 20-F 2017 is incorporated herein by reference. Also see note 2.1 "*Consolidation*" of our consolidated financial statements, set forth beginning on page F-1.

**D. PROPERTY, PLANT AND EQUIPMENT`**

The information set forth under the headings:

- *"-Harmony in Action-Environmental performance"* on pages 71 to 97;
- *"-Harmony in Action-Operational performance"* on pages 100 to 143;

of the Integrated Annual Report for the 20-F 2017 is incorporated herein by reference. Also see note 13 "*Property, Plant and Equipment*" and note 29 "*Cash Generated by Operations*" of our consolidated financial statements, set forth beginning on page F-1.

Also see Item 4: "*Information on the Company-Business Overview--Reserves", "-Geology" and "-Capital Expenditures"* and Item 5: "*Operating and Financial Review and Prospects-Tabular Disclosure of Contractual Obligations"*.

**ITEM 4A. UNRESOLVED STAFF COMMENTS**

Not applicable.

**ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS**

*You should read the following discussion and analysis together with our consolidated financial statements, including the related notes, set forth beginning on page F-1.*

**A. OPERATING RESULT**

**Overview**

We are currently the third largest producer of gold in South Africa and are an important producer in PNG. Our gold sales for fiscal 2017 were 1.09 million ounces of gold. As at June 30, 2017, our mining operations and projects reported total proved and probable reserves of approximately 36.7 million gold equivalent ounces and in fiscal 2017 we processed approximately 21.4 million tons of ore.

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker ("**CODM**"). The CODM has previously been identified as the executive committee ("**Exco**"). During April 2017, the top management structure was changed, creating a group CEO's office consisting of the chief executive officer, financial director, director corporate affairs and chief operating officer: new business. The group CEO's office has replaced Exco as the CODM. There has been no change to the information reported to the CODM.

For segment purposes, management distinguishes between "Underground" and "Surface", with each shaft or group of shafts or open-pit mine managed by a team (headed by a single general manager) being considered to be an operating segment.

Our reportable segments are as follows:

- Bambanani, Doornkop, Joel, Kusasalethu, Masimong, Phakisa, Target 1, Target 3 (operations were suspended and placed on care and maintenance during the December 2014 quarter), Tshepong, Unisel and Hidden Valley; and
- all other shafts and surface operations, including those that treat historic sand dumps, rock dumps and tailings dams, are grouped together under *"Other - Underground*" and *"Other - Surface*".

From July 1, 2017, the Tshepong and Phakisa shafts have been integrated into the Tshepong Operations in order to take advantage of the close proximity of the two shafts, which allows for existing infrastructure to be optimized. The restriction on hoisting capacity at Phakisa will be addressed by hoisting through Tshepong. The integration proof-of-concept was completed during fiscal 2017 and the integrated life-of-mine plan approved in June 2017. Going forward, they will represent one segment and the information supplied to the CODM will reflect the change.

**Recent Accounting Pronouncements**

Harmony's accounting policies are described in the notes to the consolidated financial statements set forth beginning on page F-1. Recently adopted accounting policies, as well as recent accounting pronouncements with the potential for impact on the consolidated financial statements, are described in note 2 "*Accounting Policies*" to our consolidated financial statements set forth beginning on page F-1.

**Critical Accounting Policies and Estimates**

The preparation of our financial statements in accordance with IFRS requires management to make estimates and assumptions that affect the reported results of our operations. Actual results may differ from those estimates. We have identified the most critical accounting policies upon which our financial results depend. Some of our accounting policies require the application of significant judgment and estimates by management in selecting the appropriate assumptions for calculating financial estimates. By their nature, these judgments are subject to an inherent degree of uncertainty and are based on our historical experience, terms of existing contracts, management's view on trends in the gold mining industry and information from outside sources.

Our significant accounting policies and critical accounting estimates and judgments are described in more detail in note 2 "*Accounting Policies*" and 3 "*Critical Accounting Estimates and Judgments*", respectively, to our consolidated financial statements set forth beginning on page F-1. This discussion and analysis should be read in conjunction with such consolidated financial statements and the relevant notes. Management has identified the following as critical accounting policies because estimates used in applying these policies are subject to material risks and uncertainties. Management believes the following critical accounting policies, together with the other significant accounting policies discussed in the notes to our consolidated financial statements, affect its more significant judgments and estimates used in the preparation of our consolidated financial statements and could potentially impact our financial results and future financial performance.

***Gold mineral reserves***

Gold mineral reserves 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, 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 requires the size, shape and depth of the orebodies to be determined by analyzing geological data such as the logging and assaying of drill samples. This process may require complex and difficult geological judgments and calculations to interpret the data. These reserves are determined in accordance with the SAMREC Code, JORC and SEC Industry Guide 7.

Because the economic assumptions used to estimate the gold mineral reserves change from year to year, and because additional geological data is generated during the course of operations, estimates of the mineral reserves may change from year to year. Changes in the proved and probable reserves may affect the Group's financial results and financial position in a number of ways, for example depreciation and amortization charged in the income statement may change as they are calculated on the units-of-production method.

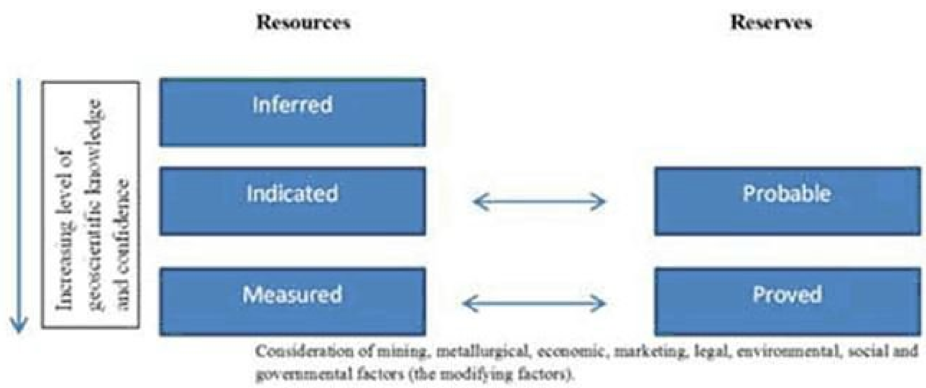
The estimate of the total expected future lives of our mines could be materially different from the actual amount of gold mined in the future. See Item 3:*"Key Information-Risk Factors-Estimations of Harmony's reserves are based on a number of assumptions, including mining and recovery factors, future cash costs of production and the price of gold. As a result, quantities of gold produced may differ from current estimates"*

***Depreciation of Mining Assets***

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

The preparation of consolidated financial statements in compliance with IFRS requires management to assess the useful life of each of its operations separately based on the characteristics of each deposit and select the reserve/resource base that best reflects the useful life of the operation. In most instances, management considers the use of proved and probable reserves for the calculation of depreciation and amortization expense to be the best estimate of the life of the respective mining operation. Therefore, for most of the Company's operations, we use proved and probable reserves only, excluding all inferred resources as well as any indicated and measured resources that have not yet been deemed economically recoverable.

In some instances, proved and probable reserves alone may not provide a realistic indication of the useful life of mine and related assets. In these instances, management may be confident that certain inferred resources will eventually be classified as measured and indicated resources, and if economically recoverable, they will be included in proved and probable reserves. Management is approaching economic decisions affecting the mine on this basis, but has not yet done the necessary development and geological drill work to improve the confidence to the required levels to designate them formally as reserves. In these cases, management, in addition to proved and probable reserves, may also include certain, but not all, of the inferred resources associated with these properties as the best estimate of the pattern in which the asset's future economic benefits are expected to be consumed by the entity.




Management only includes the proved and probable reserves and the inferred 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. The board of directors and management approach economic decisions affecting these operations based on the life-of-mine plans that include such resources. 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 SAMREC Code or JORC. For further discussion on mineral reserves, see *"-Gold mineral reserves"* above.

During 2017, the Company added the inferred resources that were included in the life-of-mine plans at Doornkop (2015 and 2016: Doornkop and Masimong) to the proved and probable reserves in order to calculate the depreciation expense. The depreciation calculation for all other operations was done using only the proved and probable reserves.

Masimong was restructured during fiscal 2015 to address the low gold price and high input cost environment. Orebody development, which would have concentrated on the inferred resource areas, was scaled down significantly as a result and the expected life of mine reduced to three years in order to improve profitability by reducing costs and improving margins. The revised life-of-mine plan has resulted in the reduction of inferred resources included in the plan. During fiscal 2016, no additional inferred resources were identified at Masimong for inclusion in the life-of-mine plan, and therefore the discussion does not apply to fiscal 2017.

In fiscal 2016, exploration at Doornkop proved successful with the inclusion of new mining areas in the updated life-of-mine plan for fiscal 2017. During fiscal 2017, a seismic study was completed with the results to be finalized during the first half of fiscal 2018. This, together with the underground exploration that started during fiscal 2017, will further enhance Doornkop's geological and orebody confidence and is expected to result in an increase in the reserves.

At Doornkop, there has been a steady conversion of the inferred resources included in the life-of-mine plan into measured and indicated resources that are then classified as reserves if economically viable. In addition, there have been no instances during the periods presented where subsequent drilling or underground development indicated instances of inappropriate inclusion of inferred resources in the life-of-mine plan. As such, management is confident that the inclusion of the inferred resources included in the life-of-mine plan in calculating the depreciation charge is a better reflection of the pattern of consumption of the future economic benefits of these assets than would be achieved by excluding them.

Management's confidence in the economical recovery of these inferred resources is based on historical experience and available geological information. The surface drilling spread (surface boreholes) and underground advance drilling at Doornkop South Reef has indicated that the portion of the inferred resources included in the life-of-mine plan exist and can be economically mined with a high level of confidence in the orebodies. The surface boreholes have been used to determine the existence of the orebodies as well as the location of major geological structures and the mineralogy of the orebodies. However, since further drilling and underground development necessary to classify the inferred resources as measured and/or indicated resources and then as reserves, if economically recoverable, has not been done yet, they remain in the inferred resource category. Geological drilling can only be done as and when the underground infrastructure is advanced.

Additional confidence in existence and commercial viability is obtained from the fact that the orebodies surrounding these two operations have already been mined over many years in the past. We mine continuations of the same reefs that these mined-out operations exploited. At Doornkop South Reef, the geological setting of the orebody is such that there is an even distribution of the mineralized content, and reliance can be placed on the comparable results of the surrounding mines. As these results are already known, simulations and extrapolations of the expected formations can be done with a reasonable degree of accuracy. Although this information will not allow the classification of inferred resources to measured and indicated resources and then as a reserve if economically viable, it does provide management with valuable information and increases the level of confidence in existence and grade expectation.

Future capital expenditure necessary to access these inferred resources, such as costs to complete a decline or a level, has also been included in the cash flow projections for the life-of-mine plan and have been taken into account when determining the pattern of depreciation charge for these operations.

Due to the fact that the economic assumptions used to estimate the proved and probable reserves and resources change from year to year, and because additional geological data is generated during the course of operations, estimates of the resources and proved and probable reserves may change from year to year. Changes in the proved and probable reserves and the inferred resource base used in the life-of-mine plan may affect the calculation of depreciation and amortization. The change is recognized prospectively.

The relevant statistics for the two operations have been included below.

| | | Applicable to the Fiscal Year Ended June 30, | | |
|---|---|---|---|---|
| **Doornkop** | | **2017** | **2016** | **2015** |
| **A** | Years (life-of-mine plan) | 17 | 15 | 18 |
| **B** | Reserves (Tons million) | 4.7 | 5.6 | 8.4 |
| **B** | Resources (Tons million) | 20.6 | 36.2 | 34.3 |
| **D** | Total inferred resources (Tons million) | 13.5 | 24.9 | 24.5 |
| **E** | Inferred resources included in life-of-mine plan (Tons million) | 7.8 | 4.2 | 9.6 |
| **F** | Future development costs | | | |
| | • Rand million | 358.1 | 173.3 | 269.0 |
| | • US$ million | 26.3 | 11.9 | 23.5 |
| **G** | Depreciation expense for the fiscal year | | | |
| | • As reported (US$ million) | 16.6 | 12.7 | 5.0 |
| | • Excluding inferred resources (US$ million) | 28.2 | 16.9 | 10.3 |

| | | Applicable to the Fiscal Year Ended June 30, | | |
|---|---|---|---|---|
| **Masimong** | | **2017** | **2016** | **2015** |
| **A** | Years (life-of-mine plan) | n/a | 3 | 15 |
| **B** | Reserves (Tons million) | n/a | 2.1 | 7.3 |
| **B** | Resources (Tons million) | n/a | 15.1 | 75.5 |
| **D** | Total inferred resources (Tons million) | n/a | 5.7 | 58.2 |
| **E** | Inferred resources included in life-of-mine plan (Tons million) | n/a | 0.1 | 3.7 |
| **F** | Future development costs | | | |
| | • Rand million | n/a | 1.5 | 16.4 |
| | • US$ million | n/a | 0.1 | 1.4 |
| **G** | Depreciation expense for the fiscal year | | | |
| | • As reported (US$ million) | n/a | 17.7 | 4.5 |
| | • Excluding inferred resources (US$ million) | n/a | 18.6 | 6.1 |

***Impairment of Property, Plant and Equipment***

We review and evaluate our mining assets for impairment when events or changes in circumstances indicate the related carrying amounts may not be recoverable. An impairment loss is recognized 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 units). 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 of the cash flows of other shafts and assets. With the planned integration of Phakisa and Tshepong into the Tshepong Operations on July 1, 2017, the two shafts were treated as a single cash generating unit at June 30, 2017.

Future cash flows are estimated based on estimated quantities of recoverable minerals, expected commodity prices (considering current and historical prices, price trends and related factors), production levels and cash costs of production, capital and reclamation costs, all based on detailed life-of-mine plans. The significant assumptions in determining the future cash flows for each individual operating mine at June 30, 2017, apart from production cost and capitalized expenditure assumptions unique to each operation, included a gold price, silver price and exchange rate assumptions as follows:

| | **Fiscal year ended June 30, 2017** |
|---|---|
| | **Long term** |
| US$ gold price per ounce | 1,200.00 |
| US$ silver price per ounce | 17.00 |
| Exchange rate (R/US$) | 13.61 |
| Exchange rate (PGK/US$) | 3.16 |

The term "recoverable minerals" refers to the estimated amount of gold that will be obtained from proved and probable reserves and 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 exploration stage mineral interests are risk adjusted based on management's relative confidence in such materials. 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.

As discussed above under *"Gold mineral reserves"*, various factors could impact our ability to achieve our forecasted production schedules from proved and probable reserves. Additionally, gold prices, capital expenditure requirements and reclamation costs could differ from the assumptions used in the cash flow models used to assess impairment. The ability to achieve the estimated quantities of recoverable minerals from exploration stage mineral interests involves further risks in addition to those factors applicable to mineral interests where proved and probable reserves have been identified, due to the lower level of confidence that the identified mineralized material can ultimately be mined economically. Assets classified as other mine-related exploration potential and greenfields exploration potential have the highest level of risk that the carrying value of the asset can be ultimately realized, due to the still lower level of geological confidence and economic modeling.

During fiscal 2017, we recorded an impairment of property, plant and equipment of US$112 million, while a net reversal of US$3 million was recorded in fiscal 2016 and an impairment of US$285 million was recorded in fiscal 2015. Material changes to any of these factors or assumptions discussed above could result in future impairment charges, particularly around future commodity price assumptions. A 10% decrease in commodity price assumptions at June 30, 2017 would have resulted in additional impairments as follows:

| | **($ in millions)** |
|---|---|
| Tshepong operations* | 262 |
| Kusasalethu | 105 |
| Hidden Valley | 79 |
| Target 1 | 77 |
| Doornkop | 71 |
| Masimong | 30 |
| Other surface operations | 20 |
| Unisel | 17 |
| Bambanani* | 10 |

*The goodwill balance attributed to this cash generating unit would be reduced to $nil. See *"Carrying Value of Goodwill"* below.

This analysis assumes that all other variables remain constant.

***Carrying Value of Goodwill***

We evaluate, on at least an annual basis, the carrying amount of goodwill to determine whether current events and circumstances indicate that such carrying amount may no longer be recoverable. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash generating units). 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 of the cash flows of other shafts and assets. To accomplish this, we compare the recoverable amounts of our cash generating units to their carrying amounts. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. If the carrying value of a cash generating unit were to exceed its recoverable amount at the time of the evaluation, an impairment loss is recognized by first reducing goodwill, and then the other assets in the cash generating unit on a pro rata basis. Assumptions underlying fair value estimates are subject to risks and uncertainties. If these assumptions change in the future, we may need to record impairment charges on goodwill not previously recorded.

As at June 30, 2017 substantially all of our goodwill related to the Tshepong operations and Bambanani cash generating units. An impairment of US$19 million on goodwill relating to the Tshepong operations was recorded in fiscal 2017, with a balance of US$25 million remaining. No impairment on goodwill was recorded during fiscal 2015 or fiscal 2016.

***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.

*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). The group documents at the inception of the hedging transaction the relationship between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking various hedge transactions. The group also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions have been and will continue to be highly effective in offsetting changes in cash flows of hedged items.

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in other comprehensive income and accumulated in reserves in equity. The gain or loss relating to the ineffective portion is recognized 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 gold forward sales contracts is recognized 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 recognized when the forecast transaction that was hedged is ultimately recognized 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.

*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 recognized immediately in profit or loss and are included in gains/losses on derivatives.

***Provision for environmental rehabilitation***

Our mining and exploration activities are subject to various laws and regulations governing the protection of the environment. Estimated long term environmental obligations, comprising pollution control, rehabilitation and mine closure, are based on the Group's environmental management plans. 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 is capitalized to mining assets against an increase in the rehabilitation provision. The rehabilitation asset is depreciated as discussed above. Rehabilitation projects undertaken, included in the estimates are charged to the provision as incurred. The cost of ongoing current programs to prevent and control pollution is charged against income as incurred.

See Item 3:*"Key Information-Risk Factors-We are subject to extensive environmental regulations".*

***Provision for silicosis settlement***

The Group's portion of the potential cost of settling the silicosis and tuberculosis class actions that have been instituted against it in South Africa has been provided for. The expected contributions (cash flows) to the vehicle that will manage the settlement process have been discounted over the expected period of time during which contributions will be made. Annual changes in the provision will consist of the time value of money (recognized as finance cost) and changes in estimates (recognized as other operating expenses).

See Item 3:*"Key Information-Risk Factors-The cost of occupational healthcare services and the potential liabilities related to occupational health diseases may increase in future".*

***Deferred Taxes***

The taxable income from gold mining at our South African operations was subject to a formula to determine the taxation expense. The tax rate calculated using the formula was capped to a maximum mining statutory rate of 34% for fiscal 2017, fiscal 2016 and fiscal 2015. Taxable income is determined after the deduction of qualifying mining capital expenditure to the extent that it does not result in an assessed loss. Excess capital expenditure is carried forward as unredeemed capital expenditure and is eligible for deduction in future periods, taking the assessed loss criteria into account. Further to this, mines are ring-fenced and are treated separately for tax purposes, with deductions only being available to be claimed against the mining income of the relevant ring-fenced mine.

In terms of IAS 12 - *Income Taxes*, deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, and at our South African operations, such average tax rates are directly impacted by the profitability of the relevant ring-fenced 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 balance sheet date.

The future profitability of each ring-fenced mine, in turn, is determined by reference to the life-of-mine plan for that operation. The life-of-mine plan is based on parameters such as the Group's long term view of the US$ gold price and the Rand/ US$ exchange rate, as well as the reserves declared for the operation. As some of these parameters are based on market indicators, they differ from one year to the next. In addition, the reserves may also increase or decrease based on updated or new geological information.

We do not recognize a deferred tax asset when it is more likely than not that the asset will not be utilized. Assessing recoverability of deferred tax assets requires management to make significant estimates related to expectation of future taxable income. Estimates of future taxable income are based on forecasted cash flows from operations, reversals of deferred tax liabilities and the application of existing tax laws in each jurisdiction. To the extent that future taxable income differs significantly from estimates, our ability to realize the net deferred tax assets recorded at the balance sheet date could be impacted. Additionally, future changes in tax laws in the jurisdictions in which we operate could limit our ability to obtain the future tax benefits represented by deferred tax assets recorded at the balance date.

**Revenue**

Most of our revenues are derived from the sale of gold. As a result, our operating results are directly related to the price of gold. Historically, the price of gold has fluctuated widely. The gold price is affected by numerous factors over which we do not have control. See Item 3:*"Key Information-Risk Factors-The profitability of our operations, and cash flows generated by those operations, are affected by changes in the price of gold. A fall in the gold price below our cash cost of production and capital expenditure required to sustain production for any sustained period may lead to losses and require Harmony to curtail or suspend certain operations".* As a general rule, we sell our gold produced at market prices to obtain the maximum benefit from increases in the prevailing gold price.

During fiscal 2017, Harmony entered into derivative 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 limits currently set by the Board are for 20% of the production from gold and 25% from silver over a period of 24 months. Management continues to top-up these programs as and when opportunities arise to lock in attractive margins for the business, but are not required to maintain hedging at these levels.

A portion of the production of the South African operations is linked to Rand gold forward sale contracts, which have been designated as cash flow hedging instruments and for which hedge accounting is applied. US$ gold forward sale contracts were also entered into for the production of the Hidden Valley operation, but these contracts were not designated as hedging instruments and the gains/losses are accounted for in profit or loss.

Significant changes in the price of gold over a sustained period of time may lead us to increase or decrease our production in the near term.

***Harmony's Realized Gold Price***

In fiscal 2017, the average gold price in US dollars received by us was US$1,304 per ounce. This average gold price includes the realized gains on the hedging instruments, where hedge accounting was applied. The market price for gold (and, accordingly, the price received by us) is affected by numerous factors over which we have no control. See Item 3:*"Key Information-Risk Factors-The profitability of our operations, and cash flows generated by those operations, are affected by changes in the price of gold. A fall in the gold price below our cash cost of production and capital expenditure required to sustain production for any sustained period may lead to losses and require Harmony to curtail or suspend certain operations*".

The following table sets out the average, the high and the low London Bullion Market price of gold and our average US dollar sales price during the past three fiscal years:

| | Fiscal Year Ended June 30, | | |
|---|---|---|---|
| | 2017 | 2016 | 2015 |
| | | ($/oz) | |
| Average | 1,257 | 1,169 | 1,224 |
| High | 1,366 | 1,325 | 1,340 |
| Low | 1,125 | 1,049 | 1,142 |
| Harmony's average sales price[1] | 1,304 | 1,169 | 1,222 |

1 Our average sales price differs from the average gold price due to the timing of our sales of gold within each year. In addition, fiscal 2017 includes the effect of hedge accounting i.e. realized gains from the cash flow hedges which have been included in revenue.

**Costs**

Our cash costs typically make up between 70% and 80% of our total costs (excluding impairments and disposal/loss on scrapping of assets). The remainder of our total costs consists primarily of exploration costs, employment termination costs, corporate and sundry expenditure, and depreciation and amortization. Our cash costs consist primarily of production costs. Production costs are incurred on labor, equipment, consumables and utilities. Labor costs are the largest component and typically comprise between 50% and 55% of our production costs.

Our all-in sustaining costs increased from US$1,003 per ounce in fiscal 2016 to US$1,182 in fiscal 2017. The primary reason for the increase is increased labor and energy costs, as well as inflationary pressures on supply contracts. In US dollar terms, the strengthening of the Rand against the US dollar in fiscal 2017 also contributed to the increase. This strengthening of the Rand resulted in the Rand amounts being translated at a lower rate of R13.60 compared to R14.50 in fiscal 2016.

Our cash costs have increased from US$841 per ounce in fiscal 2016 to US$1,000 in fiscal 2017, mainly due to the impact of increased labor and energy costs and inflationary pressures on supply contracts as well as the strengthening of the Rand against the US dollar.

Our US dollar translated costs are very sensitive to the exchange rate of the Rand and other non-US currencies to the US dollar. See Item 5:*"Operating and Financial Review and Prospects-Exchange Rates".* Appreciation of the Rand and other non-US currencies against the US dollar increases working costs at our operations when those costs are translated into US dollars. See Item 3:*"Key Information-Risk Factors-Foreign exchange fluctuations could have a material adverse effect on Harmony's operational results and financial condition".*

The average exchange rate of the South African Rand appreciated approximately 6% against the US dollar in fiscal 2017 compared to fiscal 2016. In the case of our International operations, the Australian dollar appreciated by 3% against the US dollar in fiscal 2017, while the Kina depreciated by 7% against the US dollar in fiscal 2017.

Management conducts a thorough review of costs at all operations to ensure that costs are properly managed and within budget. However, it should be noted that there are risks beyond our control such as safety stoppages, which would result in production being negatively affected while certain costs would still be incurred. This is discussed in more detail in *"Risk Factors-Given the nature of mining and the type of gold mines we operate, we face a material risk of liability, delays and increased cash costs of production from environmental and industrial accidents and pollution compliance breaches"* and *"-The nature of our mining operations presents safety risks"*.

***Reconciliation of Non-GAAP Measures***

All-in sustaining costs, all-in sustaining costs per ounce, total cash costs and total cash costs per ounce are non-GAAP measures.

The World Gold Council ("**WGC**") published industry guidance in June 2013 on the calculation of "all-in sustaining costs" and "all in cost" non-GAAP measures, developed to create a better understanding of the overall costs associated with producing gold. Although Harmony is not a member of the WGC, we started disclosing all-in sustaining costs in the 2014 fiscal year (only for continuing operations). The all-in sustaining cost measure is an extension of the existing cash cost measure (refer below) and incorporates costs related to sustaining production.

All-in sustaining costs include mine production costs, transport and refinery costs, applicable general and administrative costs, costs associated with movements in production inventories, ore stockpiles, as well as ongoing environmental rehabilitation costs, transfers for stripping activities and costs associated with royalties. Employee termination costs are included, however employee termination costs associated with major restructuring and shaft closures are excluded. The following costs are also included: local economic development ("**LED**") expenditure for continuing operations, corporate costs, sustaining exploration costs and sustaining capital expenditure including ongoing capital development ("**OCD**") expenditure and rehabilitation accretion and amortization for continuing operations. Gold ounces sold are used as the denominator in the all-in sustaining costs per ounce calculation. The all-in sustaining cost per ounce figures for fiscal 2015 has been restated to exclude the share-based payment charge.

Our cash costs consist primarily of production costs and are expensed as incurred. The cash costs are incurred to access ore to produce current mined reserves. Cash costs do not include capital development costs, which are incurred to allow access to the orebody for future mining operations and are capitalized and amortized when the relevant reserves are mined.

Total cash costs include mine production costs, transport and refinery costs, applicable general and administrative costs, ore stockpiles, as well as ongoing environmental rehabilitation costs as well as transfers for stripping activities and costs associated with royalties. Employee termination cost is included, however employee termination costs associated with major restructuring and shaft closures are excluded. The costs associated with movements in production inventories are excluded from total cash costs. Gold ounces produced are used as the denominator in the total cash costs per ounce calculation.

Changes in all-in sustaining costs per ounce and cash costs per ounce are affected by operational performance, as well as changes in the currency exchange rate between the Rand and the US dollar and, in the case of the Papua New Guinean operations, the Kina. All-in sustaining costs, all-in sustaining costs per ounce, total cash costs and total cash costs per ounce are non-GAAP measures. All-in sustaining costs, all-in sustaining costs per ounce, total cash costs and total cash costs per ounce should not be considered by investors in isolation or as an alternative to production costs, cost of sales, or any other measure of financial performance calculated in accordance with IFRS. In addition, the calculation of all-in sustaining costs, all-in sustaining costs per ounce, total cash costs and total cash costs per ounce may vary from company to company and may not be comparable to other similarly titled measures of other companies. However, we believe that all-in sustaining costs per ounce and cash costs per ounce are useful indicators to investors and management of a mining company's performance as they provide (1) an indication of the cash generating capacities of our mining operations, (2) the trends in all-in sustaining costs and cash costs as the Company's operations mature, (3) a measure of a company's performance, by comparison of cash costs per ounce to the spot price of gold and (4) an internal benchmark of performance to allow for comparison against other companies.

While recognizing the importance of reducing all-in sustaining costs and cash costs, our chief focus is on controlling and, where possible, reducing total costs, including overhead costs. We aim to control total unit costs per ounce produced by maintaining our low total cost structure at our existing operations. We have been able to reduce total costs by implementing a management structure and philosophy that is focused on reducing management and administrative costs.

The following is a reconciliation of total all-in sustaining costs, as a non-GAAP measure, to the nearest comparable GAAP measure, cost of sales:

| | Fiscal year ended June 30, | | |
|---|---|---|---|
| | **2017** | **2016** | **2015*** |
| | (in $ millions, except for ounce amounts) | | |
| Total cost of sales - under IFRS | 1,448 | 1,088 | 1,645 |
| Depreciation and amortization expense | (179) | (144) | (211) |
| Rehabilitation credit/(costs) | (2) | 3 | 1 |
| Care and maintenance costs of restructured shafts | (8) | (8) | (9) |
| Employment termination and restructuring costs | (5) | (1) | (22) |
| Share-based payments | (29) | (23) | (18) |
| Impairment of assets | (131) | 3 | (285) |
| Other | 4 | 1 | 7 |
| LED costs | 5 | 3 | 6 |
| Corporate, administration and other expenditure costs | 32 | 23 | 27 |
| Exploration (sustaining) | — | — | — |
| Capital expenditure (OCD) | 99 | 96 | 154 |
| Capital expenditure (Exploration, abnormal expenditure and shaft capital) | 50 | 45 | 65 |
| Total all-in sustaining costs | 1,284 | 1,086 | 1,360 |
| Per ounce calculation: | | | |
| Ounces sold[1] | 1,086,2314 | 1,081,615 | 1,103,793 |
| Total all-in sustaining costs per ounce | 1,182 | 1,003 | 1,231 |

* Restated to exclude share-based payment charge of US$18 million (or US$15 per ounce) in fiscal 2015.

[1] Excludes 11,713 ounces in fiscal 2017 from Hidden Valley that have been credited against the capitalized costs as part of the pre-stripping of stages 5 and 6.

The following is a reconciliation of total cash costs, as a non-GAAP measure, to the nearest comparable GAAP measure, cost of sales under IFRS:

| | Fiscal year ended June 30, | | |
|---|---|---|---|
| | 2017 | 2016 | 2015 |
| | (in $ millions, except for ounce amounts) | | |
| Total cost of sales - under IFRS | 1,448 | 1,088 | 1,645 |
| Depreciation and amortization expense | (185) | (149) | (216) |
| Rehabilitation (costs)/credit | (2) | 3 | 1 |
| Care and maintenance costs of restructured shafts | (8) | (8) | (9) |
| Employment termination and restructuring costs | (5) | (1) | (22) |
| Share-based payments | (29) | (23) | (18) |
| (Reversal of impairment)/impairment of assets | (131) | 3 | (285) |
| Other | 1 | 1 | 7 |
| Gold inventory movement | (14) | (4) | (22) |
| Total cash costs | 1,075 | 910 | 1,081 |
| Per ounce calculation: | | | |
| Ounces produced[1] | 1,076,139 | 1,082,035 | 1,077,466 |
| Total cash costs per ounce | 1,000 | 841 | 1,003 |

¹ Excludes 11,713 ounces in fiscal 2017 from Hidden Valley that have been credited against the capitalized costs as part of the pre-stripping of stages 5 and 6

Within this report, our discussion and analysis is focused on the all-in sustaining costs and total cash costs measure.

**Exchange Rates**

Our revenues are very sensitive to the exchange rate of the Rand and other non-US currencies to the US dollar.

Currently, the majority of our earnings are generated in South Africa and, as a result, most of our costs are incurred in Rand. Since gold is generally sold in US dollars, most of our revenues are received in US dollars. The average gold price received by us during fiscal 2017 before including the effect of the cash flow hedges increased by US$86 per ounce to US$1,255 per ounce from US$1,169 per ounce during fiscal 2016. Appreciation of the Rand against the US dollar increases our US dollar working costs at our South African operations when those costs are translated into US dollars, which serves to reduce operating margins and net income from our South African operations. Depreciation of the Rand against the US dollar reduces these costs when they are translated into US dollars, which serves to increase operating margins and net income from our South African operations. Accordingly, strengthening of the Rand generally results in poorer earnings for us if there is not a similar increase in the gold price.

The exchange rates obtained when converting US dollars to Rand are determined by foreign exchange markets, over which we have no control. The conversion rate for balance sheet items as at June 30, 2017 is R13.11 per US$1.00, except for specific items within equity that are converted at the exchange rate prevailing on the date the transaction was entered into. This compares with a conversion rate of R14.72 per US$1.00 as at June 30, 2016, reflecting an appreciation of 11% of the Rand against the US dollar. Income statement items were converted at the average exchange rate for fiscal 2017 of R13.60 per US $1.00, reflecting an appreciation of 7% of the Rand against the US dollar when compared with fiscal 2016.

In fiscal 2016, Harmony entered into foreign exchange hedging contracts in the form of zero cost collars, which establish a minimum (floor) and maximum (cap) Rand/US dollar exchange rate at which to convert US dollars to Rand. At June 30, 2017, the nominal amount of the hedging contracts is US$422 million and is spread over a 12 month period with a weighted average cap price of US$1=R15.53 and weighted average floor price of US$1=R14.41.

The majority of our working costs are incurred in Rand and, as a result of this, appreciation of the Rand against the US dollar increased our working costs when translated into US dollars. Compounding this increase are increases in our labor costs as well as inflationary pressures on our consumables and energy costs, which would decrease operating margins and net income reflected in our consolidated income statement. Depreciation of the Rand against the US dollar would cause a decrease in our costs in US dollar terms. Similarly, at our International operations, appreciation of the Australia dollar or Kina against the US dollar would cause an increase in our costs in US dollar terms. See Item 3: *"Key Information-Risk Factors-Foreign exchange fluctuations could have a material adverse effect on Harmony's operational results and financial condition"*.

On June 4, 2014 the Bank of Papua New Guinea introduced an exchange rate trading band requiring all foreign currency traded in the market to be ± 75 basis points (± 0.0075 PGK/US$ points) from the official interbank rate. This had the effect of strengthening the Kina by approximately 10% and the US$ equivalent of Kina denominated costs higher. The Bank of Papua New Guinea has weakened the Kina against the US$ by approximately 40 basis points per month in fiscal 2016. During fiscal 2017, the Kina has been held virtually constant against the US$ with a weakening of 0.2% since June 2016. Since the introduction of the trading band the Kina has weakened by 23% against the US$ as at June 30, 2017. Should the trading band continue and depending on the level the exchange rate is set at, it could have a negative impact on the results of the Hidden Valley operation, as well as the cost of development at Golpu and other PNG exploration sites.

**Inflation**

Our operations have been materially affected by inflation. Inflation in South Africa was 5.1% at the end of fiscal 2017, 6.3% at the end of fiscal 2016 and 4.7% at the end of fiscal 2015. Working costs, especially wages, have increased considerably over the past several years resulting in significant cost pressures for the mining industry. In addition, the effect on inflation of the increase in electricity tariffs of 2.2% in fiscal 2017, 9.4% in fiscal 2016 and 12.7% in fiscal 2015, together with an increase that is yet to be determined by the energy regulator in fiscal 2018, will have a negative effect on the profitability of our operations.

The inflation rate in PNG ended fiscal 2015 at 6.1% and 2016 at 6.4%, while the annualized inflation stood at 6.6% at the end of fiscal 2017.

Our profits and financial condition could be adversely affected if the cost inflation is not offset by a concurrent devaluation of the Rand and other non-US currencies and/or an increase in the price of gold. See Item 3: *"Key Information-Risk Factors-Harmony's operations may be negatively impacted by inflation"*.

**South African Socio-Economic Environment**

We are a South African company and the majority of our operations are in South Africa. As a result, we are subject to various economic, fiscal, monetary and political policies and factors that affect South African companies generally. See Item 3: *"Key Information-Risk Factors-The socio-economic framework in the regions in which Harmony operates may have an adverse effect on its operations and profits"*.

South African companies are subject to exchange control limitations. While exchange controls have been relaxed in recent years, South African companies remain subject to restrictions on their ability to deploy capital outside of the Southern African Common Monetary Area. See Item 10: *"Additional Information-Exchange Controls*".

SLPs, have been developed for each of our South African operations. These SLPs are prepared in line with legislation governing the participation of HDSAs in mining assets.

We have been granted all of our mining licenses under the MPRDA. We have therefore already started to incur expenses relating to HDSA participation. We believe the biggest challenge will lie in maintaining these licenses, as we will have a responsibility in respect of human resource development, procurement and local economic development. We are unable, however, to provide a specific amount of what the estimated cost of compliance will be but we will continue to monitor these costs on an ongoing basis.

**Electricity in South Africa**

South African state utility, Eskom, generates approximately 95% of the electricity used in South Africa and approximately 45% of the electricity used in Africa. Eskom generates, transmits and distributes electricity to industrial, mining, commercial, agricultural and residential customers and redistributors.

During fiscal 2017, the electricity supply in South Africa has seen less pressure than the previous years, with reduced power interruptions (also referred to as load shedding) occurring. South Africa's electricity supply has improved and since September 2015 no load shedding has occurred to date.

The supply and demand for electricity is still very tight especially during the evening peak periods between 6:00 p.m. and 8:00 p.m. Harmony participates voluntarily in the Eskom Demand response program to reduce their demand during the said periods. Harmony has renewed its contract agreement with an Energy Service Company ("**ESCO**") to ensure that the various load clipping and load shifting projects savings are sustained. They will also assist with the implementation of new energy saving initiatives at the South African operations to reduce the electricity demand during morning and evening peaks. Harmony also benefits financially from this as the Eskom tariffs are more expensive during that period. The risk of having power outages will be mainly limited to the evening peak periods in the current situation.

Government remains committed to ensure energy security for the country, through the roll-out of the nuclear new build program as an integral part of the energy mix. Government remains committed to ensuring the provision of reliable and sustainable electricity supply, as part of mitigating the risk of carbon emissions.

*Renewable energy*

Energy is the critical component of the country's future policy mix. The argument around electricity really comes down to the questions: Future supply of electricity will be influenced by the extent to which renewables, primarily wind, are efficient, sustainable and ensure security of electricity supply at a competitive economic prices.

Forecasts predict that renewable energy technologies, predominantly solar- and wind-based systems, will further grow in the coming decades, overcoming coal-based electricity around 2030 (IEA, 2015). South Africa is no exception and renewable energy has entered the country's electricity landscape as a significant trend.

Discussions around other technologies, such as gas-to-power and nuclear energy, are also adding to this dynamic. Significant vested interests are still at play alongside massive state support to maintain the domination of the coal industry over the electricity supply industry in South Africa.

*Tariffs*

Like all mining companies, Harmony is a major user of electricity, mostly supplied by Eskom. Energy is a significant and growing portion of our operating costs, given rising electricity tariffs. Electricity tariffs increase by 107% since 2010 to date. On October 3, 2014, NERSA announced the approval of the implementation plan of the Regulatory Clearing Account ("**RCA**") balance for Eskom. This is a once-off recovery from standard tariff customers and other Eskom customer categories. This had an effect on limiting the increase to 2.2% during fiscal 2017. This means that Eskom will apply for another RCA for 2018 and will be submitting an application for an increase in tariffs of 19.2%. This application was delayed due an application to declare the previous RCA unlawful. The court has ruled in NERSA's favor and hence Eskom are now able proceed with their new RCA application.

*Energy efficiency*

Harmony has worked closely with Eskom to manage electricity use and peak demand, underlining our commitment to reduce energy consumption. This includes demand-side management ("**DSM**") strategies to reduce electricity consumption in peak periods; timing our pumping to coincide with cheaper off-peak periods, making more efficient use of Eskom tariffs that reward load-shifting, and improving the efficiency of pumping operations.

We have implemented various energy efficiency projects in recent years, resulting in an average load reduction of 40.66MW and energy savings of 345GWh since 2009. Due to capital constraints the projects we have committed to for 2016 were moved to 2017 including a number of other projects identified. With little capital expenditure Harmony has with the assistance of an ESCO achieved a R50 million cost saving on new projects and a R 54 million maintained cost saving from completed projects. The average weekday load reduction will be 5.6MW and the anticipated energy savings will the 4 363MWh per month.

We have implemented various energy efficiency projects in recent years. See *"Integrated Annual Report for the 20-F 2017-Harmony in Action-Environmental performance-"* on pages 71 to 97.

*Renewable energy*

Harmony continues to assess various energy-generating initiatives. See *"Integrated Annual Report for the 20-F 2017-Social and ethics committee chairman's report"* on pages 16 to 20 *and "Integrated Annual Report for the 20-F 2017-Harmony in Action-Environmental performance"* on pages 71 to 97.

**Results of Operations**

***Years Ended June 30, 2017 and 2016***

*Revenues*

Revenue increased by 12%, from US$1,264 million in fiscal 2016 to US$1,416 million in fiscal 2017. This increase can be attributed to a 7% increase in the average spot gold price received of US$1,255 per ounce for fiscal 2017, compared to US $1,169 per ounce for fiscal 2016, together with the impact of the Rand gold hedges of US$53 million. Our gold sales increased 0.4%, from 1,081,615 ounces in 2016 to 1,086,231 ounces in 2017. The increase in ounces can be attributed mainly to the acquisition of Newcrest's 50% of the Hidden Valley operation, improvements at Kusasalethu year on year as well as grade improvements at Masimong, Kalgold and Phoenix.

At Hidden Valley, ounces sold increased by 18% from 75,233 in fiscal 2016 to 88,565 in fiscal 2017. The acquisition was completed in October 2016 and 100% of the production was accounted for. With the mining of stage 4 completed in fiscal 2016 the operation processed the run-of-mine stockpiles during fiscal 2017. These factors led to an increase in tons milled of 41% to 2,678,000 tons and a decrease in the recovery grade of 8% to 0.035 ounce per ton in fiscal 2017.

At Phoenix, ounces sold increased by 18% from 25,335 in fiscal 2016 to 29,964 in fiscal 2017. The tons milled increased by 4% to 7,420,000 tons in fiscal 2017 as a result of additional tons from the Phoenix slimes dams being treated at Central Plant.

At Kusasalethu, ounces sold increased by 18% from 122,880 in fiscal 2016 to 144,614 in fiscal 2017. The recovery grade increased by 25% to 0.211 ounce per ton in fiscal 2017 following the decision to shorten the life of mine and focus on higher grade areas.

At Kalgold, ounces sold increased by 12% from 34,916 in fiscal 2016 to 38,999 in fiscal 2017. The recovery grade and tons milled increased by 5% and 2% to 0.023 ounce per ton and 1,660,000 tons respectively in fiscal 2017 due to improved availability of the mills and additional mobile crushers that assisted with mill throughput during fiscal 2017.

At Target 1, ounces sold decreased by 23% from 109,923 in fiscal 2016 to 84,942 in fiscal 2017. The recovery grade decreased by 22% to 0.104 ounce per ton in fiscal 2017. Production was hampered by unfavorable mining conditions in the higher grade areas.

*Cost of sales*

Cost of sales includes production costs, depreciation and amortization, (reversal of impairment)/impairment of assets and share-based payments.

*a) Production costs (cash costs/all-in sustaining costs)*

The following table sets out our total ounces produced and weighted average cash costs per ounce and total ounces sold and weighted average all-in sustaining costs per ounce for fiscal 2016 and fiscal 2017:

| | Year Ended June 30, 2017 | | | | Year Ended June 30, 2016 | | | | Percentage (increase)/decrease | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cash costs | | All-in sustaining costs | | Cash costs | | All-in sustaining* costs | | Cash costs per ounce | All-in sustaining costs per ounce |
| | (oz produced) | ($/oz) | (oz sold) | ($/oz) | (oz produced) | ($/oz) | (oz sold) | ($/oz) | | |
| **South Africa** | | | | | | | | | | |
| Kusasalethu | 141,270 | 1,051 | 144,614 | 1,238 | 124,198 | 1,026 | 122,880 | 1,254 | (2) | 1 |
| Doornkop | 85,939 | 1,047 | 87,193 | 1,288 | 87,772 | 831 | 87,193 | 1,016 | (26) | (27) |
| Phakisa | 128,893 | 939 | 128,570 | 1,162 | 128,217 | 741 | 128,314 | 936 | (27) | (24) |
| Tshepong | 154,934 | 964 | 154,869 | 1,160 | 161,751 | 787 | 161,685 | 940 | (22) | (23) |
| Masimong | 81,599 | 1,005 | 81,631 | 1,146 | 78,190 | 916 | 78,191 | 1,059 | (10) | (8) |
| Target 1 | 85,809 | 1,162 | 84,942 | 1,491 | 108,895 | 787 | 109,923 | 1,012 | (48) | (47) |
| Bambanani | 88,415 | 727 | 88,253 | 817 | 96,870 | 576 | 96,934 | 654 | (26) | (25) |
| Joel | 72,211 | 945 | 73,303 | 1,092 | 73,239 | 796 | 72,179 | 911 | (19) | (20) |
| Unisel | 51,280 | 1,203 | 51,120 | 1,354 | 54,785 | 949 | 54,817 | 1,064 | (27) | (27) |
| Other - surface | 102,175 | 993 | 103,171 | 1,090 | 95,553 | 935 | 94,266 | 9,961 | (6) | (9) |
| **International** | | | | | | | | | | |
| Hidden Valley[2] | 83,614[3] | 1,068 | 88,565[3] | 1,241 | 72,565 | 1,028 | 75,233 | 1,282 | (4) | 3 |
| Total | 1,076,139 | | 1,086,231 | | 1,082,035 | | 1,081,615 | | | |
| Weighted average | | 1,000 | | 1,182 | | 841 | | 1,003 | (19) | (18) |

1 Restated fiscal 2016 to include capitalized stripping of US$0.2 million at Kalgold operation.
2 Cash costs and all-in sustaining costs would have been US$1,252 per ounce and US$1,417 per ounce (2016: US$1,320 per ounce and US$1,564 per ounce) respectively had silver byproduct credits of US$15 million (2016: US$21 million) or US$184 per ounce produced, US$176 per ounce sold (2016: US$292 per ounce produced, US$282 per ounce sold) not been taken into account.
3 Excludes 11,713 ounces that have been credited against the capitalized cost as part of the pre-stripping of stages 5 and 6.

For further information about the use of Non-GAAP measures, refer to Item 5:*"Operating and Financial Review and Prospects-Costs-Reconciliation of Non-GAAP Measures"*.

Our total average all-in sustaining costs per ounce increased from US$1,003 per ounce in fiscal 2016 to US$1,182 per ounce in fiscal 2017, mainly due to an increase in labor costs (annual increases and bonuses) and consumables as well as capital expenditure. Also contributing to the increase in US dollar terms is the strengthening of the Rand against the US dollar in fiscal 2017.

Our average cash costs increased by 19%, or US$159 per ounce, from US$841 per ounce in fiscal 2016 to US$1,000 per ounce in fiscal 2017. Cash costs per ounce vary with the working costs per ton (which are, in turn, affected by the number of tons processed) and grade of ore processed. Cash costs expressed in US dollars per ounce also vary with fluctuations in the Rand-US dollar exchange rate, because most of our working costs are incurred in Rand. Operating costs in Rand terms increased by 11%. The South African Rand appreciated by 6% on average against the US dollar when compared to fiscal 2016. Operating costs in Rand terms were affected mainly by an increase in costs on Phakisa, Tshepong, Doornkop, Target 1 and Kusasalethu where costs increased in Rand terms by 19%, 10%, 16%, 9% and 9%, respectively, year on year. Annual increases in labor costs as well as inflationary pressures on our consumables contributed towards higher operating costs in fiscal 2017. The inclusion of the acquired 50% of Hidden Valley resulted in a 12% increase year on year.

At Phakisa, the cash cost per ounce increased by 27% from US$741 per ounce in fiscal 2016 to US$939 per ounce in fiscal 2017. The all-in sustaining cost per ounce increased by 24% from US$936 per ounce in fiscal 2016 to US$1,162 per ounce in fiscal 2017. The increase was mainly due to the increase in production costs due to the annual increase in labor costs and inflationary increases in consumables.

At Doornkop, the cash cost per ounce increased by 26% from US$831 per ounce in fiscal 2016 to US$1,047 per ounce in fiscal 2017. The all-in sustaining cost per ounce increased by 27% from US$1,016 per ounce in fiscal 2016 to US$1,288 per ounce in fiscal 2017. The increase was mainly due to the increase in cash operating costs due to the annual increase in labor costs and inflationary increases in consumables.

At Tshepong, the cash cost per ounce increased by 22% from US$787 per ounce in fiscal 2016 to US$964 per ounce in fiscal 2017. The all-in sustaining cost per ounce increased by 23% from US$940 per ounce in fiscal 2016 to US$1,160 per ounce in fiscal 2017. The increase was mainly due to 10% increase in cash operating costs as a result of the increase in labor costs and consumables. Also contributing is the 4% decrease in gold produced and ounces sold as a result of the decrease in the tons milled (decrease of 6% to 1,132,000 tons) in fiscal 2017.

At Target 1, the cash cost per ounce increased by 48% from US$787 per ounce in fiscal 2016 to US$1,162 per ounce in fiscal 2017. The all-in sustaining cost per ounce increased by 47% from US$1,012 per ounce in fiscal 2016 to US$1,491 per ounce in fiscal 2017. The increase was mainly due to the unfavorable ground conditions that affect production, which resulted in a 22% decrease in grade to 0.104oz/t. Gold produced decreased by 21% to 85,809.

*b) Depreciation and amortization*

Depreciation and amortization increased from US$149 million in fiscal 2016 to US$185 million, or 24%, in fiscal 2017 due primarily to a 4% increase in the reserve tons mined used in the calculation as well as the carrying value of areas mined, and therefore depreciated, being higher year on year. Also contributing to the increase is the appreciation of the Rand against the US $ dollar in fiscal 2017. In Rand terms, there was an increase in depreciation and amortization expense of 16%.

*c) Impairment/(reversal of impairment) of assets*

An impairment charge of US$131 million was recorded in fiscal 2017 compared to a net reversal of impairment of US$3 million in fiscal 2016. The slight decrease in the gold price used in the life-of-mine plans, together with cost inflation, impacted negatively on margins. This, as well as increases in the discount rates used, contributed to the lower recoverable amounts.

At Target 1, a charge of US$60 million was recorded after information gained from underground drilling during the year indicated that some areas of the bottom reef of the Dreyerskuil are highly channelized, which negatively impacted on the overall grade of the operation. These areas were subsequently excluded from the life-of-mine plan. This, together with general pressure on margins, reduced the profitability of the operation over its life, contributing to the impairment charge.

At Kusasalethu, a charge of US$52 million was recorded mainly due to the reduction in the additional attributable resource value as a result of a decrease in the ounces. Harmony investigated the viability of a decline to extend the life of the operation. The business case showed that the option was not feasible and therefore the resource ounces were reduced.

At the Tshepong Operations, an impairment of US$19 million was recorded, which was allocated against the goodwill of the cash generating unit. The integration of Tshepong and Phakisa on July 1, 2017 resulted in the two cash generating units being combined for impairment testing at June 30, 2017. The planned improvements to the environmental conditions at the operation resulted in additional capital expenditure and reduced the recoverable amount.

The net reversal of US$3 million in fiscal 2016 consists of a reversal of US$50 million at Doornkop, offset by charges to Hidden Valley and Masimong of US$32 million and US$15 million, respectively.

*Gains on derivatives*

Gains on derivatives amounted to US$75 million in fiscal 2017, compared to US$30 million in fiscal 2016. These gains relate primarily to the gains on the foreign exchange hedging contracts (forex hedging contracts) in the form of zero cost collars. These establish a minimum (floor) and maximum (cap) Rand/US dollar exchange rate at which to convert US dollars to Rand. The nominal value of open forex hedging contracts at June 30, 2017 was US$422 million. The hedging contracts are spread over a 12-month period. The fair value of the forex hedging contracts was US$34 million positive as at June 30, 2017. Hedge accounting is not applied to these forex hedging contracts and all gains have been recorded in the income statement.

*Other operating expenses*

(a) *Loss on scrapping of property, plant and equipment*
A loss on scrapping of US$11 million (2016: US$4 million) was recorded in fiscal 2017. This relates to the abandonment of individual surface assets for which no future economic benefits are expected from their use or disposal. The 2016 loss relates to the abandonment of unprofitable areas in certain of the South African operations' life-of-mine plans.

(b) *Foreign exchange translation*
Foreign exchange translation gain/loss increased from a loss of US$43 million in fiscal 2016 to a gain of US$14 million in fiscal 2017. The change in fiscal 2017 relates to the translation of the US$ revolving credit facilities into Rand, which increased from a loss of US$46 million in fiscal 2016 to a gain of US$16 million in fiscal 2017. The Rand strengthened against the US dollar by 11% from a closing rate of R14.72 in fiscal 2016 to R13.11 in fiscal 2017.

(c) *Silicosis settlement provision*
A provision of US$70 million was recognized during fiscal 2017 for Harmony's potential cost to settle the silicosis and tuberculosis class actions that have been instituted against it in South Africa. During fiscal 2016, these class actions were disclosed as a contingent liability as a reliable estimate of the amount could not be made. With progress by the industry working group on occupational lung diseases and the status of the negotiations with the various stakeholders, management can reasonably estimate the Group's share of any potential settlement.

*Gain on bargain purchase*

A gain on bargain purchase arose from Harmony's acquisition of full ownership of the Hidden Valley operation. Refer to note 10, "Gain on bargain purchase" of our consolidated financial statements for further details.

*Income and mining taxes*

In fiscal 2016 and 2017, the tax rates for companies were 34% for mining income and 28% for non-mining income for South African companies and 30% for Australian companies and PNG mining companies.

| **Income and mining tax** | **2017** | **2016** |
|---|---|---|
| Effective income and mining tax rate | 185% | 40% |

The effective tax rate for fiscal 2017 was higher than the mining statutory tax rate of 34% for us and our subsidiaries as a whole due to the deferred tax credit following the decrease in the average deferred tax rates at the South African operations due to lower estimated profitability following the completion of the updated life-of-mine plans. Offsetting this is the increase in current tax in fiscal 2017 compared to fiscal 2016 as a result of the utilization of assessed losses and unredeemed capital by most of the South African operations in the prior year as well as the gains on derivatives (including the unrealized portion of the foreign exchange contracts). The most significant items causing the group's income tax provision to differ from the mining statutory tax rate are:

- No tax consequences relating to the gain on bargain purchase recorded on the acquisition of Hidden Valley and deferred tax assets not recognized which relates primarily to the Hidden Valley operation.
- No tax consequences relating to the impairment recorded for the goodwill on the Tshepong operations.
- Rate differences related to the additional capital allowances that may be deducted from mining taxable income in South Africa, which mainly relates to Avgold Limited (which includes the Target 1 operation).

Deferred tax rates for the South African operations are calculated based on estimates of the future profitability of each ring-fenced mine when temporary differences will reverse. The future profitability of each ring-fenced mine, in turn, is determined by reference to the life-of-mine plan for that operation, which is based on parameters such as the Group's long term view of the US $ gold price and the Rand/US$ exchange rate, as well as the reserves declared for the operation. As some of these parameters are based on market indicators, they differ from one year to the next. In addition, the reserves may also increase or decrease based on updated or new geological information. Changes in the future profitability of each ring-fenced mine impact the deferred tax rates used to recognize temporary differences at these operations. See *"-Critical Accounting Policies and Estimates-Deferred taxes*" above. The decrease in deferred tax on temporary differences due to changes in estimated effective tax rates results primarily from a decrease in the effective deferred tax rate at Freegold (includes the Bambanani, Joel, Phakisa and Tshepong operations), Randfontein (consists of Doornkop and Kusasalethu) and Harmony (includes the Masimong, Unisel and Free State Surface operations). The deferred tax rate at Freegold decreased from 20.0% in fiscal 2016 to 12.5% in fiscal 2017, Randfontein decreased from 10.1% to 3.8% in fiscal 2017 and Harmony decreased from 21.1% in fiscal 2016 to 19.4%, these decreases mainly due to lower estimated profitability.

*South Africa.* Generally, South Africa imposes tax on worldwide income (including capital gains) of all our South African incorporated tax resident entities at a rate of 28% on non-mining income. We pay taxes separately on mining income and non-mining income. The amount of our South African mining income tax is calculated on the basis of a gold mining formula that takes into account our total revenue and profits from, and capital expenditure for, mining operations in South Africa. 5% of total mining revenue is exempt from taxation in South Africa as a result of the application of the gold mining formula. The amount of revenue subject to taxation is calculated by deducting qualifying capital expenditures from taxable mining income. The amount by which taxable mining income exceeds 5% of mining revenue constitutes taxable mining income. We and our subsidiaries account for taxes separately that is determined in respect of each entity. Hence South Africa does not make use of any group basis of taxation.

South Africa has a Controlled Foreign Company regime which effectively attributes certain types of passive income derived by offshore subsidiaries and imputes that income in taxable income as if it had been derived in South Africa under South African tax rules.

*Australia.* Generally, Australia also imposes tax on the worldwide income (including capital gains) of all of our Australian incorporated and tax resident entities. The current income tax rate for companies is 30%.

Harmony Gold (Australia) Proprietary Limited and its wholly-owned Australian subsidiary companies are recognized and taxed as a single entity, called a Consolidated Group. Under the Tax Consolidation rules all of the Australian subsidiary companies are treated as divisions of the Head Company, Harmony Gold Australia. As a result, inter-company transactions between group members are generally ignored for tax purposes. This allows the group to transfer assets between group members without any tax consequences, and deems all tax losses to have been incurred by the Head Company of the group.

*PNG.* PNG mining projects are taxed on a project basis. Therefore, each project is taxed as a separate entity, even though it may be one of a number of projects carried on by the same company. Capital development and exploration expenditure incurred in PNG is capitalized for tax purposes and can be deducted at 25% per annum on a diminishing value basis against project income, with the deduction being limited to the lesser of 25% of the diminished value or the income of the project for the year.

PNG mining companies are taxed at a rate of tax of 30%. Mining operations in PNG are subject to a 2% royalty and 0.25% Production Levy which are payable to the PNG Government.

***Years Ended June 30, 2016 and 2015***

*Revenues*

Revenue decreased by 6%, from US$1,348 million in fiscal 2015 to US$1,264 million in fiscal 2016. This decrease can be attributed to a 4% decrease in the gold price received of US$1,169 per ounce for fiscal 2016, compared to US$1,222 per ounce for fiscal 2015 and 2% decrease in gold sold. Our gold sales decreased 2%, from 1,103,793 ounces in 2015 to 1,081,615 ounces in 2016. The decrease in ounces can be attributed mainly to planned production stoppages at Kusasalethu to upgrade its infrastructure, lower than expected recovered grade and safety stoppages at Target 1 and safety stoppages and lower grade at Hidden Valley. Target 3 was placed on care and maintenance during fiscal 2015, resulting in a decrease of 15,529 ounces (or 1%) in fiscal 2016 when compared to fiscal 2015.

At Phakisa, ounces sold increased by 26% from 101,468 in fiscal 2015 to 128,314 in fiscal 2016. The recovery grade and tons milled increased by 14% and 12% to 0.170 ounce per ton and 756,000 tons respectively in fiscal 2016 as production continues to ramp up at the operation.

At Tshepong, ounces sold increased by 16% from 139,437 in fiscal 2015 to 161,685 in fiscal 2016. The recovery grade and tons milled increased by 7% and 10% to 0.135 ounce per ton and 1,200,000 tons respectively in fiscal 2016 as the operation continues to focus on operating efficiencies and increasing productivity at the operation.

At Bambanani, ounces sold increased by 2% from 94,748 in fiscal 2016 to 96,934 in fiscal 2015. The recovery grade and tons milled increased by 2% and 1% to 0.378 ounce per ton and 256,000 tons respectively in fiscal 2016 as the operation continues to develop and mine the high grade shaft pillar.

At Hidden Valley, ounces sold decreased by 22% from 96,548 in fiscal 2015 to 75,233 in fiscal 2016. The recovery grade and tons milled decreased by 19% and 5% to 0.038 ounce per ton and 1,906,000 tons respectively in fiscal 2016. Hidden Valley lost approximately 33 production days during the September 2015 quarter when operations were suspended due to a fatality in July 2015. The operation was also affected by safety related road closures, which restricted mining activity. Stripping activities for Stage 5 remained suspended in fiscal 2016, resulting in the increase in the processing or ore stockpiles towards the end of the financial year.

At Target 1, ounces sold decreased by 12% from 124,358 in fiscal 2015 to 109,923 in fiscal 2016. The recovery grade and tons milled decreased by 10% and 1% to 0.134 ounce per ton and 814,000 tons respectively in fiscal 2016. Target 1 was adversely affected by safety stoppages during the March 2016 quarter and lower than expected recovered grade during fiscal 2016.

At Kusasalethu, ounces sold decreased by 11% from 138,151 in fiscal 2015 to 122,880 in fiscal 2016. The recovery grade increased by 33% to 0.169 ounce per ton as the focus was on mining higher grade areas in fiscal 2016. Tons milled decreased by 26% to 736,000 tons in fiscal 2016. The decrease in ounces sold and tons milled can be attributed mainly to planned production stoppages at Kusasalethu to upgrade its infrastructure fiscal 2016.

*Cost of sales*

Cost of sales includes production costs, depreciation and amortization, (reversal of impairment)/impairment of assets and employment termination and restructuring costs.

*a) Production costs (cash costs/all-in sustaining costs)*

The following table sets out our total ounces produced and weighted average cash costs per ounce and total ounces sold and weighted average all-in sustaining costs per ounce for fiscal 2015 and fiscal 2016:

| | Year Ended June 30, 2016 | | | | Year Ended June 30, 2015 | | | | Percentage (increase)/decrease | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cash costs | | All-in sustaining costs* | | Cash costs | | All-in sustaining costs* | | Cash costs per ounce | All-in sustaining costs per ounce |
| | (oz produced) | ($/oz) | (oz sold) | ($/oz) | (oz produced) | ($/oz) | (oz sold) | ($/oz) | | |
| **South Africa** | | | | | | | | | | |
| Kusasalethu | 124,198 | 1,026 | 122,880 | 1,254 | 127,092 | 1,283 | 138,151 | 1,596 | 20 | 21 |
| Doornkop | 87,772 | 831 | 87,193 | 1,016 | 85,618 | 1,092 | 87,160 | 1,362 | 24 | 25 |
| Phakisa | 128,217 | 741 | 128,314 | 936 | 100,246 | 1,016 | 101,468 | 1,347 | 27 | 31 |
| Tshepong | 161,751 | 787 | 161,685 | 940 | 137,540 | 1,008 | 139,437 | 1,235 | 22 | 24 |
| Masimong | 78,190 | 916 | 78,191 | 1,059 | 79,187 | 1,080 | 80,087 | 1,302 | 15 | 19 |
| Target 1 | 108,895 | 787 | 109,923 | 1,012 | 122,944 | 837 | 124,358 | 1,075 | 6 | 6 |
| Bambanani | 96,870 | 576 | 96,934 | 654 | 93,495 | 651 | 94,748 | 735 | 12 | 11 |
| Joel | 73,239 | 796 | 72,179 | 911 | 72,596 | 908 | 74,911 | 1,043 | 12 | 13 |
| Unisel | 54,785 | 949 | 54,817 | 1,064 | 54,495 | 1,080 | 55,138 | 1,275 | 12 | 17 |
| Target 3[1] | — | — | — | — | 15,529 | 958 | 16,140 | 1,096 | n/a | n/a |
| Other - surface | 95,553 | 935 | 94,266 | 996 [2] | 94,105 | 1,000 | 95,647 | 1076 [2] | 7 | 7 |
| **International** | | | | | | | | | | |
| Hidden Valley[3] | 72,565 | 1,028 | 75,233 | 1,282 | 94,619 | 1,065 | 96,548 | 1,395 | 3 | 8 |
| Total operations | 1,082,035 | | 1,081,615 | | 1,077,466 | | 1,103,793 | | | |
| Weighted average | | 841 | | 1,003 | | 1,003 | | 1232 [2] | 16 | 19 |

1 The Target 3 operation was suspended and the mine placed on care and maintenance during the December 2014 quarter.
2 Restated fiscal 2016 and 2015 to include capitalized stripping of US$0.2 million and US$0.6 million at Kalgold operation respectively.
3 Cash costs and all-in sustaining costs would have been US$1,320 per ounce and US$1,564 per ounce (2015: US$1,232 per ounce and US$1,557 per ounce) respectively had silver byproduct credits of US$21 million (2015: US$16 million) or US$292 per ounce produced, US$282 per ounce sold (2015: US$169 per ounce produced, US$166 per ounce sold) not been taken into account.

* Restated to exclude the share-based payment charge.

For further information about the use of Non-GAAP measures, refer to Item 5:*"Operating and Financial Review and Prospects-Costs-Reconciliation of Non-GAAP Measures"*.

Our total average all-in sustaining costs per ounce decreased from US$1,231 per ounce in fiscal 2015 to US$1,003 per ounce in fiscal 2016, mainly due to the weakening of the Rand against the US dollar in fiscal 2016.

Our average cash costs decreased by 16%, or US$162 per ounce, from US$1,003 per ounce in fiscal 2015 to US$841 per ounce in fiscal 2016. Cash costs per ounce vary with the working costs per ton (which are, in turn, affected by the number of tons processed) and grade of ore processed. Cash costs expressed in US dollars per ounce also vary with fluctuations in the Rand-US dollar exchange rate, because most of our working costs are incurred in Rand. Offsetting the depreciation of the Rand against the dollar in fiscal 2016 is the decrease in ounces produced and sold by 0.4% and 2% respectively (decrease in the denominator in the per ounce calculation). Operating costs in Rand terms increased by 7%. The South African Rand depreciated by 27% against the US dollar when compared to fiscal 2015. Operating costs in Rand terms were affected mainly by an increase in costs on Phakisa, Tshepong, Bambanani and Joel where costs increased in Rand terms by 18%, 16%, 16% and 12%, respectively, year on year. Annual increases in labor costs as well as inflationary pressures on our consumables and increase in electricity tariffs also contributed towards higher operating costs in fiscal 2016.

At Phakisa, the cash cost per ounce decreased by 27% from US$1,016 per ounce in fiscal 2015 to US$741 per ounce in fiscal 2016. The all-in sustaining cost per ounce decreased by 31% from US$1,347 per ounce in fiscal 2015 to US$936 per ounce in fiscal 2016. The decrease was mainly due to the 28% and 26% increase in gold produced and ounces sold respectively as a result of the increase in the recovered grade (14% increase to 0.170oz/t) and tons milled (12 % increase to 756,000 tons) in fiscal 2016 due to the ramp up in production.

At Doornkop, the cash cost per ounce decreased by 24% from US$1,092 per ounce in fiscal 2015 to US$831 per ounce in fiscal 2016. The all-in sustaining cost per ounce decreased by 25% from US$1,362 per ounce in fiscal 2015 to US$1,016 per ounce in fiscal 2016. The decrease was due to the depreciation of the Rand against the US Dollar and 3% increase in gold produced mainly as a result of the increase in tons milled (5% increase to 695,000 tons) in fiscal 2016.

At Tshepong, the cash cost per ounce decreased by 22% from US$1,008 per ounce in fiscal 2015 to US$787 per ounce in fiscal 2016. The all-in sustaining cost per ounce decreased by 24% from US$1,235 per ounce in fiscal 2015 to US$940 per ounce in fiscal 2016. The decrease was mainly due to the 18% and 16% increase in gold produced and ounces sold respectively as a result of the increase in the recovered grade (increase of 7% to 0.135oz/t) and tons milled (increase of 10% to 1,200,000 tons) in fiscal 2016.

At Kusasalethu, the cash cost per ounce decreased by 20% from US$1,283 per ounce in fiscal 2015 to US$1,026 per ounce in fiscal 2016. The all-in sustaining cost per ounce decreased by 21% from US$1,596 per ounce in fiscal 2015 to US $1,254 per ounce in fiscal 2016. The decrease was mainly due to the depreciation of the Rand against the US Dollar. Gold produced only decreased by 2% to 124,198 ounces due to the 33% increase in recovered grade to 0.169oz/t partially offsetting the 26% decrease in tons milled due to planned production stoppages in fiscal 2016.

At Masimong, the cash cost per ounce decreased by 15% from US$1,080 per ounce in fiscal 2015 to US$916 per ounce in fiscal 2016. The all-in sustaining cost per ounce decreased by 19% from US$1,302 per ounce in fiscal 2015 to US$1,059 per ounce in fiscal 2016. The decrease was mainly due to the depreciation of the Rand against the US Dollar and 3% increase in gold produced mainly as a result of the increase in tons milled in fiscal 2016. Gold produced decreased by 1% to 78,190 ounces due to the 3% decrease in tons milled, offset partially by the increase in the recovered grade. The operation was restructured in fiscal 2015 to focus on the mining of higher grade areas. The recovered grade increased by 2% to 0.109oz/t in fiscal 2016.

At Bambanani, the cash cost per ounce decreased by 12% from US$651 per ounce in fiscal 2015 to US$576 per ounce in fiscal 2016. The all-in sustaining cost per ounce decreased by 11% from US$735 per ounce in fiscal 2015 to US$654 per ounce in fiscal 2016. The decrease was due to the depreciation of the Rand against the US Dollar and 4% and 2% increase in gold produced and ounces sold respectively as a result of the increase in the recovered grade (increase of 2% to 0.378oz/t) and tons milled (increase of 1% to 256,000 tons) in fiscal 2016.

At Hidden Valley, the cash cost per ounce decreased by 3% from US$1,065 per ounce in fiscal 2015 to US$1,028 per ounce in fiscal 2016. Silver by-product credits increased by 31% to US$21 million in fiscal 2016 due to the increase in silver ounces produced (49% to 1,331,328 ounces) and increase in the average silver price. The recovered grade decreased by 19% to 0.038oz/t and tons milled decreased by 5% to 1,906,000 tons in fiscal 2016.

*b) Depreciation and amortization*

Depreciation and amortization decreased from US$216 million in fiscal 2015 to US$149 million, or 31%, in fiscal 2016 despite the 2% increase in tons milled from 19,919,000 tons in fiscal 2015 to 20,255,000 tons in fiscal 2016. In Rand terms, there was a decrease in depreciation and amortization expense of 12%. The decrease in the depreciation and amortization charge in fiscal 2016 is mainly due to the revised useful lives and residual values mainly related to the scrapping losses recorded for Kusasalethu and Masimong and impairments recorded on Doornkop and Hidden Valley in fiscal 2015. The estimated quantities of economically recoverable proved and probable reserves reduced year on year from fiscal 2015 to fiscal 2016 following the annual life-of-mine reassessment conducted in fiscal 2015.

*c) Employment termination and restructuring costs*

The charge for employment termination and restructuring costs decreased from US$22 million in fiscal 2015 to US$1 million in fiscal 2016. The charge for fiscal 2016, mainly relates to the restructuring at Doornkop which was initiated towards the end of fiscal 2015. For fiscal 2015, the costs relate to the restructuring at Kusasalethu, Masimong and Hidden Valley. Target 3 was placed on care and maintenance and voluntary severance packages were offered to management in September 2014.

*d) (Reversal of impairment)/impairment of assets*

A net reversal of impairment of US$3 million was recorded in fiscal 2016 compared to the impairment charge of US$285 million in fiscal 2015. A reversal of impairment of US$50 million was recognized for Doornkop due to the increased Rand gold price assumption, improvements in operational efficiencies following the restructuring in 2015 and new mining areas included in the life-of-mine plan based on additional exploration performed during the 2016 fiscal year. An impairment of US$32 million was recognized for Hidden Valley following a change in the life-of-mine plan during the annual planning process. The updated life-of-mine plan at June 30, 2016 for Hidden Valley results in lower production for the 2017 financial year as the mine will predominantly process ore stockpiles followed by a period of care and maintenance. Stripping activities for stage 5 are planned to recommence in the 2018 financial year according to the life-of-mine plan at the end of fiscal 2016. See "*Item 4 - Recent developments*". An impairment of US$15 million was recognized for Masimong which is a low margin operation and has a remaining life of mine of three years. The exploration program to locate additional areas of the higher grade B Reef proved unsuccessful and was stopped during the 2016 financial year. In addition, the grade estimation of the Basal Reef decreased. The charge in fiscal 2015 relates primarily to Hidden Valley and Doornkop, where charges of US$174 million and US$85 million respectively were recognized.

*Exploration expenditure*

Exploration expenditure recorded in fiscal 2016 mainly relates to the Kili Teke gold-copper exploration project in PNG. In fiscal 2016, exploration expenditure decreased from US$23 million to US$13 million. This was as a result of capitalizing the project exploration and evaluation expenditure for the Golpu project, in the 2015 fiscal year following the board approval of the Golpu prefeasibility study. The approval and progression to the final feasibility study stage, together with the reserves previously declared demonstrates the technical and commercial viability of the Golpu project.

*Gains on derivatives*

The amount in fiscal 2016 arises from the derivative gain recognized of US$30 million. During fiscal 2016, Harmony entered into foreign exchange hedging contracts (forex hedging contracts) in the form of zero cost collars, which establish a minimum (floor) and maximum (cap) Rand/US dollar exchange rate at which to convert US dollars to Rand. The nominal value of open forex hedging contracts at June 30, 2016 was US$500 million. The hedging contracts are spread over a 12-month period. The mark-to-market of the derivative asset was US$25 million positive as at June 30, 2016. This was due to the strengthening of the Rand exchange rate against the US dollar since entering into the forex hedging contracts. Hedge accounting is not applied to these forex hedging contracts and all gains have been recorded in the income statement.

*Other operating expenses*

(a) *Loss on scrapping of property, plant and equipment*
A loss on scrapping of US$4 million (2015: US$42 million) was recorded in fiscal 2016.

During fiscal 2016, the abandonment of unprofitable areas in the plans resulted in the derecognition of property, plant and equipment as no future economic benefits are expected from their use or disposal. A loss on scrapping of property, plant and equipment was recognized for Unisel amounting to US$1 million, Joel amounting to US$2 million and mining assets amounting to US$1 million were abandoned for Free State Surface. In fiscal 2015, a loss on scrapping of property, plant and equipment was recognized mainly on Kusasalethu (US$19 million) and Masimong (US$19 million) following the life-of-mine optimization process conducted in fiscal 2015 which led to the abandonment of certain mining levels and areas.

(b) *Foreign exchange translation loss*
Foreign exchange translation loss increased from US$32 million in fiscal 2015 to US$43 million in fiscal 2016. The foreign exchange translation loss relates primarily to the translation of the US$ revolving credit facilities into Rand, which increased from US$33 million in fiscal 2015 to US$46 million in fiscal 2016. The Rand weakened by 21% from a closing rate of R12.16 in fiscal 2015 to R14.72 in fiscal 2016.

*Income and mining taxes*

In fiscal 2015 and 2016, the tax rates for companies were 34% for mining income and 28% for non-mining income for South African companies and 30% for Australian companies and PNG mining companies.

| **Income and mining tax** | **2016** | **2015** |
|---|---|---|
| Effective income and mining tax rate | 40% | (14)% |

The effective tax rate for fiscal 2016 was higher than the mining statutory tax rate of 34% for us and our subsidiaries as a whole due to increased profitability of most of the South African operations in fiscal 2016 as a result of the increase in the average Rand gold price received and the increase in the average deferred tax rates at the South African operations due to higher estimated profitability following the completion of the updated life-of-mine plans. The most significant items causing the group's income tax provision to differ from the mining statutory tax rate are:

- No tax consequences relating to the impairment recorded on Hidden Valley and deferred tax assets not recognized which relates primarily to the Hidden Valley operation.
- Rate differences related to the additional capital allowances that may be deducted from mining taxable income in South Africa, which mainly relates to Avgold Limited (which includes the Target 1 operation).

Deferred tax rates for the South African operations are calculated based on estimates of the future profitability of each ring-fenced mine when temporary differences will reverse. The future profitability of each ring-fenced mine, in turn, is determined by reference to the life-of-mine plan for that operation, which is based on parameters such as the Group's long term view of the US $ gold price and the Rand/US$ exchange rate, as well as the reserves declared for the operation. As some of these parameters are based on market indicators, they differ from one year to the next. In addition, the reserves may also increase or decrease based on updated or new geological information. Changes in the future profitability of each ring-fenced mine impact the deferred tax rates used to recognize temporary differences at these operations. See *"- Critical Accounting Policies and Estimates-Deferred taxes*" above. The increase in deferred tax on temporary differences due to changes in estimated effective tax rates results primarily from an increase in the effective deferred tax rate at Freegold (includes the Bambanani, Joel, Phakisa and Tshepong operations) and Harmony (includes the Masimong, Unisel and Free State Surface operations). The deferred tax rate at Freegold increased from 16.7% in fiscal 2015 to 20.0% in fiscal 2016 and Harmony increased from 12.5% in fiscal 2015 to 21.1%, both increases mainly due to higher estimated profitability. The deferred tax rate at Randfontein Estates (includes the Doornkop and Kusasalethu operations) decreased from 14.3% to 10.1%, mainly due to the lower estimated profitability of the Kusasalethu operation driven by the decrease in the life-of-mine of the operation.

**Other Financial Information**

***Export Sales***

All of our gold produced in South Africa during fiscal 2015 to 2017 was refined by Rand Refinery. Rand Refinery is owned by a consortium of the major gold producers in South Africa and Harmony holds a 10.38% interest at June 30, 2017. All of our gold produced in PNG in those periods was sold to The Perth Mint Australia, a Perth-based refinery.

**Recent Developments**

See Item 4: *"Information on the Company-History and Development of the Company-Recent Developments-Developments since June 30, 2017."*

**B. LIQUIDITY AND CAPITAL RESOURCES**

We centrally manage our funding and treasury policies. There are no legal or economic restrictions on the ability of our subsidiaries to transfer funds to us. We have generally funded our operations and our short-term and long-term liquidity requirements from: (i) cash generated from operations; (ii) credit facilities and other borrowings; and (iii) sales of equity securities.

| | Fiscal year ended June 30, | | |
|---|---|---|---|
| | 2017 | 2016 | 2015 |
| | | ($ in millions) | |
| Operating cash flows | 280 | 312 | 176 |
| Investing cash flows | (249) | (180) | (253) |
| Financing cash flows | (29) | (114) | 15 |
| Foreign exchange differences | 8 | (21) | (22) |
| Total cash flows | 10 | (3) | (84) |

***Operations***

Net cash provided by operations is primarily affected by the quantities of gold sold, the gold price, the Rand-US dollar exchange rate, cash costs per ounce and, in the case of the International operations, the Australian dollar and PNG Kina versus US dollar exchange rate. A significant adverse change in one or more of these parameters could materially reduce cash provided by operations as a source of liquidity.

Net cash generated by operations decreased from US$312 million in fiscal 2016 to US$280 million in fiscal 2017. This is mainly due to the income tax paid during fiscal 2017 as a result of the increase in current tax primarily due to gains on derivatives.

Net cash generated by operations increased from US$176 million in fiscal 2015 to US$312 million in fiscal 2016. This was mainly due to the significant increase in the Rand gold price received due to the weakening of the Rand against the US dollar, which offset the decrease in gold sold in fiscal 2016, and increases in production costs due to increases in labor, materials and electricity and other inflationary pressures in fiscal 2016.

***Investing***

Net cash utilized by investing activities was US$249 million in fiscal 2017, an increase from US$180 million in fiscal 2016. The increase relates to the additions to property, plant and equipment of US$286 million in fiscal 2017, compared with US$168 million in fiscal 2016. Offsetting this was the US$33 million cash received on the acquisition of full ownership of Hidden Valley.

Net cash utilized by investing activities was US$180 million in fiscal 2016, as compared with US$253 million in fiscal 2015. Additions to property, plant and equipment were US$168 million in fiscal 2016 compared with US$246 million in fiscal 2015.

***Financing***

Cash utilized in financing activities amounted to US$29 million in fiscal 2017, a decrease from US$114 million in fiscal 2016. Dividends of US$33 million was paid during fiscal 2017. The net of borrowings drawn (US$54 million) and borrowings repaid (US$50 million) during fiscal 2017 was US$4 million.

Financing activities utilized US$114 million in fiscal 2016, compared with US$15 million generated in fiscal 2015. In fiscal 2016, we drew down US$24 million (2015: US$80 million). Loan repayments in fiscal 2016 amounted to US$138 million (2015: US$65 million). No dividends were paid in fiscal 2015 and 2016.

***Outstanding Credit Facilities and Other Borrowings***

On December 22, 2014, we entered into a loan facility agreement which was jointly arranged by Nedbank Limited (Nedbank) and Barclays Bank Plc, comprising a revolving credit facility of up to US$250 million. All conditions precedent were met during February 2015 and US$205 million was drawn down to repay the syndicated revolving credit facility, resulting in a net cash outflow of US$65 million. The remaining US$45 million was drawn down during May 2015. During fiscal 2016 and 2017, US $110 million and US$30 was repaid, respectively. US$30 million was drawn down in April 2017. Interest accrues on a day-to-day basis over the term of the loan at a variable interest rate. The facility is repayable on maturity during February 2018. At June 30, 2017, the remaining US$110 million on this facility is available until February 2018. See Item 4: "*Information on the Company-History and Development of the Company-Recent Developments-Developments since June 30, 2017*."

On February 20, 2017, we entered into a loan facility with Nedbank, comprising a revolving credit facility of R1,000 million (US$77 million). Interest accrues on a day-to-day basis over the term of the loan at a variable interest rate. US$24 million (R300 million) was drawn down on March 24, 2017. At June 30, 2017, the remaining R700 million (US$53 million) on this facility is available until February 2020.

We need to comply with certain debt covenants for both the Nedbank facility and US dollar revolving credit facility. The debt covenant tests are as follows:

The group's interest cover ratio shall not be less than five (EBITDA[1]/Total interest paid).

Tangible Net Worth[2] to total net debt ratio shall not be less than six times or eight times when dividends are paid.

Leverage[3] shall not be more than 2.5 times.

1 *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.*

We complied with the relevant covenants during fiscal 2017.

***Recently Retired Credit Facilities and Other Borrowings***

On December 20, 2013, we entered into a loan facility with Nedbank, comprising a revolving credit facility of R1,300 million (US$126 million). Interest at JIBAR plus 350 basis points, was paid at the elected interest interval. The revolving credit facility was repayable after three years. The facility was extended to and matured in February 2017.

***Capital Expenditures***

Total budgeted capital expenditures for fiscal 2017 are US$339 million. See "*Item 4 - Information On The Company - Business Overview - Capital Expenditures" for* details regarding the budgeted capital expenditures for each operation. We currently expect that our planned operating capital expenditures will be financed from operations, including use of our current facilities, as described in "*-Outstanding Credit Facilities and Other Borrowings" above*, and new borrowings as needed.

The following table sets forth our authorized capital expenditure as of June 30, 2017:

| | **$'million** |
|---|---|
| Authorized and contracted for[1] | 28 |
| Authorized but not yet contracted for | 60 |
| **Total** | **88** |

1 Including our share of the PNG joint operation's capital expenditure of US$2 million.

**Working Capital and Anticipated Financing Needs**

The board believes that our working capital resources, by way of cash generated from operations, borrowings and existing cash on hand, are sufficient to meet our present working capital needs. The South African operations are generally expected to fund their capital internally. The Wafi-Golpu project in PNG is, however, expected to require additional capital expenditure over the next three to six years to complete construction, some of which will be funded from cash generated by operations and the balance by debt. We may also consider other options or structures to finance Wafi-Golpu. For more information on our planned capital expenditures, see "*-Capital Expenditure*" above. Also see *"Item 3: "Risk Factors- Harmony's operations have limited proved and probable reserves, and exploration and discovery are necessary to maintain current gold production levels at these operations. Exploration for gold and other precious metals is speculative in nature, may be unsuccessful and involves many risks"*. Our board believes that we will have access to adequate financing on reasonable terms given our cash-based operations and modest leverage. Our ability to generate cash from operations could, however, be materially adversely affected by increases in cash costs, decreases in production, decreases in the price of gold and appreciation of the Rand and other non-US dollar currencies against the US dollar. In addition, South African companies are subject to significant exchange control limitations, which may impair our ability to fund overseas operations or guarantee credit facilities entered into by overseas subsidiaries. See *Item 10: "Additional Information-Exchange Controls".*

The information set forth under the headings:

- *"-Harmony in Action-Operational performance-Outlook for FY18*" on page 104 to 105 of the Integrated Annual Report for the 20-F 2017 is incorporated herein by reference.

**C: RESEARCH AND DEVELOPMENT, PATENTS AND LICENSES, ETC.**

Not applicable.

**D. TREND INFORMATION**

The information set forth under the headings:

- *"-Harmony in Action-Operational performance*" on pages 100 to 143 of the Integrated Annual Report for the 20-F 2017 is incorporated herein by reference.

## E. OFF-BALANCE SHEET ARRANGEMENTS

Contractual obligations in respect of mineral tenement leases in PNG amount to US$13 million at June 30, 2017.

## F. TABULAR DISCLOSURE OF CONTRACTUAL OBLIGATIONS

Our contractual obligations and commercial commitments consist primarily of credit facilities, post-retirement healthcare and environmental obligations.

***Contractual Obligations on the Balance Sheet***

The following table summarizes our contractual obligations as of June 30, 2017:

| | | Payments Due by Period | | | |
|---|---|---|---|---|---|
| | Total ($'million) | Less Than 12 Months July 1 , 2017 to June 30, 2018 ($'million) | 12-36 Months July 1, 2018 to June 30, 2020 ($'million) | 36-60 Months July 1, 2020 To June 30, 2022 ($'million) | After 60 Months Subsequent June 30, 2022 ($'million) |
| Bank facilities[1] | 172 | 146 | 2 | 24 | — |
| Non-current liabilities[2] | 1 | — | 1 | — | — |
| Post-retirement health care[3] | 14 | — | — | — | 14 |
| Environmental obligations[4] | 201 | — | — | — | 201 |
| **Total contractual obligations** | **388** | **146** | **3** | **24** | **215** |

1 See Item 5: *"Operating and Financial Review and Prospects-Liquidity and Capital Resources-Outstanding Credit Facilities and Other Borrowings"*. The amounts include the interest payable over the terms of the facilities.

2 This liability relates to the Sibanye Beatrix ground swap royalty provision. See note 30 to our consolidated financial statements set forth beginning on page F-1.

3 This liability relates to post-retirement medical benefits of Freegold employees at the time of acquisition as well as for former employees who retired prior to December 31, 1996 and is based on actuarial valuations conducted during fiscal 2017.

4 We make provision for environmental rehabilitation costs and related liabilities based on management's interpretations of current environmental and regulatory requirements. See Item 5: *"Operating and Financial Review and Prospects-Operating Result-Critical Accounting Policies-Provision for environmental rehabilitation"*.

***Commercial Commitments***

The following table provides details regarding our commercial commitments as of June 30, 2017:

| | | Amount of Commitments Expiring by Period | | | |
|---|---|---|---|---|---|
| | Total ($'million) | Less Than 12 Months July 1, 2017 to June 30, 2018 ($'million) | 12-36 Months July 1, 2018 to June 30, 2020 ($'million) | 36-60 Months July 1, 2020 To June 30, 2022 ($'million) | After 60 Months Subsequent June 30, 2022 ($'million) |
| Guarantees[1] | 38 | — | — | — | 38 |
| Capital commitments[2] | 28 | 28 | — | — | — |
| **Total commitments expiring by period** | **66** | **28** | **—** | **—** | **38** |

1 US$37 million of these guarantees relate to our environmental and rehabilitation obligation.

2 Capital commitments consist only of amounts committed to external suppliers, although a total of US$88 million has been approved by the board for capital expenditures.

## G. SAFE HARBOR

The information set forth under the heading *"Cautionary statement about forward-looking statements"* on the inside front cover is incorporated herein by reference.

## ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

### A. DIRECTORS AND SENIOR MANAGEMENT

The information set forth under the heading:

- *"Board of directors" and "Executive management"* on pages 21 to 26

of the Integrated Annual Report for the 20-F 2017 is incorporated herein by reference.

### B. COMPENSATION

The information set forth under the heading:

- *"-Governing Harmony-Remuneration report"* on pages 172 to 191

of the Integrated Annual Report for the 20-F 2017 is incorporated herein by reference.

### C. BOARD PRACTICES

The information set forth under the headings:

- *"-Governing Harmony-Corporate governance"* on pages 153 to 172;
- *"-Governing Harmony-Remuneration report"* on pages 172 to 191; and
- *"-Governing Harmony-Audit and risk committee chairman's report"* on pages 192 to 197

of the Integrated Annual Report for the 20-F 2017 is incorporated herein by reference.

### D. EMPLOYEES

The information set forth under the heading:

- *"-Harmony in Action-Employees and communities"* on pages 54 to 70

of the Integrated Annual Report for the 20-F 2017 is incorporated herein by reference.

### E. SHARE OWNERSHIP

The information set forth under the headings:

- *"-Governing Harmony-Remuneration report"* on pages 172 to 191; and

of the Integrated Annual Report for the 20-F 2017 is incorporated herein by reference.

## ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

### A. MAJOR SHAREHOLDERS

We are an independent gold producer, with no single shareholder exercising control. As of October 19, 2017, our issued share capital consisted of 440,584,488 ordinary shares. To our knowledge, (a) we are not directly or indirectly owned or controlled: (i) by another corporation; or (ii) by any foreign government, and (b) there are no arrangements (including any announced or expected takeover bid), the operation of which may at a subsequent date result in a change in our control.

The voting rights of our major shareholders do not differ from the voting rights of other holders of the same class of shares.

Significant changes in the percentage ownership held by major shareholders in the past three years are described below under "-*Related Party Transactions*".

A list of the holders that hold 5% or more of our securities as of September 30, 2017 is set forth below:

| Holder | Number of shares | Percentage |
|---|---|---|
| Deutsche Bank Trust Company Americas [1] | 222,368,997 | 50.60% |
| Private Investors (North America) [2] | 69,540,621 | 15.78% |
| ARM Ltd. [3] | 63,632,922 | 14.44% |
| Van Eck Global [4] | 46,719,447 | 10.60% |
| Private Investors (Europe) [5] | 43,846,149 | 9.95% |
| Public Investment Corporation of South Africa | 25,698,608 | 5.83% |

1 Deutsche Bank Trust Company Americas has acted as the depositary ("Depositary") with respect to the ADSs evidenced by ADRs as of October 10, 2011. Holding disclosed represents outstanding ADRs on September 30, 2017.

2 Van Eck's holding of is held in in the form of ADRs and is included in (1) above.

3 Patrice Motsepe, our Chairman, has an indirect holding in ARM Limited.

4 Private Investors (North America)'s holding includes held in ADR form and is included in (1) above.

5 Private Investors (Europe's holding) includes 26,128,535 held in ADR form and is included in (1) above.

## B. RELATED PARTY TRANSACTIONS

See note 32 "*Related Parties*", note 18 (c) "*Trade and other receivables*", note 19 *"Investments in Associates"* and note 20 *"Investment in Joint Operations"* of our consolidated financial statements, set forth beginning on page F-1.

## C. INTERESTS OF EXPERTS AND COUNSEL

Not applicable.

# ITEM 8. FINANCIAL INFORMATION

## A. CONSOLIDATED STATEMENTS AND OTHER FINANCIAL INFORMATION

Please refer to Item 18: *"Financial Statements and Item 3: "Key Information-Selected Financial Data"*.

### Legal Proceedings

None of our properties is the subject of pending material legal proceedings. We have been involved in a number of claims and legal and arbitration proceedings incidental to the normal conduct of our business, such as the ones described below.

***Silicosis (and other occupational diseases)***

*AngloGold Ashanti court case*

On March 3, 2011, judgment was handed down in the Constitutional Court, in the case of Mr Thembekile Mankayi v AngloGold Ashanti Limited regarding employees' common-law claims against their employers in respect of compensatable diseases referred to in ODMWA. The judgment allows claimants, such as Mr Mankayi, to institute action against their current and former employers for damages suffered as a result of them contracting occupational diseases which result, amongst others, from their exposure to harmful quantities of dust while they were employed at a controlled mine as referred to in ODMWA. In this regard, should anyone bring similar claims against Harmony in future, those claimants would need to prove that silicosis, as an example, was contracted while in the employ of Harmony and that it was contracted due to negligence on Harmony's part to provide a safe and healthy working environment. The link between the cause (negligence by Harmony in exposing a claimant to harmful quantities of dust while in its employ) and the effect (the silicosis) will be an essential part of any case.

*Consolidated class action*

On August 23, 2012, Harmony and certain of its subsidiaries (Harmony defendants) were served with court papers in terms of which three former employees made application to the South Gauteng High Court to certify a class action for purposes of instituting action against the Harmony defendants. In essence, the applicants want the court to declare them as suitable members to represent a class of current and former mineworkers who have contracted occupational lung diseases for purposes of instituting a class action for certain relief, and to obtain directions from the court as to what procedure to follow in pursuing the relief required against the Harmony defendants. Similar applications were also brought against various other gold mining companies for similar relief during August 2012.

On January 8, 2013, the Harmony defendants, alongside other gold mining companies operating in South Africa (collectively the respondents), were served with another application to certify another class action. In this application, two classes of persons were sought to be established representing, firstly, a class of current and former mine workers who have silicosis (whether or not accompanied by any other disease) and who work or have worked on gold mines owned and/or controlled by the respondents, and secondly, a class of dependents of mine workers who have died as a result of silicosis (whether or not accompanied by any other disease) and who worked on gold mines owned and/or controlled by the respondents. The Harmony defendants opposed both applications.

Following receipt of the aforesaid application in 2013, the Harmony defendants were advised that there was a potential overlap between the application of August 23, 2012 and the application of January 8, 2013. On October 17, 2013, the five certification applications were consolidated by order of court.

The consolidated application was heard in October 2015. On May 13, 2016, the Gauteng Local Division of High Court, Johannesburg, ordered the certification of a class action consisting of current and former underground mineworkers who have contracted silicosis and dependents of underground mineworkers who have died of silicosis (silicosis class), and current and former underground mineworkers who have contracted pulmonary tuberculosis, and the dependents of deceased underground mineworkers who died of pulmonary tuberculosis (a tuberculosis class), which classes are to proceed as a single class action against the mining companies cited in the consolidated application. The High Court also ordered that any claimant who has a claim for general damages, and who dies before the finalization of his case, will have such general damages transmitted to the estate of the deceased claimant. The High Court did not make an order on the merits of the claimants' cases or any potential claims to be instituted by the mineworkers or their dependents.

On June 24, 2016, the High Court granted leave to appeal to the Supreme Court of Appeal against the order of transmissibility of general damages. The Harmony defendants submitted their notice of appeal in respect of the transmissibility of the general damages order to the Supreme Court of Appeal on July 25, 2016.

The mining companies, including the Harmony defendants, also requested leave to appeal from the Supreme Court of Appeal against the balance of the judgment and orders of the High Court certifying the class action in respect of the silicosis class and tuberculosis class. Leave to appeal to the Supreme Court of Appeal was granted on September 13, 2016. The

Harmony defendants submitted their notice of appeal in respect of the remainder of the order certifying a class action in respect of the silicosis class and the tuberculosis class to the Supreme Court of Appeal on September 27, 2016.

On February 28, 2017, the Harmony defendants filed their heads of argument with the Supreme Court of Appeal in respect of the above appeals. The appeals will be heard together and are set down for hearing during the week of March 19, 2018.

*Individual claims*

On May 3, 2013, an individual action was instituted against Harmony by a former employee. The plaintiff subsequently joined one of Harmony's subsidiaries to the action. The plaintiff is claiming R 25 million (approximately USD$1.9 million) in damages, plus interest, from Harmony, its subsidiary, and another gold mining group of companies. The plaintiff alleges to have contracted silicosis with progressive massive fibrosis during the course of his employment. The action is being defended and Harmony is proceedings with trial preparation in the normal course. A trial date has not yet been allocated for the matter. At this stage, and in the absence of a court decision on this matter, it is not yet certain as to whether Harmony and its subsidiary will incur any costs (except legal fees) related to the above claim.

During the period September 2011 to December 2016, 12 individual actions were instituted against Harmony by former employees, or dependents of former employees, in which damages are claimed ranging from R 500 000 (USD$ 38 000) to R 5 million (USD$ 380 000) arising from the alleged contraction of silicosis, alleged exposure to blasting fumes and smoke, or the loss of support following medical incapacitation, or death, of former employees as a result of the alleged contraction of silicosis. All of these actions are being defended. Nine of these actions have been suspended pending the outcome of the appeals presently before the Supreme Court of Appeal in respect of the consolidated application for the certification of a class action referred to above.

*The working group*

Anglo American South Africa Limited, AngloGold Ashanti Limited, Gold Fields Limited, Sibanye-Stillwater and Harmony (collectively the working group) announced in November 2014 that they have formed a gold mining industry working group to address issues relating to the compensation and medical care for occupational lung diseases in the gold mining industry in South Africa. Subsequently African Rainbow Minerals Limited also joined the working group. Essentially, the companies are seeking a comprehensive and sustainable solution which deals both with the legacy compensation issues and future legal frameworks which, while being fair to employees, also ensures the future sustainability of companies in the gold mining industry. The companies have engaged all stakeholders on these matters, including government, organized labor, other mining companies and legal representatives of claimants who have filed legal suits against the companies.

The Working Group believes that achieving a comprehensive settlement which is fair to past, present and future employees and sustainable for the sector is preferable to protracted litigation.

*Provision for silicosis settlement*

As a result of the progress made by the working group and the status of negotiations with affected stakeholders, Harmony is now in a position to reasonably estimate its share of a possible settlement of the class action claims and related costs within an acceptable range. A pre-tax charge of R917 million (US$69.9 million) has been recognized in other operating expenses in the results for the year ending June 30, 2017.

The ultimate outcome of these matters remains uncertain, with a possible failure to reach a settlement or to obtain the requisite court approval of the settlement. The provision recorded in the financial statements is consequently subject to adjustment or reversal in the future, depending on the progress of the working group discussions and stakeholder consultations, and the ongoing legal proceedings.

See to Note 27 "*Provision for silicosis settlement"* of our consolidated financial statements set forth beginning on page F-1.

*Watut River damage claims*

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. The defendants intend to defend the claims. No active steps have been taken by the plaintiffs in this proceeding for more than five years. It is not practicable to make any reasonable assessment of the prospects of the plaintiffs succeeding should they proceed with these claims, nor the potential liability of the defendants if the plaintiffs were to succeed. As a result, no provision has been recognized in the financial statements for this matter.

## B. SIGNIFICANT CHANGES

See Item 4: "*Information on the Company-History and Development of the Company-Recent Developments-Developments since June 30, 2017*."

## ITEM 9 THE OFFER AND LISTING

## A. OFFER AND LISTING DETAILS

As of October 19, 2017, there were 1,588 record holders of our 222,968,997 ADRs in the United States.

The high and low sales prices in Rand for our ordinary shares on the JSE for the periods indicated were as follows:

| | Harmony Ordinary Share (Rand per Ordinary Share) | |
|---|---|---|
| | **High** | **Low** |
| **Fiscal year ended June 30, 2013** | | |
| Full Year | 85.71 | 33.47 |
| **Fiscal year ended June 30, 2014** | | |
| First Quarter | 42.47 | 32.74 |
| Second Quarter | 36.14 | 24.48 |
| Third Quarter | 40.32 | 27.25 |
| Fourth Quarter | 35.60 | 27.72 |
| Full Year | 42.47 | 24.48 |
| **Fiscal year ended June 30, 2015** | | |
| First Quarter | 35.21 | 24.70 |
| Second Quarter | 24.15 | 17.00 |
| Third Quarter | 35.50 | 20.47 |
| Fourth Quarter | 24.34 | 15.59 |
| Full Year | 35.50 | 15.59 |
| **Fiscal year ended June 30, 2016** | | |
| First Quarter | 15.85 | 8.63 |
| Second Quarter | 16.25 | 8.13 |
| Third Quarter | 62.30 | 15.60 |
| Fourth Quarter | 59.25 | 44.99 |
| Full Year | 62.30 | 8.13 |
| **Fiscal year ended June 30, 2017** | | |
| First Quarter | 66.65 | 45.72 |
| Second Quarter | 47.05 | 26.10 |
| Third Quarter | 38.80 | 27.66 |
| Fourth Quarter | 37.87 | 20.68 |
| Full Year | 66.65 | 20.68 |
| July 2017 | 23.44 | 21.08 |
| August 2017 | 25.84 | 21.90 |
| September 2017 | 27.90 | 23.84 |
| As of October 19, 2017 | 25.45 | 22.68 |

On October 19, 2017, the share price of our ordinary shares on the JSE was R22.68.

Our ADSs, evidenced by ADRs, are listed on the NYSE The high and low sales prices in US dollars for our ADRs for the periods indicated, as reported on the NYSE were as follows:

| | NYSE Harmony ADRs ($ per ADR) | |
|---|---|---|
| | **High** | **Low** |
| **Fiscal year ended June 30, 2013** | | |
| Full Year | 10.34 | 3.30 |
| **Fiscal year ended June 30, 2014** | | |
| First Quarter | 4.33 | 3.30 |
| Second Quarter | 3.67 | 2.36 |
| Third Quarter | 3.77 | 2.36 |
| Fourth Quarter | 3.34 | 2.52 |
| Full Year | 4.33 | 2.36 |
| **Fiscal year ended June 30, 2015** | | |
| First Quarter | 3.29 | 2.16 |
| Second Quarter | 2.23 | 1.53 |
| Third Quarter | 3.18 | 1.67 |
| Fourth Quarter | 2.53 | 1.31 |
| Full Year | 3.29 | 1.31 |
| **Fiscal year ended June 30, 2016** | | |
| First Quarter | 1.34 | 0.60 |
| Second Quarter | 1.03 | 0.53 |
| Third Quarter | 3.99 | 0.93 |
| Fourth Quarter | 4.17 | 2.92 |
| Full Year | 4.17 | 0.53 |
| **Fiscal year ended June 30, 2017** | | |
| First Quarter | 4.81 | 3.35 |
| Second Quarter | 3.49 | 1.89 |
| Third Quarter | 2.98 | 2.08 |
| Fourth Quarter | 2.78 | 1.59 |
| Full Year | 4.81 | 1.59 |
| July 2017 | 1.81 | 1.59 |
| August 2017 | 2.06 | 1.67 |
| September 2017 | 2.17 | 1.82 |
| As of October 19, 2017 | 1.92 | 1.69 |

On October 19, 2017, the closing share price of our ADRs on the NYSE was US$1.69.

**B. PLAN OF DISTRIBUTION**

Not applicable.

**C. MARKETS**

***The Securities Exchange in South Africa***

The JSE is the one of the largest emerging market exchange and by far the leading exchange in Africa, playing a leadership role in the continent, supporting South Africa's role as the African financial hub. It is also recognized as a leading exchange in the global resources sector.

As South Africa's only full service securities exchange, the JSE connects buyers and sellers in five different markets: equities, which includes a primary and secondary board, equity derivatives, agricultural derivatives and interest rate instruments. The JSE is one of the top 20 exchanges in the world in terms of market capitalization. The market capitalization of the JSE equities market was R13,657 billion (US$1,045 billion) at June 30, 2017. The mining market capitalization was R1,733 billion (US $133 billion) at June 30, 2017, 13% of the overall JSE market capitalization and constituted 32% in terms of value traded.

***Strate Settlement***

Under Strate, South Africa's Central Securities Depository ("**CSD**"), there are essentially two types of clients: controlled and non-controlled. A controlled client is one who elects to keep his shares and cash with his broker and these shares are held in custody at the broker's chosen Custodian Bank, the CSD Participant ("**CSDP**"). A non-controlled client is one who appoints his own CSDP to act as custodian on his behalf. Equity settlements take place on a contractual T+3 (where T= trade date) settlement cycle. Securities and funds become due for settlement three business days after the trade. Contractual settlement is a market convention embodied in the rules of the JSE which states that a client has a contractual obligation to cause a JSE trade to settle on settlement day. The JSE, in its capacity as Settlement Authority, ensures that all on-market trades entered into by two JSE member firms settle three days after the trade date.

### D. SELLING SHAREHOLDERS

Not applicable.

### E. DILUTION

Not applicable.

### F. EXPENSES OF THE ISSUE

Not applicable.

## ITEM 10. ADDITIONAL INFORMATION

### A. SHARE CAPITAL

As of June 30, 2017, our issued share capital consisted of 439,957,199 ordinary shares with a par value of R0.50 each. As of October 19, 2017 our issued share capital consisted of 440,584,488 ordinary shares with a par value of R0.50 each, of the same class. Our authorised capital is 1,200,000,000 ordinary shares with a par value of R0.50 each.

### B. MEMORANDUM OF INCORPORATION

Information on our Memorandum of Incorporation can be found in Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2014 which was filed with the SEC on October 23, 2014, is available on the SEC's website and is incorporated herein by reference.

### C. MATERIAL CONTRACTS

Neither the Company nor any member of the group of which it is a party has entered into any material contracts, other than in the ordinary course of its business, during the two years immediately preceding the publication of this document.

### D. EXCHANGE CONTROLS

***Introduction***

The following is a general outline of South African exchange controls. Investors should consult a professional adviser pertaining to the exchange control implications of their particular investments.

The Republic of South Africa's exchange control regulations provide for restrictions on the exportation capital from a Common Monetary Area member, consisting of South Africa, the Republic of Namibia and the Kingdoms of Lesotho and Swaziland. Transactions between South African residents (including corporations) and foreigners are subject to these exchange controls, which are administered by the Financial Surveillance Department of the South African Reserve Bank ("**SARB**").

Since 1995 a number of exchange control regulations have been relaxed with regard to both residents and non-residents. Following the initial reforms, ongoing relaxations have been introduced with the aim of achieving a macroprudential risk based approach to the management of foreign exchange. The reforms are being made to, among other things, enable international firms to make investments through South Africa to the rest of Africa and to further enhance opportunities for offshore portfolio diversification for resident investors. In addition, the relaxations have also significantly raised the size of the discretionary allowances available to residents for overseas transactions.

A considerable degree of flexibility is built into the system of exchange controls, and the SARB possesses substantial discretionary powers in approving or rejecting the applications that fall outside the authority granted to authorized dealers.

These comments relate to exchange controls in force at June 30, 2017. These controls are subject to change at any time, however, the government has previously announced most changes during the annual budget statement in February. It is not possible to predict whether existing exchange controls will be changed or relaxed by the South African government in the future.

***Government Regulatory Considerations***

*Shares*

A foreign investor may invest freely in shares in a South African company, whether listed on the JSE or not through normal banking channels against settlement in foreign currency or Rand from a non-resident rand account. A foreign investor may also sell his or her share investment in a South African company and transfer the proceeds out of South Africa without restriction. However, when the Company is not listed on the JSE, the SARB must be satisfied that the sale price of any shares reflects fair market value.

Under present South African exchange control regulations, our ordinary shares and ADSs are freely transferable outside the Common Monetary Area between non-residents of the Common Monetary Area. No prior SARB approval is required for the transfer of proceeds to South Africa, in respect of shares listed on the JSE, provided these funds enter the country through the normal banking channels. In addition, the proceeds from the sale of ordinary shares on the JSE on behalf of those holders of ordinary shares who are not residents of the Common Monetary Area are freely remittable to those holders. Share certificates and warrant certificates held by non-residents will be endorsed with the words “non-resident.”

*Loans*

Generally, the granting of loans to us or our subsidiaries, and our ability to borrow from non-South African sources and the repatriation of dividends, interest and royalties by us will be regulated by the Exchange Control Department of the SARB. If a foreign investor wishes to lend capital to a South African company, the prior approval of the SARB must be sought mainly in respect of the interest rate and terms of repayment applicable to such loan.

Interest on foreign loans is subject to a withholding tax of 15% and freely remittable abroad, provided the loans received prior approval from the SARB. However, this rate may be reduced depending on the applicability of a double taxation treaty.

*Investments*

We are required to seek approval from the SARB to use funds held in South Africa to make investments outside of South Africa.

*Dividends*

Dividends declared by a listed company are subject to a withholding tax of 20% and freely transferable out of South Africa from both trading and non-trading profits earned in South Africa through a major bank as agent for the SARB to non-resident shareholders. However, this rate may be reduced depending on the applicability of a double taxation treaty.

Where 75% or more of a South African company’s capital, voting power, power of control or earnings is directly or indirectly controlled by non-residents, such a company is designated an “affected person” by the SARB, and certain restrictions are placed on its ability to obtain local financial assistance. We are not, and have never been, designated an “affected person” by the SARB.

If an affected entity made use of local borrowing facilities, the affected entity must apply for SARB approval prior to remitting dividends offshore. As a general rule, an affected entity that has accumulated historical losses may not declare dividends out of current profits unless and until such time that the affected entity’s local borrowings do not exceed the local borrowing limit.

**E. TAXATION**

**Certain South African Tax Considerations**

The summary set out in this section is based on current law and our interpretation thereof. Amendments to the law may change the tax treatment of acquiring, holding or disposing of our ordinary shares or ADSs, as applicable, which changes may possibly occur on a retrospective basis. The following summary is not a comprehensive description of all of the tax considerations that may be relevant to a decision to purchase, own or dispose of our ordinary shares or ADSs, and does not cover the tax consequences that depend upon your particular tax circumstances. This summary is not intended to be tax advice. In particular, the following summary addresses tax consequences for holders of ordinary shares or ADSs who are not residents of South Africa for tax purposes from a South African perspective. It specifically excludes the tax consequences for persons who are not residents of South Africa for tax purposes whose holding of shares or ADSs is effectively connected with a permanent establishment in South Africa through which the holder carries on business activities, or who is not the beneficial recipient of the dividends, or where the source of the transaction or dividends is deemed to be in South Africa. In addition, it does not cover the tax consequences for a holder that is not entitled to the benefits of the double taxation agreement concluded between the Republic of South Africa and the United States of America signed on February 17, 1997 (“**US Treaty**”). It also assumes that the holders hold the ordinary shares or ADSs on capital account (that is, for investment purposes) as opposed to on revenue account (that is for speculative purposes or as trading stock). Recently the Supreme Court of Appeal in South Africa indicated that gains will be on revenue account if they are derived as part of a business in carrying out a scheme of profit making. We recommend that you consult your own tax adviser concerning the consequences of holding our ordinary shares or ADSs, as applicable, in your particular situation.

***Dividends***

With effect from April 1, 2012, South Africa introduced a Dividends Tax, which is a withholding tax on dividends borne by the shareholder receiving the dividend. The rate at which Dividends Tax is levied is 20% effective from 22 February 2017 (previously 15%). Dividends Tax is imposed on, amongst others, non-resident shareholders, and it is withheld by the company declaring and paying the dividend to its shareholders or the regulatory intermediary, as the case may be, as a withholding agent.

Article 10 of the US Treaty provides that a dividend paid by a company that is a resident of South Africa for tax purposes to a resident of the US for tax purposes may be taxed in the US. Article 10 of the US Treaty further provides that such a dividend may also be taxed in South Africa. However, the tax charged in South Africa may not exceed 5% of the gross amount of the dividends if the beneficial owner is a company that holds directly at least 10% of the voting stock of the South African company paying the dividends. In all other cases, the US Treaty provides for a withholding tax of 15% of the gross amount of the dividends.

With effect from January 1, 2012 it is deemed that an amount will be derived by a person from a source within South Africa if the amount constitutes a dividend received by or accrued to that person.

***Capital Gains Tax***

Capital Gains Tax ("**CGT**") was introduced in South Africa with effect from October 1, 2001. In the case of an individual, 40% in respect of years of assessment commencing 1 March 2016 (previously 33.3%) of the capital gain is included in the individual's taxable income (effectively 18% (previously 16.4%) should the individual pay tax at the marginal rate of 45% from 1 March 2017(previously 41%)). In the case of a corporate entity or trust, 80% in respect of years of assessment commencing 1 March 2016 (previously 66.6%) of such gain is included in its taxable income (effectively a rate of 22.4% (previously 18.6%) for a corporate entity and 36% (previously 32.8%) for a trust). CGT is only applicable to non-residents if the proceeds from the sale are attributable to a permanent establishment of the non-resident shareholder. The US Treaty (which will prevail in the event of a conflict) provides that the US holder of ordinary shares or ADSs will not be subject to CGT if the assets have been held as capital assets, unless they are linked to a permanent establishment of such non-resident shareholder in South Africa. To the extent that shares or ADSs are held on revenue account, a similar principle applies with reference to the payment of income tax. Accordingly, income tax is only payable to the extent that the gain is attributable to the carrying on of a business in South Africa through a permanent establishment situated in South Africa. The current corporate rate is equal to 28%. Any gains realized on the disposal of equity shares are automatically deemed to be of a capital nature if the equity shares have been held for a continuous period of at least three years. Such provision applies automatically and is not elective. However, this deeming provision does not include an ADS.

Generally the domestic laws of South Africa provide that an amount received or accrued in respect of the disposal of an asset that constitutes immovable property held by that person or any interest or right of whatever nature of that person to or in intellectual property where that property is situated in South Africa is deemed to have been sourced in South Africa and be subject to South African tax. It includes the disposal of any equity shares held by a person in a company if:

- 80% or more of the market value of the equity shares, ownership or right to ownership or vested interest, as the case may be, at the time of disposal thereof is attributable directly or indirectly to immovable property held otherwise than as trading stock; and
- the person directly or indirectly holds at least 20% of the equity shares in the company or ownership or right to ownership of the other entity.

The provisions of the US Treaty override the deemed source rules to the extent applicable. Article 13 of the US Treaty provides that South Africa is entitled to tax a gain that is attributable to the alienation of real property situated in South Africa, which concept includes the equivalent of a US real property interest, even if held through means of shares.

***Securities Transfer Tax***

Security Transfer Tax ("**STT**") is payable in respect of the transfer of any security issued by a South African company. STT is levied at a rate of 0.25% of the taxable amount of the security concerned (generally the market value). A security is defined to include a depository receipt in a company, in addition to shares in a company. STT is not payable on the issue of any security.

Although ADSs in respect of our shares are not listed on the JSE, reference is specifically made to the transfer of depository receipts in a South African company. As a consequence, STT will therefore be payable on the transfer of ADSs. In addition, the process of depositing shares listed on the JSE in return for ADSs, or withdrawing such shares from the deposit facility, may attract STT as and when the shares are transferred to or from the depository institution.

STT is payable by the broker or participant if a transaction is effected through a stockbroker or an exchange participant, but it may be recovered from the person acquiring the beneficial ownership of the rights concerned. In other instances, STT is payable by the person acquiring beneficial ownership.

STT is also payable on the subsequent redemption or cancellation of shares or ADSs.

***Interest***

South Africa has imposed a withholding tax on interest paid by any person to or for the benefit of any foreign person to the extent that the interest is regarded as having been received or accrued from a source within South Africa at the rate of 15% with effect from March 1, 2015. In terms of the US Treaty this rate is reduced to zero. However, the rate may change to 5% or 10% once the US Treaty is renegotiated.

***Withholding tax on Service Fees***

The proposed withholding tax on service fees at the rate of 15% was withdrawn in the 2016 Budget. The withholding tax on service fees has apparently introduced unforeseen issues, including uncertainty on the application of domestic tax law and taxing rights under tax treaties. The withholding tax on service fees is rather now dealt by way of the fact that these types of arrangements must be reported. Transactions between residents and non-residents must thus be reported if they relate to consultancy, construction, engineering, installation, logistical, managerial, supervisory, technical or training services, in circumstances where the expenditure exceeds or is anticipated to exceed R10 million in aggregate and does not otherwise qualify as remuneration.

***Capitalization Shares***

Capitalization shares issued to holders of shares in lieu of cash dividends are currently not subject to Dividends Tax. However, these shares have a base cost of zero for income tax purposes.

***Voting Rights***

There are no limitations imposed by South African law or by our charter on the right of non-resident or foreign owners to hold or vote our ordinary shares.

**Certain Material United States Federal Income Tax Considerations**

The following is a discussion of certain material US federal income tax consequences of acquiring, holding and disposing of the ordinary shares (for purposes of this summary, references to the ordinary shares include the ADSs, unless the context otherwise requires).

You will be a "**US holder**" if you are a beneficial owner of ordinary shares and you are:

- an individual who is a citizen or resident of the United States;
- a corporation (or other entity taxable as a corporation for US federal income tax purposes) organized under the laws of the United States, any state thereof, or the District of Columbia;
- an estate whose income is subject to US federal income tax regardless of its source; or
- a trust if: (i) a US court can exercise primary supervision over the trust's administration and one or more US persons are authorized to control all substantial decisions of the trust or (ii) it has a valid election in effect under applicable US Treasury regulations to be treated as a US person.

A "**non-US holder**" is a beneficial owner of ordinary shares that is not a US holder for US federal income tax purposes. If you are a "non-US holder," the discussion below under "Non-US Holders" will apply to you.

This summary is based on the US Internal Revenue Code of 1986, as amended, (the "**Code**"), its legislative history, existing and proposed US Treasury regulations, published Internal Revenue Service rulings, and court decisions that are now in effect, any and all of which are subject to differing interpretations and which could be materially and adversely changed. Any such change could apply retroactively and could affect the continued validity of this summary. This summary does not consider the potential effects, both adverse and beneficial, of any proposed legislation which, if enacted, could be applied, possibly on a retroactive basis, at any time.

This summary does not purport to be a comprehensive description of all of the tax considerations that may be relevant to a decision to purchase the ordinary shares. In particular, this summary deals only with US holders that will hold the ordinary shares as capital assets within the meaning of Section 1221 of the Code. It does not address considerations that may be relevant to you if you are an investor that is subject to special tax rules, such as a bank, real estate investment trust, regulated investment company, insurance company, dealer in securities or currencies, trader in securities or commodities that elects mark-to-market treatment, person that will hold the ordinary shares as a hedge against currency risk or as a position in a "straddle" or conversion transaction, tax-exempt organization, person whose "functional currency" is not the US dollar, person liable for alternative minimum tax, or a person who owns directly, indirectly or by attribution, at least 10% of our stock. This summary also does not address any aspect of US federal non-income tax laws, such as gift or estate tax laws, or state, local, or non-US tax laws, or, except as discussed below, any tax reporting obligations of a holder of our ordinary shares.

If a partnership (including for this purpose any entity treated as a partnership for US federal income tax purposes) is a beneficial owner of the ordinary shares, the US federal income tax treatment of a partner in the partnership generally will depend on the status of the partner and the activities of the partnership. A holder of the ordinary shares that is a partnership and partners in such a partnership should consult their own tax advisors about the US federal income tax consequences of acquiring, holding, and disposing of the ordinary shares.

In general, if you hold ADSs, you will be treated as the holder of the ordinary shares represented by those ADSs for US federal income tax purposes.

We believe that we will not be a passive foreign investment company ("**PFIC**"), for US federal income tax purposes for the current taxable year. However, we cannot assure you that we will not be considered a PFIC in the current or future years. The determination whether or not we are a PFIC is a factual determination that is based on the types of income we earn and the value of our assets and cannot be made until the close of the applicable tax year. If we are currently or were to become a PFIC, US holders of ordinary shares would be subject to special rules and a variety of potentially adverse tax consequences under the Code.

Each prospective purchaser should consult his or her tax advisor with respect to the US federal, state, local and non-US tax consequences of acquiring, owning, or disposing of shares or ADSs.

***US holders***

*Taxation of Distributions Paid on Ordinary Shares*

Subject to the discussion in "-Passive Foreign Investment Company Rules" below, under US federal income tax laws, if you are a US holder, the gross amount of dividends that you receive in cash (or that are part of a distribution that any shareholder has the right to receive in cash) in respect of the ordinary shares generally will be subject to US federal income taxation as dividend income to the extent paid out of our current or accumulated earnings and profits (as determined for US federal income tax purposes). You must include the amount of any South African tax withheld from the dividend payment in this gross amount even though you do not in fact receive it. Dividends received by certain non-corporate US holders will generally be taxed at a maximum rate of 20%, where certain holding period and other requirements are satisfied, if such dividends constitute qualified dividend income. Qualified dividend income includes dividends paid by a "qualified foreign corporation", and we believe that we are, and will continue to be, a "qualified foreign corporation" for US federal income tax purposes. Holders of ordinary shares should consult their own tax advisors regarding the availability of the reduced dividend tax rate in light of their own particular circumstances. Dividends will not be eligible for the dividends-received deduction generally allowed to US corporations in respect of dividends received from certain US corporations.

Dividends paid in South African Rand will be included in your gross income in a US dollar amount calculated by reference to the exchange rate in effect on the day you receive (or the depository receives, in the case of the ADSs) the dividend, regardless of whether the payment is in fact converted into US dollars. If the foreign currency received as a dividend is not converted into US dollars on the date of receipt, a US holder will have a basis in the foreign currency equal to its US dollar value on the date of receipt. Generally, any gain or loss resulting from currency exchange fluctuations during the period from the date you include the dividend payment in income to the date you convert the payment into US dollars will be treated as ordinary income or loss. The gain or loss generally will be income or loss from sources within the United States for foreign tax credit limitations. You should generally not be required to recognize any foreign currency gain or loss to the extent such dividends paid in South African Rand are converted into US dollars immediately upon receipt by the applicable party. If we distribute non-cash property as a dividend, you generally will include in income an amount equal to the fair market value of the property, in US dollars, on the date that it is distributed. Subject to certain limitations, a US holder may be entitled to a credit or deduction against its US federal income taxes for the amount of any South African taxes that are withheld from dividend distributions made to such US holders. The decision to claim either a credit or deduction must be made annually and will apply to all foreign taxes paid by the US holder to any foreign country or US possession with respect to the applicable tax year.

Dividends received from us will generally be income from non-United States sources, for US foreign tax credit purposes, subject to various classifications and other limitations. The rules relating to computing foreign tax credits are complex. You should consult your own tax advisor to determine the foreign tax credit implications of owning ordinary shares.

Distributions in excess of current and accumulated earnings and profits, as determined for US federal income tax purposes, will be treated as a non-taxable return of capital to the extent of your basis in the ordinary shares and, to the extent in excess of such basis, will be treated thereafter as capital gain from the sale or exchange of such ordinary shares.

*Taxation of the Disposition of Ordinary Shares*

Subject to the discussion in "-Passive Foreign Investment Company Rules" below, if you are a US holder and you sell or otherwise dispose of your ordinary shares, you will recognize capital gain or loss in an amount equal to the difference between the US dollar value of the amount you receive on the sale and your adjusted tax basis in the ordinary shares, determined in U.S dollars. Such gain or loss generally will be long-term capital gain or loss if you held the ordinary shares for more than one year. Long-term capital gain recognized by a non-corporate US holder is generally subject to a maximum tax rate of 20%. In general, any capital gain or loss recognized upon the sale or exchange of ordinary shares will be treated as US source income or loss, as the case may be, for US foreign tax credit purposes. Your ability to offset capital losses against income is subject to limitations.

Deposits and withdrawals of ordinary shares by US holders in exchange for ADSs will not result in the realization of gain or loss for US federal income tax purposes.

*Passive Foreign Investment Company Rules*

We believe that our ordinary shares will not be treated as stock of a PFIC for US federal income tax purposes for the current tax year. The determination of whether or not we are a PFIC is a factual determination that cannot be made until the close of the applicable tax year and that is based on the types of income we earn and the value of our assets (including goodwill), both of which are subject to change. In calculating goodwill for this purpose, we will value our total assets based on the total market value, determined with reference to the then-market price of the ordinary shares, and will make determinations regarding the amount of this value allocable to goodwill. Because the determination of goodwill will be based on the market price of the ordinary shares, it is subject to change. It is possible that the US Internal Revenue Service may challenge our valuation of our assets (including goodwill), which may result in us being classified as a PFIC. Thus, it is possible that we may be or become a PFIC in the current or any future taxable year, and we cannot assure you that we will not be considered a PFIC in any such tax year.

In general, we will be a PFIC with respect to you if for any taxable year in which you held the ordinary shares:

- at least 75% of our gross income for the taxable year is passive income; or
- at least 50% of the value, determined on the basis of a quarterly average, of our assets is attributable to assets that produce or are held for the production of passive income.

Passive income generally includes dividends, interest, royalties, rents (other than certain rents and royalties derived in the active conduct of a trade or business), the excess of gains over losses from certain types of transactions in commodities, annuities, and gains from assets that produce passive income. If a foreign corporation owns at least 25% by value of the stock of another corporation, the foreign corporation is treated for purposes of the PFIC tests as owning its proportionate share of the assets of the other corporation and as receiving directly its proportionate share of the other corporation's income.

If we are treated as a PFIC, and you are a US holder that did not make a mark-to-market election, as described below, you will be subject to special rules with respect to:

- any gain you realize on the sale or other disposition of your ordinary shares; and
- any excess distribution that we make to you (generally, any distributions to you during a single taxable year that are greater than 125% of the average annual distributions received by you in respect of the ordinary shares during the three preceding taxable years or, if shorter, your holding period for the ordinary shares).

Under these rules:

- the gain or excess distribution will be allocated ratably over your holding period for the ordinary shares;
- the amount allocated to the taxable year in which you realized the gain or received the excess distribution will be taxed as ordinary income;
- the amount allocated to each prior year, with certain exceptions, will be taxed at the highest tax rate applicable to you in effect for that year; and
- the interest charge generally applicable to underpayments of tax will be imposed in respect of the tax attributable to each such year.

Special rules apply for calculating the amount of the foreign tax credit with respect to excess distributions by a PFIC.

If you own shares in a PFIC that are treated as marketable stock, you may make a mark-to-market election. If you make this election in a timely fashion, you generally will not be subject to the PFIC rules described above in respect to your ordinary shares. Instead, in general, you will include as ordinary income each year the excess, if any, of the fair market value of your ordinary shares at the end of your taxable year over your adjusted basis in your ordinary shares. You will also be allowed to take an ordinary loss in respect of the excess, if any, of the adjusted basis of your ordinary shares over the fair market value at the end of your taxable year (but only to the extent of the net amount of previously included income as a result of the mark-to-market election). Your basis in the ordinary shares will be adjusted to reflect any such income or loss amounts, and any further gain on a sale or other disposition of the ordinary shares will be treated as ordinary income.

We do not intend to furnish you with the information that you would need in order to make a "qualified electing fund" election to include your share of our income on a current basis.

If you own ordinary shares during any year that we are a PFIC, you must file US Internal Revenue Service Form 8621 (whether or not a mark-to-market election is made) that describes the distribution received on the ordinary shares and the gain realized on the disposition of the ordinary shares. The reduced tax rate for dividend income, discussed above in "Taxation of Distributions Paid on Ordinary Shares," is not applicable to dividends paid by a PFIC.

The rules dealing with PFICs and the mark-to-market election are very complex and affected by various factors in addition to those described above. Accordingly, you should consult your own tax advisor concerning the application of the PFIC rules to your ordinary shares under your particular circumstances.

*Medicare Tax on Unearned Income*

US holders that are individuals, estates, or trusts and whose income exceed certain thresholds will be required to pay an additional 3.8% tax on "net investment income," including, among other things, dividends on and capital gains from the sale or other disposition of ordinary shares. US holders that are individuals, estates, or trusts should consult their tax advisors regarding the effect, if any, of this tax on their ownership and disposition of our ordinary shares.

*Information with Respect to Foreign Financial Assets*

US holders of "specified foreign financial assets" with an aggregate value in excess of US$50,000 (and in some circumstances, a higher threshold) are generally required to file an information report with respect to such assets with their tax returns. "Specified foreign financial assets" may include financial accounts maintained by foreign financial institutions, as well as the following, but only if they are not held in accounts maintained by financial institutions: (i) stocks and securities issued by non-United States persons, (ii) financial instruments and contracts held for investment that have non-United States issuers or counterparties and (iii) interests in foreign entities. US holders are urged to consult their tax advisors regarding the application of this reporting requirement to their ownership of the ordinary shares.

***Non-US Holders***

If you are a non-US holder of the ordinary shares, you generally will not be subject to US federal income or withholding tax on dividends received on such ordinary shares, unless such income is effectively connected with your conduct of a trade or business in the United States, and the dividends are attributable to a permanent establishment (or in the case of an individual, a fixed place of business) that you maintain in the United States, if that is required by an applicable income tax treaty as a condition for subjecting you to US federal income taxation on a net income basis. In such cases, you generally will be taxed in the same manner as a US holder and will not be subject to US federal income tax withholding. If you are a corporate non-US holder, “effectively connected” dividends may, under certain circumstances, be subject to an additional “branch profits tax” at a 30% rate or a lower rate if you are eligible for the benefits of an applicable income tax treaty that provides for a lower rate.

If you are a non-US holder of the ordinary shares, you will also generally not be subject to US federal income or withholding tax in respect of gain realized on the sale of such ordinary shares, unless: (i) such gain is effectively connected with your conduct of a trade or business in the United States, and the gain is attributable to a permanent establishment (or in the case of an individual, a fixed place of business) that you maintain in the United States, if that is required by an applicable income tax treaty as a condition for subjecting you to US federal income taxation on a net income basis or (ii) in the case of gain realized by an individual non-US holder, you are present in the United States for 183 days or more in the taxable year of the sale or other disposition and certain other conditions are met. In the first case, the non-US holder will be taxed in the same manner as a US holder. In the second case, the non-US holder will be subject to US federal income tax at a rate of 30% on the amount by which such non-US holder’s US-source capital gains exceed such non-US holder’s US-source capital losses. If you are a corporate non-US holder, “effectively connected” gains may, under certain circumstances, be subject to an additional “branch profits tax” at a 30% rate or a lower rate if you are eligible for the benefits of an applicable income tax treaty that provides for a lower rate.

***US Information Reporting and Backup Withholding Rules***

Payments of dividends and sales proceeds that are made within the United States or through certain US-related financial intermediaries are subject to information reporting and may be subject to backup withholding, currently at a rate of 28%, unless the holder: (i) is a corporation or other exempt recipient or (ii) provides a taxpayer identification number and certifies that no loss of exemption from backup withholding has occurred. Backup withholding is not an additional tax, and the amount of any backup withholding from a payment will be allowed as a credit against the US holder’s or the non-US holder’s US federal income tax liability provided that the appropriate returns are filed. A non-US holder generally may eliminate the requirement for information reporting and backup withholding by providing certification of its foreign status to the payor, under penalties of perjury, on Internal Revenue Service Forms W-8BEN or W-8BEN-E, as applicable.

**THE PRECEDING DISCUSSION OF CERTAIN UNITED STATES FEDERAL INCOME TAX CONSEQUENCES IS INTENDED FOR GENERAL INFORMATION ONLY AND DOES NOT CONSTITUTE TAX ADVICE. ACCORDINGLY, EACH INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR AS TO PARTICULAR TAX CONSEQUENCES TO IT OF PURCHASING, HOLDING, AND DISPOSING OF THE ORDINARY SHARES, INCLUDING THE APPLICABILITY AND EFFECT OF ANY STATE, LOCAL, OR NON-US LAWS, AND PROPOSED CHANGES IN APPLICABLE LAWS.**

### F. DIVIDENDS AND PAYING AGENTS

Not applicable.

### G. STATEMENTS BY EXPERTS

Not applicable.

### H. DOCUMENTS ON DISPLAY

Our current Memorandum of Incorporation may be examined at our principal place of business at: Randfontein Office Park, Corner of Main Reef Road and Ward Avenue, Randfontein, 1759, South Africa.

We also file annual and furnish interim reports and other information with the SEC. You may read and copy any reports or other information on file at the SEC’s public reference room at the following location:

Public Reference Room

100 F Street, NW

Room 1580

Washington D.C. 20549

Please call the SEC at 1-800-SEC-0330 for further information on the public reference rooms. The SEC filings are also available to the public from commercial document retrieval services. We file electronically with the SEC, and the documents it files are available on the website maintained by the SEC at www.sec.gov.

This Harmony 2017 Form 20-F reports information primarily regarding Harmony’s business, operations and financial information relating to the fiscal year ended June 30, 2017. For more recent updates regarding Harmony, you may inspect any reports, statements or other information that Harmony files with the SEC.

No material on the Harmony website forms any part of this Harmony 2017 Form 20-F.

### I. SUBSIDIARY INFORMATION

Not applicable.

**ITEM 11 QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

The information set forth under the heading *"Cautionary statement about forward-looking statements"* on the inside front cover is incorporated herein by reference.

**General**

We are exposed to market risks, including credit risk, foreign currency risk, commodity price risk and interest rate risk associated with underlying assets, liabilities and anticipated transactions. Following periodic evaluation of these exposures, we may enter into derivative financial instruments to manage these exposures. We have policies in areas such as counterparty exposure and hedging practices, which have been approved by our audit committee. We do not hold or issue derivative financial instruments for trading or speculative purposes.

We did not apply hedge accounting to incidental hedges held in the past.

In accordance with IAS 39 - Financial Instruments: Recognition and Measurement, we account for our derivative financial instruments as hedging transactions if the following criteria are met:

- in the case of a hedge of an anticipated future transaction, there is a high probability that the transaction will occur,
- and in the case of a cash flow hedge, the hedging instrument is expected to be highly effective.

During fiscal 2017, we designated the Rand gold forward sales contracts as cash flow hedging instruments and applied hedge accounting to these transactions. See *'Commodity Price Sensitivity*' below.

**Foreign Currency Sensitivity**

In the ordinary course of business, we enter into transactions denominated in foreign currencies (primarily US dollars, Australian dollars and PNG Kina). In addition, we incur investments and liabilities in US dollars, Australian dollars and PNG Kina from time to time. As a result, we are subject to transaction and translation exposure from fluctuations in foreign currency exchange rates. We do not generally hedge our exposure to foreign currency exchange rates.

In fiscal 2016 however, Harmony entered into foreign exchange hedging contracts in the form of zero cost collars, which establish a minimum (floor) and maximum (cap) Rand/US dollar exchange rate at which to convert the US dollars we receive on our gold sales to Rand. At June 30, 2017, the nominal amount of the hedging contracts is US$422 million and is spread over a 12-month period with a weighted average cap price of US$1=R15.53 and weighted average floor price of US$1=R14.41. At June 30, 2016, the nominal amount of the hedging contracts was US$500 million, spread over a 12-month period with a weighted average cap price of US$1=R18.27 and weighted average floor price of US$1=R15.55. We did not have any currency contracts in place as at June 30, 2015.

Our revenues and costs are very sensitive to the exchange rate of the Rand and other non-US currencies to the US dollar because gold is generally sold throughout the world in US dollars, but most of our operating costs are incurred in Rand and other non-US currencies. During fiscal 2017, Harmony entered into forward sales to establish the sales price in advance of its future gold production, which includes the foreign exchange rate. See '*Commodity Price Sensitivity´* below. Appreciation of the Rand and other non-US currencies against the US dollar increases working costs at our operations when those costs are translated into US dollars, which reduces operating margins and net income from our operations. Depreciation of the Rand and other non-US currencies against the US dollar reduces these costs when they are translated into US dollars, which increases operating margins and net income from our operations. See Item 3:*"Key Information-Exchange Rates"* and *"Key Information-Risk Factors-Foreign exchange fluctuations could have a material adverse effect on Harmony's operational results and financial condition"*.

**Commodity Price Sensitivity**

***General***

The market price of gold has a significant effect on our results of operations, our ability to pay dividends and undertake capital expenditures, and the market prices of our ordinary shares.

Gold prices have historically fluctuated widely and are affected by numerous industry factors over which we do not have any control. See Item 3: *"Key Information-Risk Factors-The profitability of our operations, and cash flows generated by those operations, are affected by changes in the price of gold. A fall in the gold price below our cash cost of production and capital expenditure required to sustain production for any sustained period may lead to losses and require Harmony to curtail or suspend certain operations"*. The aggregate effect of these factors, all of which are beyond our control, is impossible for us to predict.

***Harmony's Hedging Policy***

As a general rule, we sell our gold production at market prices. However, during fiscal 2017, Harmony entered into derivative 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 limits set by the Board are for 20% of the Group's total production from gold and 25% from silver over a 24-month period. Management continues to top up these programs as and when opportunities arise to lock in attractive margins for the business, but are not required to maintain hedging at these levels.

Harmony has designated the Rand gold forward sale contracts as cash flow hedging instruments and applied hedge accounting to these transactions as we believe they are effective hedges. The effective unrealized portion of the gains and losses before maturity are recorded in other comprehensive income. The realized gains and losses of the matured contracts are recorded in revenue. The US$ gold forward sale contracts and the silver zero cost collars have not been designated as hedging instruments and the gains and losses from these transactions are recorded in profit or loss. ***Commodity Sales Agreements***

At June 30, 2017, the open Rand gold forward sale contracts amounted to 324,000 ounces spread over 24 months at an average of R693 437/kg. The open US$ gold forward contracts amounted to 64,000 ounces spread over 18 months at an average of US$1 276/oz. The open US$ silver zero cost collars amounted to 970,000 ounces spread over 18 months with a weighted average floor of US$17.10/oz and a weighted average cap of US$18.10/oz.

We did not have any forward commodity sales agreements in place during fiscal 2016 and 2015.

**Interest Rate Sensitivity**

Our interest rate risk arises mainly from long-term borrowings. We have variable interest rate borrowings. Variable rate borrowings expose us to cash flow interest rate risk. Interest rate risk arising from long-term borrowings is offset by cash, restricted cash and restricted investments held at variable rates.

*Sensitivity analysis-borrowings*

A change of 100 basis points in interest rates on borrowings at June 30, 2017, 2016 and 2015 would have increased/ (decreased) profit or loss before tax by the amounts shown below. This analysis assumes that all other variables remain constant.

| | June 30, | | |
|---|---|---|---|
| | 2017 | 2016 | 2015 |
| | | *($ in millions)* | |
| Increase in 100 basis points | (2) | (2) | (3) |
| Decrease in 100 basis points | 2 | 2 | 3 |

*Sensitivity analysis - financial assets*

A change of 100 basis points in interest rates on financial assets at June 30, 2017, 2016 and 2015 would have increased/ (decreased) profit or loss before tax by the amounts shown below. This analysis assumes that all other variables remain constant.

| | June 30, | | |
|---|---|---|---|
| | 2017 | 2016 | 2015 |
| | | *($ in millions)* | |
| Increase in 100 basis points | 2 | 2 | 3 |
| Decrease in 100 basis points | (2) | (2) | (3) |

For further information on sensitivities, see note 4 "*Financial Risk Management*" to our consolidated financial statements set forth beginning on page F-1.

**ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES**

**A. DESCRIPTION OF DEBT SECURITIES**

Not applicable.

**B. DESCRIPTION OF WARRANTS AND RIGHTS**

Not applicable.

**C. DESCRIPTION OF OTHER SECURITIES**

Not applicable.

**D. AMERICAN DEPOSITARY SHARES**

On October 7, 2011, Harmony appointed Deutsche Bank Trust Company Americas in place of The Bank of New York Mellon as its Depositary for the ADSs evidenced by ADRs. A copy of our form of amended and restated deposit agreement (the "**Deposit Agreement**") among the Depositary, owners and beneficial owners of ADRs and Harmony was filed with the SEC as an exhibit to our Form F-6 filed on September 30, 2009.

The Depositary collects fees for delivery and surrender of ADSs directly from investors depositing shares or surrendering ADSs for the purpose of withdrawal or from intermediaries acting for them. The Depositary collects fees for making distributions to investors by deducting those fees from the amounts distributed or by selling a portion of the distributable property to pay the fees.

The principal terms regarding fees and charges that an ADS holder might have to pay, as well as any fee and other payments made by the Depositary to us as part of the Deposit Agreement, are summarized below.

***Fees and Expenses***

| Persons depositing shares or ADR holders must pay: | For: |
|---|---|
| $5.00 (or less) per 100 ADSs (or portion of 100 ADSs) | • The execution and delivery of ADRs |
| | • The surrender of ADRs |
| $.02 (or less) per ADS | • Any cash distribution to you |
| A fee equivalent to the fee that would be payable if securities distributed to you had been shares and the shares had been deposited for issuance of ADSs | • Distribution of securities distributed to holders of deposited securities which are distributed by the depositary to ADR holders |
| Registration or transfer fees | • Transfer and registration of equity shares on our share register to or from the name of the depositary or its agent when you deposit or withdraw shares |
| Expenses of the depositary | • Cable, telex and facsimile transmissions (when expressly provided in the Deposit Agreement) |
| | • Converting foreign currency |
| Taxes and other governmental charges the depositary or the custodian have to pay on any ADR or share underlying an ADR, for example, stock transfer taxes, stamp duty or withholding taxes | • As necessary |
| Any charges incurred by the depositary or its agents for servicing the deposited securities | • As necessary |

In addition, ADR holders must pay any tax or other governmental charge payable by the Depositary or its custodian on any ADS or ADR, deposited security or distribution. If an ADR holder owes any tax or other governmental charge, the depositary may:

- refuse to effect any transfer of such ADRs or any withdrawal of ADSs;
- withhold any dividends or other distributions; or
- sell part or all of the ADSs evidenced by such ADR,

and may apply dividends or other distributions or the proceeds of any sale in payment of the outstanding tax or other governmental charge. The ADR holder remains liable for any shortfall.

***Fees and payments made by the Depositary***

The Depositary has agreed to reimburse Harmony for expenses Harmony incurs that are related to the maintenance expenses of our ADR facility. The Depositary has agreed to reimburse Harmony for its continuing annual stock exchange listing fees. The Depositary has also agreed to pay the standard out-of-pocket maintenance costs for the ADRs, which consist of the expenses of postage and envelopes for mailing annual and interim financial reports, printing and distributing dividend checks, electronic filing of US federal tax information, mailing required tax forms, stationery, postage, facsimile, and telephone calls. It has also agreed to reimburse Harmony annually for certain investor relationship programs or special investor relations promotional activities. The amount of reimbursement available to Harmony is not necessarily tied to the amount of fees the Depositary collects from investors.

During the fiscal year ended June 30, 2017, Harmony received net direct and indirect payments of approximately $0.725 million from the Depositary.

**PART II**
**ITEM 13 DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES**

Not applicable.

**ITEM 14 MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS**

Not applicable.

**ITEM 15 CONTROLS AND PROCEDURES**

**A. DISCLOSURE CONTROLS AND PROCEDURES**

As of June 30, 2017, our management, with the participation of our Chief Executive Officer ("**CEO**") and Chief Financial Officer ("**CFO**"), carried out an evaluation, pursuant to Rule 13a-15 promulgated under the Exchange Act of the effectiveness of our "disclosure controls and procedures". Based on the foregoing, our management, including the CEO and CFO, concluded that our disclosure controls and procedures were effective as of June 30, 2017.

**B. MANAGEMENT'S ANNUAL REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING**

Our management is responsible for establishing and maintaining effective internal control over financial reporting and for the assessment of the effectiveness of internal control over financial reporting. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Harmony's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management conducted an evaluation of the effectiveness of its internal control over financial reporting based on the framework in "*Internal Control -Integrated Framework* (2013 Framework) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("**COSO**"). Management has assessed the effectiveness of internal control over financial reporting, as of June 30, 2017, and has concluded that such internal control over financial reporting was effective based upon those criteria.

PricewaterhouseCoopers Inc., an independent registered public accounting firm, which has audited the consolidated financial statements included in this Annual Report, has issued an attestation report on the effectiveness of Harmony's internal control over financial reporting as of June 30, 2017.

**C. ATTESTATION REPORT OF THE REGISTERED PUBLIC ACCOUNTING FIRM**

See report of PricewaterhouseCoopers Inc., an independent registered public accounting firm, which is included on page F-2 of exhibit 99.1. The consolidated financial statements, together with the report of PricewaterhouseCoopers Inc., are incorporated by reference to exhibit 99.1 and shall be deemed filed as part of the Harmony 2017 Form 20-F.

**D. CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING**

There has been no change in Harmony's internal control over financial reporting that occurred during fiscal 2017 that has materially affected or is reasonably likely to materially affect, Harmony's internal control over financial reporting.

**ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT**

Mr. John Wetton, independent non-executive chairman of the audit and risk committee, is regarded as being the Company's "audit committee financial expert" as defined by the rules of the SEC.

In addition, the audit committee members through their collective experience meet a majority of the definitions of the SEC for an "audit committee financial expert" in both the private and public sectors. The members have served as directors and officers of numerous public companies and have over the years developed a strong knowledge and understanding of IFRS, overseeing the preparation, audit and evaluation of financial statements. We believe that the combined knowledge, skills and experience of the Audit Committee, and their authority to engage outside experts as they deem appropriate to provide them with advice on matters related to their responsibilities, enable them, as a group and under the guidance of Mr. Wetton, to act effectively in the fulfillment of their tasks and responsibilities required under the Sarbanes-Oxley Act.

**ITEM 16B. CODE OF ETHICS**

The information set forth under the heading:

- "-Governing Harmony-Corporate governance-Code of conduct" on pages 162 to 163 of the Integrated Annual Report for the 20-F 2017 is incorporated herein by reference.

**ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

**A. AUDIT FEES**

The following sets forth the aggregate fees billed for each of the two past fiscal years for professional fees to our principal accountants for the audit of the annual financial statements or for services normally provided by the accountant in connection with statutory and regulatory filings or engagements for those fiscal years.

| | | |
|---|---|---|
| Fiscal year ended June 30, 2016 | US$ | 1.477 million |
| Fiscal year ended June 30, 2017 | US$ | 1.690 million |

**B. AUDIT-RELATED FEES**

The following sets forth additional aggregate fees to those reported under "Audit Fees" in each of the last two fiscal years that were provided by the principal accountant that are reasonably related to the performance of the audit or review of the financial statements:

| | | |
|---|---|---|
| Fiscal year ended June 30, 2016 | US$ | 0.001 million |
| Fiscal year ended June 30, 2017 | US$ | 0.001million |

Fees related to interim reviews.

**C. TAX FEES**

The following sets forth the aggregate fees billed in each of the last two fiscal years for professional services rendered by the principal accountant for tax compliance, tax advice and tax planning:

| | | |
|---|---|---|
| Fiscal year ended June 30, 2016 | US$ | 0.039 million |
| Fiscal year ended June 30, 2017 | US$ | 0.041 million |

Services comprised advice on disclosure for completion of certain tax returns.

**D. ALL OTHER FEES**

The following sets forth the aggregate fees billed in each of the last two fiscal years for products and services provided by the principal accountant not described above, and relate primarily to sustainability assurance services:

| | | |
|---|---|---|
| Fiscal year ended June 30, 2016 | US$ | 0.073 million |
| Fiscal year ended June 30, 2017 | US$ | 0.036 million |

**E. AUDIT COMMITTEE PRE-APPROVAL POLICIES AND PROCEDURES**

Our audit committee pre-approves our engagement of PricewaterhouseCoopers Inc. to render audit or non-audit services in terms of its non-audit services policy. All of the services described above were approved in terms of the Company's delegation of authority framework and the audit committee's policy on non-audit services.

**ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES**

Not applicable.

**ITEM 16E. PURCHASE OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS**

None.

**ITEM 16F. CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT**

Not applicable.

**ITEM 16G. CORPORATE GOVERNANCE**

**Significant ways in which Harmony's corporate governance practices differ from practices followed by US domestic companies under the listing standards of the NYSE.**

Foreign private issuers, such as Harmony, must briefly highlight any significant ways in which their corporate governance practices differ from those followed by US domestic companies subject to the listing standards of the NYSE. Set out below is a brief summary of the significant differences.

US domestic companies are required to have a nominating/corporate governance committee and all members of this committee must be non-executive directors. The JSE Listing Requirements also require the appointment of such a committee, and stipulate that all members of this committee must be nonexecutive directors, the majority of whom must be independent. Harmony has a Nomination Committee comprised of five non-executive board members. The lead independent non-executive director serves as chairman of the Nomination Committee. For US domestic companies, the chairperson of this committee is required to be the chairperson of the board of directors. The current chairman of our board of directors, Patrice Motsepe, is chairman of one of Harmony's largest shareholders, African Rainbow Minerals Limited, and is thus not independent. He is, however, in terms of South African governance practices, a member of the Nomination Committee. The lead independent non-executive director was re-appointed in August 2017.

US domestic companies are required to have a compensation committee composed entirely of independent directors. Harmony has appointed a Remuneration Committee, comprising five board members, all of whom are non-executive and four of whom are independent.

The non-executive directors of US domestic companies must meet at regularly scheduled executive sessions without management. Although the JSE Listing Requirements do not require such meetings, the board meets without executives after each board meeting. The board also has unrestricted access to all company information, records, documents and property. Directors may, if necessary, take independent professional advice at the Company's expense and non-executive directors have access to management and may meet separately with management, without the attendance of executive directors.

**ITEM 16H. MINE SAFETY DISCLOSURE**

Not applicable.

**GLOSSARY OF MINING TERMS**

The following explanations are not intended as technical definitions, but rather are intended to assist the general reader in understanding certain terms as used in this annual report.

*Alluvial*: the product of sedimentary processes in rivers, resulting in the deposition of alluvium (soil deposited by a river).

*All-in sustaining costs*: all-in sustaining costs include mine production costs, transport and refinery costs, applicable general and administrative costs, costs associated with movements in production inventories, ore stockpiles, as well as ongoing environmental rehabilitation costs as well as transfers for stripping activities and costs associated with royalties. Employee termination costs are included, however employee termination costs associated with major restructuring and shaft closures are excluded. The following costs are also included: LED expenditure for continuing operations, share-based payments for continuing operations, corporate costs, sustaining exploration costs and sustaining capital expenditure including OCD expenditure and rehabilitation accretion and amortization for continuing operations. Depreciation costs are excluded. All-in sustaining costs per ounce are attributable all-in sustaining costs divided by attributable ounces of gold sold.

*Auriferous:* a substance that contains gold (Au).

*Beneficiation*: the process of adding value to gold products by transforming gold bullion into fabricated gold products.

*By-products*: Any products emanating from the core process of producing gold, including silver and uranium in South Africa and copper, silver and molybdenum in Papua New Guinea.

*Carbon in leach (CIL)*: Gold is leached from a slurry of gold ore with cyanide in agitated tanks and adsorbed on to carbon granules in the same circuit. Granules are separated from the slurry and treated to remove the gold.

*Carbon In Pulp (CIP)*: Gold is leached conventionally from a slurry of gold ore with cyanide in agitated tanks. The leached slurry passes into the CIP circuit where carbon granules are mixed with the slurry and gold is absorbed onto the carbon. Granules are separated from the slurry and treated to remove gold.

*Carbon In Solution (CIS)*: a process similar to CIP except that the gold, which has been leached by the cyanide into solution, is separated by the process of filtration (solid/liquid separation). The solution is then pumped through six stages where the solution comes into contact with the activated carbon granules.

*Cash costs*: total cash costs include site costs for all mining, processing and administration, reduced by contributions from by-products and include royalties and production taxes. Depreciation, rehabilitation, corporate administration, retrenchment, capital and exploration costs are excluded. Total cash costs per ounce are attributable total cash costs divided by attributable ounces of gold produced.

*Conglomerate*: a coarse-grained classic sedimentary rock, composed of rounded to sub-angular fragments larger than 2mm in diameter (granules, pebbles, cobbles, boulders) set in a fine-grained matrix of sand or silt, and commonly cemented by calcium carbonate, iron oxide, silica or hardened clay.

*Cut-off grade*: minimum grade at which a unit of ore will be mined to achieve the desired economic outcome.

*Decline*: an inclined underground access way.

*Depletion*: the decrease in quantity of ore in a deposit or property resulting from extraction or production.

*Development*: process of accessing an orebody through shafts or tunneling in underground mining.

*Electro-winning:* the process of removing gold from solution by the action of electric currents.

*Elution*: removal of the gold from the activated carbon before the zinc precipitation stage.

*Exploration:* activities associated with ascertaining the existence, location, extent or quality of mineralized material, including economic and technical evaluations of mineralized material.

*Fabricated gold*: gold on which work has been performed to turn it into a product, such as jewelry, which differs from a pure investment product, such as a gold bullion bar.

*Footwall*: the underlying side of a fault, orebody or stope.

*Forward sale*: the sale of a commodity for delivery at a specified future date and price.

*Gold reserves*: the gold contained within proved and probable reserves on the basis of recoverable material (reported as mill delivered tons and head grade).

*Gold produced*: refined gold derived from the mining process, measure in ounces or kilograms in saleable form.

*Grade*: quantity of gold contained in a unit weight of gold-bearing material, generally expressed in ounces per short ton of ore.

*Greenfield:* a potential mining site of unknown quality.

*Head grade*: the grade of the ore as delivered to the metallurgical plant.

*Indicated mineral resource:* Part of a mineral resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information using appropriate techniques from outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but close enough for continuity to be assumed.

*Inferred mineral resource:* Part of a mineral resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from outcrops, trenches, pits, workings and drill holes that may be limited or of uncertain quality and reliability.

*Leaching*: dissolution of gold from crushed or milled material, including reclaimed slime, prior to absorption on to activated carbon.

*Level*: the workings or tunnels of an underground mine that are on the same horizontal plane.

*Measured mineral resource:* part of a mineral resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information using appropriate techniques from outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity.

*Measures*: conversion factors from metric units to US units are provided below.

| **Metric unit** | | **US equivalent** |
|---|---|---|
| 1 tonne | = 1 t | = 1.10231 short tons |
| 1 gram | = 1 g | = 0.03215 ounces |
| 1 gram per tonne | = 1 g/t | = 0.02917 ounces per short ton |
| 1 kilogram per tonne | = 1 kg/t | = 29.16642 ounces per short ton |
| 1 kilometer | = 1 km | = 0.621371 miles |
| 1 meter | = 1 m | = 3.28084 feet |
| 1 centimeter | = 1 cm | = 0.3937 inches |
| 1 millimeter | = 1 mm | = 0.03937 inches |
| 1 hectare | = 1 ha | = 2.47105 acres |

*Metallurgical plant*: a processing plant used to treat ore and extract the contained gold.

*Mill delivered tons*: a quantity, expressed in tons, of ore delivered to the metallurgical plant.

*Milling/mill:* the comminution of the ore, although the term has come to cover the broad range of machinery inside the treatment plant where the gold is separated from the ore.

*Mineralization:* the presence of a target mineral in a mass of host rock.

*Mineralized material*: a mineralized body that has been delineated by appropriately spaced drilling and/or underground sampling to support a sufficient tonnage and average grade of metals to warrant further exploration. Such a deposit does not qualify as a reserve until a comprehensive evaluation based upon unit cost, grade, recoveries, and other material factors conclude legal and economic feasibility.

*Mineral reserves*: that part of mineralized material which at the time of the reserve determination could be economically and legally extracted or produced. Mineral reserves are reported as general indicators of the life-of-mineralized materials. Changes in reserves generally reflect:

- development of additional reserves;
- depletion of existing reserves through production;
- actual mining experience; and
- price forecasts.

Grades of ore actually processed may be different from stated reserve grades because of geologic variation in different areas mined, mining dilution, losses in processing and other factors. Recovery rates vary with the metallurgical characteristics and grade of ore processed. Neither reserves nor projections of future operations should be interpreted as assurances of the economic life-of-mineralized material nor of the profitability of future operations.

*Open-pit/Opencast/Open cut*: mining in which the ore is extracted from a pit. The geometry of the pit may vary with the characteristics of the orebody.

*Ore*: a mixture of mineralized material from which at least one of the contained minerals can be mined and processed at an economic profit.

*Ore grade*: the average amount of gold contained in a ton of gold bearing ore expressed in ounces per ton.

*Orebody*: a well-defined mass of mineralized material of sufficient mineral content to make extraction economically viable.

*Ounce*: one Troy ounce, which equals 31.1035 grams.

*Overburden*: the soil and rock that must be removed in order to expose an ore deposit.

*Overburden tons*: tons that need to be removed to access an ore deposit.

*Placer*: a sedimentary deposit containing economic quantities of valuable minerals mainly formed in alluvial environments.

*Precipitate:* the solid product of chemical reaction by fluids such as the zinc precipitation referred to below.

*Probable reserves*: reserves for which quantity and grade and/or quality are computed from information similar to that used for proved reserves, but the sites for inspection, sampling, and measurement are farther apart or are otherwise less adequately spaced. The degree of assurance, although lower than that for proved reserves, is high enough to assume continuity between points of observation.

*Prospect*: an area of land with insufficient data available on the mineralization to determine if it is economically recoverable, but warranting further investigation.

*Prospecting license*: an area for which permission to explore has been granted.

*Proved reserves*: (i) quantity is computed from dimensions revealed in outcrops, trenches, workings or drill holes; grade and/or quality are computed from the results of detailed sampling; and (11) the sites for inspection, sampling and measurement are spaced so closely and the geologic character is so well defined that size, shape, depth and mineral content of reserves are well-established.

*Pyrite*: a brassy-colored mineral of iron sulphide (compound of iron and sulfur).

*Quartz*: a mineral compound of silicon and oxygen.

*Recovery grade*: the actual grade of ore realized after the mining and treatment process.

*Reef*: a gold-bearing sedimentary horizon, normally a conglomerate band, which may contain economic levels of gold.

*Refining*: the final stage of metal production in which final impurities are removed from the molten metal by introducing air and fluxes. The impurities are removed as gases or slag.

*Rehabilitation:* the process of restoring mined land to a condition approximating its original state.

*Sampling*: taking small pieces of rock at intervals along exposed mineralization for assay (to determine the mineral content).

*Shaft*: a shaft provides principal access to the underground workings for transporting personnel, equipment, supplies, ore and waste. A shaft is also used for ventilation and as an auxiliary exit. It is equipped with a surface hoist system that lowers and raises conveyances for men, materials and ore in the shaft. A shaft generally has more than one conveyancing compartment.

*Slimes*: the finer fraction of tailings discharged from a processing plant after the valuable minerals have been recovered.

*Slurry*: a fluid comprising fine solids suspended in a solution (generally water containing additives).

*Smelting*: thermal processing whereby molten metal is liberated from beneficiated mineral or concentrate with impurities separating as lighter slag.

*Spot price*: the current price of a metal for immediate delivery.

*Stockpile:* a store of unprocessed ore.

*Stope*: the underground excavation within the orebody where the main gold production takes place.

*Stripping*: the process of removing overburden to expose ore.

*Sulphide*: a mineral characterized by the linkages of sulfur with a metal or semi-metal, such as pyrite, FeS.

*Syncline*: a basin-shaped fold.

*Tailings*: finely ground rock from which valuable minerals have been extracted by milling.

*Tailings dam (slimes dam)*: Dam facilities designed to store discarded tailings.

*Ton*: one ton is equal to 2,000 pounds (also known as a “short” ton).

*Tonnage*: quantities where the ton or tonne is an appropriate unit of measure. Typically used to measure reserves of gold-bearing material in situ or quantities of ore and waste material mined, transported or milled.

*Tonne*: one tonne is equal to 1,000 kilograms (also known as a “metric” ton).

*Trend*: the arrangement of a group of ore deposits or a geological feature or zone of similar grade occurring in a linear pattern.

*Unconformity:* the structural relationship between two groups of rock that are not in normal succession.

*Waste*: ore rock mined with an insufficient gold content to justify processing.

*Waste rock*: the non-mineralized rock and/or rock that generally cannot be mined economically that is hoisted to the surface for disposal on the surface normally close to the shaft on an allocated dump.

*Yield*: the actual grade of ore realized after the mining and treatment process.

*Zinc precipitation*: a chemical reaction using zinc dust that converts gold solution to a solid form for smelting into unrefined gold bars.

# PART III

## ITEM 17 FINANCIAL STATEMENTS

Not applicable.

## ITEM 18 FINANCIAL STATEMENTS

The following consolidated financial statements, together with the report of PricewaterhouseCoopers Inc., are incorporated by reference to exhibit 99.1 and shall be deemed filed as part of the Harmony 2017 Form 20-F:

- Index to Financial Statements;
- Report of Independent Registered Public Accounting Firm; and
- Consolidated Financial Statements.

**ITEM 19. EXHIBITS**

1.1 Memorandum of Incorporation of Harmony (previously known as Memorandum and Articles of Association) (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2014, filed on October 23, 2014) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex11.htm

2.1 Notice to shareholders dated October 26, 2017 in respect of the annual general meeting to be held on November 23, 2017

2.2 Amended and Restated Deposit Agreement among Harmony, Deutsche Bank Trust Company Limited, as Depositary, and owners and holders of American Depositary Receipts, dated as of October 7, 2011 (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2011, filed on October 24, 2011) https://www.sec.gov/Archives/edgar/data/1023514/000119312511278584/d242812dex22.htm

2.3 Form of ADR (included in Exhibit 2.2) (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2011, filed on October 24, 2011) https://www.sec.gov/Archives/edgar/data/1023514/000119312511278584/d242812dex22.htm

4.1 Deed of Extinguishment of Royalty (Wafi-Golpu Project) dated February 16, 2009 (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2009, filed on October 26, 2009) https://www.sec.gov/Archives/edgar/data/1023514/000095012309053204/u07679exv4w25.htm

4.2 Subscription, Sale and Shareholders' Agreement dated March 20, 2013 between Harmony Gold Mining Company Limited, Business Venture Investments No. 1692 Proprietary Limited, Histopath Proprietary Limited, Business Venture Investments No. 1677 Proprietary Limited, Business Venture Investments No. 1687 Proprietary Limited, Business Venture Investments No. 1688 Proprietary Limited and the Trustees for the time being of the Harmony Gold Community Trust (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex423.htm

4.3 First Addendum to the Subscription, Sale and Shareholders' Agreement dated May 28, 2013 between Harmony Gold Mining Company Limited, Business Venture Investments No. 1692 Proprietary Limited, Histopath Proprietary Limited, Business Venture Investments No. 1677 Proprietary Limited, Business Venture Investments No. 1687 Proprietary Limited, Business Venture Investments No. 1688 Proprietary Limited and the Trustees for the time being of the Harmony Gold Community Trust (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex424.htm

4.4 Second Addendum to the Subscription, Sale and Shareholders' Agreement dated July 10, 2013 between Harmony Gold Mining Company Limited, Business Venture Investments No. 1692 Proprietary Limited, Histopath Proprietary Limited, Business Venture Investments No. 1677 Proprietary Limited, Business Venture Investments No. 1687 Proprietary Limited, Business Venture Investments No. 1688 Proprietary Limited and the Trustees for the time being of the Harmony Gold Community Trust (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex425.htm

4.5 Contractor Agreement dated March 20, 2013 between Harmony Gold Mining Company Limited, Business Venture Investments No. 1692 Proprietary Limited and ARMGold/Harmony Freegold Joint Venture Company (Proprietary) Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex427.htm

4.6 Services Agreement dated March 20, 2013 between Harmony Gold Mining Company Limited and Business Venture Investments No. 1692 Proprietary Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex428.htm

4.7 Sale of Property Agreement dated March 20, 2013 between ARMGold/Harmony Freegold Joint Venture Company (Proprietary) Limited and Business Venture Investments No. 1692 Proprietary Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex429.htm

4.8 Agreement of Lease dated March 20, 2013 between ARMGold/Harmony Freegold Joint Venture Company (Proprietary) Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex430.htm

4.9 Borrower Pledge and Cession Agreement dated March 20, 2013 between Business Venture Investments No. 1677 Proprietary Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex431.htm

4.10 Borrower Pledge and Cession Agreement dated March 20, 2013 between Business Venture Investments No. 1687 Proprietary Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex432.htm

4.11 Borrower Pledge and Cession Agreement dated March 20, 2013 between Business Venture Investments No. 1688 Proprietary Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex433.htm

4.12 Borrower Pledge and Cession Agreement dated March 20, 2013 between Histopath Proprietary Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex434.htm

4.13 Cashflow Waterfall Agreement dated March 20, 2013 between Harmony Gold Mining Company Limited, Business Venture Investments No. 1692 Proprietary Limited, Histopath Proprietary Limited, Business Venture Investments No. 1677 Proprietary Limited, Business Venture Investments No. 1687 Proprietary Limited and Business Venture Investments No. 1688 Proprietary Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex435.htm

4.14 Addendum to the Cashflow Waterfall Agreement dated May 28, 2013 between Harmony Gold Mining Company Limited, Business Venture Investments No. 1692 Proprietary Limited, Histopath Proprietary Limited, Business Venture Investments No. 1677 Proprietary Limited, Business Venture Investments No. 1687 Proprietary Limited and Business Venture Investments No. 1688 Proprietary Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex436.htm

4.14 Term Loan Facility Agreement dated March 20, 2013 between Business Venture Investments No. 1677 Proprietary Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex437.htm

4.15 Addendum to the Term Loan Facility Agreement dated May 23, 2013 between Business Venture Investments No. 1677 Proprietary Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex438.htm

4.16 Waiver letter dated June 24, 2013 in respect of the Term Loan Facility Agreement dated March 20, 2013 between Business Venture Investments No. 1677 Proprietary Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex439.htm

4.16 Extension letter dated May 10, 2013 in respect of the Term Loan Facility Agreement dated March 20, 2013 between Business Venture Investments No. 1677 Proprietary Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex440.htm

4.17 Term Loan Facility Agreement dated March 20, 2013 between Business Venture Investments No. 1687 Proprietary Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex441.htm

4.18 Addendum to the Term Loan Facility Agreement dated May 24, 2013 between Business Venture Investments No. 1687 Proprietary Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex442.htm

4.18 Waiver letter dated June 24, 2013 in respect of the Term Loan Facility Agreement dated March 20, 2013 between Business Venture Investments No. 1687 Proprietary Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex443.htm

4.19 Extension letter dated May 10, 2013 in respect of the Term Loan Facility Agreement dated March 20, 2013 between Business Venture Investments No. 1687 Proprietary Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex444.htm

4.20 Term Loan Facility Agreement dated March 20, 2013 between Business Venture Investments No. 1688 Proprietary Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex445.htm

4.21 Addendum to the Term Loan Facility Agreement dated May 24, 2013 between Business Venture Investments No. 1688 Proprietary Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex446.htm

4.22 Waiver letter dated June 24, 2013 in respect of the Term Loan Facility Agreement dated March 20, 2013 between Business Venture Investments No. 1688 Proprietary Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex447.htm

4.23 Extension letter dated May 10, 2013 in respect of the Term Loan Facility Agreement dated March 20, 2013 between Business Venture Investments No. 1688 Proprietary Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex448.htm

4.24 Term Loan Facility Agreement dated March 20, 2013 between Histopath Proprietary Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex449.htm

4.25 Addendum to the Term Loan Facility Agreement dated May 24, 2013 between Histopath Proprietary Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex450.htm

26 Waiver letter dated June 24, 2013 in respect of the Term Loan Facility Agreement dated March 20, 2013 between Histopath Proprietary Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex451.htm

4.27 Extension letter dated May 10, 2013 in respect of the Term Loan Facility Agreement dated March 20, 2013 between Histopath Proprietary Limited and Harmony Gold Mining Company Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2013, filed on October 25, 2013) https://www.sec.gov/Archives/edgar/data/1023514/000119312513411617/d612311dex452.htm

4.28 First Addendum to the Exchange and Sale of Mining Right Portions Agreement dated April 16, 2014 between Armgold/Harmony Freegold Joint Venture Company Proprietary Limited and Sibanye Gold Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2014, filed on October 23, 2014) https://www.sec.gov/Archives/edgar/data/1023514/000119312514379647/d804845dex453.htm

4.29 Reinstatement and Second Addendum to the Exchange and Sale of Mining Right Portions Agreement dated May 6, 2014 between Armgold/Harmony Freegold Joint Venture Company Proprietary Limited and Sibanye Gold Limited (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2014, filed on October 23, 2014)
https://www.sec.gov/Archives/edgar/data/1023514/000119312514379647/d804845dex454.htm

4.30 Amended Trust Deed of the Tlhakanelo Employee Share Trust between Harmony Gold Mining Company Limited and Riana Bisschoff, dated March 14, 2014 (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2014, filed on October 23, 2014) https://www.sec.gov/Archives/edgar/data/1023514/000119312514379647/d804845dex455.htm

4.31 Loan Agreement between Harmony Gold Mining Company Limited and the Trustees for the time being of the ARM Broad-Based Economic Empowerment Trust, dated March 1, 2016 (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2016, filed on October 26, 2016) https://www.sec.gov/Archives/edgar/data/1023514/000120561316000327/ex4_63.htm

4.32 Intercreditor agreement between African Rainbow Minerals Limited and Harmony Gold Mining Company Limited, dated March 1, 2016 (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2016, filed on October 26, 2016) https://www.sec.gov/Archives/edgar/data/1023514/000120561316000327/ex4_64.htm

4.33 Second Amendment and Restatement Agreement amongst Nedbank Limited (acting through its Corporate and Investment Banking division) (as Original Lender, Arranger and Facility Agent), the Trustees for the time being of the ARM Broad-Based Economic Empowerment Trust (as Borrower), African Rainbow Minerals Limited (as Guarantor) and Harmony Gold Mining Company Limited (as Guarantor), dated March 1, 2016 (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2016, filed on October 26, 2016) https://www.sec.gov/Archives/edgar/data/1023514/000120561316000327/ex4_67.htm

4.34 Subordination Agreement between Nedbank Limited (acting through its Corporate and Investment Banking division), the Trustees for the time being of the ARM Broad-Based Economic Empowerment Trust, African Rainbow Minerals Limited and Harmony Gold Mining Company Limited, dated March 1, 2016 (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2016, filed on October 26, 2016) https://www.sec.gov/Archives/edgar/data/1023514/000120561316000327/ex4_68.htm

4.35 Share Purchase Agreement between Harmony Gold (PNG Services) Proprietary Limited and Harmony Gold Mining Company Limited and Newcrest International Proprietary Limited and Newcrest Mining Limited, dated September 18, 2016 (incorporated by reference to Harmony's Annual Report on Form 20-F for the fiscal year ended June 30, 2016, filed on October 26, 2016) https://www.sec.gov/Archives/edgar/data/1023514/000120561316000327/ex4_69.htm

4.36 The amendment and restatement agreement dated 30 June 2016 entered into amongst the Finance Parties (as defined in the Amended and Restated USD Facility Agreement) and the Obligors (listed in Schedule 1 thereto), pursuant to which the revolving credit facility agreement of up to USD250,000,000 dated 22 December 2014 between, amongst others, Harmony Gold Mining Company Limited as Borrower, the Original Guarantors listed in Part I of Schedule 1 thereto, Absa Bank Limited (acting through its Corporate and Investment Banking division) (as Coordinator and Original Lender) and Nedbank Limited (acting through its Corporate and Investment Banking division) (as Facility Agent, Coordinator and Original Lender), Nedbank Limited (acting through its London Branch), HSBC Bank plc (acting through its Johannesburg Branch), JPMorgan Chase Bank, N.A., London Branch as original lenders and to which Caterpillar Financial Services Corporation has acceded, as amended and/or amended and restated from time to time, has been, or will be, further amended and restated

4.37 The third amendment and restatement agreement dated 24 January 2017 entered into amongst the Finance Parties (as defined in the Third Amended and Restated ZAR RCF Agreement) and the Obligors (listed in Schedule 1 thereto), pursuant to which the ZAR1,300,000,000 revolving credit facility agreement dated 20 December 2013 between, amongst others, Harmony Gold Mining Company Limited as Borrower, the Original Guarantors listed in Part I of Schedule 1 thereto and Nedbank Limited (acting through its Corporate and Investment Banking division) (as Original Lender and Facility Agent), as amended and/or amended and restated from time to time, has been, or will be, further amended and restated

4.38 Harmony Gold Mining Company Limited 2006 Share Plan as amended and approved 25 November 2016.

4.39 Wafi-Golpu Joint Venture Agreement, dated May 22, 2008 between Wafi Mining Limited, Newcrest PNG 2 Limited and Wafi-Golpu Services Limited

8.1 Significant subsidiaries of Harmony Gold Mining Company Limited

†12.1 Certification of the principal executive officer required by Rule 13a-14(a) or Rule 15(d)-14(a), pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

†12.2 Certification of the principal financial officer required by Rule 13a-14(a) or Rule 15(d)-14(a), pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

†13.1 Certification of the principal executive officer, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

†13.2 Certification of the principal financial officer, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

††15.1 Integrated Annual Report for the 20-F 2017 dated October 26, 2017 (adjusted version)

99.1 Consolidated Financial Statements 2017 dated October 26, 2017

† This certification will not be deemed "filed" for purposes of Section 18 of the Exchange Act or otherwise subject to the liability of that section. Such certification will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended (the "Securities Act"), or the Securities Exchange Act of 1934, as amended (the "Exchange Act"), except to the extent that the Registrant specifically incorporates it by reference.

†† Certain of the information included in Exhibit 15.1 is incorporated by reference into the Harmony 2017 Form 20-F, as specified elsewhere in this report, in accordance with Rule 12b-23(a) of the Exchange Act. With the exception of the items so specified, the Integrated Annual Report for the 20-F 2017 is not deemed to be filed as part of Harmony 2017 Form 20-F.

## SIGNATURES

Pursuant to the requirements of Section 12 of the Exchange Act, we hereby certify that we meet all of the requirements for filing on Form 20-F and that we have duly caused this annual report to be signed on our behalf by the undersigned, thereunto duly authorized.

**HARMONY GOLD MINING COMPANY LIMITED**

By: /s/ Peter Steenkamp

Peter Steenkamp

Chief Executive Officer

Date: October 26, 2017

**Exhibit 15.1: Integrated Annual Report for the 20-F 2017 dated October 26, 2017**

# INTEGRATED ANNUAL REPORT FOR THE 20-F 2017

# CONTENTS

# ABOUT THIS REPORT

**Our Integrated Annual Report 2017 covers Harmony's performance for the 2017 financial year (FY17), from 1 July 2016 to 30 June 2017. Certain comparative historical information is presented where relevant and to provide insight into our future plans.**

In summary, our Integrated Annual Report 2017 encompasses the following elements:

| Review and reflect | External factors and material issues | Future plans and outlook | Primary audience |
|---|---|---|---|
| Performance in terms of our strategic objectives and business model | Impact of external environment in which we operate and how we manage these variables | What we plan to do in the future and how we intend to achieve this | All stakeholders, but primarily shareholders |

This report covers all of Harmony's operations in South Africa as well as its operational and exploration activities (joint venture and own) in Papua New Guinea. It details the material environmental, socio-economic and governance aspects of our operations, and of Harmony as a whole. Discontinued operations have been excluded unless otherwise stated.

For the purposes of this report we define the short, medium and long term as follows:

Short term – six months to a year

Medium term – one year to three years

Long term – longer than three years

This integrated report has been compiled in line with the International Integrated Reporting Council's Framework, the Global Reporting Initiative G4 guidelines and the King Report on Governance for South Africa 2016 (King IV report).

Everything we do, from risk assessment and decision making to reporting, is informed by our values and our understanding of how various elements of the business fit together. We have applied this integrated approach to our reporting – sharing insights into both our financial and non-financial performance. Certain key non-financial performance indicators presented in this report were assured by SizweNtsalubaGobodo.

The mineral reserve information presented was compiled in accordance with the South African Code for Reporting of Exploration Results, Mineral Reserves and Mineral Resources; the Australian Code for Reporting of Mineral Resources and Mineral Reserves; the Industry Guide 7 of the United States' Securities and Exchange Commission; and the JSE Listings Requirements. This information was gathered, reviewed and confirmed by the relevant competent persons.

All the reports making up our 2017 suite of reports, together with a Glossary of Terms, defining the terms used in these reports, are available online at *www.har.co.za.* Any additional information can be found on our website at *www.harmony.co.za.*

**DIRECTORS' RESPONSIBILITY FOR THE INTEGRATED ANNUAL REPORT 2017**

Our board of directors has overall accountability for this integrated report. Having reviewed the report and guaranteed the integrity of the contents, the board, supported by the recommendations of the audit and risk committee, confirmed that this report presents a balanced and representative view of the company and its performance in the past financial year. The board approved this report on 26 October 2017.

| | |
|---|---|
| **Patrice Motsepe**<br>Chairman | **Peter Steenkamp**<br>Chief executive officer |
| **Frank Abbott**<br>Financial director | **John Wetton**<br>Chairman: Audit and risk committee |

# CORPORATE PROFILE

## WHO WE ARE

Harmony, a gold mining and exploration company, conducts its activities in South Africa, one of the world's best-known gold mining regions, and in Papua New Guinea, one of the world's premier new gold-copper regions. With 67 years of experience, Harmony is South Africa's third largest gold producer.

Headquartered in Randfontein, South Africa, Harmony is listed on the Johannesburg Stock Exchange and on the New York Stock Exchange, on which its shares are quoted as American Depositary Receipts.

## WHERE WE OPERATE

In **South Africa,** our nine underground operations are on the world-renowned Witwatersrand Basin – two on the West Rand and seven in the Free State, in the southern portion of the Basin. In addition, we have an open-pit mine on the Kraaipan Greenstone Belt as well as several surface operations.

In **Papua New Guinea,** Hidden Valley is a wholly-owned open-pit gold and silver mine. Our significant gold-copper portfolio includes the wholly-owned Kili Teke prospect in the Western Highlands and a 50% stake in the Wafi-Golpu project in Morobe Province, through a 50:50 joint venture with Newcrest Mining Limited (Newcrest).

## WHAT WE DO

*Our activities cover the entire spectrum of the mining pipeline.*

### EXPLORATION AND ACQUISITION

**EXPLORING FOR AND EVALUATING ECONOMICALLY VIABLE ORE BODIES AND/OR VALUE-ACCRETIVE ACQUISITIONS**

Our mining activities are supported by brownfields and greenfields exploration programmes – in South Africa and Papua New Guinea respectively. Our greenfields exploration programme, which focuses on highly prospective areas has been instrumental in establishing a significant gold-copper portfolio and underpins our ability to sustain long-term value creation.

### MINING AND PROCESSING

**ESTABLISHING, DEVELOPING AND OPERATING MINES AND RELATED PROCESSING INFRASTRUCTURE**

Our principal activities are the mining of gold-bearing ore which is then processed on site to extract gold and produce unrefined gold bars known as doré. Silver is produced as a by-product.

## BENEFICIATION

### REFINING AND MARKETING

All our gold is fully refined and beneficiated to final product by the Rand Refinery (Pty) Limited in South Africa and by the Perth Mint Australia for gold produced in Papua New Guinea. The refined gold, which is 99.5% pure, is sold to bullion banks and commodity houses.

## REHABILITATION

### REHABILITATING LAND AND CLOSURE

Once our mines have reached the end of their economic lives, mine closure plans are implemented. These plans include rehabilitation, which is ongoing throughout a mine's operating life, to restore impacted land, making it suitable for an alternative economic use.

**In FY17:**

**Gold production totalled 1.09Moz (FY16: 1.08Moz)**

**Silver production totalled 1.05Moz (FY16: 1.33Moz)**

**At year-end:**

**Total gold mineral reserves 36.7Moz (FY16: 36.9Moz)**

**33 201 employees** including contractors (FY16: 30 547)

## OPERATING CONTEXT

Factors affecting our ability to generate value:

| | |
|---|---|
| Globally: | Gold market and gold price |
| | Global economic outlook and geo-political climate |
| | Rand-dollar exchange rate |
| South Africa: | Regulatory and legislative uncertainty |
| | Labour relations |
| | Licence to operate – community expectations |
| Papua New Guinea: | Regulatory and legislative uncertainty<br>Licence to operate – landowner and community expectations |

*For further information, see Our business context*

## OUR VALUES

At Harmony, we understand the significant impact our company has on the lives of people, on the communities that surround our mines, on the environment, and on the economic well-being of the countries in which we operate.

The value we create is measured by the impact we have on the lives of stakeholders, now and in the future. To this end, our values inform our decisions and guide all that we do:


Our values, together with our governance framework and code of conduct, are ingrained in training initiatives and decision-making processes, ensuring that they are at front of employees' minds and actions. They guide our interactions with each other and with external stakeholders, from shareholders and the media to suppliers and local communities, especially those from which our employees are drawn.

We rely on experienced, skilled teams who live our values and play their role in maintaining stakeholder relationships, growing profits and maintaining a sustainable company.

## GOVERNANCE

Harmony's board of directors brings together a range of skills, knowledge and experience. It guides the company and maintains the highest levels of corporate governance. In turn, the directors entrust the management and day-to-day running of Harmony to skilled management teams, which work towards ensuring that the company remains sustainable, that margins are improved and that the value of assets is enhanced in line with our values.

Supporting our governance functions are the legal and compliance function, which assesses the risks and material issues facing the company, and ensures that the necessary policies, procedures and controls are in place to mitigate them. The audit and risk function monitors the effectiveness of these controls in ensuring compliance and mitigating risk.

# VALUE CREATION

## HOW WE CREATE VALUE

*Our business is to unlock and create value from the ore bodies that we own by safely, profitably and cost effectively extracting gold.*


Our medium-term growth aspiration for FY19 is to achieve annual gold production of 1.5Moz

## HOW WE DISTRIBUTE VALUE CREATED

By sustaining our business and creating value, as measured by the earnings generated, we are able to share the value created among key stakeholders.

# CHAIRMAN'S LETTER

**"The mining industry remains a key part of the South African economy. It is a significant contributor to the country's economic growth"**

**Dear Shareholders**

Harmony reported a second consecutive profitable year and made significant progress during the year in its strategy to increase its production profile by acquiring:

- AngloGold Ashanti Limited's Moab Khotsong mine complex, which will add 250 000oz of gold per year, increase Harmony's average recovered grade, reduce our cost per ounce and improve cash flows. The transaction is subject to conditions precedent including shareholder approval
- Newcrest Mining Limited's 50% in Hidden Valley. Hidden Valley will produce 180 000oz of gold and 3Moz of silver annually

The Central Plant reclamation project was also completed, and will add 15 000oz of gold annually for approximately 19 years.

Stronger operating performance and a higher gold price enabled us to reduce our debt, pay dividends and pursue our objective of increasing annual production to 1.5Moz.

Gold production for the year exceeded guidance, owing to the good work of management. Headline earnings per share increased by 35% and we declared an interim and a final dividend for FY17 and paid dividends totalling R439 million (US$33 million).

Further details of the company's financial and operational performance are provided respectively in the Financial director's report and in the Chief executive officer's review.

We remain confident of gold's long-term fundamental demand as a desirable store of wealth. The volatility in the gold price over the previous year created the opportunity to hedge a portion of our future gold production to secure our profit margin and strengthen the balance sheet. Our hedging programme contributed R1.7 billion (US$128 million) to the group's overall cash position.

## SAFETY AND HEALTH

The safety and health of all our employees are our primary concerns. In line with our target to achieve zero harm, it is most gratifying to report on a company milestone with the last quarter of FY17 being fatality free.

Harmony and five other South African mining companies have formed a gold mining industry working group to address issues relating to compensation and medical care for occupational lung diseases in the South African gold mining industry. In consultation with all stakeholders, we are working towards finding a comprehensive and sustainable solution, which deals both with legacy compensation issues and future legislation.

Our emphasis on and commitment to safety, which involves partnerships with all employees, their union representatives and the authorities, will continue to assist in contributing to reducing incidents at our mines.

## INVESTING IN OUR EMPLOYEES

Harmony employs approximately 33 200 people in South Africa and 2 100 people in Papua New Guinea. Our employees reside mainly in communities adjacent to our operations and we paid R9.2 billion (US $676 million) in salaries during the year under review.

Harmony employees received training at a cost of R409 million (US$30.1 million) in critical skills, mentorship, hazard identification, risk assessment, mineral resource management and various other courses through study assistance programmes. We awarded 76 bursaries to students studying at South African universities.

## ENABLING OUR MINING COMMUNITIES

We are committed to developing and improving the living conditions of the people living in our host communities. Our socio-economic programmes, which include various corporate social investment and local economic development and social and labour plan initiatives and projects, support national imperatives such as housing, education, skills development and job creation.

We prioritised the small-, medium- and micro-enterprise sector with the launch of development funds in Carletonville, the Ratlou Municipality and in Welkom/Virginia that support women and young entrepreneurs. These initiatives created 360 jobs in host communities.

In Papua New Guinea, we supported various projects, including cocoa farming, community health improvement initiatives and much-needed water supply programmes to ensure the supply of fresh water.

We paid R779 million (US$57 million) in taxes and royalties in South Africa and Papua New Guinea. R7.2 billion (US$529 million) was spent on local procurement and R74 million (US$5 million) on socio-economic initiatives in host communities in both countries.

## SOUTH AFRICAN MINING INDUSTRY

The mining industry remains a key part of the South African economy. It is a significant contributor to the country's economic growth and sustainable development. Despite the current challenges of low business confidence, job losses and disagreement between government and the Chamber of Mines on the Mining Charter, we remain optimistic that all parties and stakeholders recognise that it is critically important that the legal, regulatory, tax and overall governing dispensation of the mining sector continues to be globally competitive and attractive for private and foreign investment.

We are committed to working with government, labour, our host communities and other stakeholders to ensure that the South African mining industry accommodates the interests of and benefits all stakeholders.

## RECOGNITION

We are grateful to all our employees, our host communities and all other stakeholders for their co-operation and support during the past financial year.

I would like to thank Peter Steenkamp and his management team for their hard work, commitment and dedication in executing the company's strategy.

I would also like to thank all the directors for their guidance and wisdom during the year.

Harmony is better positioned to continue to create value for shareholders and to operate our mines for the benefit of all stakeholders.

Patrice Motsepe
Chairman
26 October 2017

# CHIEF EXECUTIVE OFFICER'S REVIEW

**"Operational excellence was key in improving safety performance and we achieved annual production guidance for a second consecutive year"**

*Harmony is a global mining company with a significant production profile and gold and copper reserves. Good progress was made in the past financial year in delivering on our growth strategy through the acquisition of Newcrest Mining Limited's 50% in Hidden Valley and, post year-end, our recent acquisition of AngloGold Ashanti Limited's Moab Khotsong mine complex. We remain committed to ensuring operational excellence, cash certainty and effective capital allocation.*

## OVERVIEW

Our financial focus has been on reducing the company's debt burden and investing in growth opportunities. Improvements both in the gold price and in the gold recovered grades contributed to our profitability and enabled us to make interim and final dividend payments. Details of our financial performance are provided in the *Financial director's report*.

Currently, our strategic targets are to achieve annual production of 1.5Moz of gold by June 2019, at a unit cost of less than US$950/oz. We continued to hedge our gold price and currency exposures during the 2017 financial year. This provided the cash-flow certainty needed for our capital investment and growth strategy.

## SAFETY AND HEALTH

Harmony is fully committed to the health and safety of our employees, in the workplace and at home. Despite our combined best efforts, five of our people lost their lives in the service of the company during the 2017 financial year. Those whose lives were lost were Lekhabu Seatle, Samual Mayakala, Enoch Magrwanini, Tsekiso Kelane and Sakhele Xungu. We regret to report that, post year-end we had five fatalities at Kusasalethu following a seismic event. We extend our personal, heartfelt condolences to their families, colleagues and friends. For further information, see *Safety and health.*

All safety incidences are fully investigated, and the lessons learned incorporated into mine safety procedures across the group.

The establishment of health facilities at our operations, operated by qualified medical personnel, has made an important contribution to the overall health of our employees. Where more specialised care is required, an employee is transferred to specialist treatment facilities.

## OPERATIONAL REVIEW

Operational excellence was key in improving safety performance, and we achieved annual production guidance for a second consecutive year, and increased the underground grade mined for a fifth consecutive year. Harmony produced 1.09Moz of gold (exceeding production guidance of 1.05Moz) and achieved an underground recovered grade of 5.07g/t (FY16: 5.02g/t). Our group-wide all-in sustaining cost was R516 687/kg (US$1 182/oz).

Our successful hedging strategy realised gains of R1.7 billion (US$128 million) enabling Harmony to invest in the Hidden Valley stages 5 and 6 open-pit cut-back and infrastructure reinvestment programme and to reduce net debt by 18% to R887 million (8% to US$68 million). Harmony returned cash to shareholders by paying dividends of R439 million (US$33 million).

**South Africa**

During the year, the company commenced the merger of its Tshepong and Phakisa mines to form the combined Tshepong operations. This merger will increase efficiencies, reduce operating cost at the two mines and increase production volumes.

Kusasalethu showed a notable improvement in gold produced, following the decision to shorten the life of mine and focus on higher grade areas. Production increased by 14% with a 25% increase in underground recovered grade to 7.23g/t.

Target 1's production was hampered by unfavourable mining conditions in the higher grade areas. Lower gold production at Target 1 was offset by higher production at other mines, resulting in South African gold production for FY17 being in line with that of the previous year.

There is significant potential at Masimong and Tshepong on the B Reef, which is currently being mined as a high-grade secondary reef to the Basal Reef. The same B Reef channel is expected to exist at Phakisa and underground exploration drilling to delineate the high-grade payshoots in the B Reef channel has begun.

**Papua New Guinea**

The major strategic development during the past year was the acquisition in October 2016 of the remaining 50% interest in the Hidden Valley mine from Newcrest Mining Limited (Newcrest). This gave Harmony full ownership of the mine. The acquisition was in line with our aspiration to grow our production ounces to 1.5Moz and provides further critical mass to our Papua New Guinea production platform. A net investment of approximately US$180 million will be made in the stage 5 and 6 cut-backs and infrastructure re-investment, with approximately US$68 million of that amount spent in FY17. The remaining investment, consisting of mine waste stripping, plant refurbishments and upgrades as well as mining equipment replacements will take place in FY18. Commercial levels of production are targeted for the June quarter of FY18. Hidden Valley is expected to produce 180 000oz gold and 3Moz silver per annum in FY19.

The Wafi-Golpu joint venture parties continued to progress activity in line with the work plan previously communicated, including engagement with the Papua New Guinea Government on the application for a special mining lease for the Wafi-Golpu project.

The current study work is focused on assessing:

- self-generation power supply options

- reassessment of block cave levels and increased mining rates due to increased knowledge obtained from further drilling undertaken during the year
- deep-sea tailings placement options to compare with terrestrial tailings storage options

The joint venture parties are targeting a complete update of the feasibility study during the latter part of FY18. The focus of this work will be to further optimise the business case and confirm any amendments necessary to the supporting documents for the special mining lease application. Timing of first production is dependent on the updated study outcomes and the granting of the special mining lease.

In July 2017, national elections were held in Papua New Guinea at which the prime minister was re-elected. We look forward to working with the Papua New Guinea government to achieve the appropriate regulatory and fiscal framework and the stability necessary to progress the Wafi-Golpu project.

## LABOUR

The relationship between the company and its employees has been supportive with the exception of two unprocedural work stoppages at Kusasalethu. The three-year wage agreement will come to an end in June 2018 and a new agreement will be negotiated. For more employee-related initiatives, refer to *Employees and communities* in this annual report.

## MINING CHARTER AND SOCIAL RESPONSIBILITY

Harmony is fully compliant with the 2014 Broad-Based Black Socio-Economic Empowerment Charter targets for the South African mining and minerals industry and we have exceeded the 26% ownership requirement. Refer to the *Mining Charter compliance scorecard.*

A new Mining Charter was published in June 2017. Its implementation has been postponed by the Minister of Mineral Resources, pending judgement in the review application brought in the High Court of South Africa by the Chamber of Mines, of which Harmony is a member. We remain optimistic that a workable solution will be found.

## CONCLUSION

It is with much sadness that I turn to the tragic death of Simphiwe Kubheka at the end of September 2017. Simphiwe, the regional manager: Tshepong operations, will be remembered for the significant contribution he made to Harmony. I extend my sincerest condolences to his family, friends and colleagues. He will be sorely missed.

Harmony's people work as a team in progressing our business. Everyone has played their part and to all I extend my sincere thanks. Thank you to our chairman, Patrice Motsepe, and the board for providing me with invaluable support during this past year for which I extend my sincere appreciation.

**Peter Steenkamp**

Chief executive officer

26 October 2017

# SOCIAL AND ETHICS COMMITTEE: CHAIRMAN'S REPORT

**"Our moral obligation to our host communities extends beyond providing direct employment opportunities and financial benefits"**

**Dear stakeholder,**

It is with considerable pleasure and satisfaction that I report on the social and ethics committee's activities for the year to 30 June 2017. This committee is constituted in terms of the requirements of section 72(8) of the Companies Act 71 2008 (the Act), and its associated regulations. It is a sub-committee of the board and fulfils its functions on behalf of Harmony and its subsidiary companies in relation to social and economic development, environmental stewardship, governance and ethics, public safety, health, labour and employment matters. Operational safety is the responsibility of the technical committee. For more information on the composition of the social and ethics committee, refer to the *Corporate governance* section of this report.

Despite a year in which gold prices recorded significant declines during the first half and which failed to reach the year's opening levels by year's end, Harmony persisted in its commitment to the sustainability of its business throughout FY17 as well as to delivering on its social and economic responsibilities and to making a lasting, positive impact on its host communities, its employees and other stakeholders.

## APPROACH

Sustainability at Harmony is underpinned by our values, which are intrinsic to our operating philosophy and practices. They remain key in our decision-making. We subscribe to the five-capitals model (natural, human, social, manufactured and financial capitals) which underpins our approach to sustainable socio-economic investment. We aim to improve and advance each capital so that we create value during the lives of our mines and beyond by leaving positive, lasting and felt legacies. Our approach is allied to our commitment to the Sustainable Development Goals, introduced under the auspices of the United Nations in September 2015. This set of goals is aimed at ending poverty, protecting the planet, and ensuring prosperity for all. They are part of a new global sustainable development agenda, and are also aligned with the National Development Plan in South Africa, which is taken into account when formulating local economic development projects.

The social and ethics committee is confident that, during the past financial year, it complied fully with the legal, regulatory and other responsibilities assigned to it by the board.

## ACTIONS IN FY17

The committee, which undertakes its duties with accountability both to the board and to the company's stakeholders, met five times and attended one site visit during the past financial year. The committee's key activities are summarised in *Corporate governance.*

## PUBLIC SAFETY AND HEALTH

The committee maintained responsibility for public safety and reviewed its strategic interventions while reinforcing robust controls over access to our mines and the surrounding properties. Despite our emphasis on securing our decommissioned shafts, we continued to be affected by the highly dangerous practice of illegal mining with unlawful access being gained to old mine workings. In May 2017, the threat to our own employees and as well as to the illegal miners themselves was fatally displayed by an underground explosion that cost the lives of 25 people. We further tightened security, but it is an inescapable fact that our operations are under sustained threat from illegal operators.

Additional community and employee interventions were added to our existing programmes to further raise awareness of safety conditions and hazardous environments. Community interventions continued to focus on primary healthcare and HIV/Aids awareness as well as on providing local people in the Free State with access to world-class hospital facilities that had previously been provided for the exclusive use of our own employees.

During the year, Harmony transferred ownership and management of the Ernest Oppenheimer Hospital in the Free State to a private-sector healthcare provider. The hospital and its modern facilities had exceeded the company's own needs and have now become available to members of local communities needing top-class health care.

## EMPOWERMENT AND TRANSFORMATION

Our moral obligation to our host communities extends beyond providing direct employment opportunities and financial benefits. We also drive social sustainability through local economic-development programmes as well as by local procurement.

It bears repeating that, although the period for complying with the targets of the Mining Charter came to an end in December 2014, Harmony, in the spirit of transformation and exceeding compliance, continued to deliver in line with the tenets of the Charter, advancing in particular housing and living conditions, procurement and human resources. We measured ourselves against the 2014 targets and are pleased to confirm that we achieved and exceeded these targets during this past financial year. (See the *Mining Charter compliance scorecard* in this report).

During the year, however, the mines minister sought to introduce a third version of the Mining Charter, a version Harmony and other members of the Chamber of Mines contend was prepared with insufficient discussion with the mining industry and which contained provisions that could affect the very sustainability of our operations.

The proposed new Charter was gazetted in June 2017, just before the end of our financial year and, through the Chamber of Mines, we and other mining companies sought an urgent interdict to prevent the proposed Charter's implementation without further substantive discussions between the minister, the Department of Mineral Resources and the industry. The minister has responded with a written undertaking to the Chamber of Mines that he will not implement the new Mining Charter. He has also agreed to an expedited process to have the new Charter reviewed by a full bench of judges, a review that is scheduled to be heard mid-December 2017. This written undertaking allowed the Chamber to withdraw its urgent application for an interdict and we anticipate further frank discussions in the interim.

We at Harmony remain committed to the sustainable transformation of the mining industry, but remain committed to the view that this can only be achieved through open negotiations, between the industry and the regulators. We look forward to participating in discussions with the minister and the Department of Mineral Resources.

When it comes to investing in and transforming our workforce, we have met and exceeded all the group-wide targets, with the appropriate number of historically disadvantaged South Africans employed at all levels of management. For more on this, see *Employees and communities.*

Societal development remains an important objective and, with this in mind, as a group we invested R27 million (US$1.9 million) in local economic development directed both at communities around our continuing operations and at those associated with mines that have closed. Among the legacy projects implemented during FY17 was our donation of office facilities that were superfluous to our needs in the Free State to Police and Prisons Civil Rights Union. The facilities are being converted into a training campus for the union and will also provide necessary accommodation for staff and trainees. The new facility will not only introduce new educational opportunities to the area, but will lead to the creation of social amenities and job opportunities for local people.

Recognising the role of small and medium enterprises in the community, Harmony continued to develop the Phakamani and Leano initiatives, which provide soft loans to entrepreneurs in all our host communities. Although still in its infancy, the initiative has already made several meaningful investments, some of which supported 360 jobs. In Gauteng, Harmony passed full ownership of seven small-business projects near the company's Doornkop property, businesses ranging from vegetable market gardening through clothing manufacture to computer services. The businesses are serving customers over a wide regional area.

## BUILDING A HEALTHY AND ENGAGED WORKFORCE

We believe that a healthy workforce coupled with a healthy workplace culture is integral to sustaining our productivity and profitability in today's business climate. Our culture gives priority to safety and health and, to this end, Harmony persisted with its R100 million investment in a proactive healthcare strategy, particularly as concerns the provision of convenient health facilities at or near our mine shafts. These well-staffed facilities not only provide for the immediate health needs of employees but are integral to our strategy of ensuring that our employees participate fully in taking responsibility for their own health and safety as well as that of their colleagues in the workplace.

Consultation and collaboration form the cornerstones of our relationship with our employees, directly and through organised labour. It was against the strong fabric of mutual respect and trust that together we concluded a three-year wage agreement in October 2015. Unfortunately this agreement did not live fully up to expectations and operations at our Kusasalethu mine were affected on two occasions by unprotected work stoppages during FY17. The stoppages ended peacefully after discussions and agreement with the unions representing the mine's employees. Refer to *Operational Performance.*

## ENVIRONMENTAL MANAGEMENT

Looking back at the year under review, the committee is satisfied with Harmony's environmental performance. Managing our finite resources responsibly continued to remain high on the agenda, particularly further moves to maximise our mines' use of recycled water and to further restrict their water discharges. Energy conservation was achieved by driving efficiencies, and innovative solutions which resulted in a further 1.6% reduction in electricity consumption. Our performance in these areas has ensured that we have maintained our 'A' rankings for the Carbon Disclosure Project's Climate Change and Water programmes.

Our land rehabilitation programme has continued to advance and has created added value on reclaimed land in the Free State, through the growing and harvesting of plants that thrive under difficult conditions, a project that provides energy bio-mass as well as employment and entrepreneurial opportunities for local people. Plant matter is being processed to generate gas.

## ETHICS

I make no apology for repeating what I have said before, that we at Harmony believe ethical conduct is a prerequisite for doing business. There is a direct correlation between sustainable business success and consistent ethical behaviour. The continued success of our company depends on the highest levels of integrity across all aspects of our business. We want all our stakeholders to view Harmony as a company they can trust – therefore we are unequivocal about our values and the way in which these values find expression in our daily behaviour. We have in place a code of conduct and a behavioural code, which simplifies the detail set out in the code of conduct. For more on these codes, refer to *Corporate Governance.*

## SILICOSIS

Harmony participates in processes to address legacy issues relating to occupational lung disease. The silicosis working group, initiated by certain South African gold mining companies, continues to work to establish a sustainable, all-inclusive and comprehensive solution for the compensation of the occupational lung diseases covered by the Occupational Diseases in Mines and Works Act. In consultation with all stakeholders, the working group is working towards finding a comprehensive and sustainable solution to address related concerns, both current and legacy.

## LOOKING FORWARD TO THE YEAR AHEAD

Harmony's positioning of its operations to benefit from improvements in the gold price began to bear fruit in the second half of FY17 and, should gold's price advance of FY18's first few months be sustained, the rest of the new financial year will see an enhancement of our ability to meet our commitments to all stakeholders. While this has been shown by a resumption of dividend payments, it is also being shown by greater possibilities to benefit our mines' local communities. It would, of course, be tempting providence to make commitments that we might be unable to keep, but those commitments into which we feel able to enter will be made in consultation with the stakeholders involved. On this basis, we shall further strengthen our relationships with local communities whose social needs continue to be discussed and addressed.

This applies equally to our young projects in Papua New Guinea as to our mature operations in South Africa. Our commitment to Papua New Guinea has been underpinned by our acquisition of full ownership of the Hidden Valley project, progress towards the complete permitting of the Golpu venture and in further exploration efforts to locate and prove other gold resources in the country.

As was the case at the start of FY17, FY18 has begun with no finality on the Mineral and Petroleum Resources Development Act amendment bill and the Mining Charter in South Africa. We remain committed to ensuring that legal reform results in sound implementable outcomes and to maintaining our interactions with the South African authorities through the Chamber of Mines and other forums. Harmony has a strong footprint in South Africa and Papua New Guinea and remains committed to all stakeholders and relevant host communities.

## THANKS

Continuing the committee's contribution to Harmony's progress towards a sustainable future would not be possible without the wholehearted commitment and contributions of my committee colleagues. I extend my sincere thanks to them for their work during the past year and am assured this will continue in future. The committee is comprised of people committed to ensuring that Harmony matches up to the best safety, health, governance and environmental standards. In this, the committee continues to enjoy the full support of the board. In conclusion, I invite those with suggestions as to how we might better take our responsibilities forward to present them to us. They will be greatly appreciated.

**Modise Motloba**

**Chairman: social and ethics committee**

26 October 2017

# BOARD OF DIRECTORS

Full and detailed resumés of all members of Harmony's board of directors are available at *https://www.harmony.co.za/about-us/board*

**Directors to be re-elected at the forthcoming annual general meeting:**

In line with Harmony's memorandum of incorporation, the following directors are required to retire on a three-year rotational cycle and, being eligible, offer themselves for re-election at the forthcoming annual general meeting of shareholders:

- Peter Steenkamp
- Mavuso Msimang
- John Wetton
- Ken Dicks
- Simo Lushaba

For further information and their detailed resumés, see our Report to Shareholders 2017

## CHAIRMAN

### Patrice Motsepe (55)

**BA, LLB, Doctorate of Commerce (Honorius Causa), Doctor of Management and Commerce (Honorius Causa)**

- Appointed a director and non-executive chairman on 23 September 2003
- In addition to being a non-independent non-executive chairman, Patrice is also a member of the nomination committee

## INDEPENDENT NON-EXECUTIVE DEPUTY CHAIRMAN

### Modise Motloba (51)

**BSc, Diploma in Strategic Management**

- Appointed to the board on 30 July 2004
- Chairman of the social and ethics committee and member of the nomination committee and the audit and risk committee

## LEAD INDEPENDENT NON-EXECUTIVE DIRECTOR

### Fikile De Buck (57)

**BA (Economics), FCCA**

- Appointed to the board on 30 March 2006
- Chairman of the nomination committee and member of the social and ethics committee, the remuneration committee and the audit and risk committee

## DEPUTY LEAD INDEPENDENT NON-EXECUTIVE DIRECTOR

### Mavuso Msimang (75)

**MBA (Project Management), BSc**

- Appointed to the board on 26 March 2011
- Member of the nomination committee and the social and ethics committee. Successor to the lead independent non-executive director

## EXECUTIVE DIRECTORS

### CHIEF EXECUTIVE OFFICER

### Peter Steenkamp (58)

**BEng (Mining), Mine Manager's Certificate Metal Mines, Mine Manager's Certificate Fiery Mines, CPIR, MDP, BLDP**

- Appointed to the board on 1 January 2016, on appointment as chief executive officer

### FINANCIAL DIRECTOR

### Frank Abbott (62)

**BCom, CA(SA), MBL**

- First appointed to the board as non-executive director on 1 October 1994 and was financial director from 1997 until 2004
- Re-appointed financial director in February 2012

### EXECUTIVE DIRECTOR: CORPORATE AFFAIRS

### Harry Ephraim "Mashego" Mashego (53)

**BA (Education), BA (Hons) (Human Resources Management), Joint Management Development Programme, Global Executive Development Programme**

- Joined Harmony in 2005 and appointed an executive director on 24 February 2010

## INDEPENDENT NON-EXECUTIVE DIRECTORS

### Joaquim Chissano (78)

**PhD**

- Appointed to the board on 20 April 2005
- Member of the nomination committee and the social and ethics committee

### Ken Dicks (78)

**Mine Manager's Certificate (Metalliferous Mines), Mine Manager's Certificate (Fiery Coal Mines), Management diplomas (Unisa and INSEAD)**

- Appointed to the board on 13 February 2008
- Member of the technical committee and the investment committee

### Dr Simo Lushaba (51)

**BSc (Hons), MBA, DBA, CD (SA)**

- Appointed to the board on 18 October 2002
- Chairman of the investment committee and member of the audit and risk committee and the remuneration committee

**Karabo Nondumo (39)**

**BAcc, HDip (Acc), CA(SA)**

- Appointed to the board on 3 May 2013
- Member of the audit and risk committee, the technical committee and the investment committee

**Vishnu Pillay (60)**

**BSc (Hon), MSc**

- Appointed to the board on 8 May 2013
- Chairman of the remuneration committee and member of the technical committee and the investment committee

**John Wetton (68)**

**CA(SA), FCA**

- Appointed to the board on 1 July 2011
- Chairman of the audit and risk committee and member of the social and ethics committee, remuneration committee and investment committee

## NON-EXECUTIVE DIRECTOR

**André Wilkens (68)**

**Mine Manager's Certificate of Competency, MDPA, RMIIA, Mini MBA Oil and Gas**

- Appointed to the board on 7 August 2007
- Chairman of the technical committee and member of the investment committee and the remuneration committee

## GROUP COMPANY SECRETARY AND HEAD OF LEGAL

**Riana Bisschoff (40)**

**LLB, LLM**

- Joined Harmony in 2012 as group company secretary
- Appointed head of legal in February 2016
- Qualified attorney, notary and conveyancer

# EXECUTIVE MANAGEMENT

Full and detailed resumés of all members of Harmony's executive management are available at *https://www.harmony.co.za/about-us/board*

## CHIEF EXECUTIVE OFFICER'S OFFICE

The executive management team has been restructured to better align with and support our strategy to enable us to achieve our strategic objectives. Harmony's executive management comprises the chief executive officer's office, which is supported in its work by management teams for the South Africa and South-east Asia operations.

Chief executive officer

**Peter Steenkamp (58)**

B Eng (Mining), Mine Managers Certificate Metal Mines,
Mine Managers Certificate Fiery Mines, CPIR, MDP, BLDP

Financial director

**Frank Abbott (62)**

BCom, CA(SA), MBL

Executive director: corporate affairs

**Harry Ephraim "Mashego" Mashego (53)**

BA (Education), BA (Hons) (Human Resources Management), Joint Management Development Programme, Global Executive Development Programme

Executive: New business

**Phillip Tobias (47)**

BSc (Mining Engineering), Wits International Executive Development Programme and GIBS Advanced Management Programme, Professional Engineer (Pr Eng) and Mine Manager's Certificate of Competence

Chief operating officer: South Africa

**Beyers Nel (40)**

BEng (Mining Engineering), MBA, Professional Engineer
(Pr. Eng), Mine Manager's Certificate of Competency

Chief executive officer: South-east Asia

**Johannes van Heerden (45)**

BCompt (Hons), CA(SA)

Executive: special projects

**Abré van Vuuren (57)**

BCom, Development Programme in Labour Relations, Management Development Programme, Advanced Labour Law Programme, Board Leadership Programme

Executive: Corporate and investor relations

**Marian van der Walt (44)**

BCom (Law), LLB, Higher Diploma in Tax, Diplomas in Corporate Governance and Insolvency Law, Certificates in Business Leadership, IR Certificate (UK IR Society)

Chief financial officer

**Boipelo Lekubo (34)**

BCom (Hons), CA(SA)

## SOUTH AFRICA: EXECUTIVE

Chief operating officer: South Africa

**Beyers Nel (40)**

Executive: Sustainable development

**Melanie Naidoo-Vermaak (43)**

Executive: Ore reserve management

**Jaco Boshoff (48)**

Executive: Human resources

**Anton Buthelezi (53)**

Executive: Safety and technology

**Tom van den Berg (49)**

Executive: Health

**Dr Tumi Legobye (45)**

Acting executive: Technical services and engineering

**Robert Hart (43)**

Acting chief financial officer (South Africa operations)

**Danie Muller (57)**

## Regional general managers:

Kusasalethu, Doornkop and Kalgold

**Moses Motlhageng (42)**

Bambanani, Unisel, Joel, Masimong and Target 1

**Francois Janse van Rensburg (42)**

Tshepong operations

**Simphiwe Kubheka (35)**

*Harmony regrets to advise that, post year end, Simphiwe Kubheka, tragically lost his life. The board, management and all at Harmony extend deepest sympathies to his family, friends and colleagues*

## SOUTH-EAST ASIA: EXECUTIVE

Chief executive officer: South-east Asia

**Johannes van Heerden (45)**

Executive: Operations

**Charles de Villiers (47)**

Chief financial officer

**Aubrey Testa (41)**

Executive: Projects

**Bryan Baillie (54)**

Executive: New business and resource development

**Greg Job (53)**

Executive: Exploration

**Mike Humphries (50)**

Executive: Engineering and asset management

**Stan Bierschenk (51)**

Executive: Corporate affairs

**Richard Wills (62)**

# OUR STRATEGY

**"To create sustained value, which will be achieved through safe, profitable production and increased margins"**

Our primary strategic objective remains to create sustained value, which will be achieved through safe, profitable production and increased margins. Cash generated will be used to advance our business objectives which are to:

- fund investment in the stage 5 and 6 cutback at Hidden Valley
- prioritise growth capital at the Tshepong operations and Joel mine
- target exploration that maximises value from existing infrastructure
- make cash-generative acquisitions to improve the quality of ounces produced at a lower all-in sustaining unit cost
- develop the world-class copper-gold Wafi-Golpu project in Papua New Guinea
- maintain levels of low net debt and
- pay dividends to shareholders only from profits

Our strategy is supported by three pillars:

1. operational excellence
2. cash certainty
3. effective capital allocation

In line with our strategic objective, our medium-term aim is to increase annual gold production to approximately 1.5Moz by FY19 by:

- growing, nurturing and developing our core assets through operational excellence
- organic growth
- identifying and evaluating value-accretive acquisitions in South Africa, Papua New Guinea and the rest of Africa

By ensuring operational excellence and adhering to our company values, applying mining discipline, further increasing our productivity, creating an enabling environment and applying grade cut-offs, we believe that our guidance for FY18 is realistic and achievable. These actions position our operations to achieve safe, profitable production in future. Realistic planning supports our strategy to optimise assets – our ore bodies, our infrastructure and our people. This will ensure safer, more profitable production.

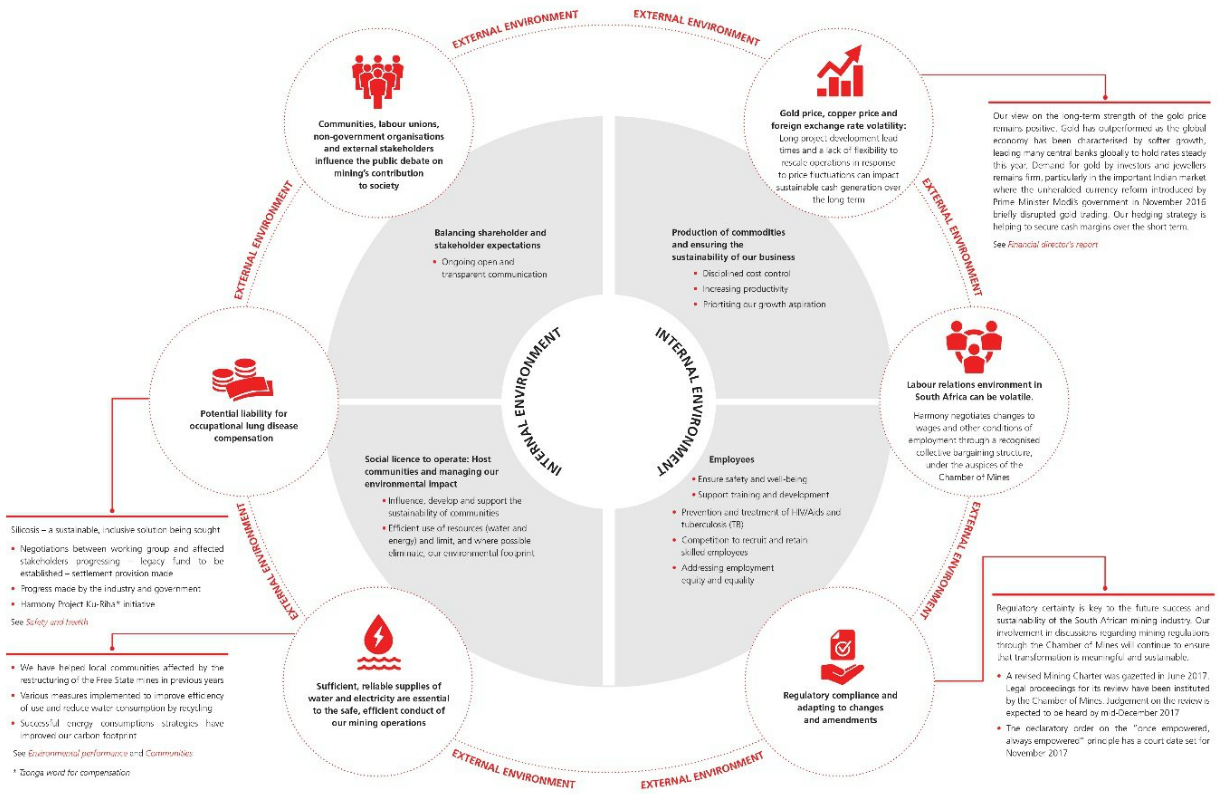
By mining safely and profitably at all times, we will ensure the financial strength and flexibility necessary to underpin our future sustainability and growth. This, in turn, is crucial to ensuring that we continue to serve all our stakeholders' best interests fairly.

# OUR BUSINESS CONTEXT

*As a business, we operate in a complex and ever-changing external environment that involves social, economic and environmental changes in the short, medium and long terms*

***Relevant Global Reporting Initiative indicators: G4-EC8***

To help us position Harmony for success, it is vital to understand the external and internal environments as well as the relationships between the two. Identifying and understanding these factors, both internal and external, requires regular, transparent and consistent stakeholder engagement (see *Material issues and stakeholder engagement*). This section should also be read in conjunction with the section *Managing our risks and opportunities*.



# MANAGING OUR RISKS AND OPPORTUNITIES

## WHY THIS IS MATERIAL TO HARMONY

In identifying and understanding the risks and opportunities facing our business, we are better able to mitigate and/or manage them and to reduce their potential impact on our business. This will enable us to position the company to take advantage of any opportunities, future challenges and growth prospects.

## OUR APPROACH TO RISK MANAGEMENT

At Harmony, our approach to risk relies on the continual monitoring of risk and related mitigation procedures and when appropriate, their revision. Our risk management strategy strives to be practical and effective, rather than focusing solely on compliance. Risk management is embedded in our day-to-day activities and processes.

**Our risk management process**

The risk management process is guided by specific regulatory and legislative requirements, and is championed internally by our chief executive officer. While management is responsible for implementation and compliance, the audit and risk committee is responsible for oversight of the process, its adequacy and effectiveness. Reporting on risk-related performance is marked for the attention of the various board sub-committees.

Because relationships underpin everything we do, our risk management process is based on engagement – between management and the board, and between the company and various stakeholders – to ensure that we address risks appropriately.

Risk management has, as its starting point, the group's strategy. It is important to understand those factors that have the potential to hinder our ability to deliver on our strategy, as well as to identify those opportunities that will enable us to achieve our goals. We benchmark the risks and opportunities identified against those of our peers to ensure that the risks identified are not only specific to Harmony but also include those facing the industry.

In preparing their formal reports to the board, the executive committee and the audit and risk committee meet quarterly to examine the risks and discuss any changes in their relative importance or in their mitigation. The audit and risk committee's review is supplemented by feedback from the various board sub-committees and reviews of specific risks falling within the ambit of their responsibilities.

Each quarterly examination is based on experiences at the operations, feedback from key stakeholders, external factors and management meetings. In addition, various teams within the company address risk on a regular basis as part of their day-to-day roles. This creates an ongoing conversation about risk at different levels, allowing any changes to be captured on a continuing basis.

While risk management is included in our day-to-day processes, formal weekly risk reviews are undertaken by management teams at the operations to identify and prioritise specific, high-risk issues at an operational level. These operational and safety risk reviews are reported to the respective regional general managers with additional oversight by the operations' committees.

**Roles of the board and audit and risk committee**

Risk is a standard item on the agenda at audit and risk committee meetings and the committee's role in our risk management process is multi-dimensional. The committee's primary task is to identify, prioritise, manage and monitor strategic enterprise risks at Harmony, while operational and safety specific risks are monitored by the technical committee of the board. Our risk management process reflects our integrated approach to business and the audit and risk committee – supported by various board sub-committees – examines all risks affecting our strategy.

To do this, the committee spends considerable time reviewing and evaluating the processes in place to identify, monitor and manage risk. These include our risk management policy, methodology and planning, formal risk assessment, internal controls and assurance processes, our risk appetite and tolerance and our responses to the risks identified. Once the audit and risk committee is satisfied with these, responsibility for their implementation devolves to executive management and their teams. In turn, their task is to ensure that these risk processes are constantly applied in day-to-day activities.

Based on these reviews, the audit and risk committee submits its findings to the board. The top strategic, operational and safety-specific risks and mitigating factors are reported to the board on a quarterly basis.

Our group-level risk appetite statement Harmony is in the business of gold mining, which is a high-risk, high-reward business. We are involved in the entire gold mining value chain – from exploring for prospects, conducting feasibility studies and building, buying and operating mines to closing and rehabilitating mines at the end of their productive lives.

In the course of conducting our business, we are exposed to gold price and exchange rate volatility. Where appropriate, steps are taken to reduce our exposure through hedging programmes. We operate well in emerging economies and have the ability and experience to deal with the socio-political circumstances in these countries.

As exploration is one of the most effective ways to grow an ore body and to create value, we continue to invest in exploration. We have an appetite for change and continuous improvement and are constantly looking for innovative ways to improve our existing mines and acquire mines that we can operate more efficiently and that can contribute to our achieving our strategic objectives.

Deep-level gold mining in South Africa is very labour intensive and we have the skills to deal with the challenges of multi-stakeholder labour relations. We continuously strive to improve the safety and health of our employees.

We have experienced values-driven teams with strong values, committed to delivery on our strategic objectives.

## OUR ACTIONS IN FY17

During FY17, we formulated group-level risk appetite and tolerance levels, and continued to monitor our risks to identify and manage those that were most material to the company.

While our group-level risk appetite and tolerance levels are subject to formal annual reviews, these are continually monitored for relevance in terms of changing macro-environment factors. Our tolerance levels are further defined at lower tolerance limits per risk.

## OUR TOP RISKS AND OPPORTUNITIES

Our risk profile is based on potential events and/or factors that pose either a threat and/or an opportunity. These downside and upside risk factors are duly taken into account in our day-to-day business activities and, having been identified, are integral to the formulation and management of our group strategy.

# MATERIAL ISSUES AND STAKEHOLDER ENGAGEMENT

The process to determine our material issues derives from stakeholder engagement and our risk management process.

While our relationships with our stakeholders underpin all that we do, stakeholder engagement is also integral to our risk management process. This engagement – between management and the board, and between the company and various stakeholders – ensures that we address risks appropriately.

## OUR APPROACH TO STAKEHOLDER ENGAGEMENT

Our stakeholder engagement complies with relevant legislation and standards, including ISO 14001, OHSAS 18001 and ISO 9000. Using our stakeholder engagement policy and strategy, we identify various stakeholders, internal and external, across our business process.

Given our many stakeholders, priority is given to those who are most likely to have the greatest impact on Harmony in terms of our achieving our strategic objectives and our business performance.

The primary aim of our stakeholder engagement is to share and gather information to inform our business decisions. This two-way communication is guided by our values and our strategic intent:

- To improve the lives of host communities through appropriate programmes or projects
- To find solutions to the various challenges facing our society and host communities, including unemployment and lack of economic activity, by collaborating with stakeholders and forming meaningful partnerships
- To find a balance between the expectations of shareholders and those of other stakeholders
- Our engagement with stakeholders is inclusive, so that it is:
- Meaningful and addresses what is material to stakeholders
- Complete so that we understand the views, needs, perceptions and expectations linked to issues that stakeholders view as material
- Responsive so that we respond to material issues timeously, coherently and appropriately

## WHY STAKEHOLDER ENGAGEMENT IS MATERIAL TO HARMONY

Stakeholder engagement is integral to our business and shapes our actions in determining strategy, addressing problems, and allocating resources. Effective stakeholder engagement helps us better manage risks, opportunities and enhances the company’s reputation, which is essential to the long-term sustainability of Harmony. Furthermore, effective, meaningful stakeholder engagement contributes to our store of knowledge as a company and provides information, which leads to improved decision-making processes. The board’s social and ethics committee oversees stakeholder relations while the board itself monitors relations with stakeholders.

To be a profitable, responsible and sustainable business, mutually beneficial and sustainable relationships with various stakeholders are vital to the success of our business strategy, especially in relation to our material issues. Given that our material issues are informed by stakeholder engagement, it is important to understand and meet our stakeholders' needs and expectations where possible. We engage with numerous stakeholders – individuals and organisations – on an ongoing basis.


## OUR MATERIAL ISSUES

In the course of engaging with stakeholders, we identify those issues that are most closely related to our values and strategy. From this process, we have derived the following five material issues, which encompass most of our key risks and address our values – safety, accountabilty, achievement, connectedness and honesty.

**ADDRESSING OUR MATERIAL ISSUES**

**1. Keeping our people safe and healthy**

People are central to our business. While we have made significant progress in recent years in improving safety and health underground, safety remains a priority.

We continue our proactive people-centric approach, focusing on training and communication to entrench safe behaviour in the workplace. We understand the need to make additional safety advances by applying new technology and/or advancing protective equipment.

Our employees also face occupational health risks in working underground. We address all operational health risks and offer treatment for a variety of other health concerns. We believe that prevention is better than cure and offer proactive, integrated and holistic health strategy and programmes. Our aim is to ensure our employees return home safely and in good health. For more, see the Safety and health section of this report.

**Related key risks and/or opportunities:**

Safety; potential liability for occupational health diseases; not achieving our operational objectives; labour disputes and unrest and inter-union rivalry; new technology

**Our response**

- Promoting engagement aimed at enhancing safety in the workplace and employee health
- Implementing proactive safety awareness campaigns aimed at improving safety performance
- Healthcare programmes implemented – health hubs

See Safety and health

**Stakeholder:**

**2. Achieving our business objectives**

While success in achieving our business objectives drives what we do, we are not solely focused on short-term success. As explained in the section Our strategy, our aim is to create a viable business for years to come. As a result, we also consider our future objectives, such as using technology and innovation, diversifying our resource base, and ensuring we have projects in place to sustain and grow our production.

**Related key risks and/or opportunities:**

Safety; reserve base depletion/growing for future ounces; not achieving our operational objectives; labour disputes and unrest, and inter-union rivalry; socio-economic, political and regulatory changes; major infrastructure incidents; reliability of power supply and associated costs; potential liability for occupational health diseases; gold price and foreign exchange fluctuations; productivity improvements; new technology

**Our response**

- Communicating progress made in achieving our objectives and on impacts of changes in the gold price and the rand/US dollar exchange rate
- Implementing initiatives to reduce and contain costs
- Implementing an appropriate hedging strategy to lock in cash margin certainty
- Engaging with suppliers to ensure cost increases are contained and reasonable
- Liaison with the Papua New Guinea government around Golpu, and application for the special mining lease and related approvals and permits

This is discussed throughout this report, and, in particular, in the Chief executive officer's review and Operational performance

**Stakeholder:**

**3. Maintaining stability in our workforce**

A stable workforce contributes to our aim of meeting our business objectives, as it results in lower employee turnover and stabilises production. We focus on having positive and open relationships with our employees and labour unions. By fostering conversation, we understand and are able to address grievances before industrial action. The benefits of a stable industrial relations climate are extensive. We want to create workplaces where employees feel safe, respected and valued. The benefits of meeting our business objectives are shared with employees through production bonuses, reward and recognition programmes and the employee share ownership scheme. For more on these, see Remuneration Report.

**Related key risks and/or opportunities:**

Safety; labour disputes and unrest, and inter-union rivalry; not achieving our operational objectives; major infrastructure incidents; productivity improvements; new technology

**Our response**

- Proactive, regular engagement based on openness, honesty and integrity
- Constructive engagement to facilitate understanding of issues and concerns of both sides
- Commitment to resolving the issues and addressing concerns

See Employees and communities

**Stakeholder:**

**4. Protecting our licence to operate**

To be a successful company, we must earn and retain our right to mine. This requires a clear understanding of local legislation and regulations, as well as having solid relations with government, communities, industry bodies and local business partners. We seek more than compliance: we will transform our workforce, ensure good corporate governance, and be a responsible corporate citizen. For more on this, see Mining Charter compliance scorecard.

**Related key risks and/or opportunities:**

Safety; socio-economic, political and regulatory changes; major infrastructure incidents; potential liability for occupational health diseases

**Our response**

- Proactive engagement on the position of our business
- Proactively engaging to promote alignment of expectations and to understand communities' needs to enable us to make a positive, sustainable contribution
- Communication on compliance targets achieved and challenges being encountered, particularly those relating to housing
- Engaged on proposed amendments to the Mining Charter and the Mineral and Petroleum Resources Development Act
- Engaged with suppliers to ensure that their processes are aligned with our human rights and environmental standards, code of conduct and empowerment requirements

See **Employees and communities**

**Stakeholder:**

**5. Managing our impacts**

The resources available to our business are finite and we respect this. We are environmentally responsible through careful monitoring of our consumption, emissions and impact. Our commitment to improving health and safety speaks to our need to protect human resources, while our training and development programmes highlight how we encourage each employee to learn and grow their skills. Responsible resource management is also crucial to our socio-environmental rehabilitation planning. While our mines are operational, we want to do all we can to improve the living conditions of employees and communities, and to bolster both socio-economic and ecological developments so that, when our mines close, we will leave behind us viable communities able to support their economies and which are not plagued by environmental or health issues. This entails planning now, ahead of mine closure, and is something we are constructively working towards. For more on our skills training and rehabilitation initiatives see section Employees and communities.

**Related key risks and/or opportunities:**

Safety; socio-economic, political and regulatory changes; major infrastructure incidents; potential liability for occupational health diseases; new technology

**Our response**

- Developing and implementing initiatives to empower local communities to ensure sustainable economic activity once mining has ceased

- Inclusive engagement relating to land rehabilitation in the Free State and the creation of sustainable of economic activities independent of mining

See Safety and health, Employees and communities and Environmental performance in this report

**Stakeholder:**

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**Stakeholders**

- Government (national and provincial), municipalities and regulators and, in particular, the Parliamentary Portfolio Committee on Mineral Resources
- Industry bodies, including the Chamber of Mines
- Employees and unions
- Shareholders, investors, providers of capital and analysts
- Suppliers, partners and customers
- Media and general public
- Host communities

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# SAFETY AND HEALTH

*At Harmony, ensuring employee safety and health are moral imperatives. Without a safe and healthy workforce, we cannot be productive and profitable.*

**Achievements FY17**

**In South Africa**

- Last quarter of FY17 was fatality free
- Fatality injury frequency rate at South African operations improved by 46%
- Tshepong achieved 3 million and Doornkop 2 million fatality-free shifts
- Rates of injury related to rail-bound equipment and falls of ground improved
- Proactive, preventative healthcare model yields benefits – decreased rates of hospitalisation and medical mortality
- Number of employees confirming their HIV/Aids status increased again, from 73% to 78%
- Decline in TB rate continued, down by 10% year-on-year
- Actively involved with certification process to address backlogs and assist the mining industry in quantifying the silicosis risk
- Improved efficiencies at the Medical Bureau of Occupational Disease have enabled removal of employees with certified second degree silicosis from further risky work environment thus reducing rate of progression of silicosis

**In Papua New Guinea**

- Analytical laboratory (testing for tropical diseases like malaria) and X-Ray (TB screening) facilities installed at Hidden Valley
- Monitoring of industrial hygiene begins at Hidden Valley with a focus on dust (silica), noise and diesel particulates

**Challenges FY17**

- Lost-time injury frequency rate regressed
- Behavioural breaches of safety standards
- Unhealthy behaviour and lifestyles predispose employees to chronic and lifestyle diseases
- Despite TB incidence decline year on year, the rate remains unacceptably high in comparison with global standards and remains one of our top five health risks
- Effective HIV/Aids management remains a challenge, despite deep understanding of the associated risks

## OUR APPROACH TO SAFETY AND HEALTH

At Harmony, ensuring employee safety and health are moral imperatives. Without a safe and healthy workforce, we cannot be productive and profitable. We aim to eliminate and prevent all fatalities and work-related injuries and illnesses by instilling and maintain a culture that values the safety and health of all.

Our occupational safety and health policy and related management framework are aligned with the Mine Health and Safety Act in South Africa and relevant legislation in Papua New Guinea, including the Mining (Safety) Act 1977 and associated regulations, as well as with the standards and aims prescribed by the International Council on Mining and Metals. Our approach to safety encompasses critical control management, preparedness, prevention and the monitoring, review and analysis of relevant safety and health data and indicators.

Representatives from management, union and government participate in structures aimed at emphasizing the importance of safety and achieving our goal of zero harm. At our South African operations, operational safety and health committees ensure that all employees are involved in managing and ensuring the safety of all. There are currently 33 full-time safety and health stewards at these operations (FY16: 30). Safety and health feature as agenda items at all union and management engagements.

At board level, the technical committee is responsible for approving and monitoring compliance with our safety and health policy and with legislation. Safety, a key performance indicator for management, is monitored to determine remuneration in terms of safety performance.

In Papua New Guinea, safety managers report regularly to the South-east Asia executive committee by way of notifications, formal monthly reports and meetings. This committee in turn reports to Harmony's technical committee and the board.

# SAFETY

Continued improvement in our safety performance is essential to our achieving zero harm. A co-operative approach involving all stakeholders ensures that the necessary infrastructure and systems are in place – including relevant planning, communication and training. While management is legally responsible for safety, management and employees are jointly responsible for their actions, to halt work when a workplace is considered unsafe and/or to prevent risky actions. Line managers and supervisors constantly reinforce safe behaviour. Site-specific safety initiatives as well as behaviour reinforcement programmes are in place.

At our underground operations in South Africa, eight fatal risks – falls of ground, underground rail-bound equipment, electricity, working at heights, winches, mud-rushes and inundation, fire and explosives – have been identified. For each, risk standards with measurable critical controls have been compiled and rolled out together with the necessary training. Safety trainers, who interact directly with employees at the work face, are closely involved. Safety steering committees monitor performance. Much attention is given to fatal risk standard compliance by senior management. There has been a noticeable improvement in accident trends, specifically in that for fatal accidents. However, there is much room for improvement. The overall aims of the *Live Longer* safety campaign are to:

- proactively manage safety risks
- establish in-house capabilities to ensure that safety awareness is a way of life
- promote a culture of continuous care and learning
- prevent accidents, especially significant unwanted events, before they happen by implementing the controls necessary to effectively manage potential hazards
- The four-layered safety risk management system currently being implemented involves:
- a baseline risk assessment to identify major hazards and significant unwanted events that can cause fatalities
- issue-based risk management and bowtie analyses, based on the critical management of controls and their hierarchy, to ensure that the controls in place are effective
- task-based risk management to ensure that the related procedures are in place, effective and safe
- continuous risk management to ensure that tasks are only performed when it is safe to do so
- On an individual level, this safety campaign is based on SLAM:
- STOPPING to review the work area, colleagues and the tools to be used
- LOOKING out for any potential hazards
- ASSESSING that the controls in place will be effective
- MANAGING any deviations from the norm that are identified

The *Live Longer* safety risk management, together with visible-felt leadership and our values, underpin our determination to achieve zero harm.

Phase 1 of the *Live Longer* rollout at the Harmony One plant and at the Joel mine and plant was completed. Also completed in FY17 was the high-level safety risk management training for executives and regional management. Phase 2 of the system's rollout is being conducted at the Tshepong operations, which includes Phakisa, Doornkop and Target, and their respective plants. Group-wide implementation is scheduled to be completed by December 2018.

## PERFORMANCE IN FY17

***Relevant Global Reporting Initiative indicators: G4-LA5, G4-LA6 and G4-LA8***

South Africa and Papua New Guinea

Regrettably there were five fatalities during the year (FY16: 10), all at our South African operations (FY16: nine). There were no fatalities at our Papua New Guinean operation (FY16: one). The group fatal injury frequency rate improved by 46% to 0.07 (FY16: 0.13).

**In memoriam**

| Date | Operation | Name | Occupation | Cause |
|---|---|---|---|---|
| 15 July 2016 | Joel | Lekhabu Seatle | Cage assistant | Trucks, tramming and transport |
| 23 September 2016 | Phakisa | Samual Sicelo Mayakala | Locomotive guard | Trucks, tramming and transport |
| 26 October 2016 | Central Plant | Enoch Sithemebelo Magrwanini | Engineering assistant | Working at height |
| 1 February 2017 | Masimong | Tsekiso Kelane | Stope team | Scraper winches |
| 17 February 2017 | Bambanani | Sakhele Xungu | Scraper winch operator | Gravity-related fall of ground |

Sadly, post-year end, a seismic event triggered a fall of ground at Kusasalethu on 25 August 2017, resulting in the death of five employees.

Harmony continues to provide counselling and financial assistance to the families of deceased employees. An education fund established in FY14 supports the needs of the school-going dependants of all employees and contractors who lose their lives in the workplace. As at the end of June 2017, this fund had provided assistance totalling R2.7 million and ensured that 52 dependants continued with their education.

Of note is that Tshepong, which has not reported a fatality since 2014, achieved 3 million fatality-free shifts during the course of the past financial year while Doornkop achieved 2 million fatality-free shifts and Unisel and Kusasalethu achieved one million fatality-free shifts.


**South Africa**

The lost-time injury frequency rate for the South African operations regressed by 17% to 7.61 (FY16: 6.50). In all, 24 026 shifts were lost due to occupational injury in South Africa (FY16: 22 416).

While the focus on the high-risk safety areas resulted in significantly improved performance, the number of general type accidents increased. The increase in the incidence of slip and fall and material handling accidents accounted for the regression in overall safety performance. This will be a focal point of safety in the coming year.

The injury frequency rates for both falls of ground and rail-bound equipment improved on the year. The fall-of-ground injury frequency rate improved by 5% to 1.55 (FY16: 1.64). There was one gravity-related fall-of-ground fatality in FY17 (FY16: three gravity-related and two seismic related fall-of-ground fatalities). The rail-bound equipment injury frequency rate improved by 43% to 0.43 (FY16: 0.75). Two rail-bound equipment-related fatalities were recorded during the year.

The number of Section 54/55 instructions issued during FY17 increased to 276 (FY16: 182). However, production lost as a result of safety-related stoppages declined by 47% to 291kg (10 185oz) (FY16: 554kg; 19 393oz).

**Achieved during the course of FY17:**

| **Fatality-free performance** | | **Significant safety performance** | |
|---|---|---|---|
| More than three million shifts | Bambanani (rail-bound equipment): 7 million shifts<br>South Africa underground operations (fall-of-ground): 6 million shifts<br>South Africa surface operations: 4 million shifts<br>South Africa all operations (rail-bound equipment): 4 million shifts | More than three years | Target Plant: 7 years' reportable injury free<br>Joel Plant: 6 years' lost-time and reportable injury free<br>Central Plant: 6 years' reportable injury free<br>Education, Training and Development Services: 7 years' lost-time and reportable injury free |
| Three million shifts | Tshepong (including fall-of-ground and rail-bound equipment)<br>Doornkop (rail-bound equipment)<br>Harmony | Two years (lost-time and reportable injury free | Surface operations<br>Harmony One Plant<br>Harmony Laboratory |
| Two million shifts | South Africa underground operations Doornkop (including fall-of-ground)<br>South Africa – total operations<br>Harmony | One year (lost-time and reportable-injury free) | Phoenix Plant |
| One million shifts | Phoenix Plant<br>Kusasalethu (including fall-of-ground)<br>Unisel<br>Masimong (rail-bound equipment)<br>Phakisa (fall-of-ground) | | |

Measures currently in place to ensure that safety is foremost include:

- Employee training on how to work safely. All employees are trained to conduct pre-work risk assessments before any work is done
- Ongoing safety awareness campaigns, shaped by messages agreed by management in consultation with the unions, safety structures/representatives
- Clearly defined safety roles and accountabilities used to measure team performance. Safety committees ensure that company standards on mining and engineering work are reviewed periodically, compiled, approved and distributed to operations for implementation
- A formal visible-felt safety leadership coaching programme for managers and supervisors to optimise safety engagement with subordinates so as to drive positive changes in behavior
- Comprehensive safety reports to track incidents, measure safety performance and report back to mines on performance. Safety management systems are in place at all South African operations. Data sourced from workplace inspections by safety officers is recorded in the system and statistics are captured daily. Deliverables for the safety, health, environment, risk and quality internal control management system include a document centre, document review and automated workflow approval. User training was completed during the year. Although the system is still in its early stages, improved accident trends have already been noted
- Reviews of external safety initiatives or leading practices in the mining industry for implementation through the Mining Industry Occupational Safety and Health's (MOSH's) Community of Practice for Adoption (COPA) process. Champions are nominated for each aspect of occupational safety and health. They attend all industry meetings and ensure that all relevant information is disseminated to the operations
- A dedicated executive manager: safety, supports the chief operating officer: South Africa, who has specific responsibility for safety. His remit includes site visits to investigate best practice at various mining companies. It also includes responsibility for adopting and implementing world best practice in safety and health strategies at Harmony

**Papua New Guinea**

The lost-time injury frequency rate for Hidden Valley improved by 63% to 0.52 (FY16: 1.39). In all, 11 shifts were lost due to occupational injury (FY16: 127).

Work on reviewing, integrating and improving the safety management system at Hidden Valley and Harmony exploration continued. Implementation of the revised system, which will align with the international safety standard ISO 45001, is scheduled for completion by December 2017.

Safety measures in place include implementation of critical controls and verification for all high-risk (potentially fatal) activities. Work menus and related training programmes, incorporating relevant critical controls, were developed for high-risk activities and rolled out. To ensure the correct critical controls are implemented for the high-risk activities, an activity-specific verification process through formalised audits was implemented.

Particular safety challenges encountered in Papua New Guinea are landslides and/or slope failures, a consequence of the mountainous terrain, high rainfall, quickly changing weather conditions and earthquakes. Natural landslides are relatively common and, together with potential man-made landslides (slope failures associated with open-pit mining), pose a significant safety risk. During the year, real-time slope stability radar monitoring systems were operational at both open pits and failures were well managed throughout the year.

Specific geotechnical risk assessments are undertaken for all work sites in Papua New Guinea. The associated mitigation plans are updated at least annually.

Vehicle-related incidents are also a significant risk and work undertaken during the year to mitigate the risk of these included:

- installation of on-board cameras to monitor driver behaviour for corrective training
- vehicle-specific emergency braking procedure training for all drivers
- manned check points for all trucks to verify permits and licences prior to entering mine lease areas and prior to certain hazardous declines
- reducing fatigue-related incidents by implementing an updated management plan (based on an expert study) and further investigations into technology to prevent accidents

### PUBLIC SAFETY

The social and ethics committee oversees public safety on behalf of the board. No major incidents occurred during the year involving the safety of the public.

### SAFETY TARGETS FOR FY18

Our focus remains zero fatalities and zero harm. Our FY18 safety targets for our South African operations have been set in line with the Mine Health and Safety Council milestone targets. Consequently, our target for FY18 is to improve performance regarding both lost-time and reportable injuries by 20% year on year at the South African operations.

We will continue with our strategy to improve leadership, employee behaviour and safety messaging to effect a long-term shift in thinking and behaviour.

## HEALTH

***Relevant Global Reporting Initiative indicators: G4-LA2 and G4-LA7***

### HEALTH STRATEGY

#### South Africa

Harmony's healthcare programme provides primary, secondary and tertiary healthcare as well as occupational health services to all employees, through company-managed healthcare facilities and medical aid membership, as well as through external healthcare providers. We continue to provide accessible, comprehensive healthcare services at our health hubs, located close to the workplace.

Harmony's proactive healthcare strategy focuses on employee well-being. It is important that our employees are fit for life, fit for work and fit to retire. This strategy aims to manage illness by identifying disease early and so help to prevent permanent disability. Medical surveillance, active case finding and the early detection and treatment of disease are thus integral aspects of our management healthcare system. This strategy will be expanded to include monitoring and promoting employees' resistance to illness.

As a member of the Chamber of Mines, Harmony participates in processes to address legacy issues relating to occupational lung disease. In May 2016, the High Court certified two classes for the related class action, namely TB and silicosis. The silicosis working group, initiated by certain South African gold mining companies who are members of the Chamber of Mines, continues to work on establishing a sustainable, all-inclusive and comprehensive solution to current and legacy concerns relating to compensation of the occupational lung diseases covered by the Occupational Diseases in Mines and Works Act.

As a result of the progress made by the working group and the status of negotiations with affected stakeholders, Harmony is now in a position to reasonably estimate its share of a possible settlement of the class action claims, and has made a provision of R917 million (US$70 million). The ultimate outcome of these matters remains uncertain.

## PERFORMANCE IN FY17

### South Africa

Our *At work* health management programme continues to yield good results by contributing to more healthy people being at work. Health-related absenteeism improved from 9.4% in FY13 to 7.4% in FY17. The aim of this programme is the early identification and care of employees who may become chronically ill, and to manage, review and monitor their medical conditions. In the past year, 8 109 (FY16: 7 447) individual medical cases were reviewed by a team of healthcare professionals.

Harmony's health team had several opportunities to showcase our proactive healthcare delivery model. A delegation of senior occupational health officials and practitioners visited Doornkop's health hub in April 2017.

### Healthcare delivery

At our South African operations, membership of a medical scheme is compulsory for all category 9+ category employees. For category 4-8 employees, membership is voluntary. Approximately 6 870 employees participated in medical schemes in FY17 (FY16: 6 742). Harmony subsidised the related costs on behalf of employees by R13 million (US$1.0 million) a month (FY16: R12 million or US$0.8 million).

In all, 20 905 category 4-8 employees have elected not to join a medical scheme. Instead they receive comprehensive health services from mine medical facilities and associated preferred providers at no cost to the employee. The cost of providing these services was R24 million (US$2.0 million) a month in FY17, including health hub management costs, specialists and hospitalisation.

The health hubs undertake active case-finding and screening as well as active disease management of chronic conditions for employees who are not members of a medical scheme. In FY17, 15 216 (FY16: 15 137) employees were diagnosed with chronic conditions, and one third were treated for two or more chronic conditions such as hypertension, HIV/Aids, diabetes, asthma and TB.

Medical surveillance continues at our dedicated occupational health hubs where 44 733 medical examinations were conducted during the past financial year (FY16: 41 563).

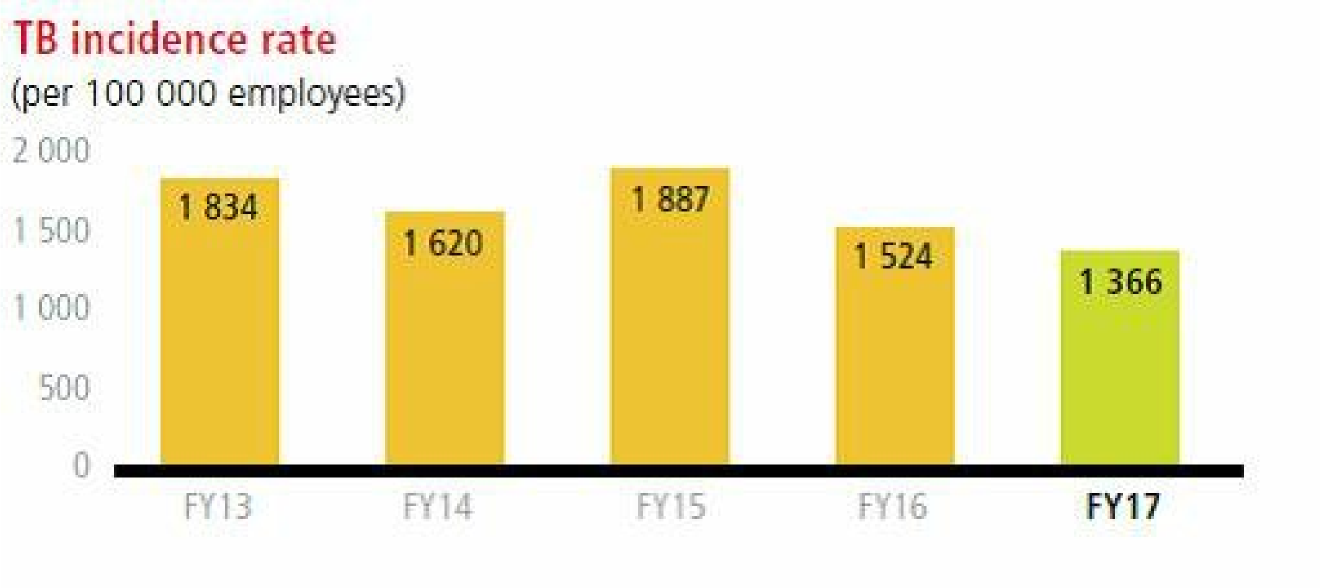
**Tuberculosis**

TB is one of the most pressing public health concerns in South Africa and the gold mining industry. The TB incidence rate at our South African operations remains high compared with World Health Organization and national benchmarks. Given the challenges, our approach takes into account the multiple aspects of TB management, addressing both occupational and socio-economic determinants of the disease.

Harmony's TB control programme, which is aligned with the relevant guidelines and prescriptions of the World Health Organization as well as with the national strategic plan to combat TB, focuses on comprehensive screening, testing and contact tracing, the hospitalisation of infectious cases and a directly observed therapy short course. As an affiliate of the Chamber of Mines, and through the national Masoyise iTB campaign, Harmony is committed to ensuring that every employee is screened and tested for TB annually. Screening for TB has intensified since 2016, as part of the campaign to curb the TB epidemic, an initiative spearheaded by the Minister of Health.

For FY17, 30 113 employees (including contractors), or 97% of the workforce, were screened for TB, exceeding the 90% target set by the Minister of Health. A total of 440 cases of TB were certified (FY16: 214). The increase in the number of certified TB cases is due mainly to improved efficiencies at the Medical Bureau of Occupational Diseases which has been addressing the backlog. More than 90% of the 440 cases certified had been submitted by 2015. The TB incidence rate per 100 000 employees has declined by 55% since the introduction of our proactive healthcare strategy in FY10 –

from 3 024 in FY10 to 1 366 in FY17.




**HIV/Aids**

The HIV/Aids pandemic in South Africa continues to have a significant impact on employees, their dependants and local and labour-sending communities. The illness can result in higher levels of co-infections of other diseases, which lead to increased absenteeism and reduced performance levels, loss of skills, increased economic burden, and sometimes death. Motivating employees to confirm or disclose their HIV status, despite perceived stigma and confidentiality issues, remains one of the biggest challenges. Initiatives such as positive behaviour programmes can be pivotal in addressing this challenge.

At the South African operations, 7 816 employees (FY16: 7 063) have been identified as being HIV-positive and are on the HIV/Aids programme, with 6 340 (FY16: 5 333) receiving antiretroviral therapy. HIV/Aids is managed through our clinics and the services of health professionals, with the support of appropriate specialists. Harmony's HIV/Aids strategy is based on promoting health through education and awareness programmes, preventative strategies to reduce the number of new cases, evidence-based medical interventions and ongoing monitoring of compliance.

For its new HIV/Aids treatment targets beyond 2015, the Department of Health, in conjunction with the Joint United Nations Programme on HIV/Aids (UNAids), has adopted the 90-90-90 targets, which are globally aligned. Harmony has in turn aligned its HIV/Aids programme with these targets, which are:

- By 2020, 90% of all people living with HIV will know their HIV status. Harmony currently at 77% (FY16: 73%) (including contractors)
- By 2020, 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy. Harmony currently at 78% (FY16: 71%)( (medically uninsured, excludes contractors)
- By 2020, 90% of all people receiving antiretroviral therapy will have viral suppression. Harmony currently at 70% (permanent employees)

***Voluntary counselling and testing for HIV/Aids***

Pre-counselling and voluntary counselling and testing are offered to all employees through ongoing interventions at all Harmony healthcare hubs. In all, 29 991 (FY16: 30 294) employees received voluntary counselling and testing during the year and, of these, 23 162 (FY16: 22 995) confirmed their status.

### Occupational diseases

#### *Silicosis*

Silicosis remains a material concern. It is caused by long-term exposure to high levels of quartz silica dust and can increase susceptibility to TB. Harmony's integrated HIV/Aids, TB and silicosis policy and programme is intended to responsibly manage the debilitating disease and proactively prevent deterioration, and so minimise the risk. Indication are that the incidence of silicosis is declining.

During FY17, 220 cases of silicosis were submitted to the Medical Bureau of Occupational Diseases and 108 cases were certified (FY16: 284 cases reported; 64 cases certified). The increase in certified cases is as a result of improved efficiencies at the bureau.

#### *Project Ku-Riha*

Project Ku-Riha (Tsonga for the word compensation), launched by government in May 2015, is being rolled out by the Department of Health to improve the system of compensation for those mineworkers who have occupational lung disease and ensure that valid claims are paid more speedily and efficiently.

Harmony and seven other South African mining companies continue to participate in this initiative.

Aligned with the Department of Health's Project Ku-Riha, Harmony's in-house RECONNECT initiative was launched in collaboration with Teba, to trace former employees and assist in addressing the backlog in claims for occupational lung disease at the Compensation Commission for Occupational Diseases. The roll-out of the RECONNECT initiative began in Lesotho in May 2017, followed by Welkom, in the Free State in June 2017.

- Currently, the status regarding this initiative is as follows:
- Number of claims paid and closed: 3 023
- Number of claims in process: 1 618
- Number of door-to-door household visits: >19 000
- Total value of claims paid to date: R81 million (US$6.0 million) by the Department of Health

**Industry milestone: eliminating silicosis**

By December 2024, 95% of all exposure measurement results will be below the milestone level for respirable crystalline silica of 0.05mg/m³.

Using present diagnostic techniques, no new cases of silicosis will occur among previously unexposed individuals (previously unexposed individuals are those unexposed to mining dust prior to December 2008, equivalent to a new person who entered the industry in 2009). Workshops have been conducted by the occupational hygienists from all operations to establish a strategy to achieve this milestone.

A decision was taken to set annual incremental targets to meet the milestone ahead of time, and not to wait until the deadline. This will ensure a special focus on areas where compliance is lacking. Of note is the fact that Harmony is currently 88% compliant with the new milestone attributed to all the engineering controls in place.

***Dust control***

A range of engineering measures is used to minimise employees' exposure to silica dust, including leading practices as advocated by the Mining Industry Occupational Safety and Health (MOSH) such as employing fogger systems at strategic underground areas and implementing foot- and side-wall treatments to allay dust in identified intake airways. Multi-stage dust filtration systems have also been installed and all winches have been covered. In addition, real time dust monitors have been acquired by all underground operations and are being installed in intake airways. These monitors provide immediate dust readings, which will allow immediate action to be taken on unacceptable readings.

Training and awareness programmes address dust control in stopes and all development ends are equipped with water blasts to settle dust directly after a blast.

Dust discharge occurs during activities where the rock is broken at source: stoping, development and trackless mining. Engineering controls to allay dust at source are to be investigated through the Mining Industry Occupational Safety and Health dust task team. A prototype waterblast, which can be used in both stoping and development, is currently being tested.

The testing resulted in changes to the unit to accommodate robustness and effectiveness. This continued during the current year. A final product was developed, which is being tested with apparent success. The final test results should be made available to industry in the near future.

***Noise-induced hearing loss***

Harmony embarked on an oto-acoustic emissions initiative to detect early hearing loss. The Council for Scientific and Industrial Research collaborated and analysed the data, and confirmed that Oto-Acoustic-Emissions detect damage two years earlier than an audiogram. We have received a proposal from

University of Pretoria researchers to continue with further technical developments that could help prevent noise-induced hearing loss.

All Harmony employees who are exposed to high noise levels are issued with personalised hearing protection devices, which reduce noise levels by 25 decibels.

During the year, 99% of occupationally exposed employees, including contractor employees (76%), were issued with personalised hearing protection devices (FY16: 98% and 71%). A progressive total of 24 759 personalised devices had been issued by the end of FY17 (FY16: 23 226).

Sound attenuators were also fitted to all equipment, resulting in no noise level exceeding 110dB(A)-weighted decibels from any machine, in compliance with our noise milestone.

New industry milestones for noise-induced hearing loss:

- By January 2018, no employee's standard threshold shift will exceed 25dB from the baseline when averaged at 2 000Hz, 3 000Hz and 4 000Hz in one or both ears
- By December 2024, the total operational or process noise emitted by any equipment must not exceed a milestone sound pressure level of 107dB(A)

Annual audiometric testing is conducted at our occupational health hubs during medical examinations. The number of early noise-induced hearing loss cases (5-10% shift) decreased from 526 cases in FY16 to 518 in FY17.

An awareness drive was initiated at all operations to ensure employees are aware of the benefits of wearing personalised hearing protection. A monitoring programme was also implemented to measure actual compliance in the workplace. Compliance monitoring is undertaken during routine occupational hygiene inspections and ad hoc audits are also conducted.

As part of the initiative to prevent noise-induced hearing loss, 24 939 (FY16: 24 602) employees participated in the 'hearing coach promotion' initiative during the year. Evaluations were conducted and guidance provided where necessary regarding the use of customised hearing protection devices.

***Heat stress***

Extensive refrigeration and ventilation measures are in place at all operations where temperatures exceed normal working ranges. Heat-tolerance testing, acclimatisation programmes, and the provision of adequate hydration, support and protect employees exposed to excessive heat in the workplace.

In FY17, 15 354 heat-tolerance tests were undertaken (FY16: 14 549). The increase in the number of tests is attributed to the increase in testing at Phakisa, Masimong and Joel to mitigate associated health and business risks. Heat-related illness cases increased from 20 to 53 cases in FY17 (decreased from 23 to 20 cases in FY16). Findings from investigations revealed that environmental working conditions are within standard. The increase in the number of cases can be attributed to dehydration. Campaigns to promote awareness of the importance of hydration of employees are being conducted

### *Radiation protection*

All our operations in South Africa comply with the maximum dose limits of 50 millisievert a year and 100 millisievert over five years. Operational controls ensure that elevated monitoring results are investigated and corrected when necessary. Radiological clearances are conducted at decommissioned sites to ensure the future declassification of these areas.

## Healthy living

### *Preventative healthcare – promoting awareness and education*

Harmony's health initiatives focus on the most common diseases and, as part of the induction programme, the e-learning module addresses these diseases. In addition, podcasts and liquid-crystal display screens are used to educate employees on various health issues. Other initiatives include the distribution of pamphlets, health-worker training, screening at all medical centres, disease management interventions and quality assurance. Furthermore, an exclusive health desk has been set up to improve and strengthen communication on health-related matters.

Monthly health awareness campaigns, guided by the annual health calendar, focus on particular health-related topics such as HIV/Aids, TB, sexually-transmitted infections, and occupational and lifestyle diseases. Ongoing monitoring and education are conducted at the medical health hubs, which oversee major health campaigns.

### *Influenza vaccines*

In preparation for the winter season in South Africa, the influenza (flu) vaccine is offered to employees as a precautionary measure. In all, 9 260 employees (FY16: 7 147) received influenza vaccinations in the past financial year, an increase of 30% on the previous year.

### *Chronic diseases*

Non-communicable chronic diseases including hypertension, heart disease and diabetes continue to pose a significant challenge for our employees. This is expected to continue as HIV treatment grows.

As part of Harmony's integrated approach to healthcare, specific initiatives have been implemented to manage chronic diseases, with a particular focus on HIV/Aids, TB, diabetes, hypertension and silicosis, as well as asthma and epilepsy. In FY17, 55% (FY16: 55%) of employees at the South African operations has a chronic condition. Of the 15 216 employees diagnosed with chronic conditions in FY17, 33% have hypertension, 6% diabetes and 52% HIV/Aids.

## Papua New Guinea

In Papua New Guinea, the provision of primary healthcare and occupational health surveillance to employees, dependants and the local community is provided by medical centres at Hidden Valley, Wafi-Golpu and Wau. Medical registers in an online information system are used to track and review each patient's progress from the first visit through to final treatment.

Upper respiratory tract infections remain one of Harmony's main medical issues in Papua New Guinea.

Despite experiencing between 3-4m of rain a year, which naturally suppresses dust, testing for respirable silica is conducted with an initial focus on higher-risk areas at Hidden Valley. Baseline data indicates that the risk of personnel contracting silicosis is negligible.

A total of 13 133 health examinations took place at Harmony medical centres in Papua New Guinea during FY17 (FY16: 13 131), of which 3 569 (FY16: 3 508) were random drug and alcohol tests.

**Upper respiratory tract infections**

The Hidden Valley mine is located approximately three kilometres above sea level and most employees reside in the lower, warmer areas; the regular change in altitude contributes to various respiratory ailments. Other factors contributing to these infections include low levels of personal hygiene in home villages and air-borne pollen during peak flowering times which affects air quality. The heavy rainfall all year round maintains high levels of humidity (around 80-90%) which creates favourable conditions for fungus, bacteria and viruses to proliferate.

A total of 2 427 employees were treated for respiratory ailments in FY17 (FY16: 2 438). The number of cases presented annually since FY12 has halved. An employee educational programme on respiratory ailments and gastro-intestinal hygiene has been successfully implemented.

**TB and HIV/Aids**

Hidden Valley has installed a digital X-ray machine and medical laboratory to accurately diagnose tropical diseases, TB and HIV/Aids. In FY17, five new cases of TB were reported during the year in Papua New Guinea (FY16: three).

More than 150 personnel underwent voluntary counselling and testing for HIV/Aids during the year at Hidden Valley.

**Malaria**

Malaria is endemic to many parts of Papua New Guinea, which includes work sites such as Wafi-Golpu and Lae but excludes Hidden Valley. Importantly, many employees and contractors working at Hidden Valley reside in areas where malaria is endemic, and this is where our community health projects play a vital role in combatting the disease.

Over the past two years, there has been a 22% decrease in the presentation of patients with malaria-like symptoms. This is as a result of several initiatives including support for provincial spraying and fogging programmes; standardised testing; the distribution of treated mosquito nets and treatment regimens; and ongoing malaria awareness education.

## HEALTH OBJECTIVES FOR FY18

### South Africa

- Continued improvement in health-related absenteeism rates, specifically a 12% decline in absenteeism
- Make the healthy healthier and create a healthy culture within the company, including contractors
- Provide a proactive, individualised well-being programme which includes health risk assessments and development of individual risk profiles
- Continue to lead the industry with our healthcare model

### Papua New Guinea

- Monitoring of industrial hygiene to be expanded at Hidden Valley

# EMPLOYEES AND COMMUNITIES

*A stable, engaged, skilled and motivated workforce has an important role to play in the successful achievement of our strategic business objectives.*

***Relevant Global Reporting Initiative indicators: G4-LA1, G4-LA9 and G4-LA12***

**Achievements FY17**

**In South Africa**

- Overall the employee relations environment has been stable and conducive to an improved working relationship
- Achieved management employment equity target of approximately 61%
- Human resource development expenditure: 5% of payroll (on target)
- Training in personal indebtedness: 19 621 employees trained to date (74% of workforce)
- Hostel accommodation: 100% single-room occupancy rate maintained
- Procurement expenditure with black economic empowerment entities of 78% exceeded Mining Charter targets

**In Papua New Guinea**

- Papua New Guinea citizens make up 95% of our workforce
- Employee training and development: 50 907 hours

**Challenges FY17**

- Retaining the skills and experience required to operate efficiently
- Managing inter-union rivalry
- Competition for high-level engineering skills

## WHY EMPLOYEES AND COMMUNITIES ARE MATERIAL TO HARMONY

A stable, engaged, skilled and motivated workforce has an important role to play in the successful achievement of our strategic business objectives.

Our employees contribute to the growth and development of our company and we, in turn, contribute to the growth and development of our people. Our aim is to provide the means for our employees to achieve a good quality of life for themselves and their families, and to provide the opportunity for each individual to develop to his or her full potential.

Similarly, the support and goodwill of host communities is vital to maintaining our social licence to operate, and we aim to leave an enduring legacy in those areas in which we operate. Ongoing positive, transparent engagement with communities is necessary to understand, manage and respond to community concerns and expectations.

At Harmony, we are committed to sustainable socio-economic development, to the well-being of our host communities and to ensuring that they have sustainable livelihoods once mines have reached the end of their operating lives. As these communities are those from which we draw our employees, their well-being and development underpin our own sustainability.

### OUR APPROACH

***Relevant Global Reporting Initiative indicators: G4-LA2***

Our human resources initiatives focus on four underlying goals:

Entrenching a single organisational culture

- Attracting and retaining employees with high potential
- Developing employees to meet operational skills requirements and improve efficiency
- Maintaining effective employee performance and leadership development management systems

Our employment policies, procedures and practices take into account and comply with the relevant labour legislation in South Africa and Papua New Guinea. Our recruitment initiatives focus on local communities in both countries. A review of all human resource procedures and policies is ongoing, including remuneration and incentive schemes.

Ongoing engagement with communities is necessary to understand, manage and respond to community concerns and expectations, especially where mines are near closure.

## EMPLOYEES

### PERFORMANCE IN FY17

**South Africa:** At the end of FY17, our employee complement totalled 30 990 (FY16: 30 441), with 85% (FY16: 85%) being permanent employees and 15% (FY16: 15%) contractors. More than 76% (FY16: 75%) of the South African workforce was drawn from local communities.

There were 2 002 employee terminations in FY17, of which 48% were due to medical incapacity, 11% resignations, 22% dismissals and 8% as result of death in service (natural causes). The employee turnover rate at the South African operations averaged 7% for FY17 (FY16: 9%).

**Papua New Guinea:** At the end of FY17, our employee and contractor complement was 2 211, excluding employees of the Wafi-Golpu joint venture. Of these, 59% were permanent employees and 41% were contractors. A total of 95% were local.

#### Employment and gender equity

***Relevant Global Reporting Initiative indicators: G4-EC6 and G4-HR3***

In all the areas in which we operate, a representative workforce is a moral and legislative imperative.

**South Africa:** Harmony reports quarterly on its employment equity plan and progress made to the social and ethics committee. Annual reports are submitted to the departments of Labour and Mineral Resources.

In FY17, 61% (FY16: 60%) of Harmony management were historically disadvantaged South Africans, exceeding the Mining Charter 2014 target of 40% for company-level compliance.

The proportion of women employed at management level in FY17 was 17% (FY16: 17%). There is no difference in salary scales for men and women at Harmony.

| Employment equity performance by category – South Africa as at June 2017 | | |
|---|---|---|
| **Occupational category** | **Historically disadvantaged South Africans (target = 40%)** | **Women employed by category (%)** |
| Board | 57 | 14 |
| Top (executive) management | 50 | 20 |
| Senior management | 49 | 26 |
| Middle management | 50 | 20 |
| Junior management | 63 | 16 |
| Core and critical skills | 59 | 11 |

**Papua New Guinea:** Emphasis is on attracting and retaining locally-recruited employees, particularly landowners and local citizens. Operations are governed by a three-year training plan lodged with the local Department of Labour in terms of which we ensure that local employees receive ongoing training and succession is managed.

In all, 97% (FY16: 95%) of employees at Hidden Valley were local. In all, 12% of employees in Papua New Guinea are women.

### Employee share ownership: South Africa

Launched in FY12, the Tlhakanelo Employee Share Ownership Plan applied to all eligible non-managerial employees.

The 2012 Tlhakanelo Employee Share Ownership Plan came to an end in March 2017. For more details on this share ownership plan and employee remuneration, please refer to the *Remuneration report.*

### Employee engagement

In applying our "connectedness" value, we ensure that employees feel part of the Harmony family. Internal communications, a continuous interactive process, allows employees access to information and provides an opportunity to engage with management. This includes regular meetings with heads of departments, work groups and general manager engagement platforms (mass meetings and quarterly productivity meetings), as well as in-depth quarterly internal campaigns to drive important messages across the group, such as safety, ethics and wellness, among others. We also make use of print (posters, internal newsletters, memos and flyers), digital media (email, mine television, intranet, website and text messaging) and social media (Twitter).

The chief executive officer communicates regularly with employees by e-mail, at meetings and during internal roadshows.

For employees to be committed, productive and passionate about their jobs, they need to feel valued, which in turn increases morale, productivity and participation because they feel empowered to communicate openly. To this end, we ensure that our employees understand their roles within the company, their contribution to the overall company objectives and what is happening in the industry. They are the first to hear important news. Regular employee engagement involves communication both to and from employees. Furthermore, suggestions made by employees are taken seriously and acted upon.

Following the acquisition in full of Hidden Valley in Papua New Guinea, Harmony's values were launched to both employees and local communities.

**Employee relations**

Development of a new employee relations framework is underway. Progress has been slower than anticipated, having been hindered by inter-union rivalry, primarily between the National Union of Mineworkers (NUM) and the Association of Mineworkers and Construction Union (AMCU).

**Union leadership empowerment programme**

An empowerment programme, initiated in FY15, continues. The programme aims at sharing business imperatives and performance, company strategy and an understanding of business principles with labour unions. The unions understand the financial health of each operation and are included in decision-making and the future of operations.

**South African gold wage negotiations**

***Relevant Global Reporting Initiative indicators: G4-EC5***

Harmony negotiates changes to wages and other conditions of employment through a recognised collective bargaining structure at a centralised industry forum under the auspices of the Chamber of Mines. In October 2015, a three-year wage agreement was reached with the unions representing the majority of employees at Harmony and was extended to all employees in the bargaining unit. As this agreement will end in June 2018, the next round of wage negotiations in the sector is due to start in the coming calendar year. For more information, refer to *www.goldwagenegotiations.co.za*

**Labour disputes and strikes**

***Relevant Global Reporting Initiative indicators: MM4, G4-LA16 and G4-HR11***

Labour disputes and strikes are considered a material issue as, in addition to the resulting loss of production, disputes affect morale and reputation, and present a risk to non-striking employees, communities and company assets. Several instances of unprotected strike action at Kusasalethu occurred in the second half of the year.

We endeavour to maintain peace and stability in our workforce at all times. We want our employees to feel and be safe at work.

Our multi-union environment promotes co-existence, inclusion and collaboration. In addition to quarterly regional meetings with unions, we also encourage proactive and robust engagement to address particular issues. As communication is ongoing at all levels, we are in daily contact with full-time stewards while our general managers and human resources leaders interact regularly at branch level and with shaft committees.

Discussions are currently underway with various unions on an employee relations policy framework. Disciplinary action against AMCU is also proceeding regarding the three unprotected strikes at Kusasalethu during the year.

**South Africa:** To mitigate the risk of labour disputes, we engage frequently with organised labour at mine and company level, in addition to direct engagement with employees. We are proactive in addressing employees' queries through established structures and processes.

Various initiatives address the scourge of employee indebtedness, which have had the added benefit of improving employee morale and engagement. These include, among others, financial literacy and personal indebtedness training. In all, 19 621 employees or 74% of the workforce (FY16: 16 033 or 62%) have attended the financial literacy and debt counselling programme since its launch in September 2013. A particular focus is the suspension of non-statutory payroll deductions and notifying employees about emolument attachment orders against their pay. The legal validity of these attachment orders is verified before they are actioned.

**Papua New Guinea:** We engage continually with all stakeholders, including employees, contractors, national, provincial and local government, landowners and regulators.

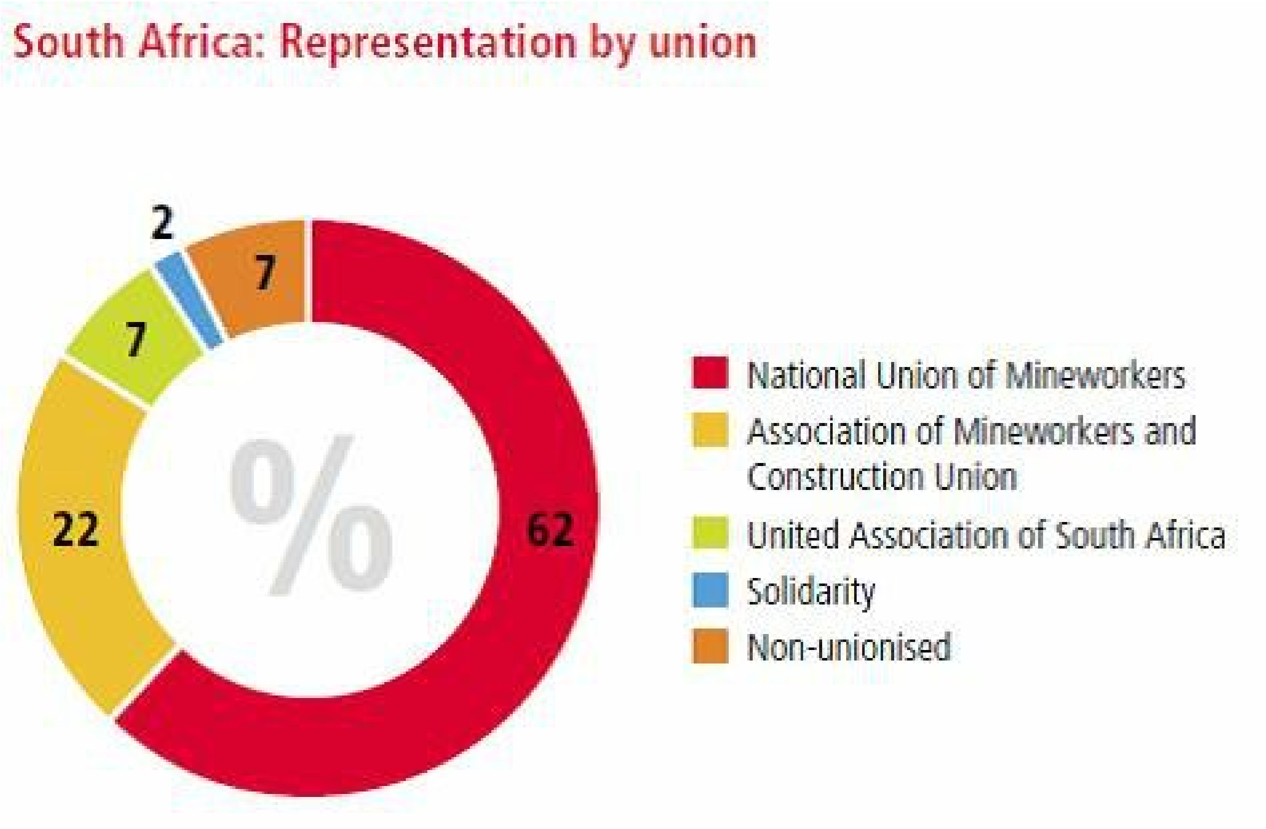
### Freedom of association

***Relevant Global Reporting Initiative indicators: G4-HR4***

At Harmony, employees and contractors have the right to freedom of association. We participate in collective bargaining processes and adhere to the resulting collective agreements in each country. We strive for honest, two-way discussions through collective bargaining.

**South Africa:** Harmony recognises four labour unions. Union representation in FY17 was as follows: NUM at 62% (FY16: 60%), AMCU at 22% (FY16: 24%), the United Association of South Africa at 7% (FY16: 8%) and Solidarity at 2% (FY16: 2%). Some 7% (FY16: 6%) of employees did not belong to a union.

**Papua New Guinea:** There are no active unions. Industrial relations at Hidden Valley is currently overseen by an employees' representative committee.




**Training and development**

**South Africa**

***Relevant Global Reporting Initiative indicators: G4-LA9***

All training and development programmes are aligned with the company's strategic and operational needs and include skills development, adult education and training, learnerships, graduate development, talent management, and supervisory and leadership development. In FY17, 5.0% of the payroll was spent on human resource development (FY16: 5.3%).

Following its approval, a leadership development competency framework is to be rolled out in the coming year. This framework is part of the initiative to improve organisational efficiency and innovation, and includes training and development programmes aimed at improving leadership effectiveness and the supervisory development programme.

In addition to upskilling employees, we recognise and devote considerable time and effort to identifying community members who could benefit from bursaries, work experience, internships and the bridging school. Priority is given to local students. Most pleasingly, we were able to employ 92% of the students who had successfully completed their internship into available permanent positions.

In FY17, 92% (FY16: 92%) of our workforce attended training and skills development at a cost of R409 million or US$30.1 million (FY16: R364 million or US$25.1 million). This included South African-based research and development initiatives in exploration, mining, processing, technology efficiency, beneficiation and environmental conservation.

In all, 75 people (FY16: 68) received training in critical skills, such as mentoring, hazard identification and risk assessment, mineral resource management and various others, through study assistance programmes. In addition, another 183 employees attended the supervisory development programme intended to equip employees with the skills to better manage and lead their teams.

***Adult education and training***

***Relevant Global Reporting Initiative indicators: G4-LA10***

Adult education and training centres at our South African operations run full-time classes to ensure that employees are functionally literate and numerate so as to enable personal growth and promote transformation.

In FY17, 537 employees attended adult education and training (FY16: 412) and eight (FY16: two) community members at a cost of R38 million or US$2.8 million (FY16: R28 million or US$1.9 million). The overall average pass rate increased to 66% in FY17 (FY16: 56%), an 18% improvement on the previous year.

E-learning programmes were piloted in August 2015 and since then five operations have rolled out adult education and training e-learning programmes, which adult learners may complete in their own time. E-learning is expected to increase the number of participants as employees will be able to study after hours at their own pace.

Harmony's literacy rate has improved to 80% of the total workforce.

***Bursary programme***

On completion of their studies, student bursars can apply for Harmony's graduate development programme. A total of 76 bursaries (FY16: 52) were awarded to students studying at tertiary institutions in the 2017 academic year. Of the bursaries awarded in 2017, 70 or 92% (FY16: 51 or 98%) of the students came from local communities and the balance from the provinces in which we operate. The pass rate for our bursars for the 2016 academic year exceeded 90% for all modules written.

***Bridging school***

Harmony's bridging school supports mathematics and science at grade 12 level to assist school leavers to improve their final results and gain admission to tertiary institutions. On successful completion of grade 12, some are awarded bursaries while others applied for learnerships with the company.

Since the school's inception in 1996, we have registered 430 students in all. Of these, 27 (6%) were awarded bursaries and 330 (77%) attended our learnership programme. The balance were appointed to various permanent positions within Harmony.

***Learnerships***

Harmony runs a formal learnership programme. In FY17, 152 learners (FY16: 214) were enrolled at different levels of the learnership programme. Of the total number enrolled, 123 (FY16: 100) completed their learnerships. Most were appointed to positions available within the company.

***Internship and experiential programmes***

In support of our social and labour plans, we hosted 49 students (18 internships and 31 experiential trainees) during FY17 (FY16: 65 students – 30 interns and 35 experiential trainees).

***Social plan programme***

We continue to provide alternative skills training to employees, both current and retrenched, through our social plan programme, which was facilitated by the framework agreement between Harmony and NUM in 2003. The training provided enables people to remain economically active beyond mining, cushioning the economic impact of unavoidable retrenchments or the loss of employment when mines reach the ends of their lives.

***Portable skills development***

In FY17, 1 631 employees (FY16: 1 545) received portable skills training. Around 63% (FY16: 52%) were proxies (dependants of mine employees). The number of people receiving such training has almost quadrupled in recent years. Over the past nine years, Harmony has provided portable skills training to 7 631 employees (and/ or their proxies) – in basic electrical maintenance, end-user computing, basic welding, basic motor mechanics, clothing manufacture, furniture making, plumbing, bricklaying, animal husbandry and mixed farming systems.

**Papua New Guinea**

In FY17, workforce training events conducted at Hidden Valley included:

- Production training
- Safety compliance training
- National Training Council Accreditation compliance
- Professional development
- Computer software courses
- Supervisor development programme

***Employee educational support***

Harmony provided educational support to 352 Hidden Valley employees (FY16: 347) and their dependants.

### Housing and living conditions in South Africa

| Housing and accommodation | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | 2016 | | 2015 | |
| | Target (%) | Planned | | | % | Achieved | % | Achieved |
| Residences (hostels): single room occupation[1] | 100 | One person per room | **100** | **8 796** | 100 | 8 796 | 100 | 8 695 |
| Hostels (non-operational): conversion to family units | 100 | 1 100 | **86** | **945** | 86 | 945 | 84 | 927 |
| Facilitation of home ownership[2] | | 4 700 | **69** | **3 231** | 66 | 3 117 | 63 | 2 961 |
| **Total** | | | **85** | | **84** | | **82** | |

[1] *The number of single rooms available*

[2]

*Houses sold to employees and other housing development programmes (actual achieved will depend on employee affordability profiles and the ability to obtain finance). Certain elements are beyond Harmony's control, such as whether employees are granted bonds or receive state subsidies. Bank lending, affordability and indebtedness remain stumbling blocks to increased home ownership.*

Of those employees residing in our hostels, all are accommodated in single rooms. Of the 1 100 family units to be built over three years, 945 (FY16: 945) units have been built to date – 86% (FY16: 86%) of the total planned. This includes 448 family units built at the Merriespruit housing project, which has now been completed. Post year end, the Merriespruit housing project was awarded first place in the provincial community residential unit category in the Free State.

To further facilitate home ownership, we subscribe to and support the pension-backed home loan scheme negotiated for the industry by the Chamber of Mines. In all, 1 772 (FY16: 1 072) of employees used this facility with a reduction in the number of subscribed employees paying off their loans. During FY17, 100 (FY16: 156) houses were purchased by way of a 'rent-to-own scheme'.

Negotiations are currently underway with the local Merafong municipality and other interested parties regarding the construction of Deelkraal rental units, close to Doornkop and Kusasalethu. The municipality has requested that the entire area be formalised. A costing for the provision of bulk services and a population demographics study are to be undertaken as preparatory steps in the process. Harmony will contribute a portion of land for the proposed township, once an application for the relevant subdivision has been approved.

Progress is being made with the construction of the 10 Doornkop family units. A contractor has been appointed and construction is scheduled to be completed by December 2017. A key aspect of this project is to provide mine housing for the future. The design of the housing units incorporates new energy efficient and building systems.

While all existing mine housing is offered to employees at affordable rates, the sale of those in Wedela, near Kusasalethu, is progressing slowly, owing to the inaccessibility of funding. Alternative funding models are being put in place and to date 12 houses have been sold.

## HUMAN RIGHTS – FOR EMPLOYEES AND COMMUNITIES

***Relevant Global Reporting Initiative indicators: G4-LA14, G4-HR3, G4-HR10 and G4-HR12***

Respect for human rights is entrenched in and underpins our values. Human rights are specifically catered for in our human resource policies, charters and contracts of engagement. The human resources function and community engagement managers closely monitor our human rights performance at an operational level.

We abide by the human rights conventions of the International Labour Organization, as supported by the South African Constitution. At group level, adherence is monitored by the social and ethics committee. In addition, certain human rights requirements are incorporated in supplier contracts.

The South African Constitution also prohibits forced, compulsory or child labour. None of Harmony's operations are at risk of human rights contraventions and no contraventions of these principles were alleged or reported in FY17.

An employee survey based on the United Nations Global Compact on labour and human rights was conducted at four operations. The survey highlighted that Harmony's employee development programmes were aligned with best practice.

Key areas to be addressed include improved monitoring of internal labour policies, improved communication on employment contracts to lower category workers, enhancing prevention mechanisms for workplace disputes, providing greater clarification on policy guidelines regarding the use of private security and the security of employees, the need for clear policy and procedures on workplace harassment, and sexual harassment in particular, and greater monitoring of contractors' conditions of employment to ensure that these are aligned with Harmony's. Once the survey's recommendations have been thoroughly considered, an action plan will be developed to address shortcomings.

# COMMUNITIES

## SOCIAL AND LABOUR PLANS

***Relevant Global Reporting Initiative indicators: G4-EC4***

Harmony's South African operations are governed by approved mining rights, each of which is bound by an agreed and approved social and labour plan. Our social and labour plans include local economic development initiatives executed in terms of the Mining Charter, the Mineral and Petroleum Resources Development Act and the codes of good practice for the minerals and mining industry. Refer to our *Mining Charter Compliance Scorecard* for the current status of our achievements in terms of the targets detailed in the Mining Charter 2014.

We identify appropriate local economic development initiatives and projects through stakeholder engagement and in partnership with communities, government departments, municipalities, educational institutions, non-governmental organisations, and the governments of Lesotho and Mozambique.

For the five-year social and labour plan cycle ending December 2017, our social and labour plan commitments entailed total planned expenditure of R844 million (US$57.3 million) by government and Harmony, of which, as at 30 June 2017, R494 million (US$38.0 million) had been spent (FY16: R430 million; US$33.3 million). Of this, R418 million was spent on mine community development projects, which included R303 million from government for two legacy projects, the conversions of the Masimong and Merriespruit 3 hostels into residential units.

As our social and labour plans are aligned with local municipal integrated development plans, we ensure we make relevant and sustainable contributions to local communities. At regular Harmony-led community forums, stakeholders meet to discuss and agree on key projects for host communities. The aim is to identify and develop industries lacking in the local economy as well as the enterprises necessary to service those industries.

As a result of somewhat improved levels of profitability at certain mines in FY17, expenditure on local economic development in South Africa increased to R24 million or US$1.7 million in FY17, after a decline in FY16 (FY16: R17 million or US$1.2 million).

Several local economic development projects are underway in labour-sending areas, and an agreement is in place to provide home-based care to medically incapacitated employees in all areas.

## SOCIO-ECONOMIC INVESTMENT

***Relevant Global Reporting Initiative indicators: G4-SO1 and G4-SO2***

We are committed to the sustainable socio-economic development and well-being of our host communities long after mining has ceased. We endeavour not just to comply with laws and regulations but to conduct regular meetings with stakeholders, such as government and community leaders, to address concerns, grievances and misperceptions.

| Annual local economic development spend | | | | | | |
|---|---|---|---|---|---|---|
| | | | FY16 | | FY15 | |
| | | | R million | US$ million | R million | US$ million |
| South Africa | 24 | 1.7 | 17 | 1 | 63 | 6 |
| Papua New Guinea | 3 | 0.2 | 1 | 0.1 | 1 | 0.1 |
| **Harmony – total** | **27** | **1.9** | **18** | **1.1** | **64** | **6** |

### Sustainable human settlement initiatives

Harmony makes available land to provincial and local governments for the development of integrated human settlements. On the West Rand, land valued at R7 million in Mohlakeng Extensions 13 and 14 was donated to the province of Gauteng. To date, 1 200 houses have been built in line with government's reconstruction and development programme. An updated housing programme, based on government's breaking new ground housing strategy, aims to promote an integrated society by developing sustainable human settlements and quality housing within a subsidy system for different income groups. An additional 291 units are currently under construction. Of these, qualifying Harmony employees will be entitled to 100 units, as part of the land availability agreement with the province.

In support of the housing project, an industrial development initiative with local stakeholders is in underway. Harmony will lease land adjacent to the housing project for the establishment of a motor industry-related industrial hub. This project will provide economic and job opportunities for the area.

In addition, existing mine houses are sold to employees at discounted selling prices. To assist with affordability, a pension-backed loan scheme is being facilitated by the company. To date, more than 100 houses have been sold through this scheme, which is open to all employees.

In the Free State, Harmony is funding three spatial development frameworks in conjunction with the respective municipalities. These are the Masimong-Thabong, Virginia Core Area and the Merriespruit spatial development frameworks. The function of these frameworks is to include mining infrastructure and mine housing into the municipal areas. These initiatives will create home-ownership options for employees and job creation for the communities.

Harmony also makes available 'social leases' to businesses and organisations. These are redundant mine buildings that are rented at below-market rates to assist small, medium and micro enterprises, and charity organisations with affordable accommodation. Such buildings have also been donated to schools and orphanages.

### Corporate social responsibility

Our corporate social responsibility policy recognises the need for socio-economic investment in South Africa and Papua New Guinea, starting with the broader communities in which we operate, and our activities are considered, approved and monitored at board level by the social and ethics committee.

In FY17, Harmony spent R11 million or US$0.8 million (FY16: R9 million; US$0.6 million) on corporate social responsibility projects, including the funding of development programmes for small, medium and micro enterprises.

In all, 375 jobs were created in South Africa during the year (FY16: 324). Details of upliftment projects are available at *www.harmony.co.za/sustainability.*

**South Africa**

In FY17, Harmony spent R10 million on corporate social investment in South Africa, mostly on education, socio-economic development projects, sports, broad-based black empowerment and enterprise development, and health.

The five largest projects of FY17 were:

- Construction of eight classrooms at the Leboneng Special School in Welkom (R1.8 million)
- Construction of a multi-purpose sports court in Soweto (R1.5 million)
- Sewing project – Doornkop Phuthadichaba Organisation (R235 000)
- Sugar honey bee farming project (R198 000)
- Mandelaville vegetable gardening project (R158 000)

In selecting projects and compiling our strategy on corporate social investment, we conduct research, consult with the communities to understand their need and requirements, and we engage with various municipal structures.

Ongoing corporate social investment includes our sponsorship of the National Science Olympiad Awards and Enactus. Harmony has been the chief partner and sponsor of the National Science Olympiad event since 2009, contributing more than R16 million over the years towards identifying talent, encouraging excellence in maths and science, and stimulating interest in the science subjects.

Harmony, a platinum level sponsor of Enactus for 11 years, has contributed more than R22 million to this initiative to date. In FY17, 2 839 students representing 74 community outreach projects around the country participated in the national Enactus competition. The national championship was won by the University of Zululand, which represented South Africa at the Enactus World Cup in London in September 2017.

Harmony is continuing to fund research into specific rock engineering issues at the University of Pretoria in support of providing a safer working environment in deep-level hard rock mines. In FY17, we contributed R5 million (US$0.4 million) to this research project.

**Papua New Guinea**

In Papua New Guinea, regulatory control vests in a memorandum of agreement between Harmony, various national, regional and local governments, and the Hidden Valley landowner association with similar social commitments to those in South Africa. Corporate social responsibility projects and programmes are considered, approved and monitored by the head of our South-east Asian operations.

Corporate social responsibility expenditure remained focused on health, education, agriculture and infrastructure in FY17. Harmony's infrastructure programme at the Hidden Valley mine focuses on constructing, repairing and upgrading roads, bridges, educational facilities, health facilities and water supply in the landowner and local community villages.

Two social responsibility programmes for the Wafi-Golpu project are showing positive results:

- An adult literacy and numeracy pilot programme started in 2014 with most participants being women. In addition to being able to read bibles in church services and write short stories, women are also gaining confidence in speaking at community meetings about subjects affecting their livelihood
- Assistance has been provided to the Lower Watut cocoa farmers who are now selling up to 300t of cocoa beans annually, which is approximately double their historical production level. In 2015, their cocoa beans were ranked top five in the world by the International Cocoa of Excellence show in Paris, France and in 2017 a Lower Watut cocoa fermentary received a bronze award at a country-wide cocoa show. See *Noteworthy action.*

***Agriculture development programme***

During FY17, community training was conducted in six local villages, with a total of 129 people being trained in coffee husbandry and quality control. Six model solar dryers for coffee processing were constructed.

Terms of reference were developed for coffee and fresh produce farmers. An external resource was invited to bid for this exercise.

***Community education programmes***

A team comprising representatives from both government and Hidden Valley visited various schools and health facilities in the villages of Nauti 1, Nauti 2, Manki Tawa, Yokua Kaisenik, Nato, Pararoa and Menianda. In addition, basic stationery, library books, text books for the standard-based curriculum, as well as volley balls were delivered to local elementary and primary schools.

Harmony supported elementary schools in the Bulolo District by sponsoring the supply and delivery of Tutu Desks. In all, 900 desks were delivered to the schools. Harmony's South-east Asia executive committee attended the launch of this programme.

**Community projects**

Six water supply projects, with a total budget of R3 million (US$0.2 million), were approved by the Benefit Sharing Agreement Trustees for the principal Hidden Valley landowner villages including: Nauti, Kwembu, Winima, Greenhill, Akkikanda and Minava. Three of the projects (Nauti, Kwembu and Greenhill) have been completed, two are in progress and one is yet to start. Once completed, these water projects will benefit a population of 2 200 people.

Other projects to which Harmony is contributing in Papua New Guinea:

- Maintenance of critical sections of the Lae-Bulolo highway
- Fencing of the Wau Airstrip and grading of an alternative road access to Wau
- Contributed to outstanding power bills for the Wau Hospital
- Sponsored the Lae-Bulolo-Wau leg of the World Cup Rugby League tour

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NOTEWORTHY ACTION

**Lower Watut cocoa farmers project**

In Papua New Guinea, Harmony through the Wafi-Golpu project joint venture, has been providing training and assistance to the Lower Watut Farmers' Co-operative Society in Morobe Province since 2010. Around 1 000 farmers in 42 cluster groups from 10 villages make up the Lower Watut Farmers' Co-operative Society. Their aim now is to further increase yields and the quality of the cocoa beans produced and to begin export to global markets.

The Wafi-Golpu joint venture has also assisted with the supply of 150 000 hybrid seeds. The cocoa farmers began harvesting these hybrids in 2014 and production has steadily increased – from less than 150t of cocoa beans in 2010 to around 300t annually. The hybrid seeds are expected to last for another 15 years before they need to be replaced. The joint venture will soon oversee the installation of five new fermentaries to supplement the three provided in 2013. Once set up, the fermentaries will further increase production. For further detail on the cocoa farmers' project, see www.harmony.co.za/sustainability.

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## PROCUREMENT

***Relevant Global Reporting Initiative indicators: G4-LA15 and G4-SO10***

Extending our supplier network to include emerging businesses enables a more equitable distribution of economic benefits.

**South Africa**

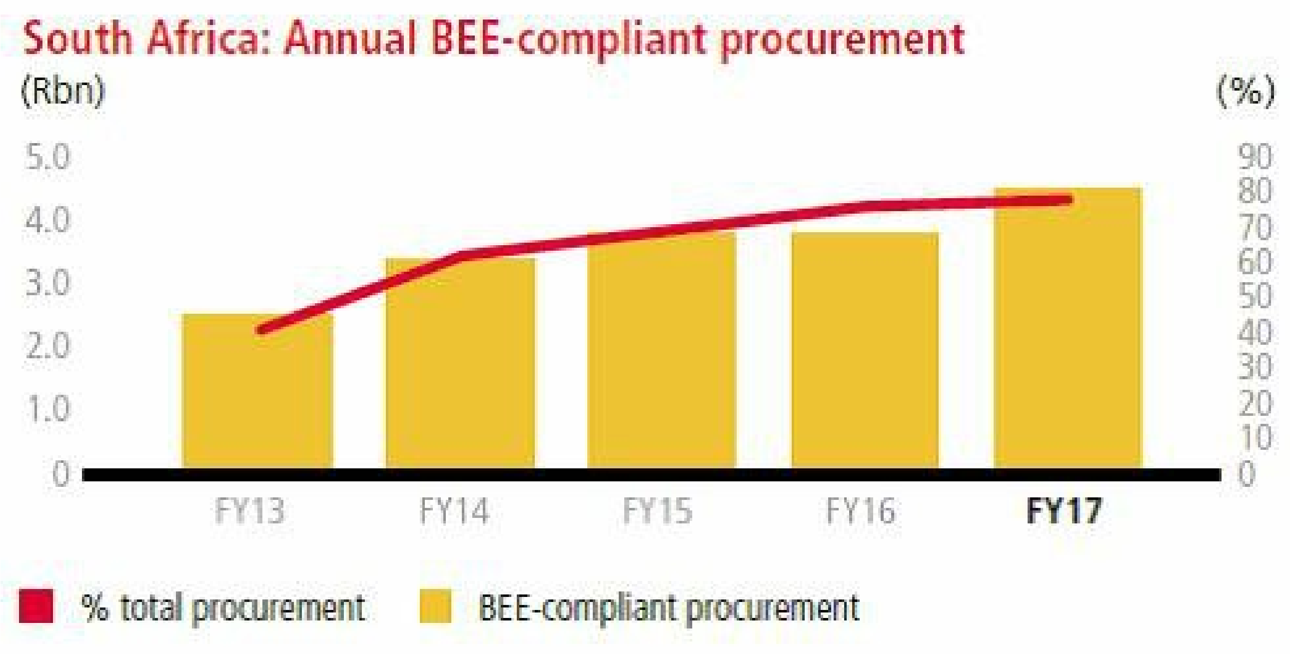
Our preferential procurement strategy complies with legislation, and procurement processes and expenditure are governed by our group strategy and policy. We support this approach by helping to develop the business management skills required for emerging enterprises to succeed.

Our preferential procurement strategy encompasses:

- regional enterprise development centres, which make it easier for qualifying suppliers to do business with our company
- amending tender policies to help Harmony meet Mining Charter requirements
- measuring each mine's procurement from historically disadvantaged South African entities against targets in the Mining Charter scorecard
- small, medium and micro enterprises and/or historically disadvantaged South African-compliant vendor development aimed at maintaining acceptable standards

Our preferential procurement strategy promotes expenditure with companies recognised as black economic empowered entities under the Mining Charter.

In FY17, procurement expenditure with black economic empowerment (BEE) entities was R4.4 billion or US$323 million (FY16: R3.4 billion or US$0.2 billion); equivalent to 78% (FY16: 76%) of total discretionary spend.




| South Africa: Our performance in relation to the Mining Charter's black economic procurement targets as a percentage of total spend: | | | | |
|---|---|---|---|---|
| **Category** | **Mining Charter target** | **FY17*** | **FY16*** | **FY15*** |
| Capital goods | 40 | **78** | 81 | 76 |
| Services | 70 | **80** | 79 | 70 |
| Consumables | 50 | **78** | 76 | 66 |
| ** Calculation is based on Harmony's financial year.* | | | | |

**Papua New Guinea**

As agreed with government authorities (local, regional and national), landowners and communities, we issue contracts to local companies wherever possible.

Supply expenditure by Harmony in FY17 amounted to R2.7 billion or US$198 million (FY16: R2.9 billion or US$203 million) of which R1.0 billion or US$75.4 million (FY16: R1.8 billion or US$123 million) was expended in Papua New Guinea. Of this amount, R725 million or US$53.3million (FY16: R734 million or US$51 million) was spent in Morobe Province on goods and services. Contracts were awarded by Harmony to local landowner companies for catering, fuel haulage, general freight, plant hire, security, labour hire, cleaning, rehabilitation and bus services.

## ENTERPRISE AND SUPPLIER DEVELOPMENT

### South Africa

Harmony established the Phakamani and Leano small business funds in all host communities in South Africa to fund and promote small, medium and micro enterprise development. Since inception, Harmony's visibility in the host community has increased significantly and the Leano initiative has approved 35 transactions with a total value of R6.8 million.

During FY17, Harmony established the Soweto-Doornkop Hub and the first local company has been selected for funding. Interactive campaigns were also conducted in the mining communities of Matjhabeng and Masilonyana in the Free State to promote awareness among local entrepreneurs on this funding initiative/programme.

Since inception, the Leano initiative has supported 29 enterprises. In all 14 women and 14 youth entrepreneurs are being assisted. Two workshops, attended by 14 entrepreneurs, were held and six companies are currently being mentored on a full-time basis.

To date, four companies are being funded by this initiative and are under incubation – three engineering businesses and one armature rewinding business. Two of these are youth-owned. In addition, a women-owned business producing achaar is also being funded.

### Papua New Guinea

In line with Hidden Valley's current memorandum of agreement, Harmony continues to offer and encourage business development opportunities to landowners. Similar opportunities are expected to be available with the proposed development of the Wafi-Golpu project.

# ENVIRONMENTAL PERFORMANCE

**Achievements FY17**

**In South Africa**

- Drilling of boreholes in local communities to supply water during the drought
- Recycling water to reduce dependency on potable supply
  - Two water treatment plants being built in Welkom to reduce potable water consumption by 30%
  - 5ML plant installed at Doornkop to generate potable water
  - Water treatment plant installed at Kusasalethu
  - Partnership with solar energy providers in Welkom
  - Environmental impact assessments approved for 10MW plants at Eland, Nyala and Tshepong
- Bio-energy plant being commissioned for commercial production
- Energy efficiency initiatives continue to reduce electricity consumption

**In Papua New Guinea**

- Environmental inception report for the Wafi-Golpu project approved by the Conservation and Environment Protection Authority
- Environmental impact statement for the Wafi-Golpu project being prepared – includes feasibility of potential for deep-sea tailings placement and on-site power generation

**At group level**

- Achieved our five-year energy consumption target in FY17
- A listings for performance and reporting on climate change and water from the Carbon Disclosure Project (CDP)

**Challenges FY17**

- Two significant incidents
  - Overflow of process water dams due to heavy rainfall in Welkom and Carletonville with no material impact
  - Failure of sewa pump station at Kusasalethu

**In Papua New Guinea**

- At Hidden Valley, a significant oil spill of approximately 9 500 litres occurred when forklift tynes pierced a shipping container and containment bladder

## WHY THE ENVIRONMENT IS MATERIAL TO HARMONY

We are aware that our activities and processes can negatively impact the natural environment in which we operate. We therefore accept responsibility for preventing, mitigating, managing and minimising these impacts.

## OUR APPROACH

We aim to manage our environmental impacts, related risks and liabilities, and comply with environmental legislation, as responsible stewards upholding a culture that shares knowledge and experience within and outside our group.

Our social and ethics committee oversees Harmony's environmental strategy and performance while an executive environmental manager and environmental leadership team motivate environmental improvement strategically at group level. General managers are accountable for environmental management at each operation in terms of annual environmental management plans that identify opportunities for improvement.

Our environmental strategy is supported by our board-approved environmental policy, available at *www.harmony.co.za/sustainability/governance#policies.* Operations are guided by technical and performance standards, which are incorporated into environmental management systems and implemented in line with ISO 14001. Our commitment to responsible environmental stewardship, and sustainable mining and closure, is outlined in this policy. Environmental management programmes include detailed closure plans for each operation within five years of planned closure to expedite beneficial post-mining land use and sustainable community livelihoods.

In South Africa, by year-end, seven of our mining operations and five of our processing plants had been certified in terms of ISO 14001.

All the South Africa operations are either ISO14001 certified and/or operate in compliance with this standard. Continual improvements are noted year on year. The Joel, Target, Harmony One, Central, Doornkop and Kusasalethu plants were recertified in accordance with the International Cyanide Management Code in FY17, illustrating the responsible environmental practices being applied in relation to cyanide management.

In Papua New Guinea, Hidden Valley's environmental management plan is aligned with the ISO 14001 standard, and all new employees receive environmental awareness training, which is reinforced by leadership training courses and monthly initiatives.

### Environmental legislation

### South Africa

Our activities are regulated by, among others, the Mineral and Petroleum Resources Development Act, 2002 (Act No 28 of 2002), the National Environmental Management Act, 1998 (Act No 107 of 1998), the National Water Act, 1998 (Act No 36 of 1998) and the National Nuclear Regulator Act, 1999 (Act No 47 of 1999). Environmental management programmes for each operation are approved by the Department of Mineral Resources.

In the year under review, Harmony, together with the Chamber of Mines, met with the Department of Environmental Affairs to clarify our obligations as a mining right holder in terms of the Financial Provision Regulations under the National Environmental Management Act. On 21 September 2016, the Department of Environmental Affairs notified the Chamber of Mines that amendments were being considered.

We also await promulgation of amendments to the regulation of tailings storage facilities to which the norms and standards for landfill sites had been applied in terms of the National Environmental Management: Waste Act, 2008 (Act No 59 of 2008), until the Chamber of Mines engaged with the Department of Water and Sanitation to remove residue deposits from this legislation. We expect regulation to revert to the Mineral and Petroleum Resources Development Act once promulgated.

**Papua New Guinea**

Water extraction and waste discharge for mining projects are regulated by applicable environmental legislation issued by the Conservation and Environment Protection Authority (formerly the Department of Environment and Conservation). Part 1 of the Environment (Amendment) Act 2014, which constitutes major and substantive amendments to the Environment Act 2000, has not yet been gazetted.

## PERFORMANCE IN FY17

***Relevant Global Reporting Initiative indicators: G4-EN22***

We spent a total of R74 million (US$5.5 million) (FY16*: R91 million; US$6.3 million) on our environmental portfolio in FY17 of which R54 million (US$3.9 million) (FY16*: R75 million; US$5.2 million) was spent in South Africa and R21 million (US$1.5 million) in Papua New Guinea (FY16: R16 million; US$1.1 million). During FY17, we spent R14 million (US$1.0 million) on the implementation of the bio-energy initiative in South Africa. To date, a total of R63.8 million (US$4.9 million) has been spent on this project. In addition, Harmony spent a total of R80 million (US$5.9 million) (FY16: R44 million; US$3.1 million) on various rehabilitation projects in South Africa in FY17.

** Restated to include expenditure on the Doornkop (R21 million, US$1.4 million) and Kusasalethu (R1 million, US$0.1 million) water treatment plant infrastructure.*

## ENVIRONMENTAL INCIDENTS

***Relevant Global Reporting Initiative indicators: G4-EN24, G4-EN29, G4-EN34***

We monitor, report and remediate environmental incidents, including direct or indirect discharges of water beyond our mining area, in terms of environmental management plans. Environmental incidents are classified on a scale from 1 to 5 and we report incidents at level 3 and higher (from serious medium-term environmental effects to significant impacts on sensitive species, habitats or ecosystems).

***Relevant Global Reporting Initiative indicators: G4-EN8, G4-SO8***

In FY17, we reported seven level 3 incidents in South Africa and one in Papua New Guinea:

| Date | Location | Description | Steps taken in mitigation |
|---|---|---|---|
| Q1 FY17 | Kusasalethu | Process water overflow owing to faulty anti-pollution sump | Pump repaired and the cyclical pumping system restored. Instream water sampling indicated water quality was within acceptable levels. The incident was reported to Department of Water and Sanitation and closed out. The site is monitored continuously to avoid a repeat of the incident |
| Q3 FY17 | West Rand and Free State operations | Incidents related to process water overflows following heavy late-summer rains | Flash floods depleted holding capacity albeit that it was designed for a one in a 100-year storm event |
| Q3 FY17 | Kusasalethu | Pump station failure resulted in sewerage discharge onto golf course | Pump station was included in the engineering maintenance programme to ensure no further overflows and an extra pump station was installed for emergency situations |
| Q2 FY17 | Hidden Valley | A significant oil spill of +9 500 litres caused by forklift tynes piercing a shipping container full of oil | Prompt bunding of the immediate area minimised the impact on the environment. The incident was reported to the regulatory authority and immediate steps taken to mitigate the risk of a similar incident by changing container handling procedure so that oil containers are consistently marked as dangerous goods |

## REHABILITATION, LAND MANAGEMENT AND ENVIRONMENTAL CONSERVATION

***Relevant Global Reporting Initiative indicator: MM1***

We acknowledge that we must rehabilitate the land impacted by our mining and mining-related activities in order to ensure sustainable post-mining land use. Rehabilitation ahead of closure is therefore included in planning throughout the life of mine. The necessary rehabilitation funding mechanisms are in place and, where feasible, infrastructure is refurbished for alternative use. As only a small proportion (14%) of the land covered by our mining rights has been disturbed by mining, opportunities for progressive and concurrent rehabilitation are limited at this stage. Our focus to date has been to rehabilitate decommissioned shafts which have been linked to ingress by illegal miners.

**Land under management (ha)**

| | Mining right area to date | Land disturbed* | Land rehabilitated | |
|---|---|---|---|---|
| | | | | FY16 |
| Kalgold | 991 | 515 | **0** | 0 |
| Kusasalethu and Deelkraal | 5 605 | 312 | **0** | 0 |
| Doornkop | 905 | 296 | **0** | 0 |
| ARMgold shafts (1, 2, 3, 4, 6 and 7) | 5 980 | 338 | **4** | 0.1 |
| Joel (1 and 2) | 2 162 | 253 | **0** | 0 |
| Target (1, 2 and 3) | 4 327 | 365 | **0** | 0 |
| President Steyn South (Steyn 1, 2 and plant) | 1 847 | 34 | **7** | 16 |
| President Steyn North (Steyn 7 and 9) | 1 651 | 193 | **0** | 0 |
| Virginia, Masimong, Saaiplaas, Unisel, Merriespruit, Harmony and Brand | 22 583 | 3 397 | **5** | 5 |
| Bambanani, Joint Metallurgical Services and Harmony One plant | 2 356 | 1 245 | **74** | 0 |
| Eland, Kudu, Sable, Nyala, Tshepong, Phakisa and Western Holdings 5 | 10 799 | 1 558 | **4** | 0 |
| St Helena 2, 4, and 8 | 4 912 | 471 | **3** | 2 |
| St Helena 10 | 944 | 7 | **1** | 0 |
| Papua New Guinea | 4 098 | 567 | **2** | 0 |
| **Total** | **69 160** | **9 551** | **100** | **23** |
| ** Land available for rehabilitation amounts to 555ha* | | | | |

| **Land rehabilitation liabilities** | | | | | | |
|---|---|---|---|---|---|---|
| | | | **FY16** | **FY15** | **FY14** | **FY13** |
| South Africa | (Rm) | **2 180** | 2 170 | 2 210 | 2 209 | 2 123 |
| Papua New Guinea | (Rm) | **1 391** | 826 | 675 | 795 | 507 |
| **Total** | (Rm) | **3 571** | 2 933 | 2 796 | 2 708 | 2 354 |
| | (US$m) | **166** | 150 | 230 | 255 | 236 |

## South Africa

Our programme to rehabilitate decommissioned operations began in FY10 with a view to reducing environmental liabilities and eliminating potential safety and health risks. To this end, we work with provincial authorities to meet local socio-economic imperatives. Site demolition of shafts, plants, defunct workshops and hostels continued in FY17. To date, we have decommissioned and demolished 36 shafts (including ventilation shafts).

In FY17, the total rehabilitation liability for our South African operations was R2.2 billion (US$166 million) (FY16: R2.2 billion; US$150 million), which is fully funded. Since its start in FY10, our rehabilitation programme has reduced environmental liabilities by R763 million (US$57 million). In addition to the land rehabilitated, the programme has provided procurement opportunities and employment for at least 200 local residents.

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NOTEWORTHY ACTION

### Bio-energy project on track

Our most significant rehabilitation project is progressing well. This involves heating water in the elution process of the Harmony One plant using bio-gas. Commissioning is currently underway ahead of commercial production.

The project involves rehabilitating land for the cultivation of bio-crops to generate renewable bio-energy, such as bio-gas and bio-char, to be used as a substitute for polyfuel. To date, R53 million (US$3.7 million) has been spent on the project.

The bio-crops being cultivated include giant king grass, sweet sorghum and sugar beet. Given its high-energy production, resilience to mine-impacted land and optimum yields per hectare, giant king grass is the primary bio-crop feedstock.

Implementation of phase 1 began in September 2014 when a pilot plant was established to generate an equivalent of 1.5MW of energy. Harmony's existing Steyn gold processing plant was refurbished and converted into a bio-gas plant. This phase will enable Harmony to offset about 8 000t of CO2 emissions annually. Phase 1 is set to deliver 71 000GJ of the total 187 000GJ of energy.

Once the plant is fully operational and the concept has been proven, implementation of phase 2, involving ramp up to an energy equivalent of 5MW at a cost of about R100 million, will begin. This plant will enable an annual offset of 27 000t of $CO_2$.

In the initial pilot project, 100ha of mine-impacted land was used for crop cultivation. An additional 250ha of land will be planted for the phase 2 ramp-up. Eventually, local communities will also be able to use bio-char as a source of fuel and will benefit from the skills development and job creation presented by this project. This project currently employs 14 people.

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**Papua New Guinea**

Work on the development of a detailed rehabilitation and mine closure plan for the Hidden Valley operation continues. An updated and revised environment improvement plan has been approved by the Conservation and Environment Protection Authority, following the expiry of the previous one at the end of December 2014. For accounting purposes, an updated financial provision for unplanned closure as at 30 June 2017 has been made and an estimate for closure at completion of stage 6 has been prepared. Work will begin during FY18 to improve confidence in the estimates for final mine closure.

The detailed Hidden Valley rehabilitation and mine closure plan addresses corporate and regulatory requirements, agreements with stakeholders, the post-closure monitoring period and cost provisions.

## BIODIVERSITY, LAND MANAGEMENT AND CONSERVATION

***Relevant Global Reporting Initiative indicators: G4-EN12, G4-EN14, G4-EN31, MM1, MM2***

### South Africa

All long-life South African sites have biodiversity management plans, which are implemented either through their respective mine closure plans, environmental management plans or specific biodiversity action plans. To ensure compliance to such, numerous environmental projects are being implemented throughout our operations in line with the sustainable development goals of the United Nations.

The following conservation projects continued in FY17:

**Aggregate production community project:** Kalgold has created a broad-based black economic empowerment consortium to crush waste rock material for aggregate production. Working in partnership with the local community, the consortium will crush, screen and stockpile crushed material for collection by third parties. Site establishment began in October 2016, and offices and access control have been completed. The local community will have a 10% free carry in this project and employees 5%. This project addresses the aspect of land management. By reclaiming the rock dump, we will liberate the land from its current state and instead create an opportunity for alternative land uses that contribute to conservation.

**Welkom agricultural project:** An olive plantation is being established in Welkom as an alternative sustainable land use for the largely rehabilitated land covered by the St Helena mining right, which is adjacent to decommissioned and rehabilitated sites. Currently 26 400 trees are on order to be supplied over several years; once 15 000 trees have been purchased and planted in year one.

**Doornkop agricultural project:** The vegetable plantation established at Doornkop will use excess potable water treated by the Doornkop water treatment plant. At least four different types of vegetables will be grown. Produce will be sold to Harmony's Doornkop and Kusasalethu hostels as well as at a district market that Harmony intends creating.

**Deelkraal waste rock reclamation project:** Similar to that at Kalgold, a stream of waste rock from the gold mining process will be crushed and beneficiated to generate construction aggregate. Additionally, the programme will support local broad-based black economic empowerment companies.

**Demolition and rehabilitation programme:** We continue to rehabilitate decommissioned shafts and plants. To date, 36 shafts have been demolished and rehabilitated in the Free State. Our work on the ARM 7 shaft was completed, as well as plugging of Brand 3, including its ventilation shaft. Demolition and rehabilitation is still underway at the ARM 6 shaft and hostel.

**Papua New Guinea**

Hidden Valley is not in a biodiversity-protected area but five species on the International Union for Conservation of Nature Red Data List are found in the vicinity of the mine. There is no evidence that the mine has affected these critical habitats. The five species include tree kangaroos, nectar bats, harpy eagles and long-beaked echidna, none of which are endemic to the Hidden Valley area.

Key measures proposed to manage the impacts of the Wafi-Golpu project on the terrestrial ecology include limited vegetation clearing, the preservation of vulnerable flora species as well as measures to control weeds and pests. Extensive baseline studies have been completed to inform the project's environmental impact statement.

Field work on the Wafi-Golpu deep sea tailings placement, an alternative option to terrestrial tailings storage, continued in FY17. Updated prefeasibility and feasibility studies for the Wafi-Golpu project are scheduled for completion in the third quarter of FY18.

## ENERGY MANAGEMENT – OPTIMISING OUR ENERGY USE, REDUCING OUR CARBON EMISSIONS

***Relevant Global Reporting Initiative indicators: G4-EN3, G4-EN5 and G4-EN6***

Harmony endeavours tirelessly to reduce energy consumption and greenhouse gas emissions, adapt to climate change and diversify our energy mix by:

- promoting energy efficiency at our deep-level mines in South Africa
- optimising and rebalancing our asset portfolio
- promoting an alternative energy mix
- aligning our rehabilitation programme with the green energy agenda

Our total energy use in FY17 was 2 629 321MWh (FY16: 2 597 439MWh), an increase of 1%. This increase is due to Hidden Valley being included at 100% following Harmony's having acquired that operation in full during the course of FY17.

The corresponding energy intensity level was 0.135MWh/tonne treated (FY16: 0.13MWh/tonne). However, our energy consumption has declined by 14% in the past five years and our intensity usage by 28%, which is in line with the annual reduction targeted for the five years to FY18. These declines have in turn reduced our greenhouse gas emissions.

### South Africa

Generally, Harmony consumes energy indirectly in the form of electricity purchased from the national power utility, Eskom, which uses coal-fired power stations. We therefore have little scope for large-scale purchases of energy from renewable sources. Eskom's electricity tariffs have risen steadily since 2008 and, given the relatively significant contribution to operating costs, increases exceeding 8% have an impact on the sustainability of our operations. We are therefore intent on reducing electricity consumption.

Our energy efficiency initiatives focus on efficient mine cooling, compressed air, water management and ventilation, as well as an improved energy mix with emphasis on sustainable renewable energy, particularly solar and hydro power, and bio-energy in the short term. We have improved our capacity to generate solar power and this has helped decrease our power consumption and energy-use intensity.

To date Harmony has implemented 11 solar energy projects, which continue to operate as we strive to achieve total combined energy saving of 64 040MWh a year. Some of our projects are energy neutral (load-shifting projects), which only contribute to cost savings. The energy-efficient fans installed underground at Kusasalethu are exceeding expectations.

We have reduced our carbon footprint through a fleet-optimisation initiative that reduces the use of fossil fuels (petrol and diesel) consumed in transporting people and material. We also use fewer vehicles and monitor fuel consumption monthly in line with key performance indicator measurements. The average age of the vehicles in our fleet is recorded as a further measure to reduce emissions as there is a direct correlation between fleet age, kilometres travelled, oil consumption and maintenance costs.

**Energy consumption and consumption intensity**

| **Energy consumption (MWh)** | | **FY16** | **FY15** | **FY14** | **FY13** |
|---|---|---|---|---|---|
| South Africa | **2 537 944** | 2 542 463 | 2 608 157 | 2 756 029 | 2 664 111 |
| Papua New Guinea | [1]**90 380** | 54 976 | 59 218 | 60 414 | 51 414 |
| **Harmony total** | [1]**2 629 321** | **2 597 439** | **2 667 375** | **2 816 443** | **2 704 220** |
| **Consumption intensity (MWh/tonne treated)** | | | | | |
| Harmony | **0.14** | 0.13 | 0.15 | 0.15 | 0.14 |

[1] *Increases recorded in FY17 in Papua New Guinea electricity consumption and for Harmony as a whole, a result of acquisition in full of Hidden Valley which is now included at 100% versus 50% in preceding years*

| Direct and indirect energy consumption (MWh) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | % of total energy used | FY16 | % of total energy used | FY15 | % of total energy used | FY14 | % of total energy used |
| **South Africa** | | | | | | | | |
| Direct [1] | **–** | | – | – | – | – | – | – |
| Indirect [2] | **2 537 944** | 100 | 2 542 463 | 100 | 2 608 157 | 100 | 2 756 029 | 100 |
| **Total** | **2 537 944** | | **2 542 463** | | **2 608 157** | | **2 756 029** | |
| **Papua New Guinea [3]** | | | | | | | | |
| Direct [1] | **38 839** | 41.9 | 14 010 | 25.5 | 10 355 | 17 | 18 354 | 30 |
| Indirect [4] | **52 542** | 58.1 | 40 966 | 74.5 | 48 863 | 83 | 42 060 | 70 |
| **Total** | **90 380** | **100** | **54 976** | **100** | **59 218** | **100** | **60 414** | **100** |
| **Harmony** | | | | | | | | |
| Direct | **38 839** | 0.1 | 14 010 | 0.5 | 10 355 | 0.4 | 18 354 | 1 |
| Indirect | **2 590 482** | 99.9 | 2 583 429 | 99.5 | 2 657 020 | 99.6 | 2 798 089 | 99 |
| **Total** | **2 629 321** | **100** | **2 597 439** | **100** | **2 667 375** | **100** | **2 816 443** | **100** |

[1] *Diesel*

[2] *Non-renewable: coal-fired power stations (Eskom)*

[3] *Increases recorded in FY17 in Papua New Guinea electricity consumption and for Harmony as a whole, a result of acquisition in full of Hidden Valley which is now included at 100% versus 50% in preceding years*

[4] *Renewable energy: hydropower-generated electricity*

## Papua New Guinea

As our operations are designed to be energy efficient, with a predominantly renewable energy base, emission intensities are much lower at Hidden Valley, which has used a proportion of hydropower since 2011 – 58% in FY17 (FY16: 75%). The decline in the proportion of hydropower consumed in FY17 was due to the poor supply reliability. In FY17, 38 800MWh of diesel-generated electricity was consumed (FY16: 14 000MWh), a result of the lower proportion of hydropower used and Harmony's having acquired full ownership of Hidden Valley during the year.

## Addressing climate change by optimising our energy use

***Relevant Global Reporting Initiative indicators: G4-EC2***

Harmony monitors the opportunities and risks presented by climate change, included in our mine closure plans, and communicates these to the board throughout the year. Our climate strategy is then reviewed every year with a view to substituting and or augmenting conventional electricity use (fossil-fuel and grid energy) with renewable energy (see solar procurement programme and bio-energy project).

In line with our short-term strategy (for the next five years) to adapt, conserve and move towards an alternative energy supply mix, we are reducing our grid-electricity consumption and greenhouse gas emissions with year-on-year and multi-year targets. To this end, we have implemented a suite of energy efficiency initiatives and closed carbon-intensive (high-energy) shafts. We plan to increase the use of green energy derived from hydropower, solar power and biomass.

Our long-term strategy to mitigate the risk of climate change is based on:

- rebalancing our asset portfolio: over the years we have closed several carbon-intensive operations as they have reached the end of their geological life
- post-mining land use: See bio-energy project

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NOTEWORTHY ACTION

**South Africa: beyond national target for energy efficiency Supply status**

Eskom generates approximately 95% of the electricity used in South Africa and approximately 45% of the electricity used in Africa. Eskom generates, transmits and distributes electricity to industrial, mining, commercial, agricultural and residential customers and redistributors.

During FY17, electricity supply in South Africa has seen less pressure than in previous years, with fewer power interruptions (also referred to as load shedding) occurring. Supply has improved and there has been no load shedding since September 2015.

Supply and demand for electricity remains very tight, especially during peak evening periods between 18h00 and 20h00. Harmony participates voluntarily in the Eskom demand response programme to reduce our electricity usage at these times. Harmony has renewed its contract agreement with an energy service company to ensure that various load clipping and load shifting projects savings are sustained. They will also assist with implementation of new energy saving initiatives at the South African operations to reduce electricity demand during morning and evening peaks. Harmony also benefits financially from this as the Eskom tariffs are more expensive during these periods. Currently, the risk of power outages will be limited mainly to the evening.

Government remains committed to ensuring energy security for the country by rolling-out a nuclear new build programme as an integral part of the energy mix. Government remains committed to ensuring the provision of reliable and sustainable electricity supply, in order to mitigate the risk of carbon emissions.

**Renewable energy**

Energy is a critical component of the country's future policy mix. The argument around electricity really comes down to the questions: are renewables, primarily wind, efficient and sustainable, and can they ensure security of electricity supply at a competitive economic price?

Forecasts are that renewable energy technologies, predominantly solar- and wind-based systems, will grow further in coming decades, overcoming coal-based electricity around 2030 (International Energy Agency, 2015). South Africa is no exception and renewable energy has become a significant element in the country's electricity landscape.

Discussions around other technologies, such as gas-to-power and nuclear energy, are adding to this vibrant dynamic. Significant vested interests are still at play alongside massive state support to maintain the domination of the coal industry over the electricity supply industry in South Africa.

**Tariffs**

Like all mining companies, Harmony is a major user of electricity, mostly supplied by South Africa's power utility, Eskom. Energy is a significant and growing portion of our operating costs, given rising electricity tariffs. Electricity tariffs have increased by 107% since 2010. On 3 October 2014, the National Energy Regulator of South Africa (NERSA) approved implementation of the Regulatory Clearing Account (RCA) balance for Eskom. This is a plan for the once-off recovery from standard tariff customers and other Eskom customer categories. In effect, this limited the tariff increase to 2.2% during FY17. Eskom will apply for another RCA for 2018 and will be submitting an application for a 19.2% tariff increase. This application was delayed due an application to declare the previous RCA unlawful. The court ruled in NERSA's favour and Eskom will be able to proceed with its new RCA application.

**Energy efficiency**

Harmony has worked closely with Eskom to manage electricity use and peak demand, underlining our commitment to reduce energy consumption. This includes demand-side management strategies to reduce electricity consumption in peak periods, timing our pumping to coincide with cheaper off-peak periods, making more efficient use of Eskom tariffs that reward load-shifting, and improving the efficiency of pumping operations.

We have implemented various energy efficiency projects in recent years, resulting in an average load reduction of 40.66MW and energy savings of 345GWh since 2009. Owing to capital constraints, the projects committed to for 2016 were moved to 2017, including several other projects identified. With little capital expenditure Harmony has, with the assistance of an energy service company, achieved a R50 million cost saving on new projects and maintained a cost saving of R54 million from completed projects. The average weekday load reduction of 5.6MW will yield anticipated energy savings of 4 363MWh a month.

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**Renewable energy**

At present, Harmony is considering several renewable and alternate energy projects in South Africa:

- Bio-energy project
- Three 10MW photovoltaic power plants in the Free State – on Harmony-owned land

Our initiatives to reduce electricity consumption have surpassed national expectations of 12%. Harmony has improved energy consumption across the group by 17% since 2008.

The year on year reduction in energy consumption for FY17 was 1.61% (41 000MWh). The 41 000MWh electricity savings represents an annual water consumption reduction of 59ML and a reduction in $CO_2$ emissions of 40 590t.

By the end of FY17, Harmony had contracted an energy saving company (ESCO) to assist with increasing operational efficiency, reducing energy costs and ultimately ensuring that targeted energy savings are achieved. The ESCO will help to ensure that savings are maximised and existing projects maintained. New initiatives resulted in electricity cost savings of R48 million (US$3.5 million) in FY17.

Demand-side management is encouraged by Eskom with rewards for making more efficient use of tariffs. Initiatives to this end include scheduling of pumping, air compression, cooling, hoisting and ventilation at off-peak periods.

Projects funded by Harmony are sustainable in the long term, and include turning off water and compressed air when mines are not operating.

Projects that continued throughout FY17 included:

**Solar procurement programme:** The Department of Environmental Affairs has approved the construction of two 10MW solar energy plants at the Eland and Nyala shafts. Harmony has setup a steering committee comprising various specialists. A power purchase agreement was completed and an information memorandum document developed. Discussions were held with financiers and project developers.

**Power-generating turbines:** Kusasalethu's water consumption was reduced by an average of 5.18 ML per day since May 2017. This contributed to a significant reduction in the electricity consumption of the dewatering pumps.

**Energy management:** We continue to use the Kusasalethu and Doornkop plant mills and shaft winders at off-peak periods to reduce electricity costs and decrease load during national high-demand periods.

**Compressed air management:** Installation of control valves on compressed air lines at a number of operations, which reduce the flow of compressed air during periods of lower demand resulted in a reduction in the electricity consumption of the compressors.

**Refrigeration**

At Bambanani, Masimong and Unisel updated control philosophies for the fridge plants were developed and implemented. These control philosophies are based on the "cooling on demand" principle and take ambient conditions and seasonal changes into account.

**Other initiatives**

A dedicated effort to maintain the performance of previously-implemented demand-side management projects was conducted in FY17. These projects generated significant electricity cost savings.

A project to increase awareness on the importance of energy efficiency and opportunities for improvement was implemented. The project entails increasing awareness through automated distribution of daily, weekly and monthly reports on various operational aspects such as the energy consumption of a site, efficiency of a system, performance of energy savings projects, etc.

NOTEWORTHY ACTION

**Papua New Guinea: reducing use of fossil fuels**

Hydro power usage at Hidden Valley was lower this year due to poor supply reliability from the hydro power provider. However, since year end this has improved and plans are well advanced to also enable the mine to access another third party supplier of hydro power.

The Wafi-Golpu project is being designed to exceed Papua New Guinean statutory requirements and to align with Australian and other international environmental standards. In terms of the feasibility study, all infrastructure is being designed to minimise power consumption. Also as part of the updated feasibility study, options for the self-generation of power are currently being investigated.

**Climate change and greenhouse gas emissions**

***Relevant Global Reporting Initiative indicators: G4-EC4, G4-EN15, G4-EN16, G4-EN17, G4-EN18 and G4-EN19***

Harmony's Scope 1 and Scope 2 emissions in FY17 totalled 2 623 607t $CO_2e$ (FY16: 2 636 493t $CO_2e$) with a corresponding intensity of 0.135t $CO_2e$/tonne milled (FY16: 0.145t $CO_2e$/tonne milled). Indirect emissions in South Africa, largely due to electricity purchased from Eskom, accounted for 97.9% of emissions. In FY17, we decreased our Scope 1 and Scope 2 emissions by 0.5% (FY16: 4%).

In FY17, our total carbon emissions decreased by 5.6% (FY16: 5.5%) with a corresponding decrease in intensity, which averaged 0.158t $CO_2e$ /tonne treated for the year (FY16: 0.179t $CO_2e$ /tonne treated). At group level, absolute and intensity-based greenhouse gas emission reduction targets have been set for the five years to FY18.

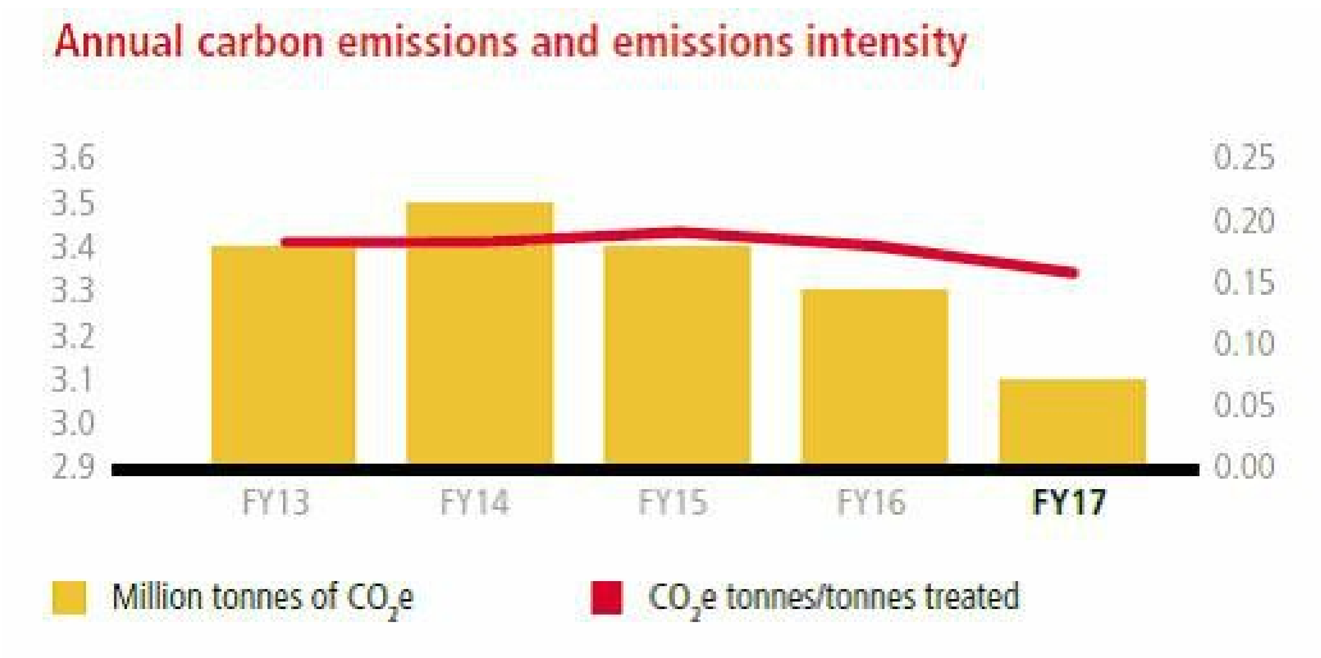
## Group carbon emissions

| | FY17 | FY16 | FY15 | FY14 | FY13 |
|---|---|---|---|---|---|
| **Scope 1 emissions breakdown by source (CO2e tonnes)** | | | | | |
| Diesel | **108 306** | 53 278 | 64 244 | 71 728 | 90 951 |
| Explosives | **1 953** | 1 838 | 1 748 | 2 079 | 2 026 |
| Petrol | **784** | 777 | 909 | 950 | 1 337 |
| **Total** | **1111 043** | **55 893** | **66 902** | **74 758** | **94 314** |
| **Scope 1 emissions breakdown by source (%)** | | | | | |
| Diesel | **97.5** | 95.3 | 96 | 96 | 96 |
| Explosives | **1.8** | 3.3 | 3 | 3 | 3 |
| Petrol | **0.7** | 1.4 | 1 | 1 | 1 |
| **Total** | **100** | **100** | **100** | **100** | **100** |
| **Total scope 1, 2 and 3 emissions (CO2e tonnes)** | | | | | |
| Scope 1 | **111 043** | 55 893 | 66 902 | 74 758 | 94 314 |
| Scope 2 | **2 512 565** | 2 580 600 | 2 686 401 | 2 745 005 | 2 648 126 |
| Scope 3 | **445 033** | 615 456 | 686 233 | 661 515 | 616 978 |
| **Total** | **3 068 633** | **3 251 949** | **3 439 536** | **3 481 278** | **3 359 418** |
| **Total scope 1, 2 and 3 emissions (%)** | | | | | |
| Scope 1 | **4** | 2 | 2 | 2 | 3 |
| Scope 2 | **82** | 79 | 78 | 80 | 79 |
| Scope 3 | **14** | 19 | 20 | 18 | 18 |
| **Total** | **100** | **100** | **100** | **100** | **100** |

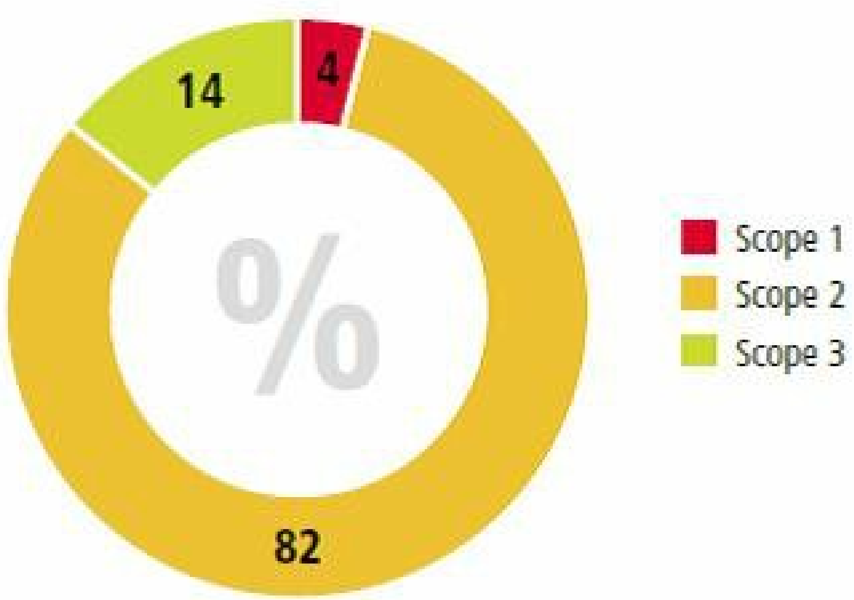
## Carbon emissions intensity

| | FY17 | FY16 | FY15 | FY14 | FY13 |
|---|---|---|---|---|---|
| **Scope 1 emissions intensity by source (CO2e tonnes/tonne treated)** | | | | | |
| Diesel | **0.0055** | 0.0029 | 0.0036 | 0.0038 | 0.0051 |
| Explosives | **0.0001** | 0.0001 | 0.0001 | 0.0001 | 0.0002 |
| Petrol | **0.0004** | 0.0001 | 0.0001 | 0.0001 | 0.0001 |
| **Total scope 1, 2 and 3 emissions intensity (CO2e tonnes/tonne treated)** | | | | | |
| Scope 1 | **[1]0.0057** | 0.0031 | 0.0040 | 0.0040 | 0.0051 |
| Scope 2 | **0.1295** | 0.1428 | 0.1490 | 0.1458 | 0.1441 |
| Scope 3 | **0.0229** | 0.0340 | 0.0380 | 0.0332 | 0.0336 |
| **Total** | **0.1581** | **0.1799** | **0.1910** | **0.1830** | **0.1828** |

*1 Increases recorded in FY17, a result of the acquisition in full of Hidden Valley which is now included at 100% versus 50% in preceding years*



## $CO_2$ emmissions by scope




NOTEWORTHY ACTION

**CDP reporting: Climate change and water reporting**

CDP, the non-profit global environmental disclosure platform, has again acknowledged Harmony as a global leader in corporate sustainability. Harmony is included in the CDP's 2017 A List for climate and water. This is the second consecutive year in which we have been awarded an A for both climate and water. Harmony was one of only 25 companies to score an A for both climate and water in 2017.

This achievement acknowledges our performance in mitigating and managing environmental risks, cutting carbon emissions and enhancing water stewardship.

According to the CDP, their 2017 A List, which comprises 156 global companies, has been produced at the request of more than 800 investors with assets of over US$100 trillion.

NOTEWORTHY ACTION

Engagement with suppliers and their environmental impacts

***Relevant Global Reporting Initiative indicators: G4-12, G4-EN32, G4-EN33, G4-HR11***

Our supply chain risk is managed by engaging continuously with our top 50 suppliers to reduce their greenhouse gas emissions and climate change risks across the value chain.

Environmental management and compliance with legislation and regulations, among others, are included in the general conditions of contract for suppliers. Should a supplier be found to be in contravention or to be non-compliant, we will suspend our contracts with them. To date, there have been no such suspensions, and we have not received any reports of grievances against suppliers regarding adverse environmental impacts.

A specific clause has been included in supplier contracts to ensure that all suppliers agree to introduce a greenhouse gas reporting system for the products we purchase, and to submit an annual report on their carbon footprint to Harmony.

In so doing, we will help suppliers improve their greenhouse gas performance by reducing our Scope 3 emissions.

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## OPTIMISING WATER USE, LIMITING OUR IMPACTS

***Relevant Global Reporting Initiative indicators: G4-EN8, G4-EN9 and G4-EN10***

Our water strategy supports conservation and demand management, including optimisation of supply in regions such as Welkom, particularly to secure supply during a protracted drought, and for the sustainable development of the business and our host communities.

The total amount of water used for primary activities declined to 13 123m$^3$ in FY17 with an intensity of 0.68m$^3$/tonne treated (FY16: 13 689m$^3$ and intensity of 0.76m$^3$/tonne treated).

Across the group, Harmony has implemented a campaign to re-use process water and thus reduce our dependency on groundwater by 4.5%, while increasing the amount of water recycled by 5%, by FY18. We have exceeded this target with the volume of process water being recycled increasing by 12% in FY17 alone.

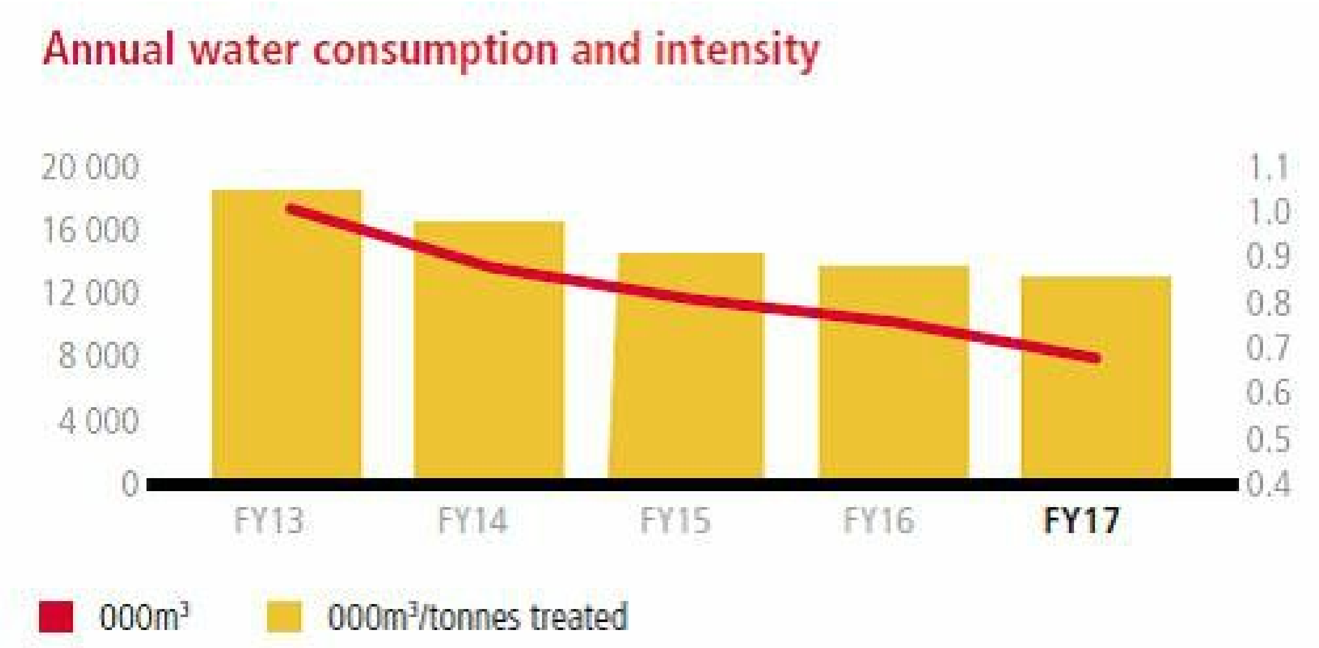
| Water use – measured | | | | | | |
|---|---|---|---|---|---|---|
| | | [3]FY17 | FY16 | FY15 | FY14 | FY13 |
| Water used for primary activities | 000 $m^3$ | **13 123** | [1]13 689 | 14 614 | 16 495 | 18 556 |
| Potable water from external sources | 000 $m^3$ | **10 953** | 12 459 | 11 993 | 13 139 | 15 610 |
| Non-potable water from external sources | 000 $m^3$ | **5 638** | 1 230 | 2 620 | 3 355 | 2 946 |
| Surface water used | 000 $m^3$ | **4 863** | 716 | 776 | 1 037 | 1 230 |
| Groundwater used | 000 $m^3$ | **775** | 2,513 | 1 844 | 1 550 | 1 716 |
| Water recycled in process | 000 $m^3$ | **41 112** | 38 821 | 38 338 | 24 531 | 27 593 |
| Percentage of water recycled | % | **86** | 74 | 72 | 61 | 60 |

*[1] Decrease in water used for primary activities due to Kalgold's being less dependent on water from external sources and increasing its usage of recycled water*

*[2] Decrease in groundwater used due to reduced dependency on groundwater by Kalgold as a result of its increased use of recycled water in the process*

*[3] Increases recorded in FY17 in Papua New Guinea water consumption and for Harmony as a whole, a result of acquisition in full of Hidden Valley which is now included at 100% versus 50% in preceding years*

| Water used for primary activities – measured | | | | | | |
|---|---|---|---|---|---|---|
| | | FY17 | FY16 | FY15 | FY14 | FY13 |
| Intensity consumption | 000$m^3$/tonne treated | **0.68** | 0.76 | 0.81 | 0.88 | 1.01 |
| Water used for primary activities | 000$m^3$ | **13 124** | 13 689 | 14 614 | 16 495 | 18 556 |



**South Africa**

In line with legislative requirements, integrated water-use licence applications were submitted to the authorities for each operation. Where water use licences have been received, Harmony has applied for amendments to take into account omissions, additional water uses and to clarify certain aspects. Where possible, Harmony continues to apply best practice in water management. By year-end, most of our operations were zero discharge mines.

Our strategy to reduce dependency on potable water, and to maximise our use of fissure and process water, began in 2013.

This has enabled us to continue to maintain a favourable water use intensity. Conservation of potable water is a priority, particularly in light of the impact of the continuing drought in South Africa. Enhanced water awareness campaigns and water management initiatives, including recycling, among others listed below, were effective throughout FY17.

- **Water conservation strategy:** Harmony has reviewed the water balances at each operation to determine the likely effects of the protracted drought. With the water treatment plants at Doornkop and Kusasalethu now operational, these operations will not be affected. It is imperative that we improve the efficiency of our water use in order to operate effectively under regulations that aim to reduce demand. The Doornkop and Kusasalethu water treatment plants, which are now operational, will treat water for use by the mines as well as by an agricultural project.
  However, Doornkop discharged water under directive until March 2017 once the water treatment plant had become operational. At Kusasalethu, certain ad hoc discharges are permitted in terms of the water use licence. This discharge was primarily potable water from a broken infrastructure line.
- **Water conservation in the Free State:** Harmony has engaged with water treatment service providers to build water treatment plants at the Harmony One and Target plants to secure water for the operations while reducing water consumption and assisting with conservation. These plants will treat 3.3ML of water a day and save Harmony more than R2 million in water bills annually. The project began in March 2017. The aim is to reduce the Free State plants' potable water usage by 30%.
- **Community drilling project:** In Welkom, we have negotiated with Sedibeng Water to offset our consumption by drilling and equipping boreholes so that the community has access to good quality water, particularly during the current drought. A geohydrological assessment and hydrosensus to drill a borehole in the Theunissen area have been conducted. This will assist the municipality in delivering water to residents of Theunissen and Masilonyane.
- **Kalgold:** Kalgold is in a water scarce area but the D-Zone pit deposition ensures water is available for production and the surrounding borehole network is able to augment water needs if necessary. Modified plant and tailings storage facilities have maximised the recovery of water for reuse, process

water dams have been reinforced to increase storage capacity and minimise overflows, and efficient flow meters and valves have been installed. These measures have realised the following:

- an increase of more than 100% in the average quantity of water recycled (FY15: 43 547$m^3$; FY16: 112 706$m^3$ and FY17: 1 193 028$m^3$)
- 93% reduction in surface water sourced (7 306$m^3$ in FY15; 1 000$m^3$ in FY16 and 61 202$m^3$ in FY17)
- 18% reduction in volume of groundwater abstracted (125 436$m^3$ in FY15; 32 959$m^3$ in FY16 and 74 245$m^3$ in FY17)

Kalgold is Harmony's only South African operation to draw water directly from a surface source aquifer. Other operations are supplied by bulk water service providers and municipalities, surface water run-off, water pumped to surface from underground operations, recycled water and borehole water.

**Papua New Guinea**

Following a request from the Conservation and Environment Protection Authority to apply for an amendment to the current environmental permit with respect to turbidity and cobalt, Hidden Valley has developed proposed terms for an extensive environmental permit amendment application. After a site visit by the Conservation and Environment Protection Authority in FY17, agreement was reached in principle on the terms of an amendment. Submission of the amended application is expected in the second quarter of FY18.

An environmental permit amendment for an additional treated water discharge pipeline has been approved by the Conservation and Environment Protection Authority.

Compliance monitoring of water quality during the year showed that all dissolved metals (except cobalt) and physicochemical parameters complied, except for turbidity and total suspended solids at the Nauti compliance point. The cobalt exceedances are due to inappropriate compliance criteria expressed as limit of detection. Water extraction and discharge volumes at all points were in compliance.

At Hidden Valley, the steep topography, high rainfall and low levels of evaporation pose significant water management challenges. Two main water management techniques in use are:

- controlled run-off of rainfall to prevent erosion and sediment entering the river system
- conservation of site water used to limit the volumes of treated wastewater that need to be discharged to the environment

Most of the raw water required by Hidden Valley is drawn from Pihema Creek and used in the process plant and related ore-processing activities. Although process water recycling is prioritised, the tropical environment creates a positive water balance thus, together with the requirement to minimise water storage in the tailings storage facility, there is a high rate of water discharge to the environment.

Hidden Valley treats all water to prescribed standards before it is discharged into the environment and the mine monitors any environmental impact on the Watut River system. Quality assurance/control programmes have been implemented to monitor construction of the waste dump and tailings storage facility, including assessment of sediment and run-off control measures.

Discharge of mine-related sediment into the Watut River has been reduced with continued focus on erosion control and sediment management. Lime dosing of treated water prior to discharge continues when required to control acidity and dissolved metal levels. At the sewage treatment plant, continuous operator training has improved compliance with permitted discharge criteria.

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NOTEWORTHY ACTION

**Providing community infrastructure in Papua New Guinea**

In terms of a benefit sharing agreement with the communities, Hidden Valley will manage and co-ordinate implementation of six water supply projects. Implementation of the first two projects – Nauti and Greenhill – has begun and are progressing well. The communities are actively involved in supplying labour for the projects and this has engendered much support from the local district administration and local government structures.

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**Acid mine drainage**

Major sources of acid mine drainage include drainage from underground mine shafts and run-off and discharge from open pits and mine waste dumps, tailings and ore stockpiles. Tailings and ore stockpiles make up nearly 88% of all waste produced at our South African operations.

Our water management strategy involves intercepting water before it is polluted underground. When there is a risk that rising water levels underground could hinder access to our ore reserves or those of other operations or harm the environment, water is pumped to surface. It is then consumed as plant intake.

Welkom is a water stressed environment and our environmental modelling confirms that there is no risk of a surface decant of acid mine drainage, currently or beyond end of life. There is therefore no material risk to surface and groundwater sources in Welkom.

Geohydrological studies confirm the same outcome for Kalgold while the geology at Doornkop and Kusasalethu is far more complex geohydrologically, given the interconnected nature of mining operations in the vicinity. These operations participate in regional geohydrological and closure studies.

In Papua New Guinea, acid mine drainage can occur as a result of waste rock dumps that contain potentially acid-forming material. Environmental impacts are mitigated by the construction of engineered waste rock dumps and the controlled placement of potentially acid-forming waste rock. When required, lime is added to the process-water discharge to maintain natural levels of alkalinity at the compliance point. Water sampling and studies continue to improve our understanding of acid mine drainage impacts and enable us to formulate plans for longer-term reduction and mitigation.

## OPTIMISING OUR USE OF MATERIALS

***Relevant Global Reporting Initiative indicators: G4-EN1***

The primary materials consumed in conducting our mining activities and processes include the rock (ore and waste) we mine together with liquefied petroleum gas, grease, cyanide, fuels and lubricating and hydraulic oils.

### Cyanide

Harmony used 21 000t of cyanide during FY17 (FY16: 18 000t). The increase in cyanide consumption was largely due to the greater volume of tonnes treated in FY17 – 19.4 Mt compared to 18.1Mt in FY16.

The corresponding intensity usage is 1.08t cyanide/tonne treated for FY17 (FY16: 0.97t cyanide/tonne treated).

Harmony is a signatory to the International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold (Cyanide Code). All of our major gold mining operations and most of our metallurgical plants have been certified compliant with the Cyanide Code. Successful recertification audits were conducted at the Joel, Target, Doornkop, Harmony One and Central plants in FY17 – and all plants were recommended for recertification.

**Kalgold:** The cyanide detox plant was commissioned in July 2015 when the Kalgold plant began to deposit tailings into the D-Zone open pit as part of Kalgold's open pit closure strategy. The cyanide detox plant will reduce cyanide concentrations in the tailings to acceptable levels. Cyanide concentration levels are monitored at the detox plant, along the tailings and return water pipeline route and at the point of discharge into the pit.

**Phoenix retreatment operation (Saaiplaas plant):** The plant's process does not allow for decreases in cyanide dosages as this results in reduced gold recovery and we are therefore unable to reduce the weak acid dissociable concentration of cyanide leaving the plant.

**Hidden Valley:** Delays in the recertification audit field work and a planned extended mill shutdown for maintenance work, led to Hidden Valley's cyanide code compliance audit being temporarily postponed. Re-certification procedures have been rescheduled to begin in the third quarter of FY18, once operations have been resumed following the plant shutdown.

| Materials used | | FY16 | FY15 | FY14 | FY13[4] |
|---|---|---|---|---|---|
| Rock mined: ore and waste (000t) | **33 150** | 27 606 | [1]29 948 | 39 133 | 38 668 |
| Ore mined (000t) | **19 402** | 19 739 | 13 041 | 14 798 | 13 312 |
| Waste rock recycled (000t) | **18 577** | 3 964 | 6 647 | 7 058 | 8 008 |
| Slimes recycled (000t) | **19 815** | 6 131 | 5 987 | 5 933 | 5 358 |
| Liquefied petroleum gas (t) | **0.47** | 0.54 | 1.14 | 1.21 | 1.08 |
| Grease (t) | **121** | 5,384 | 54 | 87 | 61 |
| Cyanide (000t) | **21.0** | 618.0 | 14.3 | 14.7 | 8.0 |
| Petrol and diesel (000L) | [7]**40 811** | 20 298 | 24 464 | [2]27 148 | [3]61 354 |
| Lubricating and hydraulic oil (000L) | [7]**2 768** | 2 291 | 2 772 | 3 011 | 3 860 |

[1] *Reduction mainly due to closure of Target 3 and restructuring of Kusasalethu's production profile*

[2] *Reduction in petrol and diesel consumption due to closing Kimberley Reef area at Doornkop and decline in consumption at Hidden Valley with increased use of hydropower*

[3] *Increased use at Hidden Valley when overland conveyor malfunctioned*

[4] *Excludes Evander (previous years not restated)*

[5] *Increased usage at Phakisa and Tshepong*

[6] *Increase in cyanide consumption due to high usage at Kalgold when milling oxides*

[7] *100% reporting for Papua New Guinea*

## MANAGING OUR EFFLUENTS AND WASTE

***Relevant Global Reporting Initiative indicators: G4-EN22, G4-EN23, G4-EN24 and MM3***

Effective waste management is a priority and can reduce our environmental impacts and mitigate our environmental liabilities. An understanding of the actual cost of waste management enables us to plan effectively for new projects and mine closure. Practically, we maximise recycling and waste reduction during the life of a mine, and design to minimise waste and reclaim mineral waste (such as waste rock from dumps as aggregate) to curtail our total mining environmental footprint.

Internally, guidelines on mineral, non-mineral and hazardous waste materials are included in the environmental management systems implemented at all operations. We understand that waste management begins with initial generation and encompasses handling, storage and transport as well as recycling, treatment and/or disposal.

### Mineral waste

In FY17, 38.4Mt of mineral waste was generated from gold production (FY16: 26.1Mt), comprising 18.6Mt (FY16: 7.9Mt) of waste rock and 19.8Mt of tailings (FY16: 18.3Mt).

Tailings comprise crushed rock and process water emitted from the gold elution process in the form of a slurry once the gold has been extracted. The composition, size and consistency of tailings vary by operation with opencast operations producing greater volumes in general than underground operations. Tailings and waste rock are usually inert but rock close to the ore body may be associated with radiation or salts if these are characteristic of the ore body.

As tailings contain impurities or pollutants, they are placed on tailings dams engineered to contain the slime, in line with our water management programme. The fines are also collected and deposited on the tailings. Water is collected from toe drains and penstocks, and channelled to return water dams where it is available for reuse by the plant.

In the process, cyanide is destroyed – it self-destructs on the tailings when exposed to light – but salts and heavy metals can enter groundwater and create a pollution plume. We monitor our groundwater as public safety assessments have found that these plumes (radionuclide contaminant plumes) could be contained in the tailings storage or water management facilities for hundreds to thousands of years.

Effective mineral waste management reduces the aesthetic and land use challenges of mining, particularly during closure, as well as the potential for water and air pollution while maximising the recovery of ore, minerals and metals. Improved mineral waste management can result in significant savings and a reduction in energy consumption. Residual economic value can be generated from projects such as our Phoenix reclamation initiative.

To protect employees, communities and the environment, we handle all chemically reactive or radioactive waste appropriately by:

- minimising the quantity of material stored to limit the extent of the footprint of land disturbed
- ensuring storage sites are physically and chemically safe, and well-engineered
- undertaking progressive rehabilitation – returning affected land to productive use after mining.

Hidden Valley's advanced waste management systems have generated positive feedback from stakeholders, particularly the tailings storage facility, the first to be operated successfully in Papua New Guinea. The review of laws relating to management and disposal of tailings is now on hold indefinitely while the Mining Policy and Geohazard Department focuses on completing the revised Mining Policy Act and related new regulations put forward in 2015. The Mining Policy Act review was deferred due to national elections but is expected to proceed to its final stages of approval by the government during FY18.

Of note, at Hidden Valley, we have:

- completed extensive design for the biophysical aspects of mine closure
- permitted a second water discharge point to improve water management capacity
- discussed with the Conservation and Environment Protection Authority an environmental permit amendment including revised discharge criteria for cobalt and sediment
- prepared a comprehensive revision of the environmental permits, in readiness for submission to the authority
- trained sewage treatment plant operators to ensure that consistent treatment and proper sampling procedures are followed – and have thereby improved compliance.

| Waste (000t) | | | | | |
|---|---|---|---|---|---|
| | | FY16 | FY15 | FY14 | FY13 |
| Accumulated tailings in tailings storage facilities | | | | | |
| (active and dormant) | **928 662** | 1 418 577 | 1 400 273 | 1 382 178 | 1 359 770 |
| Accumulated waste rock dumps | **1 585 959** | 203 559 | 196 692 | 190 128 | 169 115 |
| Scrap steel | **6.944** | 6.229 | 4.996 | 4.919 | 5.583 |

**Non-mineral waste**

In FY17, 22 458t of waste (plastic, steel, wood and paper) was recycled (FY16: 11 895t), generating R5 million (US$0.4 million) (FY16: R6 million; US$0.4 million).

Plastics, steel, paper and timber generated by processing operations are produced in lesser volume than mineral waste. This non-mineral waste is managed by recycling/reuse, off-site treatment, disposal or on-site landfills. We ensure responsible storage, treatment and disposal of non-mineral waste. Group environmental standards for non-mineral waste management are integrated into existing ISO 14001 systems.

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NOTEWORTHY ACTION

**Merafong Waste Recycle project:**

Launched in 2012, this is a collaborative project between Harmony, AngloGold Ashanti Limited and Sibanye-Stillwater Limited, as well as the Merafong City Local Municipality and Khulisa Social Solutions, an implementing agent. Each company has committed to contribute R1 million over three years to the project which is located in Fochville within the Merafong City Local Municipality. The project aims to empower the community, create jobs and address environmental issues by recycling waste within the Merafong community. Project implementation began in FY17.

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# MINING CHARTER COMPLIANCE SCORECARD

Harmony is a truly empowered company and we report on our performance in relation to the Mining Charter throughout this integrated report. The table below sets out our performance in relation to the specific requirements of the Mining Charter, as gazetted in 2010, and our progress in terms of the targets it set for 2014.

A revised Mining Charter, the third iteration, was gazetted in June 2017. The Chamber of Mines, of which Harmony is a member, has obtained a written undertaking from the Minister of Mineral Resources that the reviewed Mining Charter will not be implemented before the revised Charter's review by a full bench of judges. Judgement on the review is expected to be heard by mid-December 2017. For further information and progress related to the revised Mining Charter, see the Chamber of Mines' website, *www.chamberofmines.org.za.*

## PROGRESS AGAINST MINING CHARTER TARGETS

Although the new Mining Charter is yet to be finalised, we at Harmony have continued to work towards fulfilling our commitments, in line with the underlying spirit of the 2014 Mining Charter and with our overall commitment to transformation.

The Mining Charter serves as a guide to the industry, focusing the transformation journey on nine key elements. A template designed by the Department of Mineral Resources enables mining companies to provide the information necessary to assess their success in achieving key Mining Charter targets.

The following is a summary of our performance against the targets for each of the Mining Charter's nine pillars for the calendar year ended 31 December 2016.

**Mining Charter Scorecard**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | **Reporting** | Has the company reported its level of compliance with the Charter for the calendar year | Annually | Yes | Yes/no | Yes | Yes |
| 2 | **Ownership** | Minimum target for effective ownership by historically disadvantaged South Africans | Meaningful economic participation<br>Full shareholder rights | 26% | Yes/no | Yes | Yes |
| 3 | **Housing and living conditions** | Conversion and upgrading of hostels to attain an occupancy rate of one person per room | Occupancy rate of one person per room | 100% | Yes/no | 100% | Yes |
| | | Conversion and upgrading of hostels into family units | Family units established (included in mine community development) | Yes | Yes/no | 0% | No |
| 4 | **Procurement and enterprise development** | Procurement spend with black economic empowered entities | Capital goods | 40% | 5% | 80% | 5% |
| | | | Services | 70% | 5% | 80% | 5% |
| | | | Consumable goods | 50% | 2% | 75% | 2% |
| | | Multinational suppliers contribution to a social fund | Multinational supplier | 0.5% | 3% | 0% | 0% |
| 5 | **Employment equity** | Diversification of the workplace to reflect the country's demographics to attain competitiveness | Top management (board, executive management) | 40% | 3% | 59% | 3% |
| | | | Senior management | 40% | 4% | 45% | 4% |
| | | | Middle management | 40% | 3% | 50% | 3% |
| | | | Junior management | 40% | 4% | 63% | 1% |
| | | | Core skills | 40% | 5% | 67% | 5% |
| 6 | **Human resource development** | Diversification of requisite skills, including support for South African-based research and development initiatives intended to develop solutions in exploration, mining, processing, technology efficiency (energy and water use in mining), beneficiation as well as environmental conservation | Human resources expenditure as a percentage of payroll | 5% | 25% | 6% | 25% |
| 7 | **Mine community development** | Conduct ethnographic community consultative and collaborative processes to delineate community needs analysis | Up to date project implementation | 100% | 15% | 93% | 14% |
| 8 | **Sustainable development and growth** | Improvement of the industry's environmental management | Implementation of approved environmental management plans | 100% | 12% | 95% | 11% |
| | | Improvement of the industry's mine health and safety performance | Implementation of tripartite action plans on health and safety | 100% | 12% | 83% | 10% |
| | | Use of South African-based research facilities for analysis of samples across the mining value chain | Percentage of samples in South African laboratories | 100% | 5% | 100% | 5% |

# OPERATIONAL PERFORMANCE

*Maintaining and growing our margins as efficiently as we can is essential to sustaining our business and meeting our strategic objectives.*

**Achievements FY17**

- Safety performance improved in terms of fatality frequency rate
- Produced 1.088Moz of gold, exceeding guidance of 1.05Moz
- Focus on improving efficiencies, asset management and maintenance result in a reduction in the average number of unplanned stoppages
- Tshepong and Doornkop achieved 3 million and 2 million fatality free shift respectively
- Projects deliver increased grade at Phakisa, Joel and Tshepong and mining Kusasalethu's higher grade areas contribute to the increase in underground recovered grade for the fifth consecutive year, to 5.07g/t
- Increased margins and profitability at Kusasalethu following the decision to shorten the life-of-mine plan and focus on higher grade areas
- Phoenix tailings retreatment operation performed well and delivered a 14% increase in production and improved operating free cash flow margin from 24% in FY16 to 28% in FY17
- Hidden Valley stage 5 and stage 6 investment on budget and on schedule

**Challenges FY17**

- Lost-time injury frequency rate regressedyear on year – the *Live Longer* safety campaign will focus on this
- At Target 1, unstable ground conditions in planned areas and lack of flexibility resulted in having to focus on lower-grade massives
- Unisel's aging infrastructure and challenging operating conditions impacted on the profitability of the operation in FY17
- Increased unit costs – the operational excellence initiatives will address this challenge

## WHY OUR OPERATIONAL PERFORMANCE IS MATERIAL

Maintaining and growing our margins as safely and efficiently as we can is essential to sustaining our business and meeting our strategic objectives. This includes delivering safely on our operational plans, reducing unit costs, improving productivity and maximising revenue.

Our approach takes into consideration the long-term sustainability of the company as a whole. We aim to mine those areas which will return a positive cash flow.

We are price takers and have no influence on the gold price or exchange rates, and as a result need to continuously focus on factors within our control such as costs and production. Our hedging strategy has provided a degree of cash certainty over the short term.

## OPERATING PERFORMANCE FY17

Operational excellence in FY17 was key in attaining the decrease in the fatality frequency rate year on year and achieving a fatality free quarter during the June 2017 quarter, achieving our annual production guidance for a second consecutive year and increasing underground grade for a fifth consecutive year. In FY17, Harmony produced 1.088Moz of gold (FY16: 1.082Moz) and achieved an underground grade of 5.07g/t (FY16: 5.02g/t).

Harmony acquired full ownership of Hidden Valley in October 2016 and made the decision to invest in the stage 5 and 6 cut-back with a net investment of US$180 million (of which US$68 million was incurred in FY17). Good progress was made on the stages 5 and 6 cutback project which was on budget and on schedule in FY17. Management is fully committed to the success of this investment which is expected to deliver 180 000oz of gold and 3Moz of silver annually at an average all-in sustaining cost of less than US$950/oz by FY19.

Following the successful conclusion of the study to investigate their integration, Tshepong and Phakisa have been consolidated as a single entity, Tshepong operations. The integration and consolidation of these two mines will enable Harmony to optimise existing synergies – given the proximity of their orebodies – to reduce unit costs and to make better use of Tshepong's underutilised infrastructure. This integration will also alleviate bottlenecks and operating constraints at Phakisa. Ore from Phakisa will be trammed and hoisted at Tshepong.

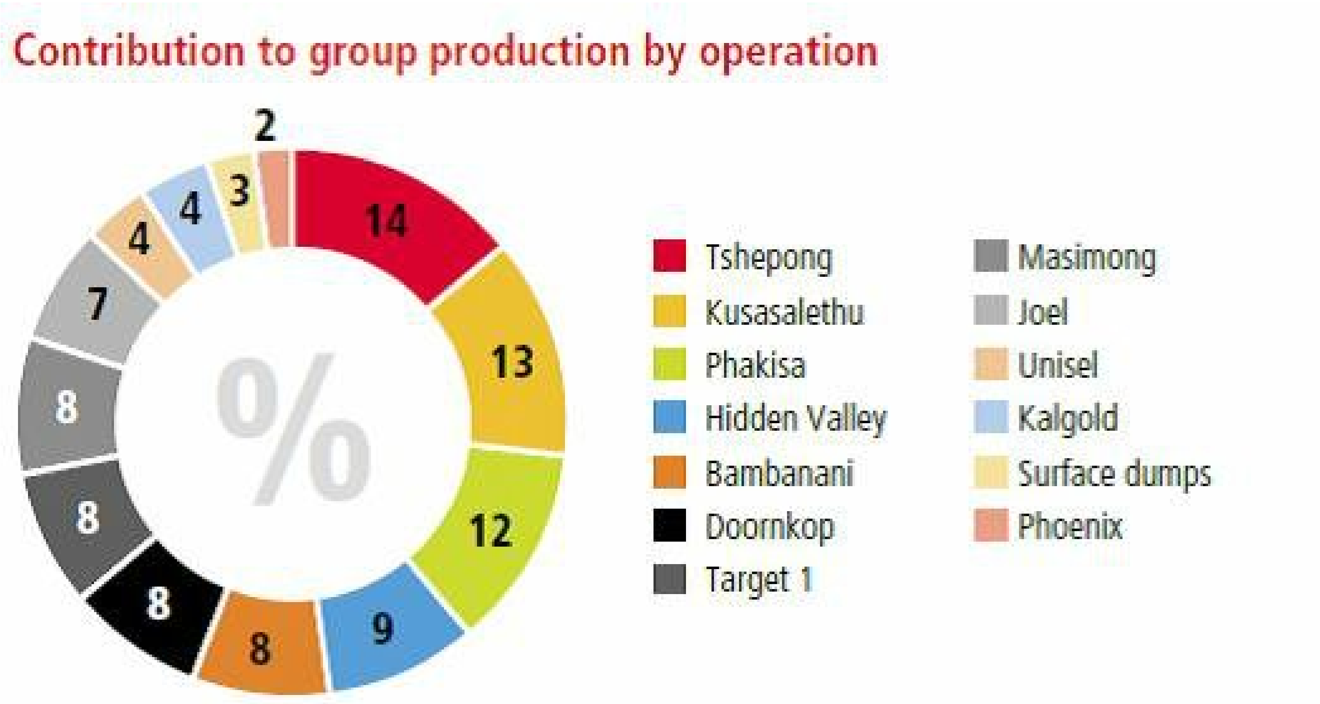
The Central Plant conversion to tailings retreatment began and was successfully completed in FY17. Expenditure was within budget. The tailings operation, which is expected to produce 15 000oz annually from FY18, is an additional low-risk, low operating cost asset in our surface operation portfolio.

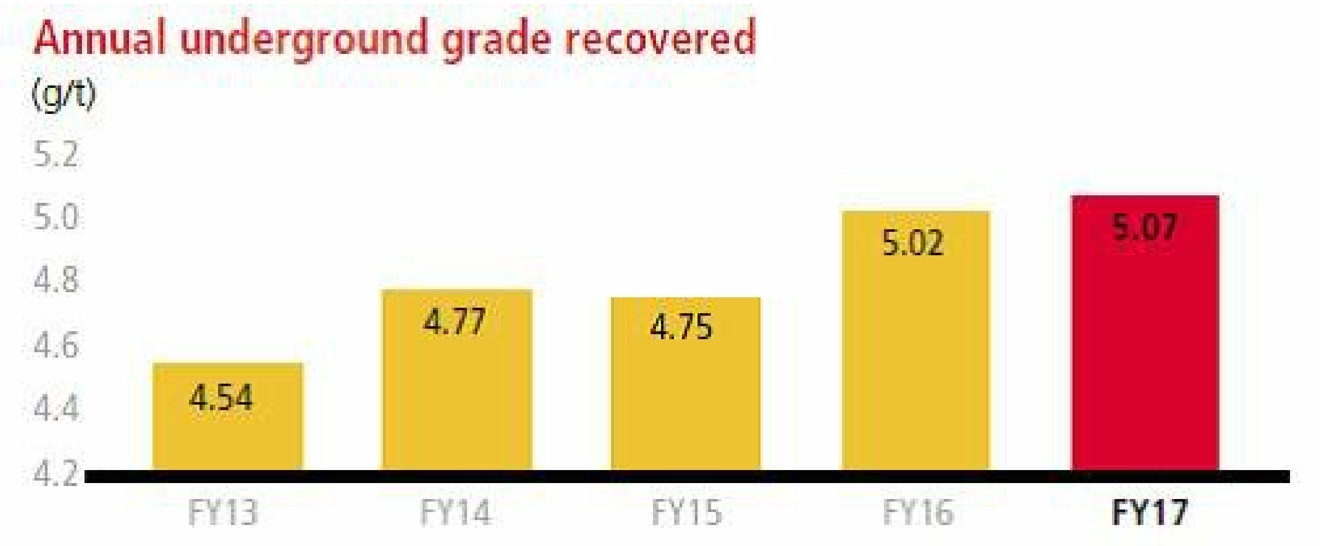
Notable operating performances in FY17 included:

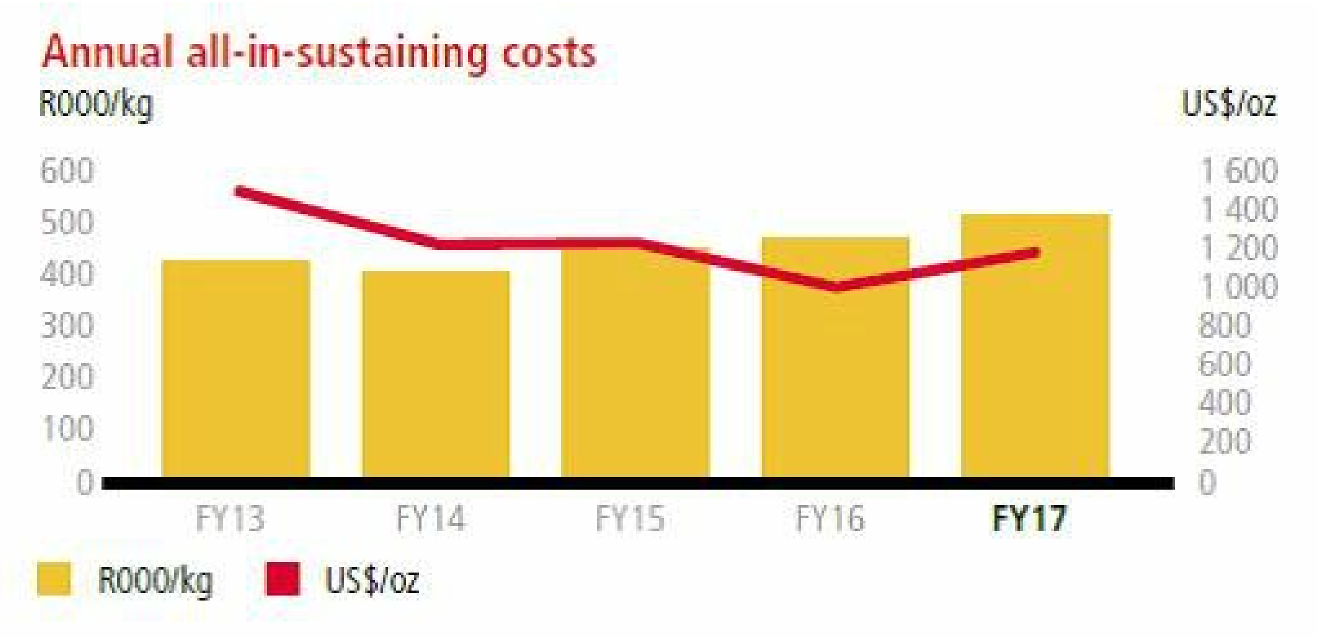
- **Kusasalethu:** FY17 was a fatal-free and profitable year. Following the decision to shorten the life of mine and to focus mining on higher grade areas, gold produced increased by 14% to 4 394kg (141 270oz) as a result of a 25% increase in recovered grade to 7.24g/t.
- **Masimong:** Mining of the high-grade B Reef contributed to a 4% increase in production. Good cost control supported increased profitability.
- **Phoenix**: Production improved by 14% owing to a 10% rise in the recovered grade and a 4% increase in volumes processed as a result of good operating momentum and plant efficiencies.

The following operations reported lower gold production during the year:

- **Target 1:** Unfavourable ground conditions in the higher grade areas and a lack of flexibility significantly impacted operating performance in FY17. Production declined by 21% to 2 669kg (85 809oz) as grade fell by 22% to 3.58g/t. Production improved in the second half of FY17 and grades are expected to pick up in FY18. Geological drilling will be conducted in FY18 to inform the extent of future project capital expenditure.
- **Unisel:** Production declined by 6% to 1 595kg on the back of a 7% decrease in volumes milled (394 000t), a result of ageing infrastructure and engineering-related stoppages. A decision was made to begin mining the higher-grade areas in the shaft pillar in the next few years




## OPERATIONAL EXCELLENCE

The fundamentals of mining underpin operational excellence at Harmony. Disciplined mining is integral to ensuring the safety of our employees, improving productivity and efficiencies and achieving our targets.

Operational excellence is key to creating an enabling environment. Safety is considered at all times, teams are motivated, and the workplace environment is conducive to productivity.


**Managing operational risks:** Operational risk management is integral to our business, and to optimise the gold mining value chain, it is essential to have in place a risk management plan to ensure that all supporting systems are functioning efficiently. Managing risks effectively while working safely and being proactive are core to our success. Safety hazards and operational business risks are identified and dealt with continuously at each of our operations.

## OUTLOOK FOR FY18

***Relevant Global Reporting Initiative indicators: G4-EC7 and G4-EC8***

Our approach towards our FY18 operational planning:

Annual production guidance for FY18 is in line with our strategy to produce safe, profitable ounces and increase margins through operational excellence. Our target for FY18 is to produce 1.1Moz at an all-in sustaining cost of R520 000/kg (US$1 180/oz). Planned capital expenditure of R4.4 billion (US$319 million) for FY18 is prioritised at Hidden Valley, for the stage 5 and 6 investment, and at the Tshepong operation, for ongoing development capital, the sub-75 decline project and ventilation improvements at the Tshepong section.

**Highlights of what we expect for FY18:**

- Improved safety focus and performance at all operations
- All operations to be profitable and generate operational free cash flow
- An increase in total production to 1.1Moz and increase in the underground recovered grade to 5.18g/t
- Greater focus on cost management and unit cost reductions

- Hidden Valley to reach commercial levels of production in the June quarter of FY18 and deliver the stage 5 and 6 investment on schedule and on budget
- Tshepong operations production to increase on higher volumes and a higher recovered grade following the integration of Tshepong and Phakisa
- Masimong to build on the momentum achieved in FY17 and generate free cash
- Target 1 to turnaround its FY17 performance as higher grade massives are accessed
- Kusasalethu to remain profitable, focusing on higher grade areas and benefiting from maintenance and engineering improvements conducted in FY17
- Central Plant tailings project to achieve or exceed guidance in the first year of tailings retreatment
- Unisel to return to profitability following the decision to mine the shaft pillars

Harmony's production guidance is based on a gold price of R520 000/kg (or US$1 180/oz) and an exchange rate of R13.74/US$ for FY18. Our guidance per operation for FY18 is provided below:

| **FY18 forecast and guidance** | | | | |
|---|---|---|---|---|
| **Operation** | **Productio n** | **Capital expenditure[1,2]** | | **Life of mine** |
| | **(oz)** | **(Rm)** | **(US$m)** | **(years)** |
| Tshepong operations | 303 000 | 1 150 | 84 | 17 |
| Bambanani | 83 000 | 73 | 5 | 5 |
| Target 1 | 92 000 | 386 | 28 | 7 |
| Doornkop | 94 500 | 285 | 21 | 18 |
| Joel | 66 500 | 231 | 17 | 9 |
| Kusasalethu | 143 000 | 321 | 23 | 5 |
| Masimong | 72 000 | 116 | 8 | 4 |
| Unisel | 55 000 | 112 | 8 | 5 |
| Underground operations – total[3] | 909 000 | 2 674 | 194 | |
| South Africa surface operations (including Kalgold) | 96 500 | 39 | 3 | 14+ |
| Hidden Valley[2] | 94 500 | 1 676 | 122 | 6 |
| **Total** | **~1.1Moz** | **4 389** | **319** | |

[1] *Excludes Golpu*
[2] *At an exchange rate of R13.74/US$*
[3] *At a grade of ~5.18g/t*

# OPERATIONAL PERFORMANCE

## SOUTH AFRICA – DEEP-LEVEL MINING

### Tshepong

| | | | FY16 | FY15 |
|---|---|---|---|---|
| **Number of employees** | | | | |
| – Permanent | | **4 304** | 4 232 | 4 218 |
| – Contractors | | **283** | 250 | 210 |
| Total | | **4 587** | 4 482 | 4 428 |
| **Operational** | | | | |
| Volumes milled | (000t) (metric) | **1 027** | 1 088 | 992 |
| | (000t) (imperial) | **1 132** | 1 200 | 1 095 |
| Gold produced | (kg) | **4 819** | 5 031 | 4 278 |
| | (oz) | **154 934** | 161 751 | 137 540 |
| Gold sold | (kg) | **4 817** | 5 029 | 4 337 |
| | (oz) | **154 869** | 161 685 | 139 437 |
| Grade | (g/t) | **4.69** | 4.62 | 4.31 |
| | (oz/t) | **0.137** | 0.135 | 0.126 |
| Productivity | (g/TEC) | **95.55** | 100.52 | 86.05 |
| **Development results** | | | | |
| Total metres | | **11 460** | 12 077 | 13 053 |
| Reef metres | | **1 735** | 1 745 | 1 822 |
| Capital metres | | **383** | 0 | 0 |
| **Financial** | | | | |
| Revenue | (Rm) | **2 760** | 2 756 | 1 948 |
| | (US$m) | **203** | 190 | 170 |
| Average gold price received | (R/kg) | **572 921** | 547 967 | 449 211 |
| | (US$/oz) | **1 311** | 1 176 | 1 221 |
| Cash operating cost | (Rm) | **2 032** | 1 845 | 1 588 |
| | (US$m) | **149** | 127 | 139 |
| Production profit/(loss) | (Rm) | **731** | 912 | 337 |
| | (US$m) | **54** | 63 | 29 |
| Capital expenditure | (Rm) | **387** | 307 | 313 |
| | (US$m) | **28** | 21 | 27 |
| Cash operating cost | (R/kg) | **421 573** | 366 767 | 371 149 |
| | (US$/oz) | **964** | 787 | 1 008 |
| All-in sustaining cost | (R/kg) | **506 969** | 438 401 | 454 512 |
| | (US$/oz) | **1 160** | 940 | 1 235 |

| | | | | |
|---|---|---|---|---|
| **Safety** | | | | |
| Number of fatalities | | **0** | 0 | 1 |
| Lost-time injury frequency rate per million hours worked | | **7.34** | 6.40 | 5.72 |
| **Environment** | | | | |
| Electricity consumption | (GWh) | **287** | 301 | 307 |
| Water consumption – primary activities | (ML) | **1 229** | 1 230 | 1 110 |
| Greenhouse gas emissions | (000t $CO_2$e) | **286** | 306 | 316 |
| Intensity data per tonne treated | | | | |
| –?energy | | **0.28** | 0.27 | 0.31 |
| –?water | | **1.19** | 1.13 | 1.12 |
| –?greenhouse gas emissions | | **0.28** | 0.27 | 0.32 |
| Number of reportable environmental incidents | | **0** | 0 | 0 |
| **Community** | | | | |
| Local economic development* | (Rm) | **6** | 7 | 33 |
| Training and development | (Rm) | **37** | 37 | 33 |

** Included in the total for FY15 is an amount of R24 million that was capitalised as part of the hostel upgrades (FY16: R0 million, FY17: R0 million)*

**Other salient features**

| | |
|---|---|
| Status of operation | Steady state operation: development continues |
| Life of mine | 17 years |
| Nameplate hoisting capacity (per month) | 192 000 tonnes (212 000 tons) |
| Compliance and certification | New order mining right – December 2007<br>ISO 14001<br>ISO 9001 |

**Mineral reserves as at 30 June 2017***

| | Proved reserves | | | Probable reserves | | | Total mineral reserves | | |
|---|---|---|---|---|---|---|---|---|---|
| **Reserves (metric)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** |
| | 21.0 | 5.91 | 124 | 4.6 | 5.36 | 24 | 25.6 | 5.82 | 149 |
| **Reserves (imperial)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** |
| | 23.2 | 0.173 | 4 002 | 5.0 | 0.156 | 785 | 28.2 | 0.170 | 4 787 |

** As at 30 June 2017, the mineral reserves reported are for Tshepong and Phakisa combined. From FY18, Tshepong and Phakisa will be integrated and reported on as a single entity, Tshepong operations*

Tshepong is located in the Free State Province, near Welkom, about 248km from Johannesburg. Mining is conducted to a depth of 2 349m. The mine uses conventional undercut mining in the Basal Reef while the B Reef is exploited as a high-grade secondary reef. Ore mined is processed at the Harmony One plant.

During FY17, no fatalities occurred and Tshepong achieved a first ever three million fatality-free shifts on 31 March 2017, a total of 949 fatality-free days.

In FY17, Tshepong was Harmony's second highest contributor to cash flow from the South African operations. Both volume and kilograms were negatively impacted by under performance in the higher-grade decline section of the mine, mainly due to moving crews to other sections. The continued build-up in production from the sub-66 decline is driving the improvement in grade.

Gold production decreased by 4% to 4 819kg (154 934oz) in FY17, primarily due to the decline in volumes mined. Ore milled decreased by 6% to 1 027 000 tonnes (1 132 000 tons) while recovered gold grade increased by 2% to 4.69g/t (0.137oz/t). The decrease in gold production was offset by a 5% increase in the average rand gold price received to R572 921 kg. Revenue remained flat year on year atR2 760 million (7% increase to US$203 million).

With the sub-71 decline capital project, reef/waste split development progressed well and is on schedule. The sub-75 decline capital project continued.

Cash operating costs increased by 10% to R2 032 million (increased by 17% to US$149 million), mainly due to labour cost increases and higher electricity tariffs.

Capital expenditure increased by 26% to R387 million (increased by 33% to US$28 million). Capital was mainly spent on the sub-71 and sub-75 decline project.

Management's main focus is on reducing unit costs in all disciplines, adhering to maintenance schedules, cleaning dams, quality mining and performance of development section in order to sustain current stoping profile.

## Phakisa

| | | FY16 | FY15 | |
|---|---|---|---|---|
| **Number of employees** | | | | |
| – Permanent | | **3 806** | 3 547 | 3 344 |
| – Contractors | | **305** | 350 | 392 |
| Total | | **4 111** | 3 897 | 3 736 |
| **Operational** | | | | |
| Volumes milled | (000t) (metric) | **668** | 686 | 611 |
| | (000t) (imperial) | **737** | 756 | 674 |
| Gold produced | (kg) | **4 009** | 3 988 | 3 118 |
| | (oz) | **128 893** | 128 217 | 100 246 |
| Gold sold | (kg) | **3 999** | 3 991 | 3 156 |
| | (oz) | **128 570** | 128 314 | 101 468 |
| Grade | (g/t) | **6.00** | 5.81 | 5.10 |
| | (oz/t) | **0.175** | 0.170 | 0.149 |
| Productivity | (g/TEC) | **88.64** | 93.54 | 76.99 |
| **Development results** | | | | |
| Total metres | | **8 002** | 11 022 | 12 138 |
| Reef metres | | **1 293** | 1 785 | 1 749 |
| Capital metres | | **216** | 0 | 162 |
| **Financial** | | | | |
| Revenue | (Rm) | **2 302** | 2 186 | 1 420 |
| | (US$m) | **169** | 151 | 124 |
| Average gold price received | (R/kg) | **575 663** | 547 829 | 449 969 |
| | (US$/oz) | **1 317** | 1 175 | 1 223 |
| Cash operating cost | (Rm) | **1 645** | 1 378 | 1 166 |
| | (US$m) | **121** | 95 | 102 |
| Production profit/(loss) | (Rm) | **660** | 811 | 239 |
| | (US$m) | **49** | 56 | 21 |
| Capital expenditure | (Rm) | **330** | 323 | 403 |
| | (US$m) | **24** | 22 | 35 |
| Cash operating cost | (R/kg) | **410 387** | 345 457 | 373 876 |
| | (US$/oz) | **939** | 741 | 1 016 |
| All-in sustaining cost | (R/kg) | **507 849** | 436 477 | 495 644 |
| | (US$/oz) | **1 162** | 936 | 1 347 |
| **Safety** | | | | |
| Number of fatalities | | **1** | 2 | 0 |
| Lost-time injury frequency rate per million hours worked | | **6.80** | 6.64 | 8.76 |

| | | | | |
|---|---|---|---|---|
| **Environment** | | | | |
| Electricity consumption | (GWh) | **179** | 152 | 143 |
| Water consumption – primary activities | (ML) | **1 490** | 1 254 | 1 155 |
| Greenhouse gas emissions | (000t $CO_2$e) | **177** | 154 | 147 |
| Intensity data per tonne treated | | | | |
| –?energy | | **0.27** | 0.22 | 0.23 |
| –?water | | **2.23** | 1.83 | 1.89 |
| –?greenhouse gas emissions | | **0.27** | 0.22 | 0.24 |
| Number of reportable environmental incidents | | **0** | 0 | 0 |
| **Community** | | | | |
| Local economic development* | (Rm) | **6** | 6 | 12 |
| Training and development | (Rm) | **37** | 35 | 32 |

** Included in the total for FY15 is an amount of R3 million that was capitalised as part of the hostel upgrades (FY16: R0 million; FY17: R0 million)*

**Other salient features**

| | |
|---|---|
| Status of operation | Production ramp up continues |
| Life of mine | 9 years |
| Nameplate hoisting capacity (per month) | 91 000 tonnes (101 000 imperial tons) |
| Compliance and certification | New order mining right – December 2007<br>ISO 14001<br>ISO 9001<br>OHSAS 18001 |

***Mineral reserves as at 30 June 2017:** See Tshepong. As at 30 June 2017, Phakisa's mineral reserves are included with those of Tshepong. From FY18, Phakisa and Tshepong will be integrated and reported on as a single entity, Tshepong operations.*

Phakisa is located in the Free State Province, some 252km from Johannesburg. The mine has two shafts, the main Phakisa shaft and the Nyala shaft. The latter is used to hoist rock and serves as a second escape route. Phakisa exploits the Basal Reef. Mining is conducted to a depth of 2 426m. Ore mined is processed at the Harmony One plant. Phakisa continues to build up to full production, which is expected within the next two years.

Regrettably there was one fatality in FY17.

In line with the planned build-up at Phakisa, the recovered grade increased by 3% to 6.00g/t, offsetting the 3% decrease in ore milled (to 668 000 tonnes or 737 000 tons) resulting in a slight increase in gold produced by 0.5% to 4 009kg (128 893oz).

The integration between Tshepong and Phakisa mines involves the cross-tramming of ore from Phakisa to Tshepong which will de-bottleneck constraints on the over-utilised Phakisa infrastructure. Accelerated development was conducted in FY17 to facilitate the holing between the mines on 73 level.

Cash operating costs increased by 19% to R1 645 million (increased by 27% to US$121 million) due to increased production crews to accelerate the production build up, increased expenditure on consumable as production ramps up and annual wage and electricity tariff increases.

Capital expenditure increased by 2% to R330 million (by 9% to US$24 million), primarily spent on ongoing capital development.

Key deliverables include safe production, achieving volume and development targets, and increased ledging to improve flexibility. Ventilation change-overs were completed on 69 and 71 levels so that ventilation at Tshepong could be utilised at Phakisa.

## Bambanani

| | | | FY16 | FY15 |
|---|---|---|---|---|
| **Number of employees** | | | | |
| – Permanent | | **1 464** | 1 491 | 1 517 |
| – Contractors | | **205** | 321 | 330 |
| Total | | **1 669** | 1 812 | 1 847 |
| **Operational** | | | | |
| Volumes milled | (000t) (metric) | **231** | 232 | 229 |
| | (000t) (imperial) | **254** | 256 | 253 |
| Gold produced | (kg) | **2 750** | 3 013 | 2 908 |
| | (oz) | **88 415** | 96 870 | 93 495 |
| Gold sold | (kg) | **2 745** | 3 015 | 2 947 |
| | (oz) | **88 253** | 96 934 | 94 748 |
| Grade | (g/t) | **11.90** | 12.99 | 12.70 |
| | (oz/t) | **0.348** | 0.378 | 0.370 |
| Productivity | (g/TEC) | **148.42** | 156.54 | 153.08 |
| **Development results** | | | | |
| Total metres | | **1 591** | 1 743 | 1 150 |
| Reef metres | | **130** | 105 | 15 |
| Capital metres | | **0** | 0 | 0 |
| **Financial** | | | | |
| Revenue | (Rm) | **1 576** | 1 617 | 1 330 |
| | (US$m) | **116** | 112 | 116 |
| Average gold price received | (R/kg) | **574 227** | 536 410 | 451 200 |
| | (US$/oz) | **1 314** | 1 151 | 1 226 |
| Cash operating cost | (Rm) | **874** | 808 | 697 |
| | (US$m) | **64** | 56 | 61 |
| Production profit/(loss) | (Rm) | **705** | 806 | 625 |
| | (US$m) | **52** | 56 | 55 |
| Capital expenditure | (Rm) | **77** | 106 | 110 |
| | (US$m) | **6** | 7 | 10 |
| Cash operating cost | (R/kg) | **317 833** | 268 305 | 239 552 |
| | (US$/oz) | **727** | 576 | 651 |
| All-in sustaining cost | (R/kg) | **357 025** | 304 634 | 270 623 |
| | (US$/oz) | **817** | 654 | 735 |
| **Safety** | | | | |
| Number of fatalities | | **1** | 0 | 1 |
| Lost-time injury frequency rate per million hours worked | | **5.23** | 3.59 | 4.63 |

| | | | | |
|---|---|---|---|---|
| **Environment** | | | | |
| Electricity consumption | (GWh) | **143** | 140 | 133 |
| Water consumption – primary activities | (ML) | **1 200** | 1 434 | 1 731 |
| Greenhouse gas emissions | (000t $CO_2e$) | **141** | 142 | 137 |
| Intensity data per tonne treated | | | | |
| –?energy | | **0.64** | 0.60 | 0.59 |
| –?water | | **5.19** | 6.18 | 7.57 |
| –?greenhouse gas emissions | | **0.64** | 0.60 | 0.61 |
| Number of reportable environmental incidents | | **0** | 0 | 0 |
| **Community** | | | | |
| Local economic development | (Rm) | **14** | 9 | 3 |
| Training and development | (Rm) | **20** | 25 | 17 |

| **Other salient features** | |
|---|---|
| Status of operation | Mature operation with focus on mining of the shaft pillar for the next few years after which it will be at the end of its operating life |
| Life of mine | 5 years |
| Nameplate hoisting capacity (per month) | 32 000 tonnes (35 000 tons) |
| Compliance and certification | New order mining right – December 2007<br>ISO 14001 – not certified but operates according to standards requirements<br>ISO 9001<br>OHSAS 18001 |

**Mineral reserves as at 30 June 2017**

| | Proved reserves | | | Probable reserves | | | Total mineral reserves | | |
|---|---|---|---|---|---|---|---|---|---|
| **Reserves (metric)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** |
| | 1.1 | 11.54 | 12 | – | – | – | 1.1 | 11.54 | 12 |
| **Reserves (imperial)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** |
| | 1.2 | 0.337 | 401 | – | – | – | 1.2 | 0.337 | 401 |

Bambanani, located in the Free State Province, near Welkom and about 262km from Johannesburg, has two surface shafts (the East and West shafts). Mining is conducted to a depth of 2 365m. Activities at the mine focus on the Basal Reef and are limited to shaft pillar extraction. The ore mined is sent to Harmony One Plant for processing. Given the high risk of seismicity at Bambanani, efforts are focused on managing support systems and the rehabilitation of areas with challenging ground conditions.

Regrettably, one fatality occurred at Bambanani in FY17. Focus on safety and fatal risk management has further intensified as we strive for zero harm.

Bambanani is Harmony's most profitable mine despite gold production decreasing by 9% to 2 750kg (88 415oz) in FY17. This was primarily due to decline in the recovered grade by 8% to 11.90g/t after an exceptional grade performance in FY16 remained flat year on year at 231 000 tonnes (254 000 tons) in FY17.

Revenue was down by 3% to R1 576 million (4% increase to US$116 million) mainly due to lower production in FY17.

Cash operating costs increased by 8% to R874 million (or 14% to US$64 million), mainly due to the increase in annual wages and electricity tariffs.

Capital expenditure decreased by 27% to R77 million (a decrease of 14% to US$6 million). The decrease was due reduced capital spending as the Bambanani shaft pillar major capital project was completed at the end of FY17.

## Target 1

| | | | FY16 | FY15 |
|---|---|---|---|---|
| **Number of employees** | | | | |
| – Permanent | | **1 689** | 1 653 | 1 683 |
| – Contractors | | **222** | 272 | 266 |
| Total | | **1 911** | 1 925 | 1 949 |
| **Operational** | | | | |
| Volumes milled | (000t) (metric) | **745** | 739 | 749 |
| | (000t) (imperial) | **822** | 814 | 826 |
| Gold produced | (kg) | **2 669** | 3 387 | 3 824 |
| | (oz) | **85 809** | 108 895 | 122 944 |
| Gold sold | (kg) | **2 642** | 3 419 | 3 868 |
| | (oz) | **84 942** | 109 923 | 124 358 |
| Grade | (g/t) | **3.58** | 4.58 | 5.11 |
| | (oz/t) | **0.104** | 0.134 | 0.149 |
| Productivity | (g/TEC) | **126.66** | 155.77 | 172.25 |
| **Development results** | | | | |
| Total metres | | **3 656** | 3 459 | 4 174 |
| Reef metres | | **104** | 182 | 290 |
| **Financial** | | | | |
| Revenue | (Rm) | **1 506** | 1 833 | 1 738 |
| | (US$m) | **111** | 126 | 152 |
| Average gold price received | (R/kg) | **570 091** | 536 196 | 449 319 |
| | (US$/oz) | **1 304** | 1 150 | 1 221 |
| Cash operating cost | (Rm) | **1 356** | 1 242 | 1 178 |
| | (US$m) | **100** | 86 | 103 |
| Production profit/(loss) | (Rm) | **161** | 583 | 547 |
| | (US$m) | **12** | 40 | 48 |
| Capital expenditure | (Rm) | **324** | 322 | 296 |
| | (US$m) | **24** | 22 | 26 |
| Cash operating cost | (R/kg) | **508 082** | 366 814 | 308 156 |
| | (US$/oz) | **1 162** | 787 | 837 |
| All-in sustaining cost | (R/kg) | **651 833** | 471 876 | 395 669 |
| | (US$/oz) | **1 491** | 1 012 | 1 075 |
| **Safety** | | | | |
| Number of fatalities | | **0** | 2 | 0 |
| Lost-time injury frequency rate per million hours worked | | **11.80** | 4.91 | 4.51 |

| | | | | |
|---|---|---|---|---|
| **Environment** | | | | |
| Electricity consumption | (GWh) | **186** | 247 | 242 |
| Water consumption – primary activities | (ML) | **678** | 808 | 808 |
| Greenhouse gas emissions | (000t $CO_2$e) | **184** | 251 | 249 |
| Intensity data per tonne treated | | | | |
| –?energy | | **0.25** | 0.33 | 0.32 |
| –?water | | **0.91** | 1.09 | 1.22 |
| –?greenhouse gas emissions | | **0.25** | 0.33 | 0.33 |
| Number of reportable environmental incidents | | **0** | 0 | 0 |
| **Community** | | | | |
| Local economic development | (Rm) | **5** | 4 | 4 |
| Training and development | (Rm) | **36** | 34 | 30 |

| **Other salient features** | |
|---|---|
| Status of operation | Single, cost efficient shaft operation. Geological drilling to be conducted in the next 12 months to further evaluate capitalisation of the operation. |
| Life of mine | 7 years |
| Nameplate hoisting capacity (per month) | 97 000 tonnes (107 000 tons) |
| Compliance and certification | New order mining right – December 2007<br>ISO 14001<br>ISO 9001<br>OHSAS 18001 |

**Mineral reserves as at 30 June 2017**

| | Proved reserves | | | Probable reserves | | | Total mineral reserves | | |
|---|---|---|---|---|---|---|---|---|---|
| **Reserves (metric)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** |
| | 3.2 | 4.18 | 13 | 2.0 | 4.29 | 9 | 5.2 | 4.22 | 22 |
| **Reserves (imperial)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** |
| | 3.5 | 0.122 | 430 | 2.2 | 0.125 | 274 | 5.7 | 0.123 | 705 |

Target 1 is located in the Free State Province, some 270km southwest of Johannesburg. Mining operations at Target 1 comprise one primary underground mine, to a depth of approximately 2 945m. While most of the ore extracted comes from mechanised mining (massive mining techniques), conventional stoping is still employed primarily to destress areas ahead of mechanised mining. Ore mined is processed at the Target plant. The gold mineralisation currently exploited at Target 1 is contained within a succession of Elsburg and Dreyerskuil quartz pebble conglomerate reefs.

Target 1 manages its risks by focusing on trackless development to ensure timeous availability of massive stopes and to prevent excessive dilution from waste and backfill in the pillar areas, which could impact negatively on the delivered grade. Future success will depend on the availability of trackless mining equipment and performance regarding volumes and grade.

No fatalities occurred during the year (FY16: two).

Gold production decreased by 21% to 2 669kg (85 809oz) in FY17 as a result of 22% decrease in the recovered grade to 3.58g/t (FY16: 4.58g/t). Production was severely affected by unstable ground conditions which hampered further mining in the higher grade areas. Due to limited flexibility, a narrow reef mining method was implemented to access the ore. Grade and production improved in the second half of FY17 and a better performance is expected from Target 1 in FY18.

Revenue decreased by 18% to R1 506 million (12% decrease to US$111 million) as a result of the decrease in the production for FY17.

Cash operating costs rose by 9% to R1 356 million (16% increase to US$100 million). Reduced expenditure on consumables partially offset an increase in annual labour costs and electricity tariffs.

Capital expenditure in FY17 remained flat at R324 million (FY16: R322 million) (increase of 1% to US $24 million), as a zero-based costing exercise was implemented to manage costs and cash flow following the lower than expected production performance.

## Doornkop

| | | | FY16 | FY15 |
|---|---|---|---|---|
| **Number of employees** | | | | |
| – Permanent | | **2 847** | 2 471 | 2 977 |
| – Contractors | | **645** | 443 | 493 |
| Total | | **3 492** | 2 914 | 3 470 |
| **Operational** | | | | |
| Volumes milled | (000t) (metric) | **641** | 630 | 603 |
| | (000t) (imperial) | **706** | 695 | 665 |
| Gold produced | (kg) | **2 673** | 2 730 | 2 663 |
| | (oz) | **85 939** | 87 772 | 85 618 |
| Gold sold | (kg) | **2 712** | 2 712 | 2 711 |
| | (oz) | **87 193** | 87 193 | 87 160 |
| Grade | (g/t) | **4.17** | 4.33 | 4.42 |
| | (oz/t) | **0.122** | 0.126 | 0.129 |
| Productivity | (g/TEC) | **77.08** | 83.49 | 68.47 |
| **Development results** | | | | |
| Total metres (excl. capital metres) | | **9 961** | 7 766 | 8 919 |
| Reef metres | | **1 337** | 1 688 | 1 701 |
| Capital metres | | **1 316** | 0 | 0 |
| **Financial** | | | | |
| Revenue | (Rm) | **1 553** | 1 480 | 1 220 |
| | (US$m) | **114** | 102 | 107 |
| Average gold price received | (R/kg) | **572 494** | 545 770 | 449 857 |
| | (US$/oz) | **1 310** | 1 171 | 1 222 |
| Cash operating cost | (Rm) | **1 224** | 1 058 | 1 071 |
| | (US$m) | **90** | 73 | 94 |
| Production profit/(loss) | (Rm) | **312** | 433 | 128 |
| | (US$m) | **23** | 30 | 12 |
| Capital expenditure | (Rm) | **243** | 208 | 245 |
| | (US$m) | **18** | 14 | 21 |
| Cash operating cost | (R/kg) | **457 752** | 387 585 | 402 065 |
| | (US$/oz) | **1 047** | 831 | 1 092 |
| All-in sustaining cost | (R/kg) | **562 907** | 473 562 | 501 151 |
| | (US$/oz) | **1 288** | 1 016 | 1 362 |
| **Safety** | | | | |
| Number of fatalities | | **0** | 0 | 1 |
| Lost-time injury frequency rate per million hours worked | | **7.50** | 12.27 | 7.14 |

| | | | | |
|---|---|---|---|---|
| **Environment** | | | | |
| Electricity consumption | (GWh) | **188** | 203 | 205 |
| Water consumption – primary activities | (ML) | **947** | 1 135 | 733 |
| Greenhouse gas emissions | (000t $CO_2$e) | **186** | 206 | 211 |
| Intensity data per tonne treated | | | | |
| –?energy | | **0.30** | 0.32 | 0.34 |
| –?water | | **1.48** | 1.80 | 1.26 |
| –?greenhouse gas emissions | | **0.30** | 0.32 | 0.35 |
| Number of reportable environmental incidents | | **0** | 0 | 0 |
| **Community** | | | | |
| Local economic development* | (Rm) | **8** | 4 | 37 |
| Training and development | (Rm) | **42** | 30 | 35 |

* *Included in the total for FY16 is an amount of R1 million that was capitalised as part of the hostel upgrades (FY15: R28 million, FY17: R0 million)*

**Other salient features**

| | |
|---|---|
| Status of operation | Mining takes place on the South Reef at this single-shaft operation. |
| Life of mine | 18 years |
| Nameplate hoisting capacity (per month) | 103 000 tonnes ( 113 000 tons) |
| Compliance and certification | New order mining right – October 2008<br>ISO 14001<br>ISO 9001<br>OHSAS 18001 |

**Mineral reserves as at 30 June 2017**

| | Proved reserves | | | Probable reserves | | | Total mineral reserves | | |
|---|---|---|---|---|---|---|---|---|---|
| **Reserves (metric)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** |
| | 2.1 | 4.97 | 11 | 2.5 | 4.96 | 12 | 4.6 | 4.96 | 23 |
| **Reserves (imperial)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** |
| | 2.4 | 0.145 | 343 | 2.7 | 0.145 | 392 | 5.1 | 0.145 | 735 |

Doornkop, a single-shaft operation, is located in the Gauteng province of South Africa, approximately 30km west of Johannesburg, on the northern rim of the Witwatersrand Basin. Mining is conducted to a depth of 1 978m. The operation focuses on narrow-reef conventional mining of the South Reef. Ore from the operation is processed at the Doornkop plant.

Safety improvements were realised and Doornkop achieved its first ever two million fatality-free shift on 17 December 2016 after working 872 days fatality-free. There were no fatalities in FY17. The lost-time injury frequency rate improved by 39% to 7.50 per million hours worked in FY17 from 12.27 in FY16.

Gold production decreased by 2% to 2 673kg (85 939oz) in FY17. A 2% increase in ore milled to 641 000 tonnes

(706 000 tons) was offset by a 4% decrease in the recovered gold grade to 4.17g/t (0.122oz/t). The decrease in

the grade is due to the lower plant call factor owing to lower than expected plant efficiencies. Management at the shaft are focused on improving these efficiencies in FY18.

Despite the decrease in gold production, the 5% increase in the average rand gold price received (which included the gains realised on the gold forward hedging contracts) resulted in a 5% increase in revenue to R1 553 million (12% increase to US$114 million). The increase in dollar terms was also due to the 6% strengthening of the rand/ US dollar exchange rate to R13.60 in FY17 (FY16: R14.50/US$).

Cash operating costs increased by 16% to R1 224 million (increased by 23% to US$90 million) as a results of annual wage and electricity tariff increases as well as additional crews brought in to accelerate production. Capital expenditure increased by 17% to R243 million (increased by 29% to US$18 million) owing to an increase in shaft capital development on the 207 and 212 levels.

The planned seismic survey was completed during FY17 and led to an increase in the mine’s reserves and a better understanding of the mines geological structures. All changes related to the survey and geological drilling will be updated in the FY19 geological interpretation and life-of-mine design.

## Joel

| | | FY16 | FY15 | |
|---|---|---|---|---|
| **Number of employees** | | | | |
| – Permanent | | **1 962** | 1 796 | 1 818 |
| – Contractors | | **171** | 97 | 81 |
| Total | | **2 133** | 1 893 | 1 899 |
| **Operational** | | | | |
| Volumes milled | (000t) (metric) | **514** | 542 | 551 |
| | (000t) (imperial) | **567** | 597 | 607 |
| Gold produced | (kg) | **2 246** | 2 278 | 2 258 |
| | (oz) | **72 211** | 73 239 | 72 596 |
| Gold sold | (kg) | **2 280** | 2 245 | 2 330 |
| | (oz) | **73 303** | 72 179 | 74 911 |
| Grade | (g/t) | **4.37** | 4.20 | 4.10 |
| | (oz/t) | **0.127** | 0.123 | 0.119 |
| Productivity | (g/TEC) | **113.57** | 117.33 | 115.65 |
| **Development results** | | | | |
| Total metres | | **3 477** | 3 541 | 3 200 |
| Reef metres | | **1 596** | 2 315 | 1 037 |
| Capital metres | | **532** | 485 | 338 |
| **Financial** | | | | |
| Revenue | (Rm) | **1 309** | 1 220 | 1 046 |
| | (US$m) | **96** | 84 | 91 |
| Average gold price received | (R/kg) | **573 986** | 543 442 | 449 026 |
| | (US$/oz) | **1 313** | 1 166 | 1 220 |
| Cash operating cost | (Rm) | **928** | 845 | 755 |
| | (US$m) | **68** | 58 | 66 |
| Production profit/(loss) | (Rm) | **373** | 389 | 276 |
| | (US$m) | **27** | 27 | 24 |
| Capital expenditure | (Rm) | **243** | 215 | 182 |
| | (US$m) | **18** | 15 | 16 |
| Cash operating cost | (R/kg) | **413 088** | 371 080 | 334 168 |
| | (US$/oz) | **945** | 796 | 908 |
| All-in sustaining cost | (R/kg) | **477 484** | 424 617 | 384 022 |
| | (US$/oz) | **1 092** | 911 | 1 043 |
| **Safety** | | | | |
| Number of fatalities | | **1** | 1 | 0 |
| Lost-time injury frequency rate per million hours worked | | **2.54** | 3.49 | 3.72 |

| | | | | |
|---|---|---|---|---|
| **Environment** | | | | |
| Electricity consumption | (GWh) | **85** | 108 | 101 |
| Water consumption – primary activities | (ML) | **922** | 816 | 671 |
| Greenhouse gas emissions | (000t $CO_2$e) | **84** | 109 | 104 |
| Intensity data per tonne treated | | | | |
| –?energy | | **1.17** | 0.19 | 0.18 |
| –?water | | **1.79** | 1.50 | 1.22 |
| –?greenhouse gas emissions | | **0.16** | 0.19 | 0.19 |
| Number of reportable environmental incidents | | **0** | 0 | 0 |
| **Community** | | | | |
| Local economic development | (Rm) | **7** | 3 | 3 |
| Training and development | (Rm) | **20** | 15 | 15 |

| | |
|---|---|
| **Other salient features** | |
| Status of operation | Twin-shaft operation – technically challenging |
| Life of mine | 9 years |
| Nameplate hoisting capacity (per month) | 75 000 tonnes (83 000 tons) |
| Compliance and certification | New order mining right – December 2007<br>ISO 14001 – not certified but operates according to the standard's requirements<br>ISO 9001<br>OHSAS 18001 |

**Mineral reserves as at 30 June 2017**

| | Proved reserves | | | Probable reserves | | | Total mineral reserves | | |
|---|---|---|---|---|---|---|---|---|---|
| **Reserves (metric)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** |
| | 2.1 | 5.00 | 10 | 2.4 | 5.35 | 13 | 4.5 | 5.19 | 23 |
| **Reserves (imperial)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** |
| | 2.3 | 0.146 | 335 | 2.7 | 0.156 | 420 | 5.0 | 0.151 | 755 |

Joel is located in the Free State Province, about 292km from Johannesburg, on the southern edge of the Witwatersrand Basin. The mine comprises two shafts: North and South. The primary economic reef horizon at Joel is a narrow tabular Beatrix Reef deposit, which is accessed via conventional grid development. Mining is conducted to a depth of 1 452m. Ore mined is processed at the Joel plant.

The lost-time injury frequency rate improved by 27% to 2.54 per million hours worked. Regrettably, there was one fatality in FY17 (FY16: one).

Progress was made in the 137 decline capital project and is scheduled to be completed in 2018. Production from specific areas on 137 level is expected to start in March 2018. Project was initiated to extend the life of Joel Mine by approximately eight years and is included in Joel's current life-of-mine plan.

Gold production decreased by 1% to 2 246kg (72 211oz) in FY17. Recovered gold grades improved by 4% to 4.37g/t (0.127oz/t), which mostly offset the 5% decrease in ore milled to 514 000 tonnes (567 000 tons) mainly due to hoisting backlogs. The 7% increase in revenue to R1 309 million (14% increase to US$96 million) was largely due to the higher average rand gold price received (by 6% to R573 986/kg).

Cash operating costs increased by 10% to R928 million (increased by 17% to US$68 million) largely as a result of annual wage increases and higher electricity tariffs.

Capital expenditure increased by 13% to R243 million (increased by 20% to US$18 million), mainly as work progressed on the 137 decline project in FY17.

## Kusasalethu

| | | | FY16 | FY15 |
|---|---|---|---|---|
| **Number of employees** | | | | |
| – Permanent | | **4 050** | 3 944 | 3 898 |
| – Contractors | | **538** | 539 | 1 020 |
| Total | | **4 588** | 4 483 | 4 918 |
| **Operational** | | | | |
| Volumes milled | (000t) (metric) | **607** | 668 | 908 |
| | (000t) (imperial) | **670** | 736 | 1 001 |
| Gold produced | (kg) | **4 394** | 3 863 | 3 953 |
| | (oz) | **141 270** | 124 198 | 127 092 |
| Gold sold | (kg) | **4 498** | 3 822 | 4 297 |
| | (oz) | **144 614** | 122 880 | 138 151 |
| Grade | (g/t) | **7.24** | 5.78 | 4.35 |
| | (oz/t) | **0.211** | 0.169 | 0.127 |
| Productivity | (g/TEC) | **89.05** | 77.80 | 65.59 |
| **Development results** | | | | |
| Total metres | | **5 101** | 7 183 | 13 777 |
| Reef metres | | **1 185** | 1 517 | 2 436 |
| Capital metres | | **0** | 0 | 59 |
| **Financial** | | | | |
| Revenue | (Rm) | **2 575** | 2 078 | 1 939 |
| | (US$m) | **189** | 143 | 169 |
| Average gold price received | (R/kg) | **572 376** | 543 633 | 451 211 |
| | (US$/oz) | **1 309** | 1 166 | 1 226 |
| Cash operating cost | (Rm) | **2 019** | 1 848 | 1 866 |
| | (US$m) | **148** | 127 | 163 |
| Production profit/(loss) | (Rm) | **494** | 262 | (57) |
| | (US$m) | **36** | 18 | (5) |
| Capital expenditure | (Rm) | **289** | 360 | 463 |
| | (US$m) | **21** | 25 | 40 |
| Cash operating cost | (R/kg) | **459 422** | 478 277 | 472 112 |
| | (US$/oz) | **1 051** | 1 026 | 1 283 |
| All-in sustaining cost | (R/kg) | **541 247** | 584 498 | 587 406 |
| | (US$/oz) | **1 238** | 1 254 | 1 596 |
| **Safety** | | | | |
| Number of fatalities | | **0** | 2 | 1 |
| Lost-time injury frequency rate per million hours worked | | **10.29** | 7.06 | 25.80 |

| | | | | |
|---|---|---|---|---|
| **Environment** | | | | |
| Electricity consumption | (GWh) | **616** | 611 | 682 |
| Water consumption – primary activities | (ML) | **613** | 1 671 | 1 342 |
| Greenhouse gas emissions | (000t $CO_2$e) | **610** | 620 | 702 |
| Intensity data per tonne treated | | | | |
| –?energy | | **1.01** | 0.91 | 0.75 |
| –?water | | **1.00** | 2.50 | 1.48 |
| –?greenhouse gas emissions | | **0.10** | 0.91 | 0.77 |
| Number of reportable environmental incidents | | **3** | 1 | 1 |
| **Community** | | | | |
| Local economic development* | (Rm) | **5** | 5 | 30 |
| Training and development | (Rm) | **45** | 26 | 50 |

* *Included in the total for FY15 is an amount of R18 million that was capitalised as part of the hostel upgrades (FY16: R0 million, FY17: R0 million)*

**Other salient features**

| | |
|---|---|
| Status of operation | Positioned for profitability |
| Life of mine | 5 years |
| Nameplate hoisting capacity (per month) | 172 000 tonnes (190 000 tons) |
| Compliance and certification | New order mining right – December 2007<br>ISO 14001<br>ISO 9001<br>Cyanide Code |

**Mineral reserves as at 30 June 2017**

| | Proved reserves | | | Probable reserves | | | Total mineral reserves | | |
|---|---|---|---|---|---|---|---|---|---|
| **Reserves (metric)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** |
| | 4.3 | 6.95 | 30 | 0.6 | 6.18 | 4 | 4.9 | 6.85 | 34 |
| **Reserves (imperial)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** |
| | 4.7 | 0.203 | 959 | 0.7 | 0.180 | 129 | 5.4 | 0.200 | 1 088 |

Kusasalethu is located about 90km from Johannesburg, near the provincial border of Gauteng and North West Province, in the West Witwatersrand Basin where it mines the Ventersdorp Contact Reef as its main ore body. The mine comprises twin vertical and twin sub-vertical shaft systems, and uses conventional mining methods in a sequential grid layout. Mining is conducted to a depth of 3 388m, making it Harmony's deepest mine. Ore mined is treated at the Kusasalethu plant.

Kusasalethu achieved one million fatality-free shifts on 31 January 2017. Regrettably, post year-end, a seismic event triggered a fall-of-ground accident which led to five fatalities.

At the end of FY16 it was resolved that Kusasalethu's life of mine would be reduced from 25 years to five years to optimise cash flow and access the higher grade areas of the mine. Kusasalethu generated a profit and free cash flow in FY17. The recovered gold grade increased by 25% to 7.24g/t (0.211oz/t), which offset a 9% reduction in the volume of ore milled to 607 000 tonnes (670 000 tons), resulting in a 14% increase in gold production to 4 394kg (141 270oz).

The operation was impacted by illegal industrial action during January 2017 and March 2017. Management instituted disciplinary measures against the instigators and the AMCU branch leadership. Employee and union relations after the illegal industrial action were largely stable.

Critical infrastructure and related maintenance repair work was conducted at Kusasalethu over the extended Easter break. A notable reduction in unplanned infrastructure stoppages was evident following the maintenance work conducted.

Revenue increased by 24% to R2 575 million in FY17 (increased by 32% to US$189 million) as a result of the higher average rand gold price received and increased production.

Cash operating costs increased by 9% to R2 019 million (17% to US$148 million) due to wage increases, higher electricity tariffs and costs associated with the maintenance work conducted.

Capital expenditure decreased by 20% to R289 million (16% decrease to US$21 million). The variance was mainly due to the slow-down in ongoing capital development as a result of Kusasalethu's reduced life of mine.

## Masimong

| | | | FY16 | FY15 |
|---|---|---|---|---|
| **Number of employees** | | | | |
| – Permanent | | **2 437** | 2 478 | 2 470 |
| – Contractors | | **107** | 112 | 99 |
| Total | | **2 544** | 2 590 | 2 569 |
| **Operational** | | | | |
| Volumes milled | (000t) (metric) | **640** | 650 | 670 |
| | (000t) (imperial) | **706** | 716 | 739 |
| Gold produced | (kg) | **2 538** | 2 432 | 2 463 |
| | (oz) | **81 599** | 78 190 | 79 187 |
| Gold sold | (kg) | **2 539** | 2 432 | 2 491 |
| | (oz) | **81 631** | 78 191 | 80 087 |
| Grade | (g/t) | **3.97** | 3.74 | 3.68 |
| | (oz/t) | **0.116** | 0.109 | 0.107 |
| Productivity | (g/TEC) | **89.73** | 83.85 | 75.27 |
| **Development results** | | | | |
| Total metres | | **4 754** | 4 755 | 9 855 |
| Reef metres | | **1 054** | 1 549 | 2 376 |
| **Financial** | | | | |
| Revenue | (Rm) | **1 452** | 1 318 | 1 118 |
| | (US$m) | **107** | 91 | 98 |
| Average gold price received | (R/kg) | **571 870** | 541 806 | 448 867 |
| | (US$/oz) | **1 308** | 1 162 | 1 220 |
| Cash operating cost | (Rm) | **1 115** | 1 038 | 979 |
| | (US$m) | **82** | 72 | 86 |
| Production profit/(loss) | (Rm) | **339** | 280 | 127 |
| | (US$m) | **25** | 19 | 11 |
| Capital expenditure | (Rm) | **119** | 110 | 166 |
| | (US$m) | **9** | 8 | 15 |
| Cash operating cost | (R/kg) | **439 457** | 426 904 | 397 380 |
| | (US$/oz) | **1 005** | 916 | 1 080 |
| All-in sustaining cost | (R/kg) | **500 938** | 493 527 | 479 096 |
| | (US$/oz) | **1 146** | 1 059 | 1 302 |
| **Safety** | | | | |
| Number of fatalities | | **1** | 2 | 1 |
| Lost-time injury frequency rate per million hours worked | | **10.54** | 10.05 | 12.09 |

| | | | | |
|---|---|---|---|---|
| **Environment** | | | | |
| Electricity consumption | (GWh) | **170** | 172 | 184 |
| Water consumption – primary activities | (ML) | **825** | 715 | 859 |
| Greenhouse gas emissions | (000t $CO_2$e) | **169** | 175 | 190 |
| Intensity data per tonne treated | | | | |
| –?energy | | **0.27** | 0.26 | 0.28 |
| –?water | | **1.29** | 1.10 | 1.28 |
| –?greenhouse gas emissions | | **0.27** | 0.26 | 0.29 |
| Number of reportable environmental incidents | | **0** | 0 | 0 |
| **Community** | | | | |
| Local economic development | (Rm) | **7** | 6 | 6 |
| Training and development | (Rm) | **23** | 22 | 25 |

| **Other salient features** | |
|---|---|
| Status of operation | Mature, single shaft operation nearing the end of its life of mine |
| Life of mine | 4 years |
| Nameplate hoisting capacity (per month) | 112 000 tonnes (124 000 tons) |
| Compliance and certification | New order mining right – December 2007<br>ISO 14001<br>ISO 9001<br>OHSAS 18001 |

**Mineral reserves as at 30 June 2017**

| | Proved reserves | | | Probable reserves | | | Total mineral reserves | | |
|---|---|---|---|---|---|---|---|---|---|
| **Reserves (metric)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** |
| | 2.1 | 4.19 | 9 | 0.3 | 3.23 | 1 | 2.4 | 4.07 | 10 |
| **Reserves (imperial)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** |
| | 2.3 | 0.122 | 281 | 0.3 | 0.094 | 31 | 2.6 | 0.119 | 312 |

Masimong is located in the Free State Province, near Welkom, about 260km from Johannesburg. The Masimong complex comprises an operating shaft (5 shaft) and 4 shaft, which, although closed for mining, is used for ventilation, pumping and as a second escape outlet. Masimong exploits the Basal Reef and the secondary B Reef. Mining is conducted to a depth of 2 050m. Ore mined is processed at the Harmony One plant.

Sadly, there was one fatality at Masimong in FY17. Management is committed to improving the safety at this operation.

Masimong delivered an improved performance in FY17 as a result of accessing higher grade B-reef areas and improved mining discipline. The recovered gold grade increased by 6% to 3.97g/t (0.116oz/t). Ore milled decreased by 2% to

640 000 tonnes (706 000 tons). Gold produced increased by 4% to 2 538kg (81 599oz).

The increase in gold production and 6% increase in the average rand gold price received in FY17 (to R571 870/kg) contributed to a 10% increase in revenue to R1 452 million (18% increase to US$107 million, due to increased production and the strengthening of the average rand/US dollar exchange rate by 6% from R14.50 in FY16 to R13.60 in FY17).

Cash operating costs increased by 7% to R1 115 million (14% increase to US$82 million) mainly due to wage and electricity tariff increases.

Capital expenditure increased by 8% to R119 million (increased by 13% to US$9 million). Capital was spent mainly on ongoing development.

## Unisel

| | | | FY16 | FY15 |
|---|---|---|---|---|
| **Number of employees** | | | | |
| – Permanent | | **1 839** | 1 817 | 1 809 |
| – Contractors | | **152** | 128 | 114 |
| Total | | **1 991** | 1 945 | 1 923 |
| **Operational** | | | | |
| Volumes milled | (000t) (metric) | **394** | 424 | 417 |
| | (000t) (imperial) | **436** | 467 | 460 |
| Gold produced | (kg) | **1 595** | 1 704 | 1 695 |
| | (oz) | **51 280** | 54 785 | 54 495 |
| Gold sold | (kg) | **1 590** | 1 705 | 1 715 |
| | (oz) | **51 120** | 54 817 | 55 138 |
| Grade | (g/t) | **4.05** | 4.02 | 4.06 |
| | (oz/t) | **0.118** | 0.117 | 0.118 |
| Productivity | (g/TEC) | **73.56** | 77.43 | 77.82 |
| **Development results** | | | | |
| Total metres | | **3 647** | 3 145 | 5 177 |
| Reef metres | | **1 575** | 1 917 | 2 816 |
| **Financial** | | | | |
| Revenue | (Rm) | **915** | 925 | 770 |
| | (US$m) | **67** | 64 | 67 |
| Average gold price received | (R/kg) | **575 650** | 542 487 | 449 082 |
| | (US$/oz) | **1 317** | 1 164 | 1 220 |
| Cash operating cost | (Rm) | **839** | 754 | 674 |
| | (US$m) | **62** | 52 | 59 |
| Production profit/(loss) | (Rm) | **77** | 171 | 88 |
| | (US$m) | **6** | 12 | 7 |
| Capital expenditure | (Rm) | **78** | 62 | 99 |
| | (US$m) | **6** | 4 | 9 |
| Cash operating cost | (R/kg) | **525 732** | 442 359 | 397 615 |
| | (US$/oz) | **1 203** | 949 | 1 080 |
| All-in sustaining cost | (R/kg) | **591 913** | 496 099 | 469 246 |
| | (US$/oz) | **1 354** | 1 064 | 1 275 |
| **Safety** | | | | |
| Number of fatalities | | **0** | 0 | 1 |
| Lost-time injury frequency rate per million hours worked | | **13.57** | 9.61 | 8.74 |

| | | | | |
|---|---|---|---|---|
| **Environment** | | | | |
| Electricity consumption | (GWh) | **112** | 112 | 109 |
| Water consumption – primary activities | (ML) | **441** | 563 | 519 |
| Greenhouse gas emissions | (000t $CO_2$e) | **112** | 113 | 112 |
| Intensity data per tonne treated | | | | |
| –?energy | | **0.28** | 0.26 | 0.26 |
| –?water | | **1.12** | 1.33 | 1.25 |
| –?greenhouse gas emissions | | **0.28** | 0.26 | 0.27 |
| Number of reportable environmental incidents | | **0** | 0 | 0 |
| **Community** | | | | |
| Local economic development* | (Rm) | **5** | 4 | 19 |
| Training and development | (Rm) | **24** | 23 | 21 |

* *Included in the total for FY15 is an amount of R15 million that was capitalised as part of the hostel upgrades (FY16: R0 million, FY17: R0 million)*

**Other salient features**

| | |
|---|---|
| Status of operation | Mature operation reaching the end of its life of mine. Mining of safety pillars to begin in FY18 |
| Life of mine | 5 years |
| Nameplate hoisting capacity (per month) | 63 000 tonnes (69 000 tons) |
| Compliance and certification | New order mining right – December 2007<br>ISO 9001 |

**Mineral reserves as at 30 June 2017**

| | Proved reserves | | | Probable reserves | | | Total mineral reserves | | |
|---|---|---|---|---|---|---|---|---|---|
| **Reserves (metric)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** |
| | 1.2 | 4.56 | 5 | 0.9 | 4.60 | 4 | 2.0 | 4.58 | 9 |
| **Reserves (imperial)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** |
| | 1.3 | 0.133 | 170 | 1.0 | 0.134 | 131 | 2.3 | 0.134 | 302 |

Unisel is located in the Free State Province, near Virginia, about 270km from Johannesburg. Mining is conducted to a depth of 2 153m below surface. Conventional scattered mining and pillar reclamation take place to access the Basal, Leader and, to a lesser extent, the Middle reefs. Ore mined is processed at Harmony One plant.

Unisel is nearing the end of its operating life and is Harmony's oldest operating mine. Unisel's ageing infrastructure presents significant challenges to the mine's operational flexibility and to the maintenance of production. From FY18 mining will focus on targeted areas of the shaft pillar and continue for an estimated three years.

In May 2017, Unisel achieved one million fatality-free shifts, with FY17 being the second consecutive year without a fatality.

Gold production declined by 6% to 1 595kg (51 280oz) in FY17 mainly as ore milled decreased by 7% to 394 000 tonnes (436 000 tons). While the recovered gold grade increased by 1% to 4.05g/t (0.118oz/t). The decrease in gold production offset the 6% increase in the average rand gold price received (to R575 650/kg), which resulted in a 1% decrease in revenue to R915 million (5% increase to US$67 million). Unplanned infrastructure disruptions in the main shaft and decline sections affected production.

Cash operating costs increased by 11% to R839 million (increased by 19% to US$62 million), mainly due to increased labour costs related to wage increases and once-off special bonuses, increased repair and maintenance expenditure and associated overtime.

Capital expenditure increased by 26% to R78 million (increased by 50% to US$6 million) mainly due to the purchase and installation of a replacement of the man winder motor and capital repairs to the replaced unit which is available as a spare unit.

## SOUTH AFRICA – SURFACE OPERATIONS

### Kalgold

| | | | FY16 | FY15 |
|---|---|---|---|---|
| **Number of employees** | | | | |
| – Permanent | | **241** | 235 | 240 |
| – Contractors | | **395** | 377 | 465 |
| Total | | **636** | 612 | 705 |
| **Operational** | | | | |
| Volumes milled | (000t) (metric) | **1 506** | 1 479 | 1 472 |
| | (000t) (imperial) | **1 660** | 1 630 | 1 623 |
| Gold produced | (kg) | **1 205** | 1 103 | 1 198 |
| | (oz) | **38 742** | 35 463 | 38 517 |
| Gold sold | (kg) | **1 213** | 1 086 | 1 230 |
| | (oz) | **38 999** | 34 916 | 39 545 |
| Grade | (g/t) | **0.80** | 0.75 | 0.81 |
| | (oz/t) | **0.023** | 0.022 | 0.024 |
| Productivity | (g/TEC) | **123.82** | 116.79 | 183.86 |
| **Financial** | | | | |
| Revenue | (Rm) | **695** | 595 | 551 |
| | (US$m) | **51** | 41 | 48 |
| Average gold price received | (R/kg) | **573 010** | 548 072 | 448 230 |
| | (US$/oz) | **1 311** | 1 176 | 1 218 |
| Cash operating cost | (Rm) | **557** | 548 | 452 |
| | (US$m) | **41** | 38 | 40 |
| Production profit/(loss) | (Rm) | **131** | 55 | 88 |
| | (US$m) | **10** | 4 | 8 |
| Capital expenditure* | (Rm) | **96** | 39 | 48 |
| | (US$m) | **7** | 3 | 4 |
| Cash operating cost | (R/kg) | **462 037** | 496 991 | 377 547 |
| | (US$/oz) | **1 057** | 1 066 | 1 026 |
| All-in sustaining cost* | (R/kg) | **558 731** | 549 590 | 427 902 |
| | (US$/oz) | **1 278** | 1 179 | 1 163 |
| **Safety** | | | | |
| Number of fatalities | | **0** | 0 | 0 |
| Lost-time injury frequency rate per million hours worked | | **2.19** | 0 | 2.25 |
| **Environment** | | | | |
| Electricity consumption | (GWh) | **54** | 49 | 40 |
| Water consumption – primary activities | (ML) | **392** | 375 | 1 795 |
| Greenhouse gas emissions | (000t $CO_2$e) | **53** | 50 | 41 |

| | | | | |
|---|---|---|---|---|
| Intensity data per tonne treated | | | | |
| –?energy | | **0.04** | 0.03 | 0.03 |
| –?water | | **0.26** | 0.25 | 1.22 |
| –?greenhouse gas emissions | | **0.36** | 0.03 | 0.03 |
| Number of reportable environmental incidents | | **0** | 0 | 1 |
| **Community** | | | | |
| Local economic development | (Rm) | **2** | 2 | 2 |
| Training and development | (Rm) | **7** | 5 | 4 |
| **Other salient features** | | | | |
| Status of operation | Open-pit mining operation | | | |
| Life of mine | 21 years | | | |
| Compliance and certification | New order mining right – August 2008<br>ISO 14001<br>ISO 9001 | | | |

**Mineral reserves as at 30 June 2017**

| | Proved reserves | | | Probable reserves | | | Total mineral reserves | | |
|---|---|---|---|---|---|---|---|---|---|
| **Reserves (metric)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** |
| | 4.5 | 0.96 | 4 | 22.1 | 1.12 | 25 | 26.6 | 1.09 | 29 |
| **Reserves (imperial)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** |
| | 4.9 | 0.028 | 138 | 24.4 | 0.033 | 796 | 29.3 | 0.032 | 934 |

Kalgold is an open-pit mine situated 55km southwest of Mahikeng in North West Province and located within the Kraaipan Greenstone Belt. Mining takes place from the A-Zone pit. Ore mined is processed at a carbon-in-leach plant located at Kalgold.

There were no fatalities during the year under review.

The A-Zone and Watertank pits are to be merged into one pit which is expected to expose higher grade ore. Plant refurbishment and crusher upgrades were completed during FY17. These improvements delivered improved plant efficiencies and recoveries while the crushers delivered finer and increased volumes of ore throughput to the plant mills.

Gold production improved by 9% to 1 205kg (38 742oz), which was due to an increase in the recovered grade by 7% to 0.80g/t (0.023oz/t), and increase in ore milled by 2% to 1 506 000 tonnes (1 660 000 tons). Revenue increased by 17% to R695 million (a 24% increase to US$51 million) as a result of increased production and the higher average gold price received.

Cash operating costs increased by 2% to R557 million (8% increase to US$41 million). Refer to capital expenditure discussion below.

Capital expenditure increased by 146% to R96 million (increased by 133% to US$7 million), mainly due to the increase from capitalised stripping activities of R77 million (US$5.7 million) from the A-zone pit and Watertank pit merger as the ore to waste ratio takes into account a larger merged pit and increased expenditure related to the plant refurbishment and crusher upgrades.

## Phoenix (Tailings retreatment)

| | | | FY16 | FY15 |
|---|---|---|---|---|
| **Number of employees** | | | | |
| – Permanent | | **82** | 82 | 83 |
| – Contractors | | **261** | 296 | 312 |
| Total | | **343** | 378 | 395 |
| **Operational** | | | | |
| Volumes milled | (000t) (metric) | **6 729** | 6 465 | 6 245 |
| | (000t) (imperial) | **7 420** | 7 129 | 6 887 |
| Gold produced | (kg) | **918** | 804 | 867 |
| | (oz) | **29 515** | 25 849 | 27 875 |
| Gold sold | (kg) | **932** | 788 | 881 |
| | (oz) | **29 964** | 25 335 | 28 324 |
| Grade | (g/t) | **0.136** | 0.124 | 0.139 |
| | (oz/t) | **0.004** | 0.004 | 0.004 |
| Productivity | (g/TEC) | **187.96** | 177.72 | 185.73 |
| **Financial** | | | | |
| Revenue | (Rm) | **512** | 429 | 396 |
| | (US$m) | **38** | 30 | 35 |
| Average gold price received | (R/kg) | **549 777** | 544 390 | 449 941 |
| | (US$/oz) | **1 258** | 1 168 | 1 223 |
| Cash operating cost | (Rm) | **364** | 320 | 295 |
| | (US$m) | **27** | 22 | 26 |
| Production profit/(loss) | (Rm) | **140** | 117 | 97 |
| | (US$m) | **10** | 8 | 8 |
| Capital expenditure | (Rm) | **5** | 5 | 4 |
| | (US$m) | **–** | – | – |
| Cash operating cost | (R/kg) | **396 486** | 398 122 | 339 896 |
| | (US$/oz) | **907** | 854 | 924 |
| All-in sustaining cost | (R/kg) | **404 685** | 403 907 | 344 319 |
| | (US$/oz) | **926** | 866 | 936 |
| **Safety** | | | | |
| Number of fatalities | | **0** | 0 | 0 |
| Lost-time injury frequency rate per million hours worked | | **0** | 2.06 | 0.00 |

| | | | | |
|---|---|---|---|---|
| **Environment** | | | | |
| Electricity consumption | (GWh) | **42** | 40 | 41 |
| Water consumption – primary activities | (ML) | **249** | 267 | 277 |
| Greenhouse gas emissions | (000t $CO_2$e) | **42** | 41 | 42 |
| Intensity data per tonne treated | | | | |
| –?energy | | **0.006** | 0.006 | 0.007 |
| –?water | | **0.04** | 0.04 | 0.04 |
| –?greenhouse gas emissions | | **0.006** | 0.006 | 0.007 |
| Number of reportable environmental incidents | | **0** | 0 | 0 |
| **Other salient features** | | | | |
| Status of operation | Retreatment of tailings | | | |
| Life of mine | 12 years | | | |
| Compliance and certification | New order mining right – December 2007<br>ISO 14001 certification is under consideration – interim focus is on compliance<br>ISO 9001 | | | |

**Mineral reserves as at 30 June 2017**

| | Proved reserves | | | Probable reserves | | | Total mineral reserves | | |
|---|---|---|---|---|---|---|---|---|---|
| **Reserves (metric)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** |
| | 73.0 | 0.28 | 20 | – | – | – | 73.0 | 0.28 | 20 |
| **Reserves (imperial)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** |
| | 80.5 | 0.008 | 646 | – | – | – | 80.5 | 0.008 | 646 |

Phoenix, a tailings retreatment operation situated in Virginia in the Free State Province, makes use of the Saaiplaas plant to retreat tailings. During FY13, Harmony finalised an empowerment agreement and transferred 30% of its shareholding in the Phoenix operations to black economic empowerment owners.

The Phoenix operation delivered an excellent performance in FY17. The increase in volumes processed was due to a well-managed tailings dam to plant operational circuit. Improved plant efficiencies enhanced the recovery of higher grade tailings throughput to the plant.

Year-on-year, gold production improved by 14% to 918kg (29 515oz), mainly as a result of a 10% improvement in the recovered grade to 0.136g/t (0.004oz/t), and a 4% increase in volumes processed to 6 729 000 tonnes (7 420 000 tons).

The increase in the average rand gold price received and increase in gold production, resulted in a 19% increase in revenue to R512 million (increase of 27% to US$38 million). Cash operating costs increased by 14% to R364 million (increased by 23% to US$27 million) due to the higher volumes processed in FY17, and increase in labour costs resulting from wage increases and bonuses paid and higher electricity tariffs.

Operational success depends on maintaining plant efficiency and reducing pump and pipe failures (adequate spillage control). Grade variability and the theft of pipelines and electrical cables are the main risks being managed at Phoenix. Security has been increased in an effort to halt the endemic theft of piping and cables that can affect the integrity of operations.

## Surface dumps

| | | | FY16 | FY15 |
|---|---|---|---|---|
| **Number of employees** | | | | |
| – Permanent | | **10** | 10 | 10 |
| – Contractors | | **107** | 190 | 174 |
| Total | | **117** | 200 | 184 |
| **Operational** | | | | |
| Volumes milled | (000t) (metric) | **2 810** | 3 041 | 2 701 |
| | (000t) (imperial) | **3 099** | 3 353 | 2 978 |
| Gold produced | (kg) | **1 055** | 1 065 | 862 |
| | (oz) | **33 918** | 34 241 | 27 713 |
| Grade | (g/t) | **0.375** | 0.350 | 0.319 |
| | (oz/t) | **0.011** | 0.010 | 0.009 |
| **Financial** | | | | |
| Revenue | (Rm) | **609** | 577 | 389 |
| | (US$m) | **45** | 40 | 34 |
| Average gold price received | (R/kg) | **572 172** | 544 996 | 450 420 |
| | (US$/oz) | **1 309** | 1 169 | 1 224 |
| Cash operating cost | (Rm) | **459** | 427 | 330 |
| | (US$m) | **34** | 29 | 29 |
| Production profit/(loss) | (Rm) | **142** | 158 | 58 |
| | (US$m) | **10** | 11 | 5 |
| Capital expenditure | (Rm) | **163** | 18 | 6 |
| | (US$m) | **12** | 1 | 1 |
| Cash operating cost | (R/kg) | **434 715** | 401 033 | 382 959 |
| | (US$/oz) | **995** | 860 | 1 041 |
| All-in sustaining cost | (R/kg) | **445 451** | 422 205 | 403 906 |
| | (US$/oz) | **1 019** | 906 | 1 097 |
| **Safety** | | | | |
| Number of fatalities | | **0** | 0 | 0 |
| Lost-time injury frequency rate per million hours worked | | **0** | 0 | 2.48 |
| **Environment** | | | | |
| Electricity consumption | (GWh) | **52** | 66 | 64 |
| Water consumption – primary activities | (ML) | **234** | 394 | 480 |
| Greenhouse gas emissions | (000t $CO_2$e) | **51** | 67 | 66 |
| Intensity data per tonne treated | | | | |
| –?energy | | **0.02** | 0.02 | 0.02 |
| –?water | | **0.08** | 0.12 | 0.18 |
| –?greenhouse gas emissions | | **0.02** | 0.02 | 0.02 |
| Number of reportable environmental incidents | | **0** | 0 | 0 |
| **Community** | | | | |
| Local economic development | (Rm) | **0** | 0 | 0 |

| **Other salient features** | |
|---|---|
| Status of operation | Following the conversion of the Central Plant to process tailings, the processing of waste rock dumps will be substantially reduced over the next few years. |
| Life of mine | ± 1 year (depending on availability of spare plant capacity) |
| Compliance and certification | Certification depends on the future of these operations<br>ISO 9001 |

**Mineral reserves as at 30 June 2017**

| | Proved reserves | | | Probable reserves | | | Total mineral reserves | | |
|---|---|---|---|---|---|---|---|---|---|
| **Reserves (metric)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** |
| | – | – | – | 3.9 | 0.51 | 2 | 3.9 | 0.51 | 2 |
| **Reserves (imperial)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** |
| | – | – | – | 4.3 | 0.015 | 64 | 4.3 | 0.015 | 64 |

Production from the processing of surface rock dumps situated in the Free State province of South Africa depends entirely on the availability of spare mill capacity at the Harmony One and Target plants, which in turn depends on the availability of underground ore delivered for milling. Waste and waste rock dump deliveries to Kusasalethu Plant (situated near the border of Gauteng and North West Province) supplement mining volumes in order to secure sufficient backfill to use as support in stoping areas.

The tailings retreatment conversion of the Central Plant in FY17 reduced capacity to process waste rock volumes and resulted in an 8% decrease in volumes milled to 2 810 000 tonnes (3 099 000 tons). Waste rock dumps will no longer be processed at the Central Plant in FY18 following the completion of the conversion of this plant to treat tailings.

Gold production from the processing of material from the surface dumps reduced by 1% as the decrease in volumes processed was largely offset by the increase in the recovered grade of 7% to 0.375g/t (0.011oz/t) as higher grade waste rock material was processed in FY17.

Included in the capital expenditure for FY17 is R156 million (US$11.5 million) related to the Central Plant tailings conversion project which was completed on time and below budget.

## PAPUA NEW GUINEA

### Hidden Valley

| | | | FY16* | FY15* |
|---|---|---|---|---|
| **Number of employees** | | | | |
| – Permanent | | **1 192** | | |
| – Contractors | | **881** | | |
| Total | | **2 073** | [1] 1 618 | [1] 2 157 |
| **Operational** | | | | |
| Volumes milled | (000t) (metric) | **2 889** | 1 729 | 1 825 |
| | (000t) (imperial) | **3 186** | 1 906 | 2 012 |
| Gold produced [2] | (kg) | **2 965** | 2 257 | 2 943 |
| | (oz) | **95 327** | 72 565 | 94 619 |
| Gold sold [2] | (kg) | **3 119** | 2 340 | 3 003 |
| | (oz) | **100 278** | 75 233 | 96 548 |
| Grade | (g/t) | **1.07** | 1.31 | 1.61 |
| | (oz/t) | **0.035** | 0.038 | 0.047 |
| **Financial** | | | | |
| Revenue | (Rm) | **1 500** | 1 320 | 1 346 |
| | (US$m) | **110** | 91 | 118 |
| Average gold price received | (R/kg) | **544 442** | 564 272 | 448 322 |
| | (US$/oz) | **1 246** | 1 210 | 1 218 |
| Cash operating cost | (Rm) | **1 214** | 1 082 | 1 153 |
| | (US$m) | **89** | 75 | 101 |
| Production profit/(loss) | (Rm) | **186** | 108 | 203 |
| | (US$m) | **14** | 7 | 18 |
| Capital expenditure [3] | (Rm) | **1 335** | 121 | 357 |
| | (US$m) | **98** | 8 | 31 |
| Cash operating cost | (R/kg) | **466 847** | 479 196 | 391 774 |
| | (US$/oz) | **1 068** | 1 028 | 1 065 |
| All-in sustaining cost | (R/kg) | **543 186** | 597 398 | 514 690 |
| | (US$/oz) | **1 241** | 1 282 | 1 395 |
| **Safety** | | | | |
| Number of fatalities | | **0** | 1 | 1 |
| Lost-time injury frequency rate per million hours worked | | **0.52** | 1.39 | 0.28 |
| **Environment** | | | | |
| Electricity consumption | (GWh) | **53** | 54 | 48 |
| Water consumption – primary activities | (ML) | **1 309** | 715 | 722 |
| Greenhouse gas emissions | (000t $CO_2$e) | **53** | 55 | 0 |

| | | | |
|---|---|---|---|
| Intensity data per tonne treated | | | |
| –?energy | **0.02** | 0.03 | 0.03 |
| –?water | **0.45** | 0.41 | 0.39 |
| –?greenhouse gas emissions | **0.07** | 0.03 | 0 |
| Number of reportable environmental incidents | **0** | 0 | 1 |

** The FY16 and FY15 key statistics in the table above represent Harmony's 50% interest in the Hidden Valley mine and are not comparable to the FY17 results. Following Harmony's acquisition of the remaining 50% of Hidden Valley in October 2016, Hidden Valley has been accounted for at 100% from the end of October 2016*

*1 Employees of the Hidden Valley joint venture*

*2 FY17 gold produced and gold sold includes 364kg (11 713oz) capitalised as part of pre-stripping of stages 5 and 6 (FY16:nil), (FY15:nil). Revenue of R195 million (US$14 million) and the associated costs were capitalised*

*3 Figures for FY15 restated to include capitalised stripping costs*

| **Other salient features** | |
|---|---|
| Status of operation | Open-pit mining operation producing gold and silver. Post the acquisition in full, the stage 5 and 6 cutback investment is underway; commercial levels of production scheduled for the last quarter of FY18 |
| Life of mine | 6 years |
| Compliance and certification | Mining lease approved by Papua New Guinea authorities |

**Mineral reserves as at 30 June 2017 (including Hamata)**

| **Gold** | **Proved reserves** | | | **Probable reserves** | | | **Total mineral reserves** | | |
|---|---|---|---|---|---|---|---|---|---|
| **Reserves (metric)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** | **Tonnes (Mt)** | **Grade (g/t)** | **Gold (000kg)** |
| | 0.5 | 1.04 | 0.4 | 25.7 | 1.65 | 43 | 26.2 | 1.63 | 43 |
| **Reserves (imperial)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** | **Tons (Mt)** | **Grade (oz/t)** | **Gold (000oz)** |
| | 0.6 | 0.030 | 17 | 28.4 | 0.048 | 1 370 | 29.0 | 0.048 | 1 387 |

The Hidden Valley mine is an open pit gold and silver mine, situated in the highly prospective area of the Morobe Province in Papua New Guinea, some 210km northwest of Port Moresby. Harmony increased its interest in Hidden Valley to 100% by acquiring the remaining 50% in October 2016.

The major gold and silver deposits of the Morobe goldfield and Hidden Valley are hosted in the Wau Graben. The operational pits are Hidden Valley-Kaveroi and Hamata, located approximately 6km apart. Ore mined is treated at the Hidden Valley processing plant.

The acquisition of full ownership of Hidden Valley followed the decision to invest primarily in the development of the Hidden Valley-Kaveroi stage 5 and 6 cutbacks. The investment in Hidden Valley has the potential to contribute approximately 180 000oz gold per annum to Harmony's production profile, at an all-in sustaining cost of less than US$950/oz. The total investment capital will be net US$180 million, of which US$68 million was spent in FY17 with expenditure of an estimated US$110 million planned for FY18. Commercial levels of production are expected to be achieved in the June quarter of FY18.

A planned major four-month shutdown commenced in August 2017. Depleted ore stockpiles and a lack of mined ore to feed the plant have necessitated the shutdown, during which extensive upgrades and maintenance will be undertaken.

During FY17, the mine processed ore from the Hamata pit and stockpiles until June 2017 which resulted in the 18% decrease in grade year on year to 1.07g/t (0.035oz/t).

The lost-time injury frequency rate improved significantly in FY17 to 0.52 per million hours worked from 1.39 in FY16. There were no fatalities in FY17 (FY16: one). A culture of safe behaviour and the use of critical control equipment are driving improved safety performance.

Ore milled in the process plant increased by 67% to 2.9 million tonnes (3.2 million tons), gold production rose by 31% year-on-year to 2 965kg (95 327oz), resulting in an increase in revenue of 14% to R1 500 million (an increase of 21% to US$110 million). Cash operating costs increased by 12% to R1 214 million (19% increase to US$89 million). These increases are mainly attributable to Harmony's increased stake in Hidden Valley.

Capital expenditure increased by 1 003% in FY17 to R1 335 million (increased by 1 125% to

US$98 million). In order to support waste strip mining and improve production, a significant investment was made in additional and replacement mining equipment.

# PROJECTS AND EXPLORATION

## EXPLORATION PROGRAMME IN PAPUA NEW GUINEA – FY17 HIGHLIGHTS AND MILESTONES

**Advancement of the Wafi-Golpu project:**

- Special mining lease application submitted in August 2016
- Completion of a targeted drilling programme has significantly improved the geotechnical understanding of relevant domains
- Start of feasibility study update, including trade-off studies of deep sea tailings placement, terrestrial tailings storage and other tailings management solutions, and self-generated on-site power supply
- Collection of oceanographic data on the deep sea placement of tailings
- Selection of final block cave extraction levels and the mine production rate
- Ongoing preparation of environmental impact study

**Consolidated exploration tenure in the Morobe Goldfield:**

- 100% of the contiguous tenement package surrounding the Hidden Valley mining lease included with the acquisition of Hidden Valley
- 502km$^2$ of tenure centered on one of Papua New Guinea's premier goldfields – encompasses the historic Wau Gold Mining Centre
- Increased brownfield exploration focus – high-grade epithermal gold targets generated for drill testing as potential satellite deposits for Hidden Valley

**Tenement rationalisation:**

- Harmony (100%) tenement holding increased 66% to 1 265km$^2$ (FY16: 764km$^2$)
- Joint venture (Harmony 50%) tenement holding declined by 50% to 495 km$^2$ (FY16: 999km$^2$)
- EL1629 is held under an option to purchase by Pacific Niugini Minerals and who are also responsible for maintaining the joint venture tenement in good standing
- Harmony continues to manage exploration on the portfolio tenement package on behalf of the exploration portfolio joint venture participants (ultimate parent companies: Newcrest 50%; Harmony 50%)

## PAPUA NEW GUINEA

## HARMONY'S EXPLORATION ACTIVITIES

Harmony began actively exploring in Papua New Guinea in 2003. Since then, we have developed a high-quality project portfolio, both in established mineral provinces and in emerging gold and copper districts.

Harmony has advanced several gold and copper-gold prospects which are at various stages of exploration and evaluation across Harmony's lease areas. These include the Kili Teke prospect.

Our exploration strategy takes a balanced approach, incorporating both greenfield and brownfield exploration. We target highly prospective, underexplored terrains and mining districts to discover and develop large, long-life, bulk mineable gold and copper-gold deposits. Key work streams underpin the FY17 exploration programme:

- Optimisation of feasibility and prefeasibility studies of the Golpu copper-gold deposit
- Brownfield exploration at Wau (for Hidden Valley) for high-grade satellite deposits to optimise existing open pit operations
- Greenfield exploration to enhance Harmony's world-class copper-gold footprint in Papua New Guinea

In FY17, we spent R431 million (US$32 million) (FY16: R433 million; US$29.9 million) on exploration in Papua New Guinea.

The case for exploration investment in Papua New Guinea remains strong. Harmony closely monitors the environment for new opportunities to enhance our project portfolio, in line with core operating capabilities. The country is hugely prospective and under-explored. In addition, Harmony has an established track record of discovery and adding value through cost-effective exploration:

- Since 2003, resources have grown from Harmony-held tenements, both those held in joint venture (Harmony's 50% equity share) and by Harmony alone (100%-held)
- Discovery cost on a per ounce gold equivalent basis of less than US$10 is among the best in the world

**Tenements held in joint venture (Wafi-Golpu Joint Venture and Exploration Portfolio Joint Venture) (Harmony 50%)**

Harmony is in a 50:50 joint venture with Newcrest Mining over a number of tenements in Morobe Province.

These tenements encompass the Wafi-Golpu project and span the Wafi Transfer and its strike extensions, and are prospective for epithermal gold and porphyry style copper-gold deposits. The exploration strategy is to discover bulk tonnage (~1Moz) or high-margin gold or copper-gold deposits to provide new resource options that can leverage infrastructure or complement the Wafi-Golpu project.

In conjunction with Harmony's acquisition of Newcrest's 50% interest in Hidden Valley, the exploration portfolio joint venture tenement portfolio was restructured and reduced to several tenements contiguous with the Wafi-Golpu project. The aggregate tenement package in Morobe Province, held in the 50:50 joint venture between Newcrest and Harmony, now stands at 496km$^2$ (FY16: 999km$^2$).

During FY17, total Harmony expenditure (50%) on exploration on the joint venture tenements in Morobe Province was R7 million (US$0.5 million), compared to R9 million (US$0.6 million) in FY16. Generative work using airborne geophysics in combination with mapping and surface sampling is planned to continue in FY18.

| Overview of Wafi-Golpu and exploration portfolio exploration activity (Harmony 50%) | | |
|---|---|---|
| | | |
| **Target:** | **Progress in FY17:** | **Targets/plans for FY18:** |
| Progress the Wafi-Golpu project to permitting and development | Lodged an application for a special mining lease and proposal for development in August 2016. Began a feasibility study update that will incorporate an increased mining rate, finalise tailings management studies (including deep sea tailings placement as a potential tailings management option) and on-site, self-generation of power. | Complete the feasibility study update and lodge an amended proposal for development with the mineral resources authority. Complete the environmental and social impact assessment. |
| **Exploration portfolio tenements (Wafi-Golpu district)** | | |
| **Target:** | **Progress in FY17:** | **Targets/plans for FY18:** |
| Wafi transfer zone – greenfields exploration targeting discovery of additional resources to expand Wafi-Golpu into a mineral district | Trial ZTEM airborne geophysical survey flown (283 line km) and 3D inversion modelling completed.<br>First pass drill testing was completed at the Nambonga North Prospect (1 hole / 1 022m) | Extend regional ZTEM airborne geophysical coverage to assist in defining the limits of the Wafi-Golpu system<br>Petrophysical sampling and 3D inversion modelling to improve target ranking and interpretation of ZTEM data<br>Follow-up mapping and surface sampling and integration with geophysical datasets to develop drill targets |

**Wafi-Golpu project**

The Wafi-Golpu Project is owned by the Wafi-Golpu joint venture, a 50:50 unincorporated joint venture between subsidiaries of Harmony and Newcrest Mining Limited (Australia) respectively.

The Wafi-Golpu joint venture participants are the holders of exploration licences EL440 and EL1105, which are located approximately 65km southwest of Lae, in Morobe Province.

Lae, the second largest city in Papua New Guinea, will host the project's import and concentrate export facilities. The proposed mine site sits at an elevation of approximately 400m above sea level in moderately hilly terrain and is located near the Watut River, approximately 30km upstream from its confluence with the Markham River.

In February 2016, the Wafi-Golpu Joint Venture participants completed feasibility and prefeasibility studies for the Wafi-Golpu copper-gold project and declared updated resources and reserves for the project. Both studies confirmed a robust investment case. In August 2016, an application for a special mining lease was lodged, supported by a proposal for development.

Subsequent to the completion of these studies and after further geotechnical drilling, certain technical challenges were identified, including seismicity impacting the preferred location of the terrestrial tailings storage facility, and limitations on the capacity of identified potential terrestrial storage sites in the vicinity of the mine to accommodate the projected life of mine volume of mine tailings.

Deep sea tailings placement was seen as a potential alternative tailings management strategy, as there are excellent geographical conditions around Papua New Guinea for the deep sea placement of tailings with a number of other mines in the area using this method.

In light of this development and other changes to the proposed project configuration, work has begun on an update to the 2016 Wafi-Golpu feasibility and prefeasibility studies. The studies, scheduled for completion in the third quarter of FY18, will include the following:

- An improved understanding of the geotechnical conditions expected at the proposed block caves
- Optimisation of mining and processing throughput rates
- Studies of deep sea tailings placement, including an accelerated programme of oceanographic data collection. A number of environmental monitoring buoys have been deployed in the Huon Gulf to the south of Lae. Shipboard surveys are also being undertaken in the gulf
- A programme of work to address the chemical composition of the tailings and its reactivity with the oceanic environment of the Huon Gulf, and to identify any mitigating measures (including processing) which may be required
- A review of terrestrial tailings management options, including dry stacking
- A trade-off study, comparing deep sea tailings deposition and terrestrial tailings management solutions, with a final recommendation to be made. Until the study has been concluded, both terrestrial and deep sea options for tailings management remain open

The joint venture participants are also considering a site-based power station to reduce the risk of interruptions to the grid power supply. Work is continuing to review and align the proposal for development lodged in August 2016 with the outcomes of the updated studies. A framework of overarching principles for state and landowner engagement is also being prepared that will inform the details of the matters to be negotiated, both with the state (mining development contract) and at the Development Forum between the state and landowner representatives.

**Tenements held exclusively by Harmony (Morobe Consolidated Goldfields Limited and Harmony Gold (PNG) Exploration Limited) (Harmony 100%)**

With the acquisition of Newcrest's interest in the Hidden Valley mine, Harmony's 100%-owned tenement portfolio in Papua New Guinea increased to 1 265km$^2$ compared with FY16: 764km$^2$ (a 66% increase year-on-year). The increase included the acquisition by Harmony Gold (PNG) Exploration of the tenements held by the Exploration Portfolio Joint Venture in the area surrounding the Hidden Valley mine (EL 677, EL497 and EL2313).

A total of R147 million (US$10.6 million) was spent on 100% Harmony-owned projects in FY16 (FY16: R164 million/US$11.3 million). Investment in regional greenfield porphyry copper and gold exploration declined in the second half of FY17. Work programme expenditure was reprioritised to include development of brownfield gold targets within a 10km of the Hamata processing plant at Hidden Valley.

The Kili Teke deposit is open at depth and along strike to the southeast. Drill spacing remains broad. Potential to increase the resource base is excellent and follow-up work is planned for FY18.

| **Details of the FY17 work programme are outlined below:** | | |
|---|---|---|
| **Kili Teke Project - EL2310** | | |
| **Targeting copper-gold porphyry** | 19 holes / 11,876m drilled during the year. A revised mineral resource estimate for Kili Teke was published. Global resource grades declined slightly compared to the maiden resource due to the effect of late-stage barren intrusive phases. | Work programme planned to target resource base expansion:<br>Drill testing strike and depth extensions<br>Drill testing peripheral targets for additional centres of mineralisation based on:<br>airborne geophysics<br>follow-up surface mapping and sampling |
| **Poru Project - EL2386** | | |
| Large scale epithermal gold-silver deposit +4Moz gold | Exploration during the year focused on first pass detailed mapping and surface sampling. Some 1 341 soil samples, 111 rock chip samples and 315 trench channel samples were collected and analysed for gold and multi-elements. Detailed mapping was completed over the Caldera. Results have outlined significant zones of multi-element anomalism (silver-gold-lead zinc) to the northeast of the historic prospect area defined by Kennecott Exploration | Drill target development including:<br>Infill soil sampling and follow-up mapping<br>Data compilation and interpretation including integration of ASD field spectrometer data |

| Target: | Progress in FY17: | Targets/plans for FY18: |
|---|---|---|
| Brownfields exploration within a 10km radius of the Hidden Valley plant to develop replacement resources and support expansion | Over 870 samples were collected and a number of quality targets were finalised for drill testing in the first half of FY18 which include:<br><br>**The Koranga Upflow zone:** mapped contact breccia with over 600m of strike with small scale informal mining on exposures, together with high-grade historic gold intercepts up to 24m @ 6.36g/t Au<br><br>**Kunai Hill:** open ended mineralised zone with over 200m of strike where historic intercepts include 24m @ 3.3g/t Au. Extensive supergene gold occurs in overlying Namie Breccia to the southeast, with informal mining.<br>The drill targets represent potential new high-grade satellite resource areas to supplement mill feed at Hidden Valley. | • Finalise community agreements and drill pad preparation<br>• Drill testing prioritised targets: Initial drill programme comprises 3 400m. |

| Target: | Progress in FY17: | Targets/plans for FY18: |
|---|---|---|
| Develop a project pipeline capable of delivering additional quality resources to sustain growth and regional operations | Initial reconnaissance completed on EL677 at the Udat Creek prospect was completed, approximately 20km west of the Hidden Valley Mine. In all, 389 surface samples were collected which included ridge and spur soils, rock chip and stream sediment samples. Results are extremely encouraging with visible gold obtained from panned stream sediment concentrates over a 2.5km footprint. Outcrop of high-grade mineralised skarn was also confirmed in mapping from the prospect area.<br>Tenement monitoring for new opportunities continued | Follow-up work at Udat creek including:<br>• Extension of reconnaissance surface sampling and mapping<br>• Drill target development<br><br>Prospect identification and development including:<br>• Ridge and spur soil sampling, mapping and rock-chip sampling<br>• Integration of geophysics including IP, ZTEM and airborne magnetics |

## SOUTH AFRICA

All of our underground mines are in the Witwatersrand Supergroup. Most of these can be found in the south-western corner of the Witwatersrand Basin or Free State goldfields, and comprise sedimentary rocks that extend laterally for hundreds of kilometres into the West Rand goldfields and East Rand Basin. The Kraaipan Greenstone Belt can be found further north-west where we have an open pit operation.

### Underground exploration

A total of 62 860m (FY16: 63 281m) was drilled across Harmony's underground operations in South Africa.

Using a method known as continuous coring, underground exploration drilling is done as per required intervals from existing underground excavations (haulages and cross cuts). This drilling is done to determine the elevation and grade of the targeted reef horizon as well as the geological features in the immediate surrounding lithology. It assists in structural geological interpretation and evaluation of specific areas as well as in the compilation of regional structural geological and evaluation models. Mine geologists and planners use this information to determine the mines development strategy and eventually the mines economic viability.

### Brownfields exploration in South Africa

A summary of brownfields exploration conducted in South Africa in FY17 and planned for FY18:

| | | |
|---|---|---|
| **Target:** | **Progress in FY17:** | **Targets/plans for FY18:** |
| At the Tshepong section, exploration continues to maintain current levels of B Reef mining. Drilling is being conducted to identify areas of economic value in the down dip extensions of the current B Reef channels being mined | Eighteen exploration holes have been completed, with values ranging between 8cmg/t and 3580cmg/t. Thus far the drilling has assisted in delineating the channel boundaries of the down dip extensions of the B Reef channels identified in the Leeubosch, Midas and Horizon dyke areas | Drilling of a further 10 holes will continue in three different areas over four levels at the Tshepong section. |
| **Target:** | **Progress in FY17:** | **Targets/plans for FY18:** |
| Currently, there is no mining of the B Reef at the Phakisa section. Exploration drilling is being undertaken to identify areas of economic value in the down-dip extensions of the channels being mined at the neighbouring Tshepong section. Significant potential may exist to mine the B Reef north of the shaft pillar on the Phakisa section | Four exploration holes have been completed, the values range between 38cmg/t and 487cmg/t. Although progress has been slow, the drilling has assisted in improving understanding of the boundaries of the B Reef channel to the north of the Zindaba Dyke | Drilling of an additional13 holes will continue from 69 to 75 levels north of the Zindaba Dyke from the 65 line northwards |

| | | |
|---|---|---|
| **Target:** | **Progress in FY17:** | **Targets/plans for FY18:** |
| The Main Reef is located 60-70m below the South Reef with classification as a minor reef that can be explored or mined using the existing South Reef infrastructure | A total of eight boreholes had been drilled and completed by March 2017. The geological model was updated with information obtained from the reef intersections | No further drilling is planned at this stage |
| **Target:** | **Progress in FY17:** | **Targets/plans for FY18:** |

| | | |
|---|---|---|
| Current South Reef structural model in the inferred areas is based on that of the Kimberly Reef, which lies stratigraphically 800m above the South Reef. Drilling of long-incline boreholes will be done to assist with modelling of the South Reef on levels 202, 207 and 212 | Geological interpretation has been done, drilling platforms have been identified and drilling schedules established to confirm the levels where South Reef can be mined | Drilling will begin from seven different platforms to confirm the presence of the South Reef on levels 202, 207 and 212 |

| **Target:** | **Progress in FY17:** | **Targets/plans for FY18:** |
|---|---|---|
| Currently our South Reef structural model is based on that of the Kimberly Reef, which lies stratigraphically 800m above the South Reef. The recently completed seismic survey identified and located major geological structures and confirmed the South Reef levels | Field work including a total of 92 line kilometres and 12 widely spaced dip and strike lines over the Doornkop lease area was completed in December 2016 | Geophysical structural interpretation has been completed and a start made on development of the 3D models of all the potential economic reef horizons. All historical information is being incorporated into the new model so as to increase confidence levels and have a more accurate geological model with better defined production levels. |

| **Target:** | **Progress in FY17:** | **Targets/plans for FY18:** |
|---|---|---|
| High-grade gold satellite deposits and resource extensions to provide operational flexibility and/or support re-optimisation and expansion of the current operation | Within the mining lease area, data consolidation and review was completed and a number of priority drill targets were developed for additional high-grade open pit ore sources. These include:<br>• Depth and strike extensions of mineralisation along the main **Watertank – A Zone** line of lode<br>• **Spanover border prospect** where historic drill intercepts include GR75: 24m @ 1.3g/t Au from 12m<br>• **Windmill** line of load with historic drill intercepts including MDGP603: 20m @ 3.6g/t Au from 60m remain open for follow-up drilling.<br>Outside of the mining lease on the surrounding prospecting rights, some 50 boreholes (3,793m) were completed. The reconnaissance drilling program was designed to establish stratigraphy and mineralised strike extensions north and south of the known deposits. The drilling was successful in intersecting significant intervals of BIF (banded iron formation) with accompanying highly anomalous levels of gold mineralisation | For the Kalgold mining lease area a drill proposal comprising 67 holes, ~19,350m has been finalised and approved for completion in H1 FY18. Follow-up drilling will be planned based on results.<br>Drill target development on the surrounding prospecting rights including:<br>Madibe Block:<br>systematic surface geochemical sampling and mapping<br>drill target development through integration of airborne geophysical data, surface mapping and geochemistry.<br>Northern Farms and Goldridge south areas: drill target development through surface sampling and mapping, and application of geophysical techniques including induced polarisation and electromagnetic surveys as appropriate |

| **Target:** | **Progress in FY17:** | **Targets/plans for FY18:** |
|---|---|---|
| The main objective of this exploration joint venture is to explore and develop potential gold resources at White Rivers Exploration (Pty) Limited's Beisa Project and abutting exploration areas within Harmony's adjacent Target complex | In terms of the agreement, White Rivers and Harmony (through Loraine Gold Mines Limited and Avgold Limited) will have initial and fixed interests of 65% and 35% respectively in the exploration joint venture. White Rivers will fund and manage exploration activities to prefeasibility study level<br>Initial exploration activities, which include collation of historical data, interpretation and verification of data, and geological modelling, are in progress. The initial resource in the project area has been identified and the scoping study has been carried out | Mineral resource modelling is in progress |

## PROJECTS

A summary of projects underway in South Africa in FY17:

| Target: | Progress in FY17: | Targets/plans for FY18: |
|---|---|---|
| In order to access the ore body from 137 level, two declines are being developed at 12° from 129 level – a chairlift decline and a conveyor belt decline. Primary footwall development is currently taking place on 137 level | All capital development has been completed. The temporary conveyor is in use which allows rock to be tipped at the bottom of the decline and transported up to 129 level. Equipping of the permanent conveyor is currently being done as is the construction of the box fronts on 137 level. | Completion of the whole project including all construction and equipping. Gaining access to the reef horizon and being positioned to start stoping. |

| Target: | Progress in FY17: | Targets/plans for FY18: |
|---|---|---|
| Retreatment of additional tailings in the Free State (Saints project) | A feasibility study on phase 1 of the Saints project to treat an additional 1Mt of tailings was completed. The study showed that 333 000tpm of tailings could be profitably treated at an extended Central Plant. However the project implementation decision has been delayed by a year in view of more cost effective ways of using available capital. The phase 2 pre-feasibility study, which considered the treatment of 667 000tpm as a bolt on to the Harmony 1 plant, was near completion at year end. However, high capital costs at current gold prices will delay further work on this project for the foreseeable future. | It is planned to further optimise the Saints phase 1 project study |

| Target: | Progress in FY17: | Targets/plans for FY18: |
|---|---|---|
| Reclaim material from FSS5 tailings facility for processing at the central plant (to be converted for tailings re-treatment) at a rate of 300 000t annually. Central plant operation will be similar to the highly profitable Phoenix operation, which has been in operation since 2007 | Construction of this project was completed by the end of May 2017 and largely commissioned by the end of the financial year. The project was delivered on time and under budget. | Ramp up throughput to 300 000tpm by the end of July 2017 and maintain this level of throughput. |

| Target: | Progress in FY17: | Targets/plans for FY18: |
|---|---|---|
| Target 3 shaft was placed on care and maintenance in FY15. This project entailed looking at the possibility of opening the shaft again and mining only the higher grade Basal Reef. | An in-house concept study was completed in November 2016 and an externally led feasibility study by June 2017. The project showed that the shaft could be profitably mined if operations were geographically confined and only the basal reef was mined. The high capital cost and long lead time, due to the rehabilitation needed in the shaft and accesses, has meant that a decision on this project has been delayed for the time being. | Target 3 shaft is a main pumping shaft and some rehabilitation work in the shafts will take place while the pumping operations are conducted. |

# Corporate governance

**“The board recognises the group’s responsibility to be a responsible corporate citizen.”**

### Introduction

Harmony’s board of directors (the board) subscribes to the principles of good corporate governance because it is the right thing to do. For this reason, the board supports the definition of corporate governance as being the exercise of ethical and effective leadership towards the achievement of the following governance outcomes:

- Ethical culture and responsible corporate citizenship
- Good performance and value creation
- Effective control
- Legitimacy

These objectives form the foundation and framework for the corporate governance report of the board as set out below.

The King IV Report on Corporate Governance for South Africa, 2016 which was launched on 1 November 2016 (King IV Report) has elevated the call on boards and other governing bodies to apply their own minds as to the appropriate practices in each organisation that will illustrate the application of the governance principles as contained in the King IV Code on Corporate Governance that is included in the King IV Report. The report below is a first attempt at setting out the practices within Harmony that the board believes confirm Harmony’s application of the King IV principles. Considering that the core messages of good corporate governance have remained mainly unchanged throughout the different King reports to date, together with the Harmony board’s long-standing commitment to good corporate governance, the board is comfortable that sufficient practices are and have been in place to promote Harmony’s reputation as an ethical, reputable and legitimate organisation and a responsible corporate citizen.

In an attempt to focus on high-level, material practices and detail, additional information supporting specific matters is cross-referenced and linked in the report where appropriate.

### Ethical culture and responsible corporate citizenship

### Ethical leadership

The board fully appreciates that it has to lead by example. Each member of the board is therefore expected to at all times exhibit the characteristics of integrity, competence, responsibility, accountability, fairness and transparency in his or her conduct. Collectively, the board’s conduct, activities and decision-making are characterised by these attributes which also form part of the regular assessment of the board and individual directors’ performance.

The board charter elaborates on the standard of conduct expected from board members. In addition, the board policy on the declaration of interests not only limits the potential for a conflict of interest but also ensures that in cases where conflict cannot be avoided, it is properly disclosed and proactively managed within the boundaries of the law and principles of good governance.

**Organisational ethics**

The board sets the direction for how ethics should be approached in the group. Oversight and monitoring of organisational ethics is the mandated responsibility of the social and ethics committee which fulfils this role on behalf of the board. Detail on the arrangements for governing and managing ethics, key areas of focus during the reporting period, measures taken to monitor organisational ethics and planned areas of future focus are contained in the *Social and ethics committee: chairman's report.*

**Responsible corporate citizenship**

Being part of the mining industry introduces a unique responsibility and opportunity to the group to be a responsible corporate citizen. Although the board sets the tone and direction for the manner in which corporate citizenship should be approached and managed, the ongoing oversight and monitoring of the group's performance against set targets again forms part of the mandate of the social and ethics committee. Extensive detail and information on the consequences of the group's activities and outputs that affect its status as a responsible corporate citizen with relevant measures and targets are given elsewhere in the integrated annual report and relating to the following areas:

- Workplace – *Employees and communities; Remuneration report; Safety and health*
- Economy – *Employees and communities*
- Society – *Employees and communities*, which includes reports on corporate social investment and human rights
- Environment – *Environmental performance*

**Good performance and value creation**

**Strategy**

The board is responsible for approving the group's short-, medium- and long-term strategy as formulated and developed by management. In doing so, the board focuses on a number of critical aspects of the strategy including, among others, the legitimate and reasonable needs, interests and expectations of material stakeholders as well as the impact of the group's activities and output on the various forms of capital employed as part of the business process. The risks and opportunities connected to the triple context (economy, society and the environment) within which the group operates are integral to the board's strategic reviews of the business.

Policies and operational plans that support the approved strategy are submitted regularly by management for review and formal board approval. Strategy forms part of the ongoing conversations in the boardroom and is a key feature of the agenda of every board meeting. Ongoing oversight of the implementation of strategy and operational plans take place against agreed performance measures and targets.

As the company's reputation as a responsible corporate citizen is an invaluable attribute and asset of the group, the consequences of the activities and outputs of the group on the various capitals employed by the group are continuously assessed by the board through its subsidiary committees. This will ensure that we are able to respond responsibly to limit any negative consequences of our activities, to the extent reasonably possible. In addition, the board continuously monitors the reliance of the group on these capital inputs – employees, financial capital, the environment, our reserves and resources, communities and society at large, our mining infrastructure and our intellectual and technological know-how – as well as the solvency and liquidity and going concern status of Harmony.

**Reporting**

In protecting and enhancing the legitimacy and reputation of Harmony and the group, the board ensures that comprehensive reporting is done on different platforms. In addition to the integrated annual report (which is available on the Harmony website at *www.harmony.co.za*), a separate report to shareholders as well as a financial report and a mineral resources and reserves report are published. The group's performance as measured against the GRI Scorecard also forms part of the group's publications. It is the board's intention to not only meet minimum legal requirements but also the legitimate and reasonable information needs of material stakeholders. The board is comfortable with management's bases for determining materiality for the purposes of deciding what information should be included in our external reports. The audit and risk committee, with the assistance of the social and ethics committee, has also been tasked with reviewing all external reports to verify the integrity of the information contained therein.

**Political donations**

***Relevant Global Reporting Initiative indicators: G4-SO6***

Harmony supports the democratic processes in South Africa and Papua New Guinea and contributes to its political parties. A policy relating to political donations has been adopted by the company. In the year under review, R2 million (US$0.2 million) was donated to political parties in South Africa and R1.5 million (US$0.1 million) in Papua New Guinea in accordance with this policy.

**Effective control: Board structures and processes**

**Role of the board**

The board exercises its leadership role by:

- steering the group and setting its strategic direction
- approving policy and planning that gives effect to the direction provided
- overseeing and monitoring implementation and execution by management
- ensuring accountability for the group's performance by means of, among others, reporting and disclosures

The role and function of the board, including guidelines relating to the board's composition and procedures, are documented in detail in the board charter which is reviewed regularly to ensure that it remains relevant and applicable. A protocol is in place to be followed in the event of any of the board members or committees needing to obtain independent, external professional advice at the cost of the company on matters within the scope of their duties. Non-executive directors are also aware of the protocol to be followed for requisitioning documentation from, and setting up meetings with, management. Notwithstanding, board members have direct and unfettered access to the head of internal audit, the company secretary and members of executive management.

Based on its annual work plan, the board is satisfied that it fulfilled its responsibilities during the period under review in accordance with its charter.

Information on the number of meetings held by the board and attendance at such meetings can be found at the end of this section on corporate governance.

**Board composition, chairman and independence**

The Harmony board consists of a total of 14 highly experienced and reputable individuals, three of whom are executive directors. Ms Cathie Markus resigned from the board on 9 February 2017 after serving nearly 10 years as a valuable member of the board.

The chairman of the board, Mr Patrice Motsepe, is a non-executive director but is not classified as independent. A lead independent director has therefore been in place for some time. Ms Fikile De Buck occupied the position of lead independent director for the period under review. The duties of the chairman as well as the lead independent director have been captured in the board charter and are based on the recommendations of the King III and King IV codes. The roles of the chief executive officer and chairman are separated. In addition to the chairman and lead independent director, the board has also appointed a deputy chairman, Mr Modise Motloba, as well as a deputy lead independent director, Mr Mavuso Msimang. These appointments are all reviewed annually and form part of the board's succession plans for the position of chairman and lead independent director.

The guidance provided by the King IV Code as far as membership of board committees is concerned in respect of the chairman of the board has been applied and the board chairman is only a member of the nomination committee. The nomination committee is chaired by the lead independent director.

Profiles of all board members can be found in the *Board of directors* in this report.

The majority of the non-executive directors are classified as independent and the independence of these board members has been reviewed by the nomination committee. The board appreciates that independence is first and foremost a state of mind and all board members, notwithstanding their categorisation, are expected to act independently and with unfettered discretion at all times. This expectation is also confirmed in the board charter.

A number of the independent non-executive directors have served in this capacity for periods longer than nine years. They are:

- Ms Fikile De Buck – 11 years
- Mr Joaquim Chissano – 12 years
- Mr Modise Motloba – 13 years
- Dr Simo Lushaba – 15 years

The nomination committee specifically assessed the independence of these individuals on behalf of the board and has concluded that the members exercise objective judgement at all times. In addition, there are no interests, positions, associations or relationships which, when judged from the perspective of a reasonable and informed third party, are likely to influence the members unduly or cause bias in their decision-making. The wealth of experience of these members, in addition to their being known as reputable individuals of integrity and great character, makes their ongoing input and contribution an invaluable asset to the board and the group.

Diversity is a key focus area for the board and following the resignation of one female director from the board during the period under review, two board members are female and nine members are black. A policy on gender and race diversity at board level has been formally adopted. Although no voluntary targets have been set, the appointment of an additional black female director will be explored in the coming year. Considering all aspects relating to the composition of the board, the board is satisfied that its composition reflects the appropriate mix of knowledge, skills, experience and independence. In addition, the composition of the board and its leadership structure ensures that there is a balance of power in the boardroom and that no one individual has unfettered authority of decision-making.

As required by the provisions of the Harmony Memorandum of Incorporation, a third of the non-executive directors are expected to retire by rotation at each annual general meeting of the company. The names and profiles of these members have been included in the notice of the 2017 annual general meeting. The board is comfortable in recommending their re-appointment to shareholders.

**Nomination, election and appointment**

The nomination committee is also tasked with identifying potential candidates for appointment to the board while the actual appointment is a matter for the board as a whole. The collective knowledge, skills and experience required by the board as well as the diversity performance are all aspects considered by the board before appropriate candidates are identified for nomination. The nomination committee would do the necessary independent checks and investigations as recommended by the King IV Code in respect of potential candidates.

Formal letters of appointment are provided to all new board members. In addition, new board members participate in an extensive induction programme to enable these members to make the maximum contribution within the shortest possible time. Ongoing mentorship is provided to members with no or limited governance experience and such individuals are also encouraged to undergo appropriate training.

Provision has also been made in the annual work plan of the board for regular briefings on legal and corporate governance developments, as well as risks and changes in the external environment of the group.

**Conflicts of interest**

Each member of the board is required, amongst others, to submit a general declaration of financial, economic and other relevant interests and to update these general declarations as and when necessary as a result of significant changes. In addition, the declaration of interests in any matter on the agenda of a meeting of the board or a board committee is a standard item at the start of every meeting. In the event of a potential conflict being declared, the board proactively manages such conflict within the boundaries of the law.

**Board committees**

The board has delegated particular roles and responsibilities to standing committees based on relevant legal requirements as well as what is appropriate for the group and achieving the objectives of delegation. The board recognises that duties and responsibilities can be delegated but that accountability cannot be abdicated and that the board therefore remains ultimately accountable.

The following committees have been established:

- Audit and risk committee
- Remuneration committee
- Nomination committee
- Social and ethics committee
- Technical committee
- Investment committee

Disclosures in respect of each committee can be found in this report.

Formal terms of reference have been adopted for each board committee and are reviewed regularly to ensure that the content remains appropriate and relevant. The terms of reference address, as a minimum, the recommended items in the King IV Code.

In considering the membership of board committees, the board, with the assistance of the nomination committee, is mindful of the need for effective collaboration through cross-membership between committees, where required. Timings of committee meetings are co-ordinated so as to facilitate and enhance the effective functioning of and contribution made by each of the committees. The duties and responsibilities of each committee have been documented so as to clearly define the specific role and positioning of each committee in relation to topics that may be within the mandate of more than one committee. Membership of committees has also been approached in such a manner as to ensure a balanced distribution of power across committees so that no individual has the ability to dominate decision-making and no undue reliance is placed on any individual.

The board is comfortable that each committee as a whole has the necessary knowledge, skills, experience and capacity to execute its duties effectively. Each committee has, as a minimum, three members. Members of the executive and senior management are invited to attend committee meetings as deemed appropriate and necessary for the effective functioning of the committee.

Any board member who is not a member of a specific committee is entitled to attend meetings of a board committee as an observer but is not entitled to participate without the consent of the committee chairman. Such individual also has no vote in meetings and will not be entitled to fees for attendance of the meetings unless specifically agreed by the board and provided for in the board fee structure as approved by shareholders.

The board considers the recommendations and provided by board committees in matters requiring board approval but remains responsible for applying its collective mind to the information, opinions, recommendations, reports and statements presented by the committees.

**Board performance evaluations**

The board fully supports the notion that an appropriate evaluation of the board and its various structures is a value adding exercise that facilitates the continued improvement of the board's performance and effectiveness. For this reason a formal self-evaluation process was again undertaken during the past year and included an assessment of the performance of the board, its chairman and individual members as well as the board committees and company secretary.

Overall, the self-evaluation reconfirmed that the board and board committees were considered to be:

- highly effective
- appropriately positioned to discharge their governance responsibilities and that the board is well supported by its committees
- working as a cohesive unit and that the highest ethical standards are applied in deliberations and decision-making, thus enabling the board to provide effective leadership based on an ethical foundation

The board is satisfied that the audit and risk committee sufficiently considers cyber security and regularly reviews the information and technology strategy, but requested that more detail be reported to the board in future. In addition, management was invited to send periodic, updated information to the board in between board meetings when applicable. The board also noted that opportunities to standardise reporting on effective stakeholder communication in order for the board to better monitor the continuous improvements made towards such communication, should be explored. The recommendations were included in the board's work plan for the following year.

Considering the outcome of the evaluation process, the board is satisfied that the process is improving its performance and effectiveness.

**Appointment and delegation to management**

The board is responsible for appointing the chief executive officer, on the recommendation of the nomination committee. Harmony's chief executive officer is responsible for leading implementation and execution of the board-approved strategy, policy and operational planning and serves as a link between the board and management. He is accountable and reports to the board. The chief executive officer is not a member of the remuneration, audit or nomination committees. He does however attend meetings of these committees as and when required for him to contribute insights and information.

The board monitors the chief executive officer's performance. Succession planning for this position forms part of the executive succession plan that is monitored on behalf of the board by the nomination committee. An emergency succession plan is also in place.

A formal delegation of authority framework is in place and is reviewed regularly by the board to ensure its appropriateness and relevance to the business. The delegation of authority addresses the authority to appoint executives who may serve as ex officio executive members of the board and to make other executive appointments.

The board has identified key management functions and ensures that these functions are headed by individuals with the necessary competence and authority and are adequately resourced. Executive succession planning includes plans for executive management succession and other key positions in order to provide continuity of leadership. These plans are reviewed periodically by the nomination committee on behalf of the board.

**Company secretary**

The board has direct access to the company secretary who provides professional and independent guidance to the board as a whole and to members individually on corporate governance and legal duties. The company secretary also supports the board in coordinating the effective and efficient functioning of the board and its committees.

The company secretary is a full time employee of Harmony and also oversees the legal function in the group. She is a qualified attorney, conveyancer and notary and has been a company secretary for the past 13 years (10 years in a listed environment). Her summary resumé is included in the integrated report and is available on our corporate website, www.harmony.co.za. In order to facilitate and enhance the independence and effectiveness of the company secretary, the board ensures that the office of the company secretary is empowered and that the position carries the necessary authority. The remuneration committee considers and approves the remuneration of the company secretary on behalf of the board.

The company secretary has unfettered access to the board and at all times retains an arms-length relationship with the board in order to enhance the independence of the position. The company secretary is not a member of the board but, being accountable to the board, reports to the board via the chairman on all statutory duties and functions performed in connection with the board.

The board annually assesses the performance and independence of the company secretary and also confirms that the company secretary has the necessary competence, gravitas and objectivity to provide independent guidance and support at the highest level of decision-making in the group. The company secretary's performance and independence were assessed at the end of the year under review, and the board has satisfied itself with her competence, experience and qualifications.

The board is therefore comfortable that the arrangements in place for accessing professional corporate governance services are effective.

### Effective control – Governance functional areas

#### Risk governance

The board appreciates that risk should be integral to the way it makes decisions and executes its duties. Risk governance in the boardroom encompasses both opportunities and risks as well as a consideration of the potential positive and negative effects of these risks on the achievement of the group's objectives.

The group's risk appetite and tolerance levels, which support its strategic objectives, are considered annually. The board is supported in this area by the audit and risk committee.

Responsibility for implementing and executing effective risk management is delegated by the board to management. The board acknowledges the need to integrate and embed risk management in the business activities and culture of the group. The audit and risk committee is tasked with ensuring independent assurance on the effectiveness of risk management in the group as and when deemed necessary and appropriate.

The results of the ongoing oversight of risk management as well as detail on the nature and extent of the risks and opportunities that the group is willing to take are disclosed in the section *Managing our risks and opportunities* forming part of the integrated annual report. An overview of the arrangements for governing and managing risk, key areas of focus during the reporting period, actions taken to monitor the effectiveness of risk management and planned areas of future focus are also included.

#### Technology and information governance

The board accepts responsibility for governing technology and information in a way that supports the group in setting and achieving its strategic objectives. The board is supported in this area by the audit and risk committee.

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

An information technology steering committee, chaired by the financial director and with its membership including the chief information officer and members of the group executive committee, has a well-defined charter and is responsible for the oversight of information technology direction, investment and alignment with business strategy and priorities.

Information technology management has adopted the IT Governance Institute's governance model and Control Objectives for Information and related Technology (COBIT 5), as a framework for information technology governance, while continuing to employ best practice frameworks such as Information Technology Infrastructure Library and information security ISO 27001 as guidelines for establishing and maintaining effective internal controls, continuity and risk management.

In line with COBIT 5, a framework for information technology policies has been developed and adopted, taking into consideration stakeholder needs, business imperatives, current legislation and information technology trends.

Internal audit provides assurance to management and the audit and risk committee on the effectiveness of the governance of information and technology.

**Compliance governance**

***Relevant Global Reporting Initiative indicators: G4-SO7, G4-SO8***

The foundation of our corporate governance is compliance with the Companies Act, the requirements of the JSE, where we have our primary listing, and of the New York Stock Exchange as well as with the King IV Report and related principles and codes of good corporate governance. Harmony also complies voluntarily with the principles of the United Nations Global Compact, International Council on Mining and Metals, the Global Reporting Initiative and the Cyanide Code.

Being an ethical and responsible corporate citizen requires zero tolerance for any incidences of legislative non-compliance. In addition, compliance with adopted, non-binding rules, codes and standards is essential in supporting the achievement of strategic business objectives.

Developed to respond to the challenge of ethical conduct in the business environment, our code of conduct commits Harmony, our employees and our contractors to the highest moral standards, free from conflicts of interest. The board reviews the code of conduct at least every second year, while its application within Harmony is continually monitored by management. Our ethics programme is also subject to independent assurance as part of the internal audit coverage plan.

Our management ethics committee monitors our ethical culture and integrity. It also assesses declarations of interest in terms of the code of conduct and provides feedback to the executive committee, which then reports to the board's social and ethics committee. As a result, ethics are discussed and examined at every level of management within the company.

The code of conduct encourages employees and other stakeholders to report any suspected irregularities. This can be done anonymously through a 24-hour crime line (which is managed by external auditing specialists), as well as other channels. All incidents reported are investigated and monitored by the white-collar crime committee, which comprises managers representing various disciplines in the company and reports to the management ethics committee.

The identity of any employee or stakeholder who reports non-compliance with the code of conduct is protected. Our anonymous ethics hotline numbers, which are widely advertised throughout the organisation, are:

- South Africa: +27 (0) 800 21 23 39
- Papua New Guinea: +61 448 188 463
- Australia: +61 1800 940 949

Harmony paid no significant fines in any of its areas of operation and had no actions brought against it for anti-competitive behaviour, or for anti-trust or monopoly practices during FY17.

New York Stock Exchange foreign private issuers, such as Harmony, must briefly highlight any significant ways in which their corporate governance practices differ from those followed by United States domestic companies subject to the listing standards of the New York Stock Exchange. A brief summary of these differences can be found in our 2017 Form 20-F filed with the United States Securities and Exchange Commission on our website at: *https://www.harmony.co.za/investors/reporting/20f.*
Harmony has made significant progress in the implementation of the requirements of the Protection of Personal Information (POPI) Act. The Harmony POPI awareness campaign has proven to be very successful.

In accordance with POPI, we recently appointed an experienced information and compliance officer to manage the company's information, ensure compliance with the POPI Act, manage the company's records and archives and ensure compliance with the company's regulatory environment in general. Our information and compliance officer will assist the audit and risk committee in drafting a comprehensive compliance policy in the coming year.

Harmony complies with the Promotion of Access to Information Act 2000, which protects the constitutional right to information that is required to exercise or protect a right. The purpose of this legislation is to foster a culture of transparency and accountability in both public and private bodies, and to promote a

society in which all South Africans are enabled to enjoy their rights. For more on this see our website: *https://www.harmony.co.za/sustainability/governance#policies.* The company received no requests for access to information in terms of this legislation during FY17.

During price-sensitive periods, our employees and directors are prohibited from dealing in Harmony shares. Written notice of these restricted periods is communicated to employees and directors by the company secretary. In terms of regulatory and governance standards, directors and employees are required to disclose any dealings in Harmony shares in accordance with the JSE Listings Requirements. The clearance procedure for directors and the company secretary to deal in Harmony shares is regulated by the company's policy on trading in shares and insider trading.

**Remuneration governance**

Attracting and retaining the required skills depends to a large extent on the remuneration levels and practices in any business. It is therefore vital to ensure that the group remunerates fairly, responsibly and transparently so as to promote the achievement of strategic objectives and positive outcomes in the short, medium and long term. The board is supported in this area by the remuneration committee.

Extensive detail on remuneration in the group is provided in the *Remuneration report*. In addition, provision has been made in the notice of the 2017 annual general meeting for a non-binding advisory vote of shareholders on both the remuneration policy as well as the implementation report.

**Assurance and internal audit**

The audit and risk committee oversees the arrangements for assurance services and functions on behalf of the board to ensure that those arrangements are effective in achieving the objectives of an enabling control environment and supporting the integrity of information, both for internal decision-making and external reporting purposes.

A combined assurance model is applied that effectively covers the group's significant risks and material matters through a combination of internal functions and external service providers. Notwithstanding the output of the combined assurance model, board members are expected to apply an enquiring mind, form their own opinion on the integrity of the information and reports and the degree to which an effective control environment has been achieved.

Internal audit plays an important part in the overall assurance approach and effectiveness of the assurance model. The audit and risk committee oversees the internal audit function on behalf of the board. More information on the internal audit function is contained in the *Audit and risk committee chairman's report.*

**Legitimacy**

**Stakeholder relationships**

In furtherance of the reputation and legitimacy of Harmony and the group, the board sets the direction for how stakeholder relationships should be approached and conducted. In the best interests of the company, an inclusive stakeholder-engagement model has been adopted that considers the legitimate needs, interests and expectations of all material stakeholders.

Information on the material stakeholders and the manner in which relationships with stakeholders are managed is provided in the section Stakeholder engagement and our material issues which also addresses, among others, the arrangements for governing and managing stakeholder relationships, key areas of focus during the reporting period, actions taken to monitor the effectiveness of stakeholder management and future areas of focus.

Shareholders are encouraged to attend the Harmony annual general meeting, information of which is contained in the notice of the 2017 annual general meeting in the *Report to shareholders 2017.*

**Board committees**

During FY17, the majority of the members of all board committees were independent non-executive directors. All board committees were chaired by an independent non-executive director, except for the technical committee chaired by André Wilkens (a non-independent, non-executive director). The board is confident that André's leadership as chairman of the technical committee is in the best interests of the company, based on his extensive knowledge of the specific areas of responsibilities of that committee.

A brief description of each board committee, its functions and what each committee achieved during FY17, follows overleaf.

**Audit and risk committee**

**Members**

John Wetton* (chairman)
Simo Lushaba*
Fikile De Buck*
Karabo Nondumo*
Modise Motloba*

** Independent non-executive*

**Description of committee's overall expertise and experience**

A total combination of the following skills and experiences on the part of the individual members of this committee enables them to execute their duties as members of the audit and risk committee:

- Accounting experience, experience in investment banking, treasury services and fund management
- Roles on various other boards, as well as industry bodies
- Governance experience
- Knowledge of business development in and around Africa
- Previous roles as chief financial officers, business managers and an external auditor. Therefore a good understanding of company finances, risk, processes and controls

**Primary functions**

- Monitors the operation of an adequate system of internal control and control processes
- Monitors the preparation of accurate financial reporting and statements in compliance with all applicable legal and corporate governance requirements and accounting standards
- Monitors risk management, ensures that significant risks identified are appropriately addressed and supports the board in the overall governance of risk

**Key activities and actions in FY17**

For the actions of the audit and risk committee in FY17 refer to the *Audit and risk committee chairman's report.*

**Remuneration committee**

**Members**

| | |
|---|---|
| Vishnu Pillay* (chairman) | John Wetton* |
| Fikile De Buck* | André Wilkens |
| Simo Lushaba* | Cathie Markus** |

* *Independent non-executive*

** *Resigned as member and chairman of the committee on 9 February 2017*

**Description of committee's overall expertise and experience**

A total combination of the following skills and experiences on the part of the individual members of this committee enables them to execute their duties as members of the remuneration committee:

- Experience in accounting, remuneration and financial management roles, as well as mining experience, allowing members to ensure our remuneration is aligned with industry standards, best practice and legislation
- Knowledge of the duties and responsibilities of the board and executive positions, allowing realistic key performance indicators to be related to remuneration

**Primary functions**

- Ensures directors and executive managers are fairly rewarded for their contribution to Harmony's performance
- Assists the board in monitoring, reviewing and approving Harmony's compensation policies and practices, and in administrating its share incentive schemes
- Operates as an independent overseer of the group remuneration policy and makes recommendations to the board for final approval

**Key activities and actions in FY17**

- Reviewed the benefits and remuneration principles as applied to Harmony executive management
- Received and discussed a summary of the total suite of Harmony executive management incentive schemes in order to obtain a holistic view
- Reviewed and recommended changes to the committee's terms of reference, to better align these with King IV, to the board for approval. The committee's work plan was updated accordingly
- Considered and recommended the remuneration policy and implementation report to the board for inclusion in the notice to the annual general meeting for consideration by the shareholders as non-binding advisory resolutions. No changes to the company's remuneration policy were recommended. The policy was found to be in line with market trends (see *Remuneration report*)
- Reviewed executive directors' and executive management's remuneration benchmarks and recommended their annual salary increases to the board for approval (see *Remuneration report*)
- Reviewed the annual salary increases of the company secretary and head of internal audit

**Nomination committee**

**Members**

Fikile De Buck* (chairman)

Joaquim Chissano*

Patrice Motsepe

Modise Motloba*

Mavuso Msimang*

** Independent non-executive*

**Description of committee's overall expertise and experience**

The following insights allow the committee to find and nominate individuals who will add value to our Harmony board in the areas that we require:

- Experience in the mining, financial, accounting and legal sectors
- Extensive experience in management and leadership roles
- Understanding of Harmony, and its needs, as well as of the requirements of being on a board

**Primary functions**

- Ensures that procedures governing board appointments are formal and transparent
- Makes recommendations to the board on all new board appointments
- Reviews succession planning for directors and other members of the executive team and oversees the board's self-assessment process

**Key activities and actions in FY17**

- Reviewed succession planning for directors and other members of the executive team and oversaw the board's self-assessment process
- Reviewed and recommended for re-election directors who retire by rotation in terms of the company's memorandum of incorporation
- Reviewed and recommended the composition, structure and size of the board and board committees, in line with the board's policy on gender and race diversity
- Considered the positions of the chairman and the deputy chairman of the board, the lead independent director and the deputy lead independent director and made recommendations to the board
- Reviewed and recommended the independence of non-executive directors (especially independent non-executives serving on the board for longer than nine years)
- Reviewed and recommended immediate and long-term succession plans for the board, the chairman of the board, the chief executive officer, executive management and the company secretary

- Considered the programme in place for the professional development and regular briefings on legal and corporate governance developments, risks and changes in the external environment of the organisation

**Social and ethics committee**

**Members**

Modise Motloba* (chairman)  Mavuso Msimang*

Joaquim Chissano*  John Wetton*

Fikile De Buck*  Cathie Markus**

* *Independent non-executive*

*** Resigned as member of the committee on 9 February 2017*

**Description of committee's overall expertise and experience**

A total combination of the following skills and experiences on the part of the individual members of this committee enables them to execute their duties as members of the social and ethics committee:

- Proven experience in the fields of sustainable and business development in Africa, community affairs, government relations, the drafting and implementing of charters, international relations and global leadership
- The collective experience of committee members brings with it the skills and relationships necessary to ensure Harmony can contribute to meaningful change through its social development and transformation work. In addition, this experience adds weight to the committee's ability to enforce the code of conduct within Harmony

**Primary functions**

- Oversees policy and strategies pertaining to occupational health and employee well-being, environmental management, corporate social responsibility, human resources, public safety and ethics management
- Monitors implementation of policies and strategies by executives and their management teams for each discipline referred to above
- Assesses Harmony's compliance against relevant regulations
- Reviews material issues in each of the above disciplines to evaluate their relevance in the reporting period, and to identify additional material issues that warrant reporting, including sustainability-related key performance indicators and levels of assurance

**Key activities and actions in FY17**

- Reviewed and recommended the social and ethics committee report to be included in the integrated annual report

- Reviewed and considered the social, economic and environmental issues affecting the company's business
- Reviewed and considered the effect that the company's operations had on the economic, social and environmental well-being of communities, as well as significant risks within the ambit of the committee's responsibilities
- Approved material elements of sustainability reporting and the key performance indicators which were externally assured
- Considered and monitored the company's employment relationships
- Attended a site visit to the Medical Bureau for Occupational Diseases (MBOD) and the Compensation Commissioner for Occupational Diseases. Members also attended a site visit to the company's operations in Papua New Guinea
- Reviewed and recommended changes to the committee's terms of reference to align with King IV to the board for approval. The committee's work plan was updated accordingly
- See the *Social and ethics committee: chairman's report*

**Investment committee**

**Members**

| | |
|---|---|
| Simo Lushaba* (chairman) | John Wetton* |
| Ken Dicks* | André Wilkens |
| Karabo Nondumo* | Cathie Markus** |
| Vishnu Pillay* | |

* *Independent non-executive*

** *Resigned as member of the committee on 9 February 2017*

**Description of committee's overall expertise and experience**

The combination of the following skills equips the investment committee with knowledge of what reasonable returns on investments are and a thorough understanding of the investment process, as well as insight into what investors want:

- Occupy various roles on other boards
- Experience in entrepreneurship and business development
- Extensive knowledge of the mining, legal and financial industries

**Primary functions**

- Considers projects, acquisitions and disposals in line with Harmony's strategy and ensures that due diligence procedures are followed
- Conducts other investment-related functions designated by the board

**Key activities and actions in FY17**

- Reviewed and recommended the budget and business plans for FY18
- Considered investments, proposals, projects and proposed acquisitions in line with the board's approved delegation of authority and the committee's terms of reference
- Reviewed and recommended changes to the committee's terms of reference to align same with King IV to the board for approval. The committee's work plan was updated accordingly
- Attended an underground site visit to Tshepong operations

**Technical committee**

**Members**

| | |
|---|---|
| André Wilkens (chairman) | Vishnu Pillay* |
| Ken Dicks* | Karabo Nondumo* |

** Independent non-executive*

**Description of committee's overall expertise and experience**

- Decades of experience in the mining industry, particularly in gold, mining technology and mining engineering
- Strong research skills

This experience allows members to fully grasp the technical and operational challenges facing Harmony and lend their knowledge to the tasks required of them

**Primary functions**

- Provides a platform to discuss strategy, performance against targets, operational results, projects and safety
- Informs the board of key developments, progress against objectives and the challenges facing operations
- Reviews strategic plans before recommending such to the board for approval
- Provides technical guidance and support to management

**Key activities and actions in FY17**

- Monitored exploration in South Africa and Papua New Guinea
- Monitored all South African and Papua New Guinean operations
- Reviewed and recommended to the board the company's annual budget and business plans
- Monitored safety across all operations

- Reviewed and recommended changes to the committee's terms of reference to align same with King IV to the board for approval. The committee's work plan was updated accordingly
- Attended underground site visit to Tshepong operations

| Board and board committee meeting attendance – FY17 | | | | | | | |
|---|---|---|---|---|---|---|---|
| | **Board** | **Audit and risk** | **Nominatio n** | **Remuneratio n** | **Technic al** | **Investme nt** | **Social and ethics** |
| **Number of meetings held during the year** | **6** | **5** | **4** | **6** | **9**** | **9**** | **6***** |
| Patrice Motsepe (chairman) | 6 | – | 4 | – | – | – | – |
| Modise Motloba (deputy chairman) | 6 | 3 | 2 | – | – | – | 6 |
| Joaquim Chissano | 2 | – | 1 | – | – | – | 2 |
| Fikile De Buck | 5 | 5 | 4 | 5 | – | – | 5 |
| Ken Dicks | 6 | – | – | – | 9 | 9 | – |
| Simo Lushaba | 5 | 5 | – | 6 | – | 8 | – |
| Cathie Markus* | 3 | – | – | 5 | – | 5 | 4 |
| Mavuso Msimang | 6 | – | 2 | – | – | – | 6 |
| Karabo Nondumo | 6 | 5 | – | – | 9 | 9 | – |
| Vishnu Pillay | 6 | – | – | 5 | 6 | 6 | – |
| John Wetton | 6 | 5 | – | 6 | – | 9 | 6 |
| André Wilkens | 6 | – | – | 5 | 8 | 8 | – |
| Peter Steenkamp | 6 | – | – | – | – | – | – |
| Frank Abbott | 6 | – | – | – | – | – | – |
| Mashego Mashego | 6 | – | – | – | – | – | – |

– *Not applicable*

* *Resigned from the board on 9 February 2017*

** *Includes two site visits*

*** *Includes one site visit*

# REMUNERATION REPORT

**"Harmony's reward strategy underpins our business strategy to produce profitable ounces, safely, and increase our margins"**

**Dear shareholder**

During the year, under the able management of Peter Steenkamp, management delivered on their production guidance, had a good safety performance and improved the company's financial standing. This enabled us to deliver on the strategy to grow the company's production profile.

A major focus has been to retain and attract valuable staff members in the prevailing economic climate. The remuneration committee plays an important role in ensuring fair, equitable and responsible remuneration practices.

The remuneration committee reviewed local and global remuneration trends and our remuneration strategy. We also considered an external consultant's benchmark of our remuneration policy against comparative companies. The reduction of inequality should remain a top priority with a focus being placed on "living wages" for entry-level workers. Furthermore, we should continue to find innovative ways in which the company and all role players can assist workers in addressing their most pressing basic financial concerns and create jobs to address the problem of unemployment within the country.

A review of sustainable development goals, globally and in South Africa, also provided the committee with a better understanding, not only of the global priorities of companies in relation to the United Nations Sustainable Development Goals but also of the specific concerns and needs of citizens. Zero hunger and poverty, clean water and sanitation, decent work and economic growth, quality education – these are some of the basic concerns of the people of South Africa. There can be no argument that corporates have a vital role to play in addressing these needs. Refer to *Social and ethics committee: chairman's report.*

The following key changes were made to the long- and short-term incentive plans and, where applicable, were approved by the shareholders at the 2016 Annual General Meeting held on 25 November 2016:

- the introduction of a minimum shareholding requirement for executive management
- the vesting of performance shares to be determined on actual achievement against the applicable performance criteria when a participant is a good leaver
- the minimum acceptable level of performance (i.e. qualification threshold) was increased from 90% to 95%
- the R/kg performance driver was changed to total cost (working cost plus capital excluding royalties)
- the short-term incentive for executives to be modified by a personal performance rating

With the assistance of remuneration specialists, the committee considered these key changes against best market practice. By and large, it was confirmed that these changes were aligned with market trends and supporting the objective of fair and responsible remuneration practices.

In considering the proposed fees for non-executive directors, the committee not only looked at general increases in the market place for comparison and alignment purposes but also took account of the fiduciary risks carried by non-executive directors as well as the work load, time commitment, expertise and preparation time expected of each non-executive director.

The release of the King IV Report for Corporate Governance, 2016 (King IV) has brought an opportunity to have a fresh look at all aspects of our remuneration practices as we continuously strive to be an organisation that is known for remunerating fairly, responsibly and transparently so as to promote the achievement of strategic objectives and positive outcomes in the short, medium and long term. All elements of remuneration, including the structuring, execution and reporting thereof, have been carefully considered during the period under review with the assistance and input from independent and objective remuneration consultants. The remuneration policy was found to be in line with best market practice.

The content of the remuneration policy, a summary of which is set out in the *Remuneration report*, has been compared with the recommended practices contained in King IV to ensure alignment. In addition, the reader is referred to the implementation report, also contained in the *Remuneration report* and which sets out the remuneration outcomes in respect of non-executive and executive directors as well as prescribed officers. Voting practices have now been aligned with the King IV recommendations and the Notice of annual general meeting 2017 included in the *Report to shareholders 2017* contains two separate non-binding, advisory votes in respect of the remuneration policy as well as the implementation report.

We value our shareholder comments and, as always, we invite our shareholders to engage with the company, through the office of the company secretary (companysecretariat@harmony.co.za), once the remuneration policy and implementation report as set out below have been perused with a view to obtaining a better understanding and/or clarification of any aspect thereof prior to exercising a vote at the 2017 Annual General Meeting. This should again enable shareholders to make an informed decision on these matters in the interest of responsible investing.

At the 2016 Annual General Meeting, the non-binding, advisory vote on the remuneration policy was supported by more than 91% of the votes exercised on the resolution. Considering that 87% of the total issued shares of the company were voted on the resolution, the remuneration committee is satisfied with shareholders' support for this very important aspect of the business. However, this does not mean that we should become complacent and the remuneration committee is committed to continuous improvement in remuneration practices in the interest of the company and its stakeholders. The committee is satisfied that the remuneration policy has achieved its stated objectives.

For more on the committee and its activities during the year under review see *Corporate governance* in this integrated annual report 2017.

A focus for the remuneration committee in the new year, will be to continue the review of our short- and long-term incentive schemes as well as the active engagement with our shareholders.

No member of the committee has a personal interest in the outcome of decisions made during the period under review, and four of its five members are independent non-executive directors. The chairman of the board is not a member of the committee.

Cathie Markus resigned as director of the board and chairman of the remuneration committee on 9 February 2017. On behalf of the remuneration committee, we want to express our sincere gratitude for her invaluable guidance as our chairman. We wish her well with her future endeavours.

Vishnu Pillay
Chairman, remuneration committee
26 October 2017

## PART ONE: FY18 REMUNERATION POLICY

Harmony's reward strategy underpins our business strategy of producing profitable ounces, safely and increasing our margins.

In order to achieve this, we rely on experienced, skilled teams who live our values and maintain stakeholder relationships, in growing profits, and in maintaining a sustainable company.

Our remuneration policy has been designed with our business strategy in mind – to attract and retain these experienced, skilled teams, and to motivate them to deliver and achieve our key business goals. To ensure that this happens, we need to be certain that all elements of our remuneration and wider reward offerings are aligned and market competitive.

In determining remuneration, the remuneration committee takes into account shareholders', interests as well as the financial health and future of the company.

### Board remuneration (non-executive directors)

Harmony's philosophy regarding the remuneration of non-executive directors is to ensure that they are fairly rewarded for their contribution to the company's overall performance.

Non-executive directors' fees are reviewed annually to ensure that they remain competitive. In line with the recommendations of King IV, our non-executive directors are paid a retainer for board meetings and an attendance fee for every board meeting attended. Non-executive directors also receive a retainer for serving on a committee. In addition, an ad hoc fee is paid for special meetings or attendance to company business, per day. Non-executive directors' fees exclude VAT.

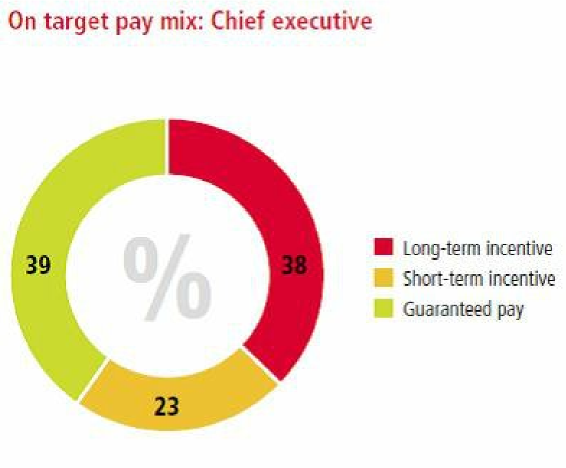
Non-executive directors do not receive share options or other incentive awards correlated with the share price or group performance as these may impair their ability to provide impartial oversight and advice.

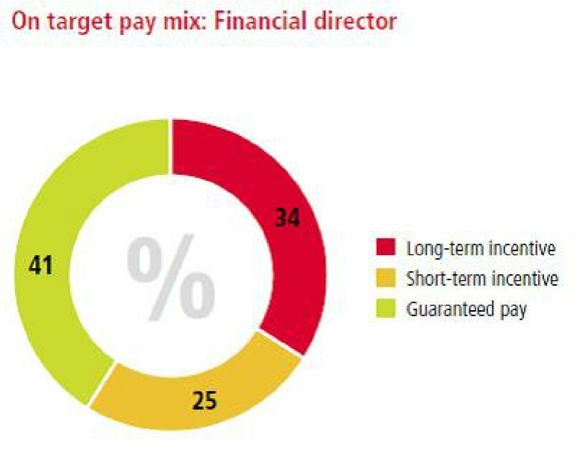
The proposed fees for FY18 are set out in the notice of annual general meeting in the *Report to shareholders 2017.*

**Remuneration mix at Harmony**

Harmony chooses to adopt an integrated approach to rewarding its employees.

The graphs below illustrate the designed outcome of the total remuneration package for executive management and prescribed officers, based on achieving targeted performance. The guaranteed pay, short-term incentives and long-term incentives are expressed as a percentage of total remuneration.




The graphs depicting actual payment can be found in Part Two, of this Remuneration Report.

These elements of the remuneration package are discussed in more detail below.

**Key elements of Harmony's remuneration structure**

**Reward element: Guaranteed pay**

In reviewing and approving levels of guaranteed pay, the committee ensures that the guaranteed pay portion of remuneration is aligned with similar roles in the market sector in which we operate and the contribution made by employees.

To compete effectively for skills in a challenging employment market, we identify the target market against which to benchmark guaranteed pay. This target market includes those organisations or companies that employ similar skills sets to those which we require. Comparisons are made predominantly with the mining and resources sectors to ensure that Harmony remains competitive.

Harmony aims for guaranteed pay levels relative to the median of the target market.

Guaranteed pay is inclusive of contributions by the company to a retirement fund and a medical aid scheme.

**Reward element: Short-term incentive**

The short-term incentive scheme provides for bonus payments. Bonus payments are:

- based on team performance against annual targets that are reviewed annually, modified by a personal performance rating for executive management
- paid twice a year for all management employees in corporate, central services, medical services and central operations (including executive directors and prescribed officers)
- paid quarterly for designated shaft management team members and regional operations management teams

- paid monthly for mining and engineering crews
- during 2016, the board approved the following changes to the short-term incentive scheme:
- the minimum acceptable level of performance (i.e. qualification threshold) was increased from 90% to 95%
- the R/kg performance driver was changed to total cost (working cost plus capital excluding royalties)
- the short-term incentive for executives to be modified by a personal performance rating

The reason for changing the R/kg performance driver to total cost (working cost plus capital excluding royalties) is to award effective working cost and capital management.

The targets on which bonus payments are based are derived from the company's business plan which is developed in terms of the company's strategic objectives for the year.

For executive management, the measures and weightings are as follows:

| Performance drivers | Weighting |
|---|---|
| Gold produced | 40% |
| Total cost (working cost + capital expenditure excluding royalties) | 30% |
| Underground grade | 30% |

**Payment parameters**

To achieve a minimum qualification for a bonus, Harmony must achieve at least 95% of the business plan.

On-target performance will result in a total bonus of 60% of guaranteed pay.

Above-target performance is capped at 100% of guaranteed pay as illustrated below:

| % of business plan achieved | % of 6-month guaranteed pay | Parameter |
|---|---|---|
| <95 | 0 | |
| 95 | 40 | Threshold |
| 100 | 60 | Target |
| 105 | 100 | Maximum |
| >105 | 100 | |

**Safety as a modifier**

Safety performance is applied as an adjustment in the calculation of our short-term incentive bonuses. The company's lost-time injury frequency rate for the total South African business plan is used to measure Harmony's safety performance.

If the planned safety target is achieved, 10% will be added to the overall percentage bonus paid. If the company does not achieve its safety target, up to 10% will be deducted from the overall percentage bonus paid as per the gradation scale illustrated below:

| Achievement against business plan | % added or deducted from overall bonus percentage* |
|---|---|
| 100 | 10% |
| 95 | 5% |
| 90 | 0% |
| 85 | -5% |
| 80 | -10% |
| *Linear interpolation between these points | |

**Personal performance modifier:**

The personal performance percentage will be calculated according to an executive manager's personal performance measured against objectives set out in that executive's performance management contract as follows:

Guaranteed pay x group performance against plan (0% - 100%) x personal performance percentage (0% - 150%)

**Reward element: Long-term (share-based) incentive**

The Harmony share plan (the plan) consists of share appreciation rights (SARs), performance shares and restricted shares.

Employees eligible for participation in the plan include executive directors, executive management and management. Non-executive directors may not participate in the plan.

There is no repricing or surrender or re-grant of any offers. Share awards are not granted in a closed period and no backdating of awards is allowed.

Rewards are settled in shares, although participants may receive, via our share scheme administrators, cash from the sale of these shares, less tax payable.

The main elements of the share plan and performance conditions are summarised below.

**Share appreciation rights (SARs)**

Eligible employees received annual allocations based on a percentage of their cost to company, which vest in equal thirds on the third, fourth and fifth anniversaries of such allocations and lapse in the sixth year. The value or reward that accrues is based on the positive appreciation of the share price over time (compared to the issue price) and continued employment.

The company acknowledges shareholders' sentiment with regard to the issuing of share appreciation rights. Such views will be considered should the company issue new share appreciation rights going forward. Share appreciation rights were last allocated in November 2014 (FY15).

**Performance shares**

Eligible employees receive annual conditional awards of a maximum number of performance shares based on a percentage of cost to company and remuneration category. The conditional award vests after three years, if and to the extent that performance conditions have been satisfied and is subject to the minimum shareholding requirement described below. The conditional awards that do not vest at the end of the three-year period will be forfeited.

The company reviewed and changed the performance criteria for performance shares.

The company reviewed and changed the performance criteria for performance shares.

Awards made since November 2015 will be measured on the total shareholder return of the company over a three-year period and will be capped at the maximum vesting percentage of 100%. The total shareholder return vesting criteria will comprise of two components:

- 50% is based on absolute performance which takes into account the value of the company's share price growth and the value of dividends paid over the measurement period
- 50% is based on the relative performance of the company compared to that of the gold index over the measurement period

**Absolute performance:**

| Performance | Achievement | Vesting* |
|---|---|---|
| Full (stretch) | 100% | 100% |
| Target | 80% | 80% |
| Threshold | 45% | 0% |
| **Linear interpolation will apply between levels* | | |

**Relative performance:**

| Performance | Achievement | Vesting* |
|---|---|---|
| Full (stretch) | 40% | 150% |
| Target | 0% | 40% |
| Threshold | -5% | 0% |
| **Linear interpolation will apply between levels* | | |

Details of the awards made during FY17 can be found in Part Two of this Remuneration Report.

**Restricted shares**

The share plan allows for restricted shares and matching performance shares to be granted to eligible employees at the discretion of the board based on past performance. The board determines the quantum and balance between restricted shares and matching performance shares.

Restricted shares vest three-years from the grant date. If the grant is not exercised, partially or fully at the time, these shares remain restricted for a further three years and are supplemented by a matching grant of restricted shares. The restricted shares and the matching restricted shares are then settled after the end of a further three-year period.

We acknowledge the sentiments of shareholders with regard to restricted shares and our last grant of new restricted shares was made in 2012.

Minimum shareholding requirement

We have encouraged executive management to retain performance shares when they vest and a minimum shareholding requirement has been introduced to achieve this. Our objective is that executive management should hold Harmony shares to the equivalent of 200% of guaranteed pay and other executive managers, 100% of guaranteed pay. This shareholding is meant to be significant and has been introduced to align shareholder and executive objectives to grow total shareholder return.

The shareholders have approved this amendment to the share plan at the annual general meeting held in November 2016. For further details, a copy of our share plan is available on the Harmony website, www.harmony.co.za.

Plan limit

The approved aggregate number of shares that may be acquired by participants in the long-term incentive plan, together with any other share plan or scheme are 60 011 669 shares as approved by the members of the company at an annual general meeting held on 1 December 2010. To date, Harmony has issued xx of these approved shares.

The aggregate number of shares that may be acquired by any one participant in terms of the long-term incentive plan together with any other share plan or scheme approved by the members shall not exceed 2 100 000 shares. To date, none of the participants has acquired an aggregate of more than 2 100 000 shares.

**Reward element: Tlhakanelo Employee Share Trust**

The Tlhakanelo Employee Share Trust had a life of five years. The first allocation date was on 31 August 2012 and the first vesting date on 15 March 2013. The fifth and final vesting date was 15 March 2017.

With the consent of the board of Harmony, the Trustees of the Trust had resolved to terminate the Trust in accordance with the provisions of the Trust Deed.

Harmony is, in consultation with our unions and other stakeholders, in the process of drafting a new employee share option scheme. This will be presented to our shareholders for approval in due course.

Details of the vesting during FY17 can be found in Part Two of this Remuneration report.

### Contracts, severance and termination

Executive directors and executive managers have employment contracts with Harmony which include notice periods of up to 90 days. There are no balloon payments on termination, automatic entitlement to bonuses or automatic entitlement to share-based payments other than in terms of the company's approved share incentive plans.

### Non-binding advisory vote

Shareholders are requested to cast non-binding advisory votes required by King IV on Part One and Part Two of this remuneration report. For more information refer to the notice of the annual general meeting in the *Report to shareholders 2017.*

In the event that either the remuneration policy or the implementation report, or both are voted against by 25% or more of the voting rights exercised at the 2017 annual general meeting, the committee will in good faith and with the best reasonable effort engage with its shareholders to ascertain the reasons for the dissenting votes and appropriately address legitimate and reasonable objections and concerns raised which may include amending the remuneration policy, or clarifying or adjusting the company's remuneration governance and/or processes.

### Stakeholder feedback

We maintain open communication channels with our stakeholders, listen to feedback and take action where this is deemed to be in the best interests of the company.

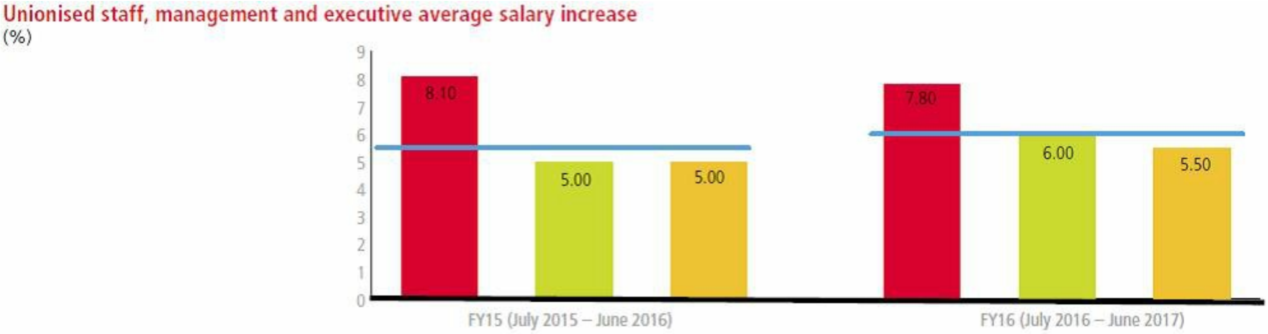
## PART TWO: IMPLEMENTATION REPORT ON THE POLICY APPLICABLE IN 2017

Increases to guaranteed package during the year under review

An assessment of executive remuneration, and short- and long-term incentives was undertaken during FY17.

Taking into consideration the prevailing market conditions, affordability and shareholders' expectations, an average increase of 6% to guaranteed remuneration packages of executives and management was made during FY17. Illustrated below are the average percentage increases awarded during FY16 and FY17 to executives, management and unionised staff:

**Unionised staff, management and executive average salary increase**




| | FY15 (July 2015 – June 2016) | FY16 (July 2016 – June 2017) |
|---|---|---|
| Unionised staff (July every year) | 8.10 | 7.80 |
| Management (January every year) | 5.00 | 6.00 |
| Executives (August every year) | 5.00 | 5.50 |
| Consumer price index | 5.58 | 6.05 |

### Short-term incentive payments during the year under review

During the year under review, achievement levels against the targets for the executive short-term incentive scheme were as follows:

| **First period FY17 (July to December 2016)** | | | |
|---|---|---|---|
| **Company performance measures** | **Weighting** | **% of plan achieved** | **Weighted %** |
| Total kilograms | 40 | 99 | 22.4 |
| Total cost | 30 | 102 | 22.8 |
| Grade | 30 | 99 | 16.8 |
| Weighted average | – | | 62 |
| Lost-time injury frequency rate adjustment | | | -10 |
| Percentage of six-months' guaranteed pay | | | 52 |
| **Second period FY17 (January to June 2017)** | | | |
| **Company performance measures** | **Weighting** | **% of plan achieved** | **Weighted %** |
| Total kilograms | 40 | 93 | 0 |
| Total cost | 30 | 97 | 14.4 |
| Grade | 30 | 99 | 16.8 |
| Weighted average | – | | 31.2 |
| Lost-time injury frequency rate adjustment* | | | – |
| Percentage of six-months' guaranteed pay | | | 31.2 |
| ** The board decided not to apply the lost-time injury frequency rate adjustment due to the company's significant improvement in fatalities during the period under review* | | | |

### Long-term incentives awarded during the year under review

During FY17, the company took its shareholders' sentiment with regard to the issuing of share appreciation rights into consideration. As a result, no share appreciation rights were issued to employees in FY17. Instead, such rights were replaced with a commensurate number of performance shares.

### Harmony share plan rules applicable to the FY17 awards

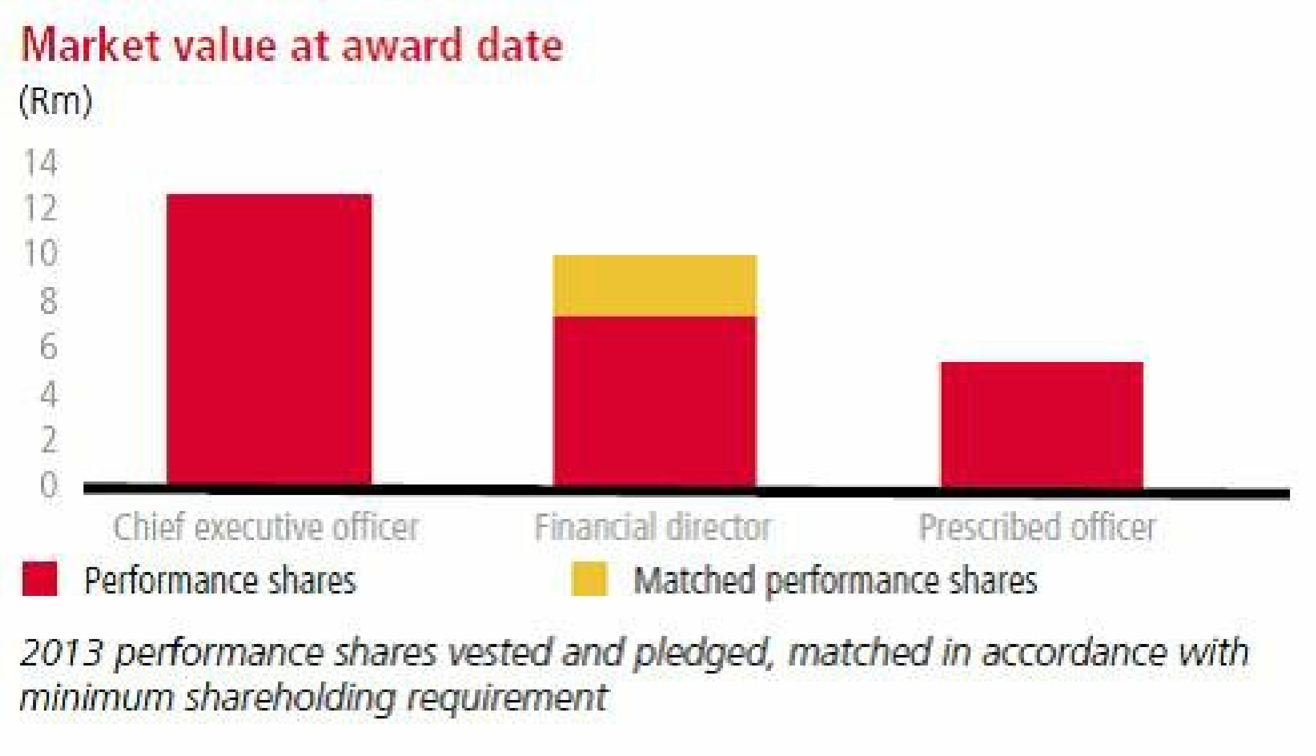
**Share appreciation rights:** No further allocations of share appreciation rights have been made since 2014. The value or reward that accrues on share appreciation rights is based on the positive appreciation of the share price over time compared to the issue price.

**Performance shares:** The performance measure applicable to the performance awards is based on Harmony's total shareholder return over a three-year period. The vesting criteria will comprise two components, namely, absolute and relative performance, as set out on below, with vesting capped at 100%.

**Matched performance shares:** The 2013 performance shares vested and pledged in accordance with minimum shareholding requirement were matched with additional performance shares.

The number of grants awarded for each executive director and prescribed officer is as set out in the table at the end of this section.

The values at date of grant for awards made during FY17 are illustrated below:




**Vesting of long-term incentives during the year under review**

During the year, the following awards in terms of the long-term incentive plan vested in November 2016:

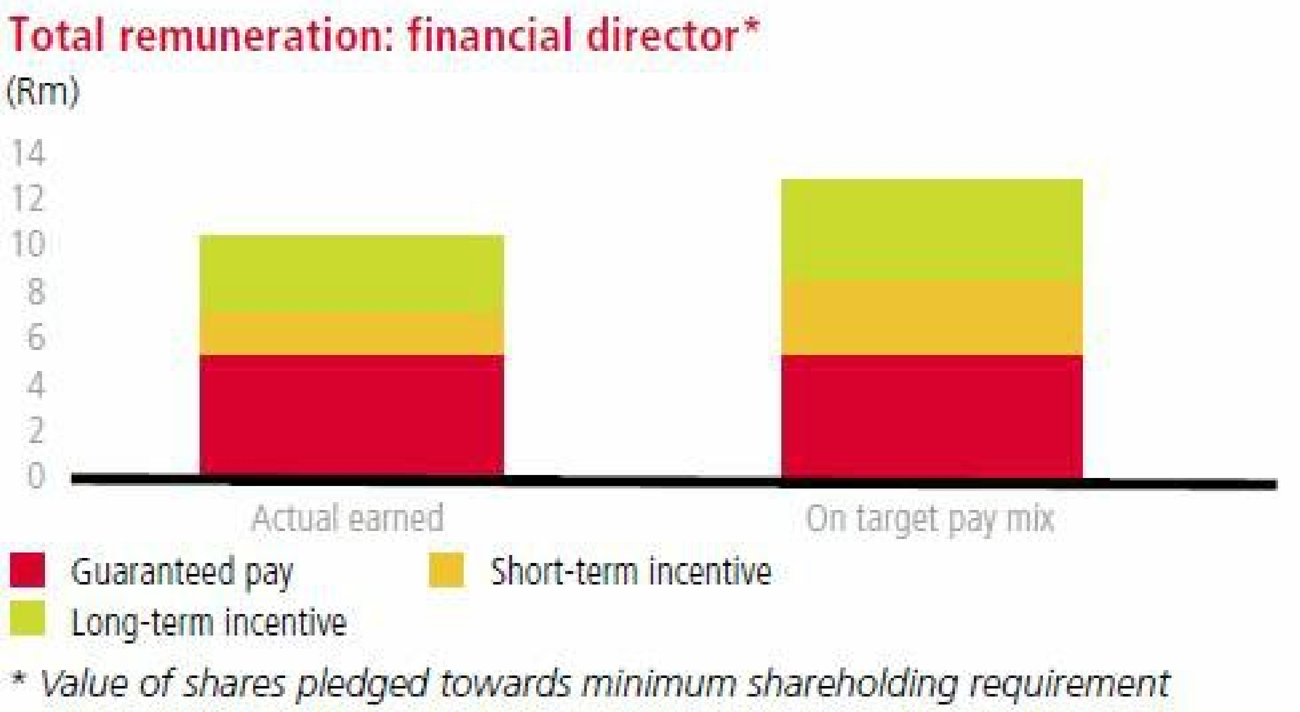
- **Share appreciation rights allocated in November 2013**The performance condition determined that the headline earnings per share growth from the allocation date should exceed the consumer price index. The 2013 allocation has met the performance condition and has vested and can be exercised on the subsequent anniversaries over the next three years.
- **Performance shares awarded in November 2013** The vesting percentage of performance shares was based on the achievement of two conditions, namely gold production against plan and relative share price performance against South African gold mining companies.

This resulted in a total vesting of 49.2% of performance shares awarded in November 2013 calculated as follows:

- Gold production had a maximum vesting of 50% and a minimum vesting of 0%. The company achieved 87%, 88% and 92% of plan over the three consecutive years which resulted in an average vesting of 20%.
- The company's performance against its peers on the basis of its relative share price performance resulted in a vesting of 29.2%.

**Total remuneration outcomes**

The compositions of total remuneration outcomes for FY17 for the chief executive officer and financial director are illustrated below:

| Payments made through the Tlhakanelo Employee Share Trust (R) | | |
|---|---|---|
| | **FY17: Incentives** | **Total since incorporation of the trust:** |
| Value of ordinary shares sold and proceeds paid to in total to all participants (before tax) | 15 203 584 | 146 808 054 |
| Value of bonus payments paid to in total to all participants by Harmony based on R18 per share appreciation right (before tax). No sale of shares | 17 866 864 | 123 690 777 |
| **Total payments received by participants (value of shares plus share appreciation rights bonus) (before tax)** | **33 070 449** | **270 498 831** |

### Non-executive directors' fees

During May 2017, the remuneration committee considered an industry benchmark on non-executive directors' fees. On the recommendation of the remuneration committee, the board proposed an increase in fees for all non-executive directors, to be considered for approval by the shareholders at the forthcoming annual general meeting. For more information on the notice of the annual general meeting refer to the *Report to shareholders 2017.*

### Directors' emoluments (R000)

| Name | Directors' fees FY17 | Salaries and benefits FY17 | Retirement savings and contributions during the year FY17 | Bonuses paid FY17 | Total FY17 | Total FY16 |
|---|---|---|---|---|---|---|
| **Non–executive** | | | | | | |
| Patrice Motsepe | 1 150 | – | – | – | **1 150** | 1 105 |
| Joachim Chissano | 610 | – | – | – | **610** | 463 |
| Fikile De Buck | 1 080 | – | – | – | **1 080** | 970 |
| Ken Dicks | 682 | – | – | – | **682** | 606 |
| Dr Simo Lushaba | 828 | – | – | – | **828** | 718 |
| Cathie Markus[2] | 438 | – | – | – | **438** | 694 |
| Modise Motloba | 1 142 | – | – | – | **1 142** | 971 |
| Mavuso Msimang | 582 | – | – | – | **582** | 545 |
| Karabo Nondumo | 796 | – | – | – | **796** | 544 |
| Vishnu Pillay | 622 | – | – | – | **622** | 593 |
| John Wetton | 1 040 | – | – | – | **1 040** | 956 |
| Andre Wilkens | 721 | – | – | – | **721** | 784 |
| **Executive** | | | | | | |
| Frank Abbott | – | 5 136 | 516 | 1 882 | **7 534** | 7 064 |
| Mashego Mashego | – | 3 751 | 488 | 1 358 | **5 597** | 5 285 |
| Peter Steenkamp[3] | – | 7 260 | 1 188 | 2 784 | **11 232** | 4 022 |
| **Prescribed officers** | | | | | | |
| Beyers Nel | – | 4 483 | 646 | 1 448 | **6 577** | 1 683 |
| Phillip Tobias | – | 4 264 | 526 | 1 448 | **6 238** | 1 590 |
| Johannes van Heerden[4] | – | 5 988 | 308 | 1 354 | **7 650** | 8 626 |
| **Former** | | | | | | |
| G Briggs[5] | | | | | | 6 915 |
| A Pretorius[6] | | | | | | 402 |
| **Total** | **9 691** | **30 882** | **3 672** | **10 274** | **54 519** | [7]**44 536** |

*[1] Reflects amounts paid and not earned during the year*
*[2] Resigned as non–executive director on 9 February 2017*
*[3] Appointed January 2016*
*[4] Salary is paid in AUS$ and is influenced by the movement in the exchange rate*
*[5] CEO until December 2015*
*[6] Prescribed officer until July 2015*
*[7] FY16 total restated to exclude executive management*

| Movements on share incentives | Executive directors | | | | | | Prescribed officers | | | | | | Other | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Peter Steenkamp | | Frank Abbott | | Mashego Mashego | | Johannes van Heerden | | Beyers Nel | | Phillip Tobias | | Other management | | | |
| | Number of awards | Average price (SA rand) | Number of awards | Average price (SA rand) | Number of awards | Average price (SA rand) | Number of awards | Average price (SA rand) | Number of awards | Average price (SA rand) | Number of awards | Average price (SA rand) | Number of awards | Average price (SA rand) | Number of awards | Average price (SA rand) |
| **Performance shares** | | | | | | | | | | | | | | | | |
| Opening balance at 1 July 2016 | 512 000 | n/a | 1 116 937 | n/a | 730 077 | n/a | 730 077 | n/a | 361 318 | n/a | 327 882 | n/a | 31 199 747 | n/a | 34 978 038 | n/a |
| Awards granted | 420 423 | n/a | 245 881 | n/a | 152 091 | n/a | 152 091 | n/a | 177 366 | n/a | 177 366 | n/a | 7 835 110 | n/a | 9 160 328 | n/a |
| Matched awards granted[1] | – | n/a | 84 952 | n/a | – | n/a | – | n/a | – | n/a | – | n/a | 75 319 | n/a | 160 271 | n/a |
| Awards exercised/pledged | – | n/a | (84 952) | n/a | (61 306) | n/a | (61 306) | n/a | (25 470) | n/a | – | n/a | (2 099 190) | n/a | (2 332 224) | n/a |
| – Average sales price | – | n/a | – | 43.36 | – | 43.36 | – | 43.36 | – | 43.36 | – | n/a | – | 43.05 | – | 40.11 |
| – Gain realised on awards exercised and settled (SA rand) | – | | – | | 2 657 928 | | 2 657 928 | | 1 104 254 | | – | | | 87 127 662 | | 93 547 772 |
| Awards forfeited and lapsed | – | n/a | (87 714) | n/a | (63 298) | n/a | (63 298) | n/a | (26 298) | n/a | – | n/a | (3 877 232) | n/a | (4 117 840) | n/a |
| **Closing balance at 30 June 2017** | **932 423** | **n/a** | **1 275 104** | **n/a** | **757 564** | **n/a** | **757 564** | **n/a** | **486 916** | **n/a** | **505 248** | **n/a** | **33 133 754** | **n/a** | **37 848 573** | **n/a** |
| **Restricted shares** | | | | | | | | | | | | | | | | |
| Opening balance at 1 July 2016 | – | n/a | 100 544 | n/a | 62 776 | n/a | 107 300 | n/a | 40 084 | n/a | – | n/a | 549 270 | n/a | 859 974 | n/a |
| Awards granted | – | n/a | – | n/a | – | n/a | – | n/a | – | n/a | – | n/a | – | n/a | – | n/a |
| Awards exercised | – | n/a | – | n/a | – | n/a | (44 524) | n/a | – | n/a | – | n/a | (114 038) | n/a | (158 562) | n/a |
| – Average sales price | – | n/a | – | n/a | – | n/a | – | 43.36 | – | n/a | – | n/a | – | 43,36 | – | 43.36 |
| – Gain realised on awards exercised and settled (SA rand) | – | | – | | – | | 1 930 342 | | – | | – | | 4 944 129 | | 6 874 471 | |
| Awards forfeited and lapsed | – | n/a | – | n/a | – | n/a | – | n/a | – | n/a | – | n/a | – | n/a | – | n/a |
| **Closing balance at 30 June 2017** | **–** | **n/a** | **100 544** | **n/a** | **62 776** | **n/a** | **62 776** | **n/a** | **40 084** | **n/a** | **–** | **n/a** | **435 232** | **n/a** | **701 412** | **n/a** |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Share appreciation rights** | | | | | | | | | | | | | | | | |
| Opening balance at 1 July 2016 | – | n/a | 139 362 | 33.97 | 107 580 | 37.39 | 107 580 | 37.39 | 80 909 | 36.72 | 46 850 | 18.41 | 13 674 501 | 34.68 | 14 156 782 | 34.74 |
| Rights accepted | – | n/a | – | n/a | – | n/a | – | n/a | – | n/a | – | n/a | 113 899 | 21.88 | 113 899 | 21.88 |
| Rights exercised | – | n/a | – | n/a | – | n/a | – | n/a | – | n/a | – | n/a | (451 187) | n/a | (451 187) | n/a |
| – Average sales price | – | n/a | – | n/a | – | n/a | – | n/a | – | n/a | – | n/a | – | 43.66 | – | 43.66 |
| – Gain realised on awards exercised and settled (SA rand) | | – | | – | | – | | – | | – | | – | | 6 106 954 | | 6 106 954 |
| Rights forfeited and lapsed | – | n/a | – | n/a | (6 400) | 84.81 | (6 400) | 84.81 | (4 329) | 84.81 | – | n/a | (1 325 668) | 47.67 | (1 342 797) | 47.39 |
| **Closing balance at 30 June 2017** | **–** | **n/a** | **139 362** | **33.97** | **101 180** | **34.39** | **101 180** | **34.39** | **76 580** | **34.01** | **46 850** | **18.41** | **12 011 545** | **32.60** | **12 476 697** | **32.60** |
| Gain realised on awards exercised (SA rand) | | – | | – | | 2 657 928 | | 4 588 270 | | 1 104 254 | | – | | 98 178 745 | | 106 529 197 |

**EXECUTIVE DIRECTORS AND MANAGEMENT SHARE INCENTIVES** continued

**As at 30 June 2017**

| Movements on share incentives | Executive directors | | | | | | Prescribed officers | | | | | | Other | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Peter Steenkamp | | Frank Abbott | | Mashego Mashego | | Johannes van Heerden | | Beyers Nel | | Phillip Tobias | | Other management | | | |
| | Number awards | Average of price (SA rand) | Number awards | Average of price (SA rand) | Number of awards | Average price (SA rand) | Number of awards | Average price (SA rand) | Number of awards | Average price (SA rand) | Number awards | Average of price (SA rand) | Number of awards | Average price (SA rand) | Number of awards | Average price (SA rand) |
| **Outstanding awards (listed by allocation date)** | | | | | | | | | | | | | | | | |
| **Performance shares** | **932 423** | | **1 275 104** | | **757 564** | | **757 564** | | **486 916** | | **505 248** | | **33 133 754** | | **37 848 573** | |
| 17 November 2014 | – | n/a | 207 462 | n/a | 149 715 | n/a | 149 715 | n/a | 73 330 | n/a | 91 662 | n/a | 5 421 369 | n/a | 6 093 253 | n/a |
| 16 November 2015 | – | n/a | 736 809 | n/a | 455 758 | n/a | 455 758 | n/a | 236 220 | n/a | 236 220 | n/a | 20 167 254 | n/a | 22 288 019 | n/a |
| 17 February 2016 | 512 000 | n/a | – | n/a | – | n/a | – | n/a | – | n/a | – | n/a | – | n/a | 512 000 | n/a |
| 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 | 7 545 131 | n/a | 8 955 301 | |
| **Restricted shares** | **–** | | **100 544** | | **62 776** | | **62 776** | | **40 084** | | **–** | | **435 232** | | **701 412** | |
| 15 November 2011 | – | n/a | 8 000 | n/a | 8 000 | n/a | 8 000 | n/a | 4 000 | n/a | – | n/a | 36 000 | n/a | 64 000 | n/a |
| 16 November 2012 | – | n/a | 21 136 | n/a | 11 694 | n/a | 11 694 | n/a | 8 021 | n/a | – | n/a | 90 808 | n/a | 143 353 | n/a |
| 17 November 2014 (2011 award – matching shares) | – | n/a | 8 000 | n/a | 8 000 | n/a | 8 000 | n/a | 4 000 | n/a | – | n/a | 36 000 | n/a | 64 000 | n/a |
| 16 November 2015 (2012 award – matching shares) | – | n/a | 63 408 | n/a | 35 082 | n/a | 35 082 | n/a | 24 063 | n/a | – | n/a | 272 424 | n/a | 430 059 | n/a |
| **Share appreciation rights** | **–** | | **139 362** | | **101 180** | | **101 180** | | **76 580** | | **46 850** | | **12 011 545** | | **12 476 697** | |
| 15 November 2011 | – | n/a | 6 585 | 104.79 | 5 361 | 104.79 | 5 361 | 104.79 | 4 620 | 104.79 | – | n/a | 527 916 | 104.79 | 549 843 | 104.79 |
| 16 November 2012 | – | n/a | 16 204 | 68.84 | 11 694 | 68.84 | 11 694 | 68.84 | 8 021 | 68.84 | – | n/a | 1 234 305 | 68.84 | 1 281 918 | 68.84 |
| 15 November 2013 | – | n/a | 52 951 | 33.18 | 38 212 | 33.18 | 38 212 | 33.18 | 26 459 | 33.18 | – | n/a | 4 240 379 | 33.18 | 4 396 213 | 33.18 |
| 17 November 2014 | – | n/a | 63 622 | 18.41 | 45 913 | 18.41 | 45 913 | 18.41 | 37 480 | 18.41 | 46 850 | 18.41 | 6 008 945 | 18.41 | 6 248 723 | 18.41 |
| **Closing balance at 30 June 2017** | **932 423** | | **1 515 010** | | **921 520** | | **921 520** | | **603 580** | | **552 098** | | **45 580 531** | | **51 026 282** | |

# Audit and risk committee: Chairman's report

**"Sound governance and independent assurance confirmed an effective control environment for quality internal and external reporting and legislative compliance"**

*The audit and risk committee (the committee) is pleased to present its report for the financial year ended 30 June 2017. While this report is issued primarily in compliance with the statutory requirements relating to an audit committee, it also addresses certain material matters as discussed below.*

### Introduction

Harmony's audit and risk 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 duties to the audit 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.harmny.co.za.

### Composition and function

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

| Name | Status | Date appointed |
|---|---|---|
| John Wetton (chairman) | Independent non-executive director | 1 July 2011 (Chairman with effect from 30 November 2011) |
| Fikile De Buck | Lead independent non-executive director | 30 March 2006 |
| Dr Simo Lushaba | Independent non-executive director | 24 January 2003 |
| Modise Motloba | Independent non-executive director | 30 July 2004 |
| Karabo Nondumo | Independent non-executive director | 3 May 2013 |

For details of the qualifications, expertise and experience of the members of the audit and risk committee, refer to *Board of directors.*

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 2017* that accompanies the annual financial statements.

The group chief executive, the financial director, the executive: risk management and services improvement, the executive: ore reserves, the group IT manager, the external auditors, the group head of internal audit and other assurance providers attend meetings either by standing invitation or as and when required.

**Roles and responsibilities**

The committee is satisfied that it complied with its legal, regulatory and other responsibilities during the financial year ended 30 June 2017 (FY17). The committee's primary objective is to assist the board with its responsibilities for the management of risk, cyber security, the safeguarding of assets, 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 Companies Act of 2008, the JSE Listings Requirements and those items recommended in the interest of good governance according to King IV. In addition, the board has assigned certain other 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 FY17.

For more on the committee and its activities during the year under review, see *Corporate governance.*

**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 2017 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 2017 and recommended the report to the board for approval.

### Annual financial statements and accounting practices

The committee has reviewed the audited annual financial statements and summarised consolidated financial statements for the year ended 30 June 2017. No significant matters were identified by the committee relating to the annual financial statements and the committee submits that they present a balanced view of the group's performance for the period under review. The statements comply with International Financial Reporting Standards and the findings as highlighted in the JSE's most recent report back on proactive monitoring of financial statements for the year ended 30 June 2017.

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

### External auditor appointment and independence

The audit 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, the American Institute of Certified Public Accountants 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 2016/17 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 R24 million, of which R23 million was for audit related services, R0.4 million for non-audit services and R0.6 million for tax services.

### Tenure of the audit firm

PwC has been the group's external auditor for 67 years. At the annual general meeting held on 25 November 2016, PwC was reappointed as the independent external auditor and undertook to hold office until the conclusion of the 2017 annual general meeting.

The individual registered auditor responsible for the audit for the financial year ended 30 June 2017 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.

Harmony further demonstrated its commitment to transformation by working with PwC to introduce an emerging black audit firm, Ngubane & Co., 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.

For the financial year ending 30 June 2018, the committee has recommended to the board that PwC be re-appointed as the group's independent external auditor and that it hold office until the conclusion of the 2018 annual general meeting.

The directors will propose the re-appointment of PwC at the annual general meeting to be held on 23 November 2017. Details can be found in the notice of annual general meeting in the *Report to shareholders 2017* that accompanies the annual financial statements.

**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.

**Internal audit**

In accordance with the requirements of King IV, the committee confirms that, having considered the effectiveness of the group head of internal audit, Ms Besky 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. It oversees co-operation between the internal and external auditors, and serves as a link between the board of directors and these functions.

During FY17, the committee approved internal audit's charter and its annual audit plan. The group head of internal audit is responsible for regularly reporting the findings of the internal audit work against the agreed internal audit plan to the committee.

The group head of internal audit has direct access to the committee, primarily through its chairman. During the year, the committee met with the external auditors and with the group head of internal audit 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.

**Combined assurance**

The committee is satisfied that the group has optimised the assurance coverage obtained from management, 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

**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' responsibility for financial reporting section of the integrated annual 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 this integrated annual report. See *Managing risks and opportunities.*

**Information and technology governance**

The committee intensified its focus on the group's governance of information and technology. The committee considered and approved a technology and information governance framework and strategy to be implemented to manage information and technology as well as to identify any associated risks.

During the period under review, inter alia, management reviewed and expanded Harmony's disaster recovery measures, implemented a streamlined systems development life cycle and ensured the availability of adequately skilled resources to support operational and project initiatives.

The committee's terms of reference were updated during May 2017 to include the King IV recommendations regarding the governance of information and technology. This will be a focus area for the committee in FY18.

Evaluation of the expertise and experience of the financial director and the finance function
The audit committee is satisfied that the financial director has the appropriate expertise and experience to execute his designated functions. The expertise, experience and adequacy of the resources making up the finance function were also considered and the committee is satisfied that these are appropriate.

**Subsequent events**

On 19 October 2017, Harmony announced that it would acquire AngloGold Ashanti Limited's Moab Khotsong and Great Noligwa mines together with other assets and related infrastructure for a cash consideration of the rand equivalent of US$300 million. The transaction is subject to approval from Harmony's shareholders and other conditions precedent, including regulatory approvals. The board has unanimously approved the transaction and has resolved to recommend the transaction to shareholders.

**John Wetton**

**Chairman of the Audit and Risk Committee**

26 October 2017

## Index to Financial Statements

**Report of Independent Registered Public Accounting Firm**

To the Board of Directors and Shareholders of Harmony Gold Mining Company Limited

In our opinion, the accompanying consolidated balance sheets and the related consolidated income statements, statements of comprehensive income, statements of changes in shareholders' equity and cash flow statements present fairly, in all material respects, the financial position of Harmony Gold Mining Company Limited and its subsidiaries as of June 30, 2017 and 2016, and the results of their operations and their cash flows for each of the three years in the period ended June 30, 2017 in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of June 30, 2017, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/PricewaterhouseCoopers Inc.
Johannesburg, Republic of South Africa
October 26, 2017

PricewaterhouseCoopers Inc., 2 Eglin Road, Sunninghill 2157, Private Bag X36, Sunninghill 2157, South Africa T: +27 (11) 797 4000, F: +27 (11) 797 5800, www.pwc.co.za

# GROUP INCOME STATEMENTS

for the years ended 30 June 2017

| | | US dollar | | |
|---|---|---|---|---|
| *Figures in million* | Notes | **2017** | 2016 | 2015 |
| Revenue | 5 | **1 416** | 1 264 | 1 348 |
| Cost of sales | 6 | **(1 448)** | (1 088) | (1 645) |
| Production costs | | **(1 089)** | (914) | (1 103) |
| Amortisation and depreciation | | **(185)** | (149) | (216) |
| (Impairment)/reversal of impairment of assets | | **(131)** | 3 | (285) |
| Other items | | **(43)** | (28) | (41) |
| **Gross profit/(loss)** | | **(32)** | 176 | (297) |
| Corporate, administration and other expenditure | | **(38)** | (28) | (33) |
| Exploration expenditure | | **(18)** | (13) | (23) |
| Gains on derivatives | 7 | **75** | 30 | — |
| Other operating expenses | 8 | **(68)** | (54) | (80) |
| **Operating profit/(loss)** | 9 | **(81)** | 111 | (433) |
| Gain on bargain purchase | 10 | **60** | — | — |
| Loss on liquidation of subsidiaries | | **(1)** | — | — |
| Profit/(loss) from associate | 21 | **(1)** | — | (2) |
| Investment income | 11 | **20** | 17 | 21 |
| Finance costs | 12 | **(17)** | (19) | (22) |
| **Profit/(loss) before taxation** | | **(20)** | 109 | (436) |
| Taxation | 13 | **37** | (43) | 62 |
| **Net profit/(loss) for the year** | | **17** | 66 | (374) |
| **Attributable to:** | | | | |
| Owners of the parent | | **17** | 66 | (374) |
| **Earnings/(loss) per ordinary share (cents)** | | | | |
| **Total earnings/(loss)** | 14 | **4** | 15 | (86) |
| **Diluted earnings/(loss) per ordinary share (cents)** | | | | |
| **Total diluted earnings/(loss)** | 14 | **4** | 15 | (86) |

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

# GROUP STATEMENTS OF COMPREHENSIVE INCOME

for the years ended 30 June 2017

| | | US dollar | | |
|---|---|---|---|---|
| *Figures in million* | Notes | **2017** | 2016 | 2015 |
| Net profit/(loss) for the year | | **17** | 66 | (374) |
| Other comprehensive income/(loss) for the year, net of income tax | | **309** | (375) | (367) |
| Items that may be reclassified subsequently to profit or loss | 25 | **309** | (375) | (368) |
| Foreign exchange translation gain/(loss) | | **225** | (375) | (368) |
| Remeasurement of Rand gold hedging contracts | | **84** | — | — |
| Items that will not be reclassified to profit or loss: | 25 | **—** | — | 1 |
| Remeasurement of retirement benefit obligation | | **—** | — | 1 |
| **Total comprehensive income/(loss) for the year** | | **326** | (309) | (741) |
| **Attributable to:** | | | | |
| Owners of the parent | | **326** | (309) | (741) |

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

# GROUP BALANCE SHEETS

| Figures in million | Notes | US dollar<br>At 30 June 2017 | At 30 June 2016 |
|---|---|---|---|
| **ASSETS** | | | |
| **Non-current assets** | | | |
| Property, plant and equipment | 15 | **2 292** | 2 033 |
| Intangible assets | 16 | **46** | 59 |
| Restricted cash | 17 | **5** | 4 |
| Restricted investments | 18 | **203** | 170 |
| Investments in associates | 21 | **4** | — |
| Inventories | 23 | **3** | 3 |
| Trade and other receivables | 19 | **14** | 12 |
| Derivative financial assets | 20 | **24** | — |
| **Total non-current assets** | | **2 591** | 2 281 |
| **Current assets** | | | |
| Inventories | 23 | **86** | 79 |
| Restricted cash | 17 | **1** | 1 |
| Trade and other receivables | 19 | **76** | 44 |
| Derivative financial assets | 20 | **117** | 25 |
| Cash and cash equivalents | | **95** | 85 |
| **Total current assets** | | **375** | 234 |
| **Total assets** | | **2 966** | 2 515 |
| **EQUITY AND LIABILITIES** | | | |
| **Share capital and reserves** | | | |
| Share capital | 24 | **4 036** | 4 036 |
| Other reserves | 25 | **(1 255)** | (1 591) |
| Accumulated loss | | **(547)** | (531) |
| **Total equity** | | **2 234** | 1 914 |
| **Non-current liabilities** | | | |
| Deferred tax liabilities | 13 | **130** | 164 |
| Provision for environmental rehabilitation | 26 | **201** | 148 |
| Provision for silicosis settlement | 27 | **70** | — |
| Retirement benefit obligation | 28 | **14** | 11 |
| Borrowings | 29 | **23** | 139 |
| Trade and other payables | 30 | **1** | 1 |
| **Total non-current liabilities** | | **439** | 463 |
| **Current liabilities** | | | |
| Borrowings | 29 | **140** | 20 |
| Trade and other payables | 30 | **153** | 118 |
| **Total current liabilities** | | **293** | 138 |
| **Total equity and liabilities** | | **2 966** | 2 515 |

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 2017

| *Figures in million (US dollar)* | Number of ordinary shares issued | Share capital | Share premium | Accumu-lated Loss | Other reserves | Total |
|---|---|---|---|---|---|---|
| Notes | 24 | 24 | | | 25 | |
| **Balance - 30 June 2014** | 435 825 447 | 33 | 4 002 | (223) | (887) | 2 925 |
| Issue of shares | | | | | | |
| – Exercise of employee share options | 361 686 | — | — | — | — | — |
| Share-based payments | — | — | — | — | 16 | 16 |
| Net loss for the year | — | — | — | (374) | — | (374) |
| Other comprehensive loss for the year | — | — | — | — | (367) | (367) |
| **Balance - 30 June 2015** | 436 187 133 | 33 | 4 002 | (597) | (1 238) | 2 200 |
| Issue of shares | | | | | | |
| – Exercise of employee share options | 1 077 346 | — | — | — | — | — |
| – Shares issued to the Tlhakanelo Employee Share Trust | 35 000 | — | — | — | — | — |
| Share-based payments | — | — | — | — | 22 | 22 |
| Reversal of provision for odd lot repurchases | — | — | 1 | — | — | 1 |
| Net profit for the year | — | — | — | 66 | — | 66 |
| Other comprehensive loss for the year | — | — | — | — | (375) | (375) |
| **Balance - 30 June 2016** | 437 299 479 | 33 | 4 003 | (531) | (1 591) | 1 914 |
| Issue of shares | | | | | | |
| – Exercise of employee share options | **2 657 720** | **—** | **—** | **—** | **—** | **—** |
| Share-based payments | **—** | **—** | **—** | **—** | **27** | **27** |
| Net profit for the year | **—** | **—** | **—** | **17** | **—** | **17** |
| Other comprehensive income for the year | **—** | **—** | **—** | **—** | **309** | **309** |
| Dividends paid | **—** | **—** | **—** | **(33)** | **—** | **(33)** |
| **Balance - 30 June 2017** | **439 957 199** | **33** | **4 003** | **(547)** | **(1 255)** | **2 234** |

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

# GROUP CASH FLOW STATEMENTS

for the years ended 30 June 2017

| | | US dollar | | |
|---|---|---|---|---|
| *Figures in million* | Notes | **2017** | 2016 | 2015 |
| **CASH FLOW FROM OPERATING ACTIVITIES** | | | | |
| Cash generated by operations | 31 | **320** | 322 | 168 |
| Interest received | | **6** | 5 | 9 |
| Interest paid | | **(6)** | (11) | (9) |
| Income and mining taxes refunded/(paid) | | **(40)** | (4) | 8 |
| **Cash generated by operating activities** | | **280** | 312 | 176 |
| **CASH FLOW FROM INVESTING ACTIVITIES** | | | | |
| (Increase)/decrease in restricted cash | | **—** | (1) | 1 |
| Decrease in amounts invested in restricted investments | | **1** | 3 | 2 |
| Loan to associate advanced | | **—** | — | (10) |
| Cash on acquisition of Hidden Valley | 31 | **33** | — | — |
| Loan to ARM BBEE Trust | | **—** | (14) | — |
| Additions to intangible assets | | **—** | — | (1) |
| Proceeds from disposal of property, plant and equipment | | **3** | — | 1 |
| Additions to property, plant and equipment | | **(286)** | (168) | (246) |
| **Cash utilised by investing activities** | | **(249)** | (180) | (253) |
| **CASH FLOW FROM FINANCING ACTIVITIES** | | | | |
| Borrowings raised | 29 | **54** | 24 | 80 |
| Borrowings paid | 29 | **(50)** | (138) | (65) |
| Dividends paid | | **(33)** | — | — |
| **Cash generated/(utilised) by financing activities** | | **(29)** | (114) | 15 |
| **Foreign currency translation adjustments** | | **8** | (21) | (22) |
| Net increase/(decrease) in cash and cash equivalents | | **10** | (3) | (84) |
| Cash and cash equivalents - beginning of year | | **85** | 88 | 172 |
| **Cash and cash equivalents - end of year** | | **95** | 85 | 88 |

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

# NOTES TO THE GROUP FINANCIAL STATEMENTS

for the years ended 30 June 2017

## 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).

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 26 October 2017.

## 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 accounting policy on hedge accounting (refer to note 2.3) which was only applicable during 2017.

The line items Social investment expenditure, Loss on scrapping of property, plant and equipment and Foreign exchange translation were presented separately in the income statement for 2016. These line items have been included within Other operating expenses for 2017. The gains arising from the foreign exchange hedging contracts were previously included as part of the foreign exchange translation gain/loss line. The derivative gains and losses are now included in the gains from derivatives. As a result, the foreign exchange translation gain/loss has been re-presented for 2016 to exclude the gains on derivatives.

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board (IASB) and IFRIC Interpretations (collectively IFRS).

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**

*The standards and amendments to standards that became effective during the 2017 year did not have an impact on the consolidated financial statements with the exception of the following:*

| Pronouncement | Title | Effective date |
|---|---|---|
| IFRS 11 (Amendments) | *Joint Arrangements* - Acquisitions of interests in joint operations | 1 January 2016 |

**New standards, amendments to standards and interpretations to existing standards that are not yet affective 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.

The effective dates below are for the financial periods beginning on or after the given date.

*The following standards or amendments to standards are not expected to have an impact on the results of the group but will affect the disclosure in the financial statements:*

| Pronouncement | Title | Effective date |
|---|---|---|
| IAS 7 (Amendments) | *Statement of Cash Flows* - Disclosure initiative | 1 January 2017 |

## 2 ACCOUNTING POLICIES continued

### RECENT ACCOUNTING DEVELOPMENTS continued

*The following standards, amendments to standards and interpretations to existing standards may possibly have an impact on the group:*

| Pronouncement | Title | Effective date |
|---|---|---|
| IFRS 9 | *Financial Instruments*<br>This standard on classification and measurement of financial assets and financial liabilities will replace IAS 39, *Financial Instruments: Recognition and Measurement* . IFRS 9 has two measurement categories: amortised cost and fair value. All equity instruments are measured at fair value.<br><br>Hedge accounting<br>The new requirements in IFRS 9 align hedge accounting more closely with risk management, and establishes a more principles-based approach to hedge accounting and addresses inconsistencies and weaknesses in the current model in IAS 39.<br><br>Expected credit losses<br>IFRS 9 introduces a new model for the recognition of impairment losses – the expected credit losses (ECL) model. The new rules mean that entities will have to record a day one loss equal to the 12-month ECL on initial recognition of financial assets that are not credit impaired (or lifetime ECL for trade receivables).<br><br>Disclosures<br>Extensive disclosures are required, including reconciliations from opening to closing amounts of the ECL provision, assumptions and inputs and a reconciliation on transition of the original classification categories under IAS 39 to the new classification categories in IFRS 9.<br><br>The group does not expect the standard to have a significant impact on its balance sheet. The group expects to apply the simplified approach to record expected credit losses. This will lead to earlier recognition of credit losses, as lifetime expected losses will be recorded at recognition.<br><br>The standard requires additional disclosure and changes in presentation, which | 1 January 2018 |
| IFRS 15 | *Revenue from Contracts with Customers*<br>The core principle is that revenue must be recognised when goods or services are transferred to the customer, at the transaction price.<br><br>The standard is not expected to have a significant impact on the timing or amount of the group's revenue recognition. By-product revenue will no longer be credited to production cost, resulting in an increase to cost of sales. It will be recognised as part of product sales and therefore will not have an impact on | 1 January 2018 |
| IFRS 16 | *Leases*<br>The new standard requires lessees to recognise a lease liability reflecting future lease payments and a 'right-of-use asset' for virtually all lease contracts (with limited exceptions), whereas previously, lessees were required to make a distinction between a finance lease (on balance sheet) and an operating lease (off balance sheet).<br><br>The guidance on the definition of a lease (as well as the guidance on the combination and separation of contracts) has been updated, affecting lessors, although the accounting remains almost unchanged. The new accounting model for lessees is expected to impact negotiations between lessors and lessees.<br><br>The group is still assessing the impact. In general, it is expected that assets and liabilities will increase as right of use assets and lease liabilities will be recognised for most of the group's leases. This is expected to lead to an increase in depreciation and interest expense and a change in the classification | 1 January 2019 |

# 2 ACCOUNTING POLICIES continued

## MEASUREMENT BASIS

The financial statements have been prepared under the historical cost convention, as modified by the revaluation of available-for-sale financial assets, financial assets and financial liabilities at fair value through profit or loss and cash-settled share-based payments.

## GROUP ACCOUNTING POLICIES

Accounting policies are included in the relevant notes to the consolidated financial statements and have been highlighted in grey shading in the notes to the consolidated financial statements. The accounting policies below are applied throughout the financial statements:

### 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 over 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 a subsidiary 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 previous 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 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.

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.

## 2 ACCOUNTING POLICIES continued

### GROUP ACCOUNTING POLICIES continued

#### 2.1 Consolidation continued

*(iii) Joint arrangements* continued
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 result 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 and US dollar for the benefit of local and international users.

For translation of the rand financial statement items to US dollar, the average of R13.60 (2016: R14.50) (2015: R11.45) per US$1 was used for income statement items (unless this average was not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case these items were translated at the rate on the date of the transactions) and the closing rate of R13.11 (2016: R14.72) per US$1 for asset and liability items. Equity items were translated at historic rates.

The translation effect from rand to US dollar is included in other comprehensive income in the US$ financial statements.

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). The group documents at the inception of the hedging transaction the relationship between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking various hedge transactions. The group also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions have been and will continue to be highly effective in offsetting changes in cash flows of hedged items.

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 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.

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 ACCOUNTING POLICIES continued

### GROUP ACCOUNTING POLICIES continued

#### 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 units). 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 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 15 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 and 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.

- Valuation of derivative asset – note 4;
- Valuation of acquired assets and assumed liabilities for Hidden Valley – note 10;
- Estimate of taxation – note 13;
- Gold mineral reserves and resources – note 15;
- Production start date – note 15;
- Impairment of assets – note 15;
- Depreciation of property plant and equipment – note 15;
- Impairment of goodwill – note 16;
- Valuation of loans receivable – note 19;
- Valuation of interest in associate – note 21;
- Estimate of exposure and liabilities with regard to rehabilitation costs – note 26;

## 3 CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS continued

- Estimate of provision for silicosis settlement – note 27;
- Estimate of employee benefit liabilities – note 28;
- Fair value of share-based payments – note 33;
- Assessment of contingencies – note 35.

Please refer to the specific notes for further information on the key accounting estimates and assumptions applied.

## 4 FINANCIAL RISK MANAGEMENT

The group'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 group may use derivative financial instruments to hedge certain risk exposures.

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

| *Figures in million (US dollars)* | 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 2017** | | | | | | |
| **Financial assets** | | | | | | |
| Restricted cash | **6** | **—** | **—** | **—** | **—** | **—** |
| Restricted investments | **2** | **—** | **137** | **—** | **64** | **—** |
| Other non-current receivables | **14** | **—** | **—** | **—** | **—** | **—** |
| Derivative financial assets | **—** | **—** | **—** | **105** | **36** | **—** |
| Trade and other receivables | **39** | **—** | **—** | **—** | **—** | **—** |
| Cash and cash equivalents | **95** | **—** | **—** | **—** | **—** | **—** |
| **Financial liabilities** | | | | | | |
| Borrowings | **—** | **—** | **—** | **—** | **—** | **163** |
| Other non-current payables | **—** | **—** | **—** | **—** | **—** | **1** |
| Trade and other payables | **—** | **—** | **—** | **—** | **—** | **47** |
| **At 30 June 2016** | | | | | | |
| **Financial assets** | | | | | | |
| Restricted cash | 5 | — | — | — | — | — |
| Restricted investments | — | — | 126 | — | 44 | — |
| Other non-current receivables | 12 | — | — | — | — | — |
| Derivative financial assets | — | — | — | — | 25 | — |
| Trade and other receivables | 26 | — | — | — | — | — |
| Cash and cash equivalents | 85 | — | — | — | — | — |
| **Financial liabilities** | | | | | | |
| Borrowings | — | — | — | — | — | 159 |
| Other non-current payables | — | — | — | — | — | 1 |
| Trade and other payables | — | — | — | — | — | 29 |

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.

## MARKET RISK

### (i) 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$). Foreign exchange risk arises from future commercial transactions, recognised assets and liabilities and net investments in foreign operations. Foreign exchange risk arises when future commercial transactions or recognised assets or liabilities are denominated in a currency that is not the entity's functional currency. Harmony's revenues are sensitive to the R/US$ exchange rate as all revenues are generated by gold sales denominated in US$. During 2016, Harmony started a foreign currency hedging programme in order to manage the foreign exchange risk. The limit currently set by the Board is $500 million, which amounts to approximately 35% of the group's foreign exchange risk exposure. Refer to note 20 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.

## 4 FINANCIAL RISK MANAGEMENT continued

### MARKET RISK continued

#### (i) Foreign exchange risk continued

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.

| | US Dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| *Sensitivity analysis - borrowings* | | |
| **Rand against US$** | | |
| Balance at 30 June | **140** | 139 |
| Strengthen by 10% | **14** | 14 |
| Weaken by 10% | **(14)** | (14) |
| **Closing rate** | **13.11** | 14.72 |
| *Sensitivity analysis - financial assets* | | |
| **Rand against US$** | | |
| Balance at 30 June | **34** | 25 |
| Strengthen by 10% | **40** | 32 |
| Weaken by 10% | **(34)** | (38) |
| **Closing rate** | **13.11** | **14.72** |
| **US$ against Kina** | | |
| Balance at 30 June | **7** | 14 |
| Strengthen by 10% | **1** | 1 |
| Weaken by 10% | **(1)** | (2) |
| **Closing rate** | **0.32** | 0.32 |

#### (ii) 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. During July 2016, Harmony started entering into derivative 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 limits currently set by the Board are for 20% of the production from gold and 25% from silver 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. These contracts have been designated as cash flow hedging instruments and hedge accounting has been applied. US$ gold forward contracts were entered into for the production from Hidden Valley, which were not designated as hedging instruments for hedge accounting and the gains and losses are accounted for in the income statement.

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.

Refer to note 7 and 20 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.

## 4 FINANCIAL RISK MANAGEMENT continued

### MARKET RISK continued

#### (ii) Commodity price sensitivity continued

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| *Sensitivity analysis* | | |
| **Rand gold derivatives** | | |
| Other comprehensive income | | |
| Increase by 10% | **(41)** | — |
| Decrease by 10% | **40** | — |
| **US$ gold derivatives** | | |
| Profit or loss | | |
| Increase by 10% | **(8)** | — |
| Decrease by 10% | **8** | — |
| **US$ silver derivatives** | | |
| Profit or loss | | |
| Increase by 10% | **(1)** | — |
| Decrease by 10% | **1** | — |

#### (iii) Other price risk

The group is exposed to the risk of fluctuations in the fair value of the available-for-sale financial assets and 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 US$2.4 million (2016 US$1.9 million); an equal change in the opposite direction would have decreased profit or loss by US$1.6 million (2016 US$1.6 million).

#### (iv) 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. 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 is performed on the same basis for 2016.

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| *Sensitivity analysis - borrowings (finance costs)* | | |
| Increase by 100 basis points | **(2)** | (2) |
| Decrease by 100 basis points | **2** | 2 |
| *Sensitivity analysis - financial assets (interest received)* | | |
| Increase by 100 basis points | **2** | 2 |
| Decrease by 100 basis points | **(2)** | (2) |

## 4 FINANCIAL RISK MANAGEMENT continued

## CREDIT RISK

Credit risk is the risk that a counterparty may default or not meet its obligations timeously. Financial instruments, which subject the group 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.

### Credit ratings downgrade

In April 2017, two of the three international rating agencies, Standard and Poor's and Fitch, downgraded South Africa's long-term sovereign credit rating due to increased perception of political risk and the risk of policy shifts that could undermine fiscal and economic growth in South Africa. Fitch downgraded the national and foreign currency rating to sub-investment grade whereas Standard and Poor's only downgraded the foreign currency rating to sub-investment grade and downgraded the national currency rating by one notch which is still investment grade. Moody's has kept the sovereign credit risk of South Africa as investment grade. This has led to the downgrade of various financial and parastatal institutions and companies in South Africa. This was largely limited to international scale ratings, not the national scale ratings. 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.

Despite this, the group was still able to refinance its US$ syndicated facility. Refer to note 36.

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.

### Assessment of credit risk

Exposure to credit risk on trade and other receivables is monitored on a regular basis. Refer to note 19 for management's assessment. 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 of good credit quality. 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 US$498.7 million as at 30 June 2017 (2016: US$322.7 million).

The social plan trust fund of US$2.8 million (2016: US$2.8 million) has been invested in unit trusts comprising shares in listed companies.

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

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| **Cash and cash equivalents** | | |
| AA+ | **43** | 49 |
| AA | **30** | 12 |
| AA- | **22** | 24 |
| | **95** | 85 |
| **Restricted cash** | | |
| AA | **6** | 2 |
| AA- | **—** | 3 |
| | **6** | 5 |
| **Restricted investments (environmental trusts)** | | |
| AA+ | **86** | 51 |
| AA | **90** | 100 |
| AA- | **24** | 16 |
| | **200** | 167 |
| **Derivative financial assets** | | |
| AA+ | **54** | — |
| AA | **2** | 8 |
| AA- | **85** | 17 |
| | **141** | 25 |

## 4 FINANCIAL RISK MANAGEMENT continued

### 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 contractual maturities of financial liabilities (including principal and interest payments):

| | US dollar | |
|---|---|---|
| *Figures in million* | **Current** | **More than 1 year** |
| **2017** | | |
| Other non-current payables | **—** | **1** |
| Trade and other payables (excluding non-financial liabilities) | **47** | **—** |
| Borrowings | | |
| Due between 0 to six months | **4** | **—** |
| Due between six to 12 months | **142** | **—** |
| Due between one to two years | **—** | **2** |
| Due between two to five years | **—** | **24** |
| | **193** | **27** |
| **2016** | | |
| Other non-current payables | — | 1 |
| Trade and other payables (excluding non-financial liabilities) | 29 | — |
| Borrowings | | |
| Due between 0 to six months | 24 | — |
| Due between six to 12 months | 3 | — |
| Due between one to two years | — | 143 |
| Due between two to five years | — | — |
| | 56 | 144 |

### 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.

The group follows a conservative approach to debt and prefers to maintain low levels of gearing. Net debt is as follows:

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Cash and cash equivalents | **95** | 85 |
| Borrowings | **(163)** | (159) |
| **Net debt** | **(68)** | (74) |

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

## 4 FINANCIAL RISK MANAGEMENT continued

### 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 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 presents the group's financial assets and liabilities that are measured at fair value by level at reporting date.

| Figures in million (US dollar) | Fair value hierarchy level | At 30 June 2017 | At 30 June 2016 |
|---|---|---|---|
| **Fair value through profit and loss financial assets** | | | |
| Restricted investments[1] | **Level 2** | **64** | **44** |
| Derivative financial assets[2] | | **141** | **25** |
| Forex hedging contracts | **Level 2** | **34** | **25** |
| Rand gold hedging contracts | **Level 2** | **105** | **—** |
| US$ gold hedging contracts | **Level 2** | **2** | **—** |
| Silver hedging contracts | **Level 2** | **—** | **—** |

[1] The majority of the level 2 fair values are directly derived from the Top 40 index on the JSE, and are 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 held to maturity and therefore not disclosed here.

[2] The fair value measurements are derived as follows:

**Forex hedging contracts** (zero cost collars): 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).

**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.

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

The group has determined that gold is its primary product and other metals produced as part of the extraction process are considered to be by-products of gold. Revenue arising from metal sales is only recognised when the significant risks and rewards of ownership have been transferred, neither continuing managerial involvement nor effective control over the metals sold has been retained, the amount of revenue and costs incurred can be measured reliably and it is probable that the economic benefits associated with the sale will flow to the group. These conditions are satisfied when the gold has been delivered in terms of the contract and the sales price fixed, as evidenced by the certificate of sale issued by the refinery. The sales price for the majority of the group's gold is based on the gold spot price according to the afternoon London Bullion Market fixing price for gold on the date the sale is concluded.

Revenues from by-product sales such as silver are credited to production costs as a by-product credit.

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 occurs. See the accounting policy for derivatives and hedging activities in note 2.

| | US dollar | | |
|---|---|---|---|
| *Figures in million* | **2017** | 2016 | 2015 |
| Gold sales | **1 363** | 1 264 | 1 348 |
| Hedging gain[1] | **53** | — | — |
| **Total revenue** | **1 416** | 1 264 | 1 348 |

[1] Relates to the realised effective portion of the Rand gold hedge. Refer to note 20 for further information.

## 6 COST OF SALES

| | US dollar | | |
|---|---|---|---|
| *Figures in million* | **2017** | 2016 | 2015 |
| Production costs (a) | **1 089** | 914 | 1 103 |
| Amortisation and depreciation of mining assets | **179** | 144 | 211 |
| Amortisation and depreciation of assets other than mining assets (b) | **6** | 5 | 5 |
| Rehabilitation expenditure/(credit) (c) | **2** | (3) | (1) |
| Care and maintenance costs of restructured shafts | **8** | 8 | 9 |
| Employment termination and restructuring costs (d) | **5** | 1 | 22 |
| Share-based payments (e) | **29** | 23 | 18 |
| Impairment/(reversal of impairment) of assets (f) | **131** | (3) | 285 |
| Other | **(1)** | (1) | (7) |
| **Total cost of sales** | **1 448** | 1 088 | 1 645 |

(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, analysed by nature, consist of the following:

| | US dollar | | |
|---|---|---|---|
| *Figures in million* | **2017** | 2016 | 2015 |
| Labour costs, including contractors[1] | **662** | 559 | 678 |
| Consumables | **266** | 230 | 303 |
| Water and electricity | **170** | 148 | 175 |
| Insurance | **7** | 7 | 9 |
| Transportation | **13** | 12 | 15 |
| Change in inventory[2] | **27** | 7 | 17 |
| Capitalisation of mine development costs | **(97)** | (93) | (133) |
| Stripping activities | **(6)** | (3) | (21) |
| By-product sales | **(17)** | (23) | (18) |
| Royalty expense | **16** | 12 | 8 |
| Other | **48** | 58 | 70 |
| **Total production costs** | **1 089** | 914 | 1 103 |

## 6 COST OF SALES continued

[1] Labour costs increased as a result of annual increases and bonuses.

[2] The change in 2017 relates primarily to the effect of treating the run-of-mine stockpiles at Hidden Valley when the mining of stage 4 concluded.

(b) 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 26. 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 2017, US$7.1 million (2016: US$4.8 million) (2015: US$5.8 million) was spent on rehabilitation in South Africa. US$2.8 million was spent on investigations (including geotechnical drilling) to determine cost effective methods for eventual mine closure at Hidden Valley.

(d) Employment termination and restructuring costs include contractor fees for the optimisation of the Hidden Valley operation of US$4.5 million. During the 2015 financial year, the group embarked on a restructuring process at Kusasalethu, Masimong and Hidden Valley. Target 3 was placed on care and maintenance and Ernest Oppenheimer Hospital was closed in December 2014. Voluntary severance packages were offered to management in September 2014.

(e) Refer to note 33 for details on the share-based payment schemes implemented by the group.

(f) The impairment of assets consists of the following:

| | US dollar | | |
|---|---|---|---|
| *Figures in million* | **2017** | 2016 | 2015 |
| Target 1 (i) | **60** | — | — |
| Kusasalethu (ii) | **52** | — | — |
| Tshepong (iii) | **19** | — | — |
| Hidden Valley (iv) | **—** | 32 | 174 |
| Doornkop (v) | **—** | (50) | 85 |
| Masimong (vi) | **—** | 15 | — |
| Phakisa (vii) | **—** | — | 23 |
| Freddies 9 (Other - underground) (vii) | **—** | — | 3 |
| **Total impairment/(reversal on impairment) of assets** | **131** | (3) | 285 |

The impairment assessment performed on all cash generating units resulted in an impairment loss of $131.0 million for the 2017 financial year. The slight decrease in the gold price used in the life-of-mine plans, together with cost inflation, impacted negatively on margins. This, as well as increases in the discount rates used, contributed to the lower recoverable amounts. There were no reversals recorded in the 2017 financial year.

(i) In the 2017 financial year, an impairment of US$59.9 million was recorded for Target 1, resulting in a recoverable amount of US$152.5 million using a discount rate of 10.8%. 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.

(ii) In the 2017 financial year, an impairment of US$51.7 million was recorded for Kusasalethu mainly following 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. The recoverable amount of the operation is US$213.5 million using a discount rate of 10.8%.

(iii) In the 2017 financial year, an impairment of US$19.4 million was recorded for Tshepong operations resulting in a recoverable amount of US$594.9 million using a discount rate of 9.2%. Had the discount rate increased by 1%, an additional impairment of US$21.7 million would have been recognised. Due to the integration of Tshepong and Phakisa as of 1 July 2017, the two cash generating units (CGUs) were combined for impairment testing for the first time. The shafts have been integrated to take advantage of their close proximity, which allows for existing infrastructure to be optimised. The restriction on hoisting capacity at Phakisa will be addressed by hoisting through Tshepong. The integration proof-of-concept was completed during 2017 and the integrated life-of-mine plan approved during June 2017. The carrying amount of the combined CGU included goodwill of US$44.3 million. The planned improvement to the environmental conditions at the operation resulted in additional capital expenditure, which impacted on the recoverable amount. The impairment has been allocated to the CGU's goodwill, which is included in intangible assets. Refer to note 16.

(iv) For the 2016 financial year, an impairment of US$31.7 million was recognised on Hidden Valley following a change in the life-of-mine plan during the annual planning process. The updated life-of-mine plan for Hidden Valley resulted in lower production for the 2017 financial year as the mine would only process ore stockpiles followed by an extended period of care and maintenance, compared to the previous plan. Stripping activities for stage 5 were planned to recommence in the 2018 financial year according to the year-end life-of-mine plan. The recoverable amount of Hidden Valley was US$21.7 million.

For the 2015 financial year, an impairment of US$173.8 million was recognised on Hidden Valley following a change in the life-of-mine plan during the annual process. Low commodity prices and high operating costs resulted in the shortening of the life-of-mine of the operation. In 2015, the recoverable amount of Hidden Valley was US$53.7 million.

(v) During the 2016 year, a reversal of US$50.1 million was recognised for Doornkop. The higher recoverable amount for Doornkop, which resulted in the reversal was mainly due to the increased rand gold price assumption, improvements in operational efficiencies during the 2016 financial year that resulted in increased production levels in the updated life-of-mine plan and new mining areas included in the life-of-mine plan based on additional exploration performed during 2016. The recoverable amount of Doornkop was US$190.1 million.

For the 2015 financial year, an impairment of US$85.2 million was recognised. Following the decision to restructure Doornkop in May 2015, a revised life-of-mine plan was completed. This plan included lower production levels and focused on the higher grade areas. In addition, the resource value reduced as resources below the existing shaft infrastructure which were previously included in the additional resource value were removed. The updated plan and lower recoverable amount. In 2015, the recoverable amount of Doornkop was US$151.8 million

## 6 COST OF SALES continued

(vi) For the 2016 financial year, an impairment of US$15.6 million was recorded for Masimong, which is a low margin operation and had a remaining life of three years at the time. The exploration programme to locate additional areas of the higher grade B Reef proved unsuccessful and was stopped during the 2016 financial year. In addition, the grade estimation of the Basal Reef decreased and as a result a portion of the resource was abandoned at 30 June 2016. The lower resource value resulted in a lower recoverable amount and the recognition of an impairment. The recoverable amount of Masimong was US$32.1 million.

(vii) For the 2015 financial year, other impairments include US$22.9 million on Phakisa following the annual life-of-mine plan assessments, and US$3.5 million for Freddies 9 as plans to develop the project further were abandoned. In 2015, the recoverable amounts were US$328.0 million and US$nil for Phakisa and Freddies 9 respectively.

The recoverable amounts for these assets have been determined on a fair value less costs to sell basis using the assumptions per note 15 in discounted cash flow models and attributable resource values. These are fair value measurements classified as level 3.

## 7 GAINS ON DERIVATIVES

Gains on derivatives include the fair value movements of derivatives which have not been designated as hedging instruments for hedge accounting purposes, the amortisation of day one gains and losses for derivatives and the hedging ineffectiveness. The day one adjustment arises from the difference between the contract price and market price on the day of the transaction.

| | US dollar | | |
|---|---|---|---|
| *Figures in million* | **2017** | 2016 | 2015 |
| Derivative gain[1] | **81** | 30 | — |
| Hedge ineffectiveness[2] | **1** | — | — |
| Day one loss amortisation | **(7)** | — | — |
| **Total gains on derivatives** | **75** | 30 | — |

[1] Relates primarily to foreign exchange collars (refer to note 20).
[2] Refer to note 20 for further information.

## 8 OTHER OPERATING EXPENSES

| | US dollar | | |
|---|---|---|---|
| *Figures in million* | **2017** | 2016 | 2015 |
| Profit on sale of property, plant and equipment (a) | **(3)** | — | (1) |
| Social investment expenditure | **6** | 4 | 6 |
| Loss on scrapping of property, plant and equipment (refer to note 15) | **10** | 4 | 42 |
| Foreign exchange translation (b) | **(14)** | 43 | 32 |
| Silicosis settlement provision (refer to note 27) | **70** | — | — |
| Other (income)/expenses - net (c) | **(1)** | 3 | 1 |
| **Total other operating expenses** | **68** | 54 | 80 |

(a) The total for 2017 includes the sale of the Ernest Oppenheimer Hospital for US$2.7 million.

(b) Refer to note 29 for details on the total for US$ revolving credit facility.

(c) The total for 2017 includes the provision for the loan to the ARM Broad Based Economic Empowerment Trust (ARM BBEE Trust) of US$1.0 million (2016: US$2.2 million). The total for 2016 includes the provision for the loans to ARM BBEE Trust and Rand Refinery (Pty) Ltd (Rand Refinery) of US$1.6 million (2015: US$1.0 million). Refer to note 19 for details.

## 9 OPERATING PROFIT/(LOSS)

The following have been included in operating profit/(loss):

| | US dollar | | |
|---|---|---|---|
| *Figures in million* | **2017** | 2016 | 2015 |
| **Auditor's remuneration** | | | |
| **Made up as follows:** | | | |
| **External** | | | |
| Fees - current year | **2** | 2 | 2 |
| **Total auditor's remuneration** | **2** | 2 | 2 |

## 10 GAIN ON BARGAIN PURCHASE

### ACQUISITION OF FULL OWNERSHIP OF HIDDEN VALLEY

*Background prior to the transaction*

The group had a 50% interest in the mining and exploration assets located in the Morobe province, PNG. Newcrest Mining Limited (Newcrest) owned the remaining 50% interest in these assets. The assets include the Hidden Valley mine and the Wafi-Golpu project. This partnership was formed during the 2009 financial year through a range of transactions and was completed by 30 June 2009. This partnership was considered a joint arrangement and accounted for as a joint operation.

*Hidden Valley transaction*

On 19 September 2016 Harmony announced the agreement to purchase Newcrest PNG 1 Ltd, the wholly owned subsidiary of Newcrest which holds 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 US$22.5 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 completion of the transaction gives Harmony 100% ownership of the Hidden Valley mine and surrounding exploration tenements. The acquisition of the additional 50% interest in the Hidden Valley mine is aligned with the group's growth aspirations. The Hidden Valley operation is an open-pit gold and silver mining operation which includes the processing plant. The mine reached commercial levels of production in the 2009 financial year. There is an established quality management team that has good relationships with key stakeholders including the community and a stable workforce. Full ownership of the mine has enabled management to commit to the re-investment of capital at the operation (previously delayed by the joint venture partners) and commence the stripping of stages 5 and 6 which will extend the life of mine of the operation.

Since the close of the transaction, the additional 50% interest in Hidden Valley contributed revenue of US$43.6 million and US$3.9 million profit to the group. If the acquisition had occurred on 1 July 2016, the group's unaudited consolidated revenue would have increased by US$ 38.0 million and profit would have decreased by US$2.4 miilion.

IFRS does not currently provide guidance how to account for step-up transactions from joint operations to control and the group has elected to apply the principles and disclosure requirements of IFRS 3 *Business Combinations* to such transactions. The purchase price allocation was initially prepared on a provisional basis in accordance with IFRS 3.

No new information has been obtained since the acquisition date about facts and circumstances that existed at the acquisition date requiring adjustments to the below amounts, or any additional provisions that existed at the date of acquisition, and therefore accounting for the acquisition has been concluded.

### CONSIDERATION TRANSFERRED

The cash consideration paid to acquire Newcrest's 50% interest in Hidden Valley amounted to US$1. The group acquired a cash balance of US$33.1 million which is presented within the cash flow statement as a net inflow of cash from investing activities. The cash paid by Newcrest as a once-off contribution to the rehabilitation liability is included in the cash balance presented as part of the net assets acquired in the transaction.

### ACQUISITION RELATED COSTS

The group incurred acquisition related costs of US$0.3 million on advisory and legal fees. These costs are recognised as transaction costs as part of corporate and administrative expenses.

### IDENTIFIABLE ASSETS ACQUIRED AND LIABILITIES ASSUMED

The fair value of the identifiable net assets acquired was determined on the expected discounted cash flows based on the life-of-mine plan of Hidden Valley at a post- tax real discount rate of 12.53%, exchange rate of PGK/US$3.17, gold price of US$1 189/oz and silver price of US$17.80/oz. The valuation was performed at 26 October 2016. The fair values are as follows:

| | Previously held interest | Acquired interest[1] | Total (100%) |
|---|---|---|---|
| *Figures in million* | | US dollar | |
| Fair value of identifiable net assets acquired | | | |
| Property, plant and equipment | 46 | 46 | 92 |
| Inventories (current) | 35 | 35 | 70 |
| Trade and other receivables (current) | 2 | 1 | 3 |
| Cash and cash equivalents | 4 | 33 | 37 |
| Provision for environmental rehabilitation | (35) | (35) | (70) |
| Trade and other payables (current) | (8) | (20) | (28) |
| | 44 | 60 | 104 |
| Less fair value of previously held interest[2] | | | (44) |
| **Net fair value of identifiable net assets acquired** | | | **60** |

## 10 GAIN ON BARGAIN PURCHASE continued

### IDENTIFIABLE ASSETS ACQUIRED AND LIABILITIES ASSUMED continued

[1] Harmony acquired the legal entity which held Newcrest's interest in Hidden Valley. This subsidiary contained certain assets and liabilities which were different to those held by Harmony with respect to its interest in Hidden Valley.

[2] The fair value of the previously held interest equalled the carrying amount of the assets and liabilities recognised by Harmony relating to the previously held interest at the date of acquisition and no gain or loss was recognised with respect to the deemed disposal of the previously held interest.

The fair value of the previously held interest at 30 June 2016 was US$41.8 million which consisted of Harmony's long term assets and related rehabilitation provision for its interest in Hidden Valley totalling US$21.7 million and the working capital relating to Harmony's interest in Hidden Valley totalling US$20.1 million.

On the date of acquisition, the fair value of the previously held interest does not equal 50% of the fair value of the total identifiable assets and liabilities assumed primarily because the acquired legal entity which held Newcrest's interest in Hidden Valley included the cash paid by Newcrest US$22.5 million and other assets and liabilities which differed from the assets and liabilities held in Harmony's previously held interest.

### GAIN ON BARGAIN PURCHASE

| | US dollar | | |
|---|---|---|---|
| *Figures in million* | **2017** | 2016 | 2015 |
| Consideration paid | **—** | — | — |
| Fair value of identifiable net assets acquired | **60** | — | — |
| **Gain on bargain purchase** | **60** | — | — |

Since Harmony only paid US$1 for the 50% share, a gain on bargain purchase results. A strategic review of the Hidden Valley operation conducted by Newcrest resulted in their decision to exit the operation as it represented a non-core asset.

## 11 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 dividends and interest received are classified under operating activities in the cash flow statement.

| | US dollar | | |
|---|---|---|---|
| *Figures in million* | **2017** | 2016 | 2015 |
| Interest income | **20** | 16 | 20 |
| Loans and receivables | **1** | 2 | 1 |
| Held-to-maturity investments | **11** | 9 | 9 |
| Cash and cash equivalents | **8** | 5 | 9 |
| South African Revenue Services (SARS) | **—** | — | 1 |
| Net gain on financial instrument | **—** | 1 | 1 |
| **Total investment income** | **20** | 17 | 21 |

## 12 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.

| | US dollar | | |
|---|---|---|---|
| *Figures in million* | **2017** | 2016 | 2015 |
| **Financial liabilities** | | | |
| Borrowings | **8** | 12 | 10 |
| Total finance costs from financial liabilities | **8** | 12 | 10 |
| **Non-financial liabilities** | | | |
| Post-retirement benefits | **1** | 1 | 1 |
| Time value of money and inflation component of rehabilitation costs | **13** | 11 | 13 |
| Total finance costs from non-financial liabilities | **14** | 12 | 14 |
| Total finance costs before interest capitalised | **22** | 24 | 24 |
| Interest capitalised (a) | **(5)** | (5) | (2) |
| **Total finance costs** | **17** | 19 | 22 |

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

| | **2017** | 2016 | 2015 |
|---|---|---|---|
| | **%** | % | % |
| Capitalisation rate | **4.2** | 10.5 | 3.4 |

The change in the rate from 2016 to 2017 is due to the effect of the foreign exchange translation gain in 2017 compared with a loss in 2016 on the calculation of the rate.

## 13 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.

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 15, 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 credit/(expense) for the year is as follows:

| | US dollar | | |
|---|---|---|---|
| *Figures in million* | **2017** | 2016 | 2015 |
| **SA taxation** | | | |
| Mining tax (a) | **(17)** | (3) | 1 |
| - current year | **(17)** | (4) | (1) |
| - prior year | **—** | 1 | 2 |
| Non-mining tax (b) | **(19)** | (5) | — |
| - current year | **(19)** | (5) | — |
| Deferred tax (c) | **73** | (35) | 67 |
| - current year | **73** | (35) | 67 |
| | **37** | (43) | 68 |
| **Foreign taxation** | | | |
| Deferred tax | **—** | — | (6) |
| - current year (d) | **—** | — | (1) |
| - derecognition of deferred tax asset (e) | **—** | — | (5) |
| **Total taxation credit/(expense)** | **37** | (43) | 62 |

## 13 TAXATION continued

| *Figures in million* | US dollar 2017 | 2016 | 2015 |
|---|---|---|---|
| **Taxation by type** | | | |
| Mining tax | **(17)** | (3) | 1 |
| Non-mining tax | **(19)** | (5) | — |
| Deferred tax | **73** | (35) | 61 |
| | **37** | (43) | 62 |

(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.

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.

(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% (2016: 28%) (2015: 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 gold forward sale contracts. Refer to note 5 and 7 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 year 2017 is mainly a result of a decrease in the weighted average deferred tax rate due to reduced estimated profitability at most South African operations, as well as the provision for silicosis settlement raised in the current year. The expense in 2016 includes the unwinding of the deferred tax asset related to the utilisation of unredeemed capital expenditure for Freegold (Harmony) Pty Ltd (Freegold) against mining taxable income due to increased profitability for Freegold during 2016.

(d) Mining and non-mining income of Australian entities and PNG operation are taxed at a standard rate of 30% (2016: 30%) (2015: 30%).

(e) In 2015, the recoverability of the remaining deferred tax asset for Australia was not considered probable, following the revised LoM plan and impairment recognised on Hidden Valley and as a result it was derecognised on 30 June 2015.

### INCOME AND MINING TAX RATES

The tax rate remains unchanged for the 2015, 2016 and 2017 years.

Major items causing the group's income tax provision to differ from the South African mining statutory tax rate of 34% (2016: 34%) (2015: 34%) were:

| *Figures in million* | US dollar 2017 | 2016 | 2015 |
|---|---|---|---|
| Tax on net (profit)/loss at the mining statutory tax rate | **6** | (37) | 148 |
| Non-allowable deductions | **(6)** | (20) | (87) |
| Gain on bargain purchase | **21** | — | — |
| Share-based payments | **(8)** | (6) | (6) |
| Impairment of assets | **(6)** | (8) | (63) |
| Exploration expenditure | **(4)** | (4) | (4) |
| Finance costs | **(3)** | (3) | (3) |
| Other | **(6)** | 1 | (11) |
| Difference between effective mining tax rate and statutory mining rate on mining income | **10** | 8 | 3 |
| Difference between non-mining tax rate and statutory mining rate on non-mining income | **4** | 1 | — |
| Effect on temporary differences due to changes in effective tax rates[1] | **(10)** | (15) | (21) |
| Prior year adjustment | **—** | 1 | 2 |
| Capital allowances, sale of business and other rate differences[2] | **43** | 33 | 45 |
| Derecognition of deferred tax asset[3] | **—** | — | (5) |
| Deferred tax asset not recognised[4] | **(10)** | (14) | (23) |
| **Income and mining taxation** | **37** | (43) | 62 |
| **Effective income and mining tax rate (%)** | **185** | 40 | (14) |

## 13 TAXATION continued

### INCOME AND MINING TAX RATES continued

[1] This mainly relates to the decrease in the deferred tax rate related to Freegold (20.0% to 12.5%), Randfontein Estates Limited (Randfontein) (10.1% to 3.8%) and Harmony Gold Mining Company Limited (Harmony) (21.1% to 19.4%) mainly due to a lower estimated profitability. In 2016, the increase in the deferred tax rates related to Harmony (12.5% to 21.1%) and Freegold (16.7% to 20.0%) mainly due to higher estimated profitability, partially offset by a decrease in the deferred tax rates for Randfontein (14.3% to 10.1%) mainly due to lower estimated profitability. In 2015, the decrease in the deferred tax rates related to Freegold (20.3% to 16.7%) and Randfontein (18.9% to 14.3%) mainly due to the lower estimated profitability.

[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] In 2015, the Australian deferred tax asset was derecognised as the recoverability is deemed unlikely following the revised LoM for Hidden Valley.

[4] This relates primarily to the Hidden Valley operation and the PNG exploration operations and represents tax losses and deductible temporary difference arising in the year for which future taxable profits are not considered probable.

### DEFERRED TAX

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

| US dollar | | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Deferred tax assets | **(32)** | (40) |
| Deferred tax asset to be recovered after more than 12 months | **(15)** | (34) |
| Deferred tax asset to be recovered within 12 months | **(17)** | (6) |
| Deferred tax liabilities | **162** | 204 |
| Deferred tax liability to be recovered after more than 12 months | **135** | 191 |
| Deferred tax liability to be recovered within 12 months | **27** | 13 |
| **Net deferred tax liability** | **130** | 164 |

Deferred tax liabilities and assets on the balance sheet as of 30 June 2017 and 30 June 2016 relate to the following:

| US dollar | | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Gross deferred tax liabilities | **162** | 204 |
| Amortisation and depreciation | **140** | 204 |
| Derivative assets | **22** | — |
| Gross deferred tax assets | **(32)** | (40) |
| Unredeemed capital expenditure | **(10)** | (15) |
| Provisions, including non-current provisions | **(20)** | (9) |
| Tax losses | **(2)** | (16) |
| **Net deferred tax liability** | **130** | 164 |

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

| US dollar | | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Balance at beginning of year | **164** | 157 |
| Expense/(credit) per income statement | **(73)** | 35 |
| Tax directly charged to other comprehensive income[1] | **21** | — |
| Foreign currency translation | **18** | (28) |
| **Balance at end of year** | **130** | 164 |

[1] Movement in 2017 relates to the derivative assets.

## 13 TAXATION continued

### DEFERRED TAX continued

As at 30 June, the group had the following potential future tax deductions:

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Unredeemed capital expenditure available for utilisation against future mining taxable income[1] | **2 606** | 1 649 |
| Tax losses carried forward utilisable against mining taxable income[2] | **378** | 320 |
| Capital Gains Tax (CGT) losses available to be utilised against future CGT gains | **43** | 39 |
| As at 30 June, the group has not recognised the following deferred tax asset amounts relating to the above | **883** | 559 |
| The unrecognised temporary differences are: | | |
| Unredeemed capital expenditure[3] | **2 429** | 1 510 |
| Tax losses[2] | **329** | 206 |
| CGT losses[4] | **43** | 39 |

[1] Includes Avgold US$1 151.6 million (2016: US$915.0 million), Randfontein US$157.0 million (2016: US$132.9 million) and Hidden Valley US$1 277.1 million (2016: US$595.3 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 changed from 15% in 2016 to 20% in 2017.

## 14 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.

| | **2017** | 2016 | 2015 |
|---|---|---|---|
| Ordinary shares in issue ('000) | **439 957** | 437 299 | 436 187 |
| Adjustment for weighted number of ordinary shares in issue ('000) | **(1 077)** | (624) | (185) |
| Weighted number of ordinary shares in issue ('000) | **438 880** | 436 675 | 436 002 |
| Treasury shares ('000) | **(437)** | (936) | (1 578) |
| **Basic weighted average number of ordinary shares in issue ('000)** | **438 443** | 435 739 | 434 424 |

| | | US dollar | |
|---|---|---|---|
| | **2017** | 2016 | 2015 |
| **Total net earnings/(loss) attributable to shareholders (millions)** | **17** | 66 | (374) |
| **Total basic earnings/(loss) per share (cents)** | **4** | 15 | (86) |

### 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.

| | **2017** | 2016 | 2015 |
|---|---|---|---|
| Weighted average number of ordinary shares in issue ('000) | **438 443** | 435 739 | 434 424 |
| Potential ordinary shares ('000) | **20 777** | 10 659 | 3 667 |
| **Weighted average number of ordinary shares for diluted earnings per share ('000)** | **459 220** | 446 398 | 438 091 |

| | | US dollar | |
|---|---|---|---|
| | **2017** | 2016 | 2015 |
| **Total diluted earnings/(loss) per share (cents)** | **4** | 15 | (86) |

The inclusion of share options issued to employees, as potential ordinary shares, has a dilutive effect on the earnings/(loss) per share. The issue price and the exercise price 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.

### 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.

On 15 August 2016, the board declared a dividend of 4 US cents for the year ended 30 June 2016. US$14.9 million was paid on 19 September 2016. On 31 January 2017, the board declared an interim dividend of 4 US cents. US$17.5 million was paid on 20 March 2017. Refer to note 36 for events after the reporting date.

| | | US dollar | |
|---|---|---|---|
| | **2017** | 2016 | 2015 |
| Dividend declared (millions) | 33 | — | — |
| Dividend per share (cents) | 8 | — | — |

## 15 PROPERTY, PLANT AND EQUIPMENT

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Mining assets (a) | **1 625** | 1 541 |
| Mining assets under construction (b) | **237** | 107 |
| Undeveloped properties (c) | **414** | 371 |
| Other non-mining assets (d) | **16** | 14 |
| **Total property, plant and equipment** | **2 292** | 2 033 |

**(a) 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. 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 cost of 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.

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.

## 15 PROPERTY, PLANT AND EQUIPMENT continued

### (a) Mining assets continued

### ACCOUNTING POLICY continued

**Stripping activities continued**

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.

### 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 2017, this related to Doornkop (2016 and 2015: Doornkop and Masimong). Had the group only used proved and probable reserves in its calculations, depreciation for 2017 would have amounted to US$200.6 million (2016: US$153.4 million) (2015: US$ 226.4 million), compared with the reported totals of US$185.3 million (2016: $149.9 million) (2015: US$215.8 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 – 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 and The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC), as well as resources where management has high confidence in the orebody and economical recovery of gold, based on historic and similar geological experience.

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:

## 15 PROPERTY, PLANT AND EQUIPMENT continued

### (a) Mining assets continued

| | 2017 | 2016 | 2015 | | |
|---|---|---|---|---|---|
| | | | Short term Year 1 | Medium term Year 2 | Long term Year 3 |
| US$ gold price per ounce | **1 200** | 1 189 | 1 150 | 1 180 | 1 200 |
| US$ silver price per ounce | **17.00** | 17.80 | 14.00 | 14.50 | 17.00 |
| Exchange rate (R/US$) | **13.61** | 13.86 | 12.17 | 11.86 | 11.66 |
| Exchange rate (PGK/US$) | **3.16** | 3.10 | 2.75 | 2.75 | 2.75 |
| Rand gold price (R/kg) | **525 000** | 530 000 | 450 000 | 450 000 | 450 000 |

The post-tax real discount rate for Hidden Valley was 11.92% (2016: 11.77%) (2015:12.03%) and the post-tax real discount rates for the South African operations ranged between 8.98% and 11.81% (2016: 8.43% and 11.48%) (2015: 7.99% and 11.38%), depending on the asset, were used to determine the recoverable amounts (generally fair value less costs to sell). Cash flows used in the impairment calculations are based on life-of-mine plans which exceed five years for the majority of the mines. Refer to note 6 for details of impairments and reversals of impairments recorded. The following is the attributable gold resource value assumption:

| | South Africa | | | Hidden Valley | | |
|---|---|---|---|---|---|---|
| US Dollar per ounce | **2017** | 2016 | 2015 | **2017** | 2016 | 2015 |
| Measured | **32.69** | 4.86 | 40.86 | **n/a** | n/a | n/a |
| Indicated | **18.68** | 23.35 | 23.35 | **5.84** | 5.84 | 15.00 |
| Inferred | **4.67** | 5.84 | 5.84 | **5.84** | 5.84 | 6.00 |

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

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; and
• Changes in capital, operating mining, processing and reclamation costs.

## 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 additional impairments and reversal of impairment as follows:

| | **- 10% decrease Additional impairment** | **+ 10% increase Reversal of impairment *** |
|---|---|---|
| Figures in million | US dollar | US dollar |
| Tshepong operations | 262 | n/a |
| Kusasalethu | 105 | n/a |
| Hidden Valley | 79 | 129 |
| Target 1 | 77 | n/a |
| Doornkop | 71 | 15 |
| Masimong | 30 | 7 |
| Other surface operations | 20 | n/a |
| Unisel | 17 | n/a |
| Bambanani | 10 | n/a |

* The increase would have resulted in Rnil impairment being recognised for the 2017 financial year.

## 15 PROPERTY, PLANT AND EQUIPMENT continued

### (a) Mining assets continued

The movement in the mining assets balance is as follows:

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| **Cost** | | |
| Balance at beginning of year | **3 189** | 3 731 |
| Fully depreciated assets no longer in use derecognised | **(295)** | (69) |
| Additions | **158** | 133 |
| Deemed disposal of 50% of Hidden Valley | **(332)** | — |
| Acquisition of 100% of Hidden Valley | **76** | — |
| Disposals | **(1)** | (2) |
| Scrapping of assets | **(23)** | (9) |
| Adjustment to rehabilitation asset | **(1)** | (7) |
| Transfers and other movements | **21** | 21 |
| Translation | **302** | (609) |
| **Balance at end of year** | **3 094** | 3 189 |
| **Accumulated depreciation and impairments** | | |
| Balance at beginning of year | **1 648** | 1 869 |
| Fully depreciated assets no longer in use derecognised | **(295)** | (69) |
| Impairment of assets | **112** | 47 |
| Reversal of impairment of assets | **—** | (50) |
| Deemed disposal of 50% of Hidden Valley | **(294)** | — |
| Disposals | **(1)** | (2) |
| Scrapping of assets | **(12)** | (5) |
| Depreciation | **187** | 147 |
| Translation | **124** | (289) |
| **Balance at end of year** | **1 469** | 1 648 |
| **Net carrying value** | **1 625** | 1 541 |

Deemed disposal and acquisition of Hidden Valley

On 26 October 2016 the group obtained 100% ownership of Hidden Valley. Included in this acquisition was property, plant and equipment with a fair value of US$92.6 million. Of the acquisition US$76.2 million relates to mining assets and US$15.6 million relates to assets under construction respectively. Refer to note 10 for more information relating to the acquisition.

Loss on scrapping of property, plant and equipment

During the 2017 financial year, an amount of US$10.3 million resulted in derecognition of property, plant and equipment due to the abandonment of individual surface assets that are no longer core to the business or in use as no future economic benefits are expected from their use or disposal. The amount in 2016 of US$4.4 million relates to the abandonment of unprofitable areas in certain of the South African operations' life-of-mine plans.

Stripping activities

Included in the balance for mining assets is an amount of US$7.2 million (2016: US$1.6 million) for stripping activities. The movement for 2017 relates to Kalgold. Depreciation of US$0.4 million (2016: US$0.9 million) and impairment for 2016 financial year amounting to US$2.4 million related to Hidden Valley were recorded for these activities.

### (b) 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.

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.

## 15 PROPERTY, PLANT AND EQUIPMENT continued

### (b) Mining assets under construction continued

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

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| **Cost** | | |
| Balance at beginning of year | **107** | 104 |
| Additions | **121** | 31 |
| Depreciation capitalised | **7** | 5 |
| Deemed disposal of 50% of Hidden Valley | **(8)** | — |
| Acquisition of 100% of Hidden Valley | **16** | — |
| Finance costs capitalised[1] | **5** | 5 |
| Transfers and other movements | **(20)** | (21) |
| Translation | **9** | (17) |
| **Balance at end of year** | **237** | 107 |

[1] Refer to note 12 for further detail on the capitalisation rate applied

Refer to mining assets above for information relating to the acquisition of assets under construction.

### (c) 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.

The movement in the undeveloped properties balance is as follows:

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| **Cost** | | |
| Balance at beginning of year | **372** | 446 |
| Translation | **43** | (74) |
| **Balance at end of year** | **415** | 372 |
| **Accumulated depreciation and impairments** | | |
| **Balance at beginning and end of year** | **1** | 1 |
| **Net carrying value** | **414** | 371 |

### (d) 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.

## 15 PROPERTY, PLANT AND EQUIPMENT continued

### (d) Other non-mining assets continued

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

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| **Cost** | | |
| Balance at beginning of year | **29** | 34 |
| Fully depreciated assets no longer in use derecognised | **(1)** | (1) |
| Additions | **3** | 1 |
| Translation | **3** | (5) |
| **Balance at end of year** | **34** | 29 |
| **Accumulated depreciation and impairments** | | |
| Balance at beginning of year | **15** | 15 |
| Fully depreciated assets no longer in use derecognised | **(1)** | (1) |
| Depreciation | **3** | 3 |
| Translation | **1** | (2) |
| **Balance at end of year** | **18** | 15 |
| **Net carrying value** | **16** | 14 |

## 16 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 previous 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 15.

| | US Dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Goodwill (a) | **45** | 57 |
| Technology-based assets (b) | **1** | 2 |
| **Total** | **46** | 59 |

## 16 INTANGIBLE ASSETS continued

### (a) Goodwill

| *Figures in million* | US dollar 2017 | US dollar 2016 |
|---|---|---|
| **Cost** | | |
| Balance at beginning of year | **161** | 195 |
| Translation | **20** | (34) |
| **Balance at end of year** | **181** | 161 |
| **Accumulated amortisation and impairments** | | |
| Balance at beginning of year | **104** | 125 |
| Impairment[1] | **19** | — |
| Translation | **13** | (21) |
| **Balance at end of year** | **136** | 104 |
| **Net carrying value** | **45** | 57 |
| The net carrying value of goodwill has been allocated to the following cash generating units: | | |
| Bambanani | **17** | 15 |
| Tshepong[1] | **25** | 39 |
| Joel | **3** | 3 |
| **Net carrying value** | **45** | 57 |

1 An amount to US$19.4 million, was impaired on Tshepong's goodwill 30 June 2017 as the carrying value exceeded the fair value less costs to sell of the cash generating unit of the Tshepong Operations, which includes Phakisa. Refer to note 6 for further details on the impairment assessment.

### (b) Technology-based assets

| *Figures in million* | US dollar 2017 | US dollar 2016 |
|---|---|---|
| **Cost** | | |
| Balance at beginning of year | **13** | 16 |
| Fully depreciated assets no longer in use derecognised | **(11)** | — |
| Translation | **1** | (3) |
| **Balance at end of year** | **3** | 13 |
| **Accumulated amortisation and impairments** | | |
| Balance at beginning of year | **11** | 13 |
| Fully depreciated assets no longer in use recognised | **(11)** | — |
| Amortisation charge | **1** | 1 |
| Translation | **1** | (3) |
| **Balance at end of year** | **2** | 11 |
| **Net carrying value** | **1** | 2 |

## ACCOUNTING POLICY - FINANCIAL ASSETS (APPLICABLE TO NOTES 17, 18, 19 AND 20)

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 as 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.

The group classifies financials 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. 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 18) 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.

## 17 RESTRICTED CASH

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Non-current (a) | **5** | 4 |
| Current (b) | **1** | 1 |
| **Total restricted cash** | **6** | 5 |

(a) The amount primarily relates to funds set aside to serve as collateral against guarantees made to the Department of Mineral Resources (DMR) in South Africa for environmental and rehabilitation obligations. Refer to note 26. The funds are invested equally in short term money market funds and call accounts.

(b) The amount relates to monies released from the environmental trusts as approved by the DMR. These funds may only be used for further rehabilitation.

## 18 RESTRICTED INVESTMENTS

| *Figures in million* | US dollar 2017 | 2016 |
|---|---|---|
| Investments held by environmental trust funds (a) | **200** | 167 |
| Investments held by social trust funds (b) | **3** | 3 |
| **Total restricted investments** | **203** | 170 |

### (a) 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 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. The equity-linked notes are designated as fair value through profit or loss investments and recorded at fair value whilst the interest-bearing short-term investments are classified either as held-to-maturity and recorded at amortised cost or as cash and cash equivalents and recorded at fair value. 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* | US dollar 2017 | 2016 |
|---|---|---|
| Held-to-maturity financial assets | **137** | 126 |
| Cash and cash equivalents (loans and receivables) | **2** | — |
| Fair value through profit or loss financial assets | **61** | 41 |
| **Total environmental trust funds** | **200** | 167 |

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

| *Figures in million* | US dollar 2017 | 2016 |
|---|---|---|
| Balance at beginning of year | **167** | 192 |
| Interest income | **11** | 9 |
| Fair value gain | **—** | 1 |
| Withdrawal of funds | **—** | (2) |
| Equity-linked deposits matured/(acquired) | **15** | 6 |
| Maturity/(acquisition) of held-to-maturity investments | **(16)** | 27 |
| Net (disposal)/acquisition of cash and cash equivalents | **2** | (33) |
| Translation | **21** | (33) |
| **Balance at end of year** | **200** | 167 |

### (b) 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.

## 19 TRADE AND OTHER RECEIVABLES

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| **Non-current assets** | | |
| **Financial assets** | | |
| Loans to associates (b) | **9** | 8 |
| Loan to ARM BBEE Trust (c) | **17** | 14 |
| Provision for impairment (b) (c) | **(12)** | (10) |
| **Total non-current trade and other receivables** | **14** | 12 |

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| **Current assets** | | |
| **Financial assets** | | |
| Trade receivables (gold) | **27** | 11 |
| Other trade receivables | **9** | 8 |
| Provision for impairment | **(4)** | (2) |
| Trade receivables - net | **32** | 17 |
| Interest and other receivables (a) | **6** | 4 |
| Loan to associate (net) (b) | **—** | 4 |
| Employee receivables | **1** | 1 |
| **Non-financial assets** | | |
| Prepayments | **6** | 2 |
| Value added tax | **30** | 16 |
| Income and mining taxes | **1** | — |
| **Total current trade and other receivables** | **76** | 44 |

(a) No impairment allowance is necessary in respect of any balances included in interest and other receivables as all amounts are classified as fully performing.

(b) (i) During 2015, Rand Refinery drew down on the facility provided by its shareholders. Harmony's portion of the shareholder's loan was US$10.0 million. A cumulative provision of US$4.4 million was provided for up to 2016. During 2017 the Rand Refinery loan was converted to preference shares. Refer to note 21 for more details.

(ii) The balance in 2017 comprises US$8.8 million (2016: US$7.9 million) owed by Pamodzi Gold Limited (Pamodzi). Pamodzi was placed into liquidation during 2009 and the loan was provided in full. Harmony is a concurrent creditor in the Pamodzi Orkney liquidation.

(c) During 2016, Harmony advanced US$13.5 million to the ARM BBEE Trust, shareholder of African Rainbow Minerals Limited (ARM). The trust is controlled and consolidated by ARM, who holds 14.6% 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 month JIBAR plus 4.25%) and is receivable on the maturity of the loan on 31 December 2022. At year end, the loan was tested for impairment following the decrease in the ARM share price since advancing the loan to the ARM BBEE Trust and an amount of US$1.0 million (2016: US$2.2 million) was provided for. The recoverable amount of US$14.0 million (2016: US$11.7 million) was calculated using the cash flow model. The cash flows in the model includes projected interest payments and projected ARM share price on the expected repayment date.

## 19 TRADE AND OTHER RECEIVABLES continued

The movement in the provision for impairment of current trade receivables during the year was as follows:

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Balance at beginning of year | **2** | 5 |
| Impairment loss recognised | **1** | 1 |
| Reversal of impairment loss | **—** | (2) |
| Translation | **1** | (2) |
| **Balance at end of year** | **4** | 2 |

The movement in the provision of loans receivable during the year was as follows:

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Balance at beginning of year | **13** | 10 |
| Impairment loss recognised | **1** | 4 |
| Derecognition of impairment loss | **(3)** | — |
| Translation | **1** | (1) |
| **Total provision of loans receivable** | **12** | 13 |
| Total provision of non-current loans receivable | **12** | 10 |
| Total provision of current loans receivable | **—** | 3 |

The ageing of current trade receivables at the reporting date was:

| | US dollar | |
|---|---|---|
| *Figures in million* | **Gross** | **Impairment** |
| **30 June 2017** | | |
| Fully performing | **31** | **—** |
| Past due by 1 to 30 days | **1** | **—** |
| Past due by 31 to 60 days | **—** | **—** |
| Past due by 61 to 90 days | **1** | **1** |
| Past due by more than 90 days | **1** | **1** |
| Past due by more than 361 days | **2** | **2** |
| | **36** | **4** |
| **30 June 2016** | | |
| Fully performing | 15 | — |
| Past due by 1 to 30 days | — | — |
| Past due by 31 to 60 days | — | — |
| Past due by 61 to 90 days | 1 | — |
| Past due by more than 90 days | 1 | — |
| Past due by more than 361 days | 2 | 2 |
| | 19 | 2 |

## 19 TRADE AND OTHER RECEIVABLES continued

The ageing of non-current loans receivable at the reporting date was:

| | US dollar | |
|---|---|---|
| *Figures in million* | **Gross** | **Impairment** |
| **30 June 2017** | | |
| Fully performing | **18** | **4** |
| Past due by 1 to 30 days | **—** | **—** |
| Past due by 31 to 60 days | **—** | **—** |
| Past due by 61 to 90 days | **—** | **—** |
| Past due by more than 361 days | **9** | **9** |
| | **27** | **13** |
| **30 June 2016** | | |
| Fully performing | 21 | 5 |
| Past due by 1 to 30 days | — | — |
| Past due by 31 to 60 days | — | — |
| Past due by 61 to 90 days | — | — |
| Past due by more than 361 days | 8 | 8 |
| | 29 | 13 |

Based on past experience, the group believes that no impairment allowance is necessary in respect of fully performing receivables as the amount relates to customers that have a good track record with the group. The majority of fully performing trade receivables are indirectly associated with financial institutions of good credit quality. Provisions for the other loans and receivables have been raised following an assessment of their credit risk by management.

During the 2016 and 2017 there was no renegotiation of the terms of any receivable.

As at 30 June 2017 and 30 June 2016, there was no collateral pledged or held for any of the receivables.

## 20 DERIVATIVE FINANCIAL ASSETS

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| **Non-current** | **24** | — |
| Rand gold hedging contracts (a) | **23** | — |
| US$ commodity contracts (b) | **1** | — |
| **Current** | **117** | 25 |
| Rand gold hedging contracts (a) | **82** | — |
| US$ commodity contracts (b) | **1** | — |
| Foreign exchange hedging contracts (c) | **34** | 25 |
| **Total derivative financial assets** | **141** | 25 |

a) During the year Harmony started a hedging programme and entered into Rand gold forward sale derivative contracts (Rand gold hedging contracts) to hedge the risk of lower Rand gold prices. 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), see note 25. Hedge ineffectiveness is measured by comparing the change in the expected cash flows from a forward sale contract versus the sale of an equivalent quantity of gold in the open market. Ineffectiveness results when the changes in the fair values in the hedging instruments exceed the fair value changes in the hedged item. During the year ended 30 June 2017, the contracts that matured realised a gain of US$54.7 million, of which US$53.5 million has been included in revenue and the ineffective portion of US$1.2 million in gains on derivatives. The unamortised portion of the day one gain or loss amounted to US$2.6 million on 30 June 2017.

b) During May 2017, Harmony began a hedging programme for Hidden Valley by entering into commodity hedging contracts. The contracts comprise of 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 not applied and the resulting gains and losses are recorded in gains on derivatives in the income statement.

## 20 DERIVATIVE FINANCIAL ASSETS continued

c) Harmony maintains a foreign exchange hedging programme in the form of zero cost collars, which establish a floor and cap US$/Rand exchange rate at which to convert US dollars to Rands. As hedge accounting is not applied, the resulting gains and losses have been recorded in gains on derivatives in the income statement (refer to note 7).

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

| | FY18 | | | | FY19 | | | TOTAL |
|---|---|---|---|---|---|---|---|---|
| **2017** | **Q1** | **Q2** | **Q3** | **Q4** | **Q1** | **Q2** | **Q3** | |
| **US$ZAR** | | | | | | | | |
| US$m | **111** | **132** | **120** | **59** | | | | **422** |
| Floor | **15** | **14.4** | **14** | **14** | | | | **14.41** |
| Cap | **16.30** | **15.50** | **15.00** | **15.00** | | | | **15.53** |
| **R/gold** | | | | | | | | |
| '000 oz | **54** | **54** | **54** | **54** | **54** | **27** | **27** | **324** |
| R'000/kg | **686** | **700** | **713** | **728** | **697** | **630** | **643** | **693** |
| **US$/gold** | | | | | | | | |
| '000 oz | **4** | **3** | **12** | **15** | **15** | **15** | | **64** |
| US$/oz | **1 265** | **1 270** | **1 272** | **1 275** | **1 278** | **1 281** | | **1 276** |
| **Total gold** | | | | | | | | |
| '000 oz | **58** | **57** | **66** | **69** | **69** | **42** | **27** | **388** |
| **US$/silver** | | | | | | | | |
| '000 oz | **40** | **60** | **180** | **210** | **240** | **240** | | **970** |
| Floor | **17.10** | **17.10** | **17.10** | **17.10** | **17.10** | **17.10** | | **17.10** |
| Cap | **18.10** | **18.10** | **18.10** | **18.10** | **18.10** | **18.10** | | **18.10** |

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

## 21 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 US$46.5 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 2017, the liquidation process has not been concluded. Refer to note 19(b)(i) 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.

Rand Refinery's shareholders extended Rand Refinery an irrevocable, subordinated loan facility of up to US$114.2 million on 23 July 2014. In December 2014, Rand Refinery drew down US$88.1 million on the shareholders' loan. Harmony's portion of the shareholders' loan was US$10.4 million. Interest on the facility is JIBAR plus a margin of 3.5%. During the 2017 financial year, interest received on the loan amounted to US$0.4 million (2016: US$0.8 million).The loan formed part of the net investment in associate and was included in Trade and other receivables.

The original loan facility agreement allowed for any unpaid balance to be converted to equity after two years. An amended agreement was concluded on 5 June 2017, converting the loan to cumulative, redeemable preference shares of no par value. The fair value of the loan on the date of conversion was US$5.6 million, resulting in a loss of US$1.2 million. The fair value was determined using a discounted cash flow model which included expected dividends and redemption amounts at a discount rate of 17.6%. The fair value measurement is classified as a level 3 model and is non-recurring.

Rand Refinery has a 31 August year-end.

## 21 INVESTMENTS IN ASSOCIATES continued

The net investment in associate consists of:

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Investment in associate | **4** | — |
| Investment in ordinary shares[1] | **—** | — |
| Redeemable preference shares[2] | **4** | — |
| Trade and other receivables | **—** | 4 |
| Loans to associates[2] | **—** | 4 |
| **Net investments in associates** | **4** | 4 |

[1] Carried at cost less accumulated impairment
[2] Includes cumulative share of losses of US$1.9 million (2016: US$1.0 million).

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

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Balance at beginning of year | **—** | — |
| Conversion to preference shares | **4** | — |
| **Balance at end of year** | **4** | — |

## 22 INVESTMENT IN JOINT OPERATIONS

### MOROBE MINING JOINT VENTURES (MMJV) PARTNERSHIP AGREEMENT

The group has a 50% interest in the mining and exploration assets located in the Morobe province, PNG. Newcrest owns the remaining 50% interest in these assets. This partnership was formed during the 2009 financial year through a range of transactions and was completed by 30 June 2009. The assets included the Hidden Valley operation and the Wafi-Golpu project. During the 2017 year, Harmony purchased Newcrest's 50% interest in Hidden Valley. Refer to note 10 for further information on the transaction. The joint arrangement is accounted for as a joint operation. The key remaining asset in the joint arrangement is the Wafi-Golpu project.

## 23 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. Where mechanised mining is used in underground operations, in- progress material is accounted for at the earliest stage of production when reliable estimates of quantities and costs are capable of being made. 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.

## 23 INVENTORIES continued

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Gold in lock-up | **3** | 3 |
| Gold in-process, ore stockpiles and bullion on hand[1] | **21** | 36 |
| Consumables at weighted average cost (net of provision)[2] | **65** | 43 |
| Total inventories | **89** | 82 |
| Non-current portion of gold in lock-up and gold in-process | **(3)** | (3) |
| **Total current portion of inventories** | **86** | 79 |
| Included in the balance above is: | | |
| Inventory valued at net realisable value | **15** | 19 |

[1] The depletion of run-of-mine stockpiles at Hidden Valley was the main reason for the decrease in ore stockpiles.

[2] The increase in consumables is mainly as a result of the Hidden Valley acquisition. Refer to note 10 for more information.

During the year, an increase of US$2.8 million (2016: US$6.2 million) to the provision for slow moving and redundant stock was made. The increase in 2017 and 2016 in the provision was primarily the result of additional redundant stock items identified in PNG and provided for. The total provision at 30 June 2017 was US$19.0 million (2016: US$14.5 million).

## 24 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 (2016: 1 200 000 000) ordinary shares of 50 SA cents each.

### ISSUED

439 957 199 (2016: 437 299 479) ordinary shares of 50 SA cents each. All issued shares are fully paid.

Note 33 set out details in respect of the share option scheme and shares held in trust for the employees of the group.

### SHARE ISSUES

Shares issued in the 2016 and 2017 financial years relate to the exercise of share options by employees. In the 2016 year, 35 000 shares were issued to the Tlhakanelo Employee Share Trust (Tlhakanelo Trust), the vehicle used for the employee share ownership plan (ESOP). Annexure B of this report and note 33 set out the details in respect of the share option scheme.

### TREASURY SHARES

Included in the total of issued shares is an amount of 335 shares held by Lydenburg Exploration Limited, a wholly owned subsidiary of the company.

During August 2012, 3.5 million shares were issued to the Tlhakanelo Trust. As the trust is controlled by the group, the shares are treated as treasury shares. In the 2016 financial year, an additional 35 000 shares were issued to the Tlhakanelo Trust for purposes of settling the 2014 and 2015 offers of ESOP share appreciation rights that vested during the 2016 financial year. During 2017, 496 408 (2016: 537 757) shares were exercised by employees and the remaining 28 507 shares are still held as treasury shares.

## 25 OTHER RESERVES

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Foreign exchange translation reserve (a) | **(1 528)** | (1 753) |
| Hedge reserve (b) | **84** | — |
| Share-based payments (c) | **224** | 197 |
| Post-retirement benefit actuarial gain/(loss) (d) | **(2)** | (2) |
| Acquisition of non-controlling interest in subsidiary (e) | **(57)** | (57) |
| Equity component of convertible bond (f) | **41** | 41 |
| Repurchase of equity interest (g) | **(13)** | (13) |
| Fair value movement of available-for-sale financial assets | **—** | — |
| Other | **(4)** | (4) |
| **Total other reserves** | **(1 255)** | (1 591) |

(a) The balance of the foreign exchange translation reserve movement represents the cumulative translation effect of the group's off-shore operations. The US dollar amount includes the translation effect from rand to US dollar.

(b) During the year, Harmony entered into Rand 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 20 for further information. The reconciliation of the hedge reserve is as follows:

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Balance at beginning of year | **—** | — |
| | **128** | — |
| Unrealised gain on Rand gold contracts | **160** | — |
| Deferred tax thereon | **(32)** | — |
| | **(43)** | — |
| Released to revenue | **(54)** | — |
| Deferred tax thereon | **11** | — |
| | **(1)** | — |
| Released to gains on derivatives (hedge ineffectiveness) | **(1)** | — |
| Deferred tax thereon | **—** | — |
| **Balance at end of year** | **84** | — |

(c) Share-based payments

| | *US dollar* | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Balance at beginning of year | **197** | **175** |
| Share-based payments expensed (i) | **27** | **22** |
| **Balance at end of year** | **224** | 197 |

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

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

(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 US$86.5 million (A$123 million) over the carrying amount of non- controlling interest acquired, amounting to US$57 million, has been accounted for under other reserves.

## 25 OTHER RESERVES continued

(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 US$20.5 million, the liability to the AVRD and transaction costs, have been taken directly to equity.

### ACCOUNTING POLICY - PROVISIONS (APPLICABLE TO NOTES 26, 27, 28 AND 30)

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.

## 26 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. 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 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:

| | **2017** | 2016 | 2015 |
|---|---|---|---|
| | **%** | % | % |
| **South African operations** | | | |
| Inflation rate | **6.50** | 6.75 | 6.50 |
| Discount rates | | | |
| - 12 months | **7.50** | 8.00 | 6.50 |
| - one to five years | **7.60** | 8.40 | 7.30 |
| - six to nine years | **8.40** | 9.00 | 7.80 |
| - ten years or more | **9.10** | 9.20 | 8.00 |
| **PNG operations:** | | | |
| Inflation rate | **6.60** | 5.00 | 5.00 |
| Discount rates | **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.

## 26 PROVISION FOR ENVIRONMENTAL REHABILITATION continued

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

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| **Provision raised for future rehabilitation** | | |
| Balance at beginning of year | **148** | 182 |
| Change in estimate - Balance sheet | **(1)** | (7) |
| Change in estimate - Income statement | **(1)** | (2) |
| Utilisation of provision | **(7)** | (5) |
| Time value of money and inflation component of rehabilitation costs | **13** | 11 |
| Acquisition of Hidden Valley (refer to note 10) | **35** | — |
| Translation | **14** | (31) |
| **Total provision for environmental rehabilitation** | **201** | 148 |

The provision for environmental rehabilitation for PNG amounts to US$73.9 million (2016: US$34.7 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 mines, in the current monetary terms, is as follows:

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| **Future net undiscounted obligation** | | |
| Ultimate estimated rehabilitation cost | **273** | 204 |
| Amounts invested in environmental trust funds (refer to note 18) | **(200)** | (167) |
| **Total future net undiscounted obligation** | **73** | 37 |

With the introduction of the National Environmental Management Act (NEMA) Regulations on Financial Provisioning, effective from February 2019, 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 17 and 35.

## 27 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 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; and

• Disease progression rates.

A discount rate of 8% was used, based on government bond with similar terms to the obligation.

There is uncertainty with regard 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.

On 3 March 2011, judgement was handed down in the Constitutional Court, in the case of Mr Thembekile Mankayi v AngloGold Ashanti Limited regarding litigation in terms of the Occupational Diseases in Mines and Works Act (ODIMWA). The judgement allows claimants, such as Mr Mankayi, to institute action against their current and former employers for damages suffered as a result of them contracting occupational diseases which result from their exposure to harmful quantities of dust whilst they were employed at a controlled mine as referred to in ODIMWA. In this regard, should anyone bring similar claims against Harmony in future, those claimants would need to prove that silicosis, as an example, was contracted whilst in the employ of the company and that it was contracted due to negligence on the company's part to provide a safe and healthy working environment. The link between the cause (negligence by the company in exposing the claimant to harmful quantities of dust whilst in its employ) and the effect (the silicosis) will be an essential part of any case.

i) Consolidated class action.

On 23 August 2012, Harmony and certain of its subsidiaries (Harmony group) were served with court papers in terms of which three former employees made application to the South Gauteng High Court to certify a class for purposes of instituting a class action against the Harmony group. In essence, the applicants want the court to declare them as suitable members to represent a class of current and former mineworkers for purposes of instituting a class action for certain relief and to obtain directions from the court as to what procedure to follow in pursuing the relief required against the Harmony group. Similar applications were also brought against various other gold mining companies for similar relief during August 2012.

On 8 January 2013, the Harmony group, alongside other gold mining companies operating in South Africa (collectively the respondents), was served with another application to certify two classes of persons representing a class of current and former mine workers who work or have worked on gold mines owned and/or controlled by the respondents and who allegedly contracted silicosis and/or other occupational lung diseases, and another class of dependents of mine workers who have died of silicosis and who worked on gold mines owned and/or controlled by the respondents. The Harmony group opposed both applications and instructed its attorneys to defend the application.

Following receipt of the aforesaid application, the Harmony group was advised that there was a potential overlap between the application of 23 August

2012 and the application of 8 January 2013. On 17 October 2013, the five certification applications were consolidated by order of court.

The applications were heard in October 2015. On 13 May 2016, the Johannesburg High Court ordered the certification of a silicosis class and a tuberculosis class, which are to proceed as a single class against the mining companies acted in the application. The companies requested leave to appeal to the Supreme Court of Appeal, which was granted on 13 September 2016 and is scheduled to be heard on 19 - 23 March 2018.

ii) Individual claims.

On 3 May 2013, Harmony and one of its subsidiaries received a summons from Richard Spoor Attorneys on behalf of an employee. The plaintiff is claiming US$1.7 million in damages plus interest from Harmony and one of its subsidiaries, and another gold mining group of companies. The plaintiff alleges to have contracted silicosis with progressive massive fibrosis during the course of his employment. Harmony continues to defend this litigation.

iii) Working group.

A gold mining industry working group consisting of African Rainbow Minerals Limited, Anglo American South Africa Limited, AngloGold Ashanti Limited, Gold Fields Limited, Sibanye-Stillwater and Harmony (collectively 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. Essentially, the companies are seeking a comprehensive and sustainable solution which deals with both the legacy compensation issues and future legal frameworks which, while being fair to employees, also ensures the future sustainability of companies in the industry. The working group has engaged all stakeholders on these matters, including government, organised labour, other mining companies and legal representatives of claimants who have filed legal suits against the companies. The working group believes that achieving a comprehensive settlement which is fair to past, present and future employees and sustainable for the sector is preferable to protracted litigation.

## 27 PROVISION FOR SILICOSIS SETTLEMENT continued

iv) Change from contingent liability to provision.

The facts of the matter have previously been disclosed as a contingent liability as an amount could not be reliably determined. As a result of the progress made by the working group and the status of negotiations with affected stakeholders, management is now in a position to reasonably estimate Harmony's share of a possible settlement of the class action claims and related costs within an acceptable range. The nominal amount for Harmony group is US$98.6 million.

A pre-tax charge of US$69.9 million has been recognised in other operating expenses for the year ending 30 June 2017. Going forward, annual changes in the provision are expected to consist of time value of money (recognised as finance costs) and changes in estimates (other operating expenses). The expected contributions (cash flows) to the vehicle that will manage the settlement process have been discounted over the expected period of contributions. 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 following is a reconciliation of the total provision for the silicosis settlement:

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| **Provision raised for settlement** | | |
| Balance at beginning of year | **—** | — |
| Initial recognition | **70** | — |
| **Total provision for silicosis settlement** | **70** | — |

**Sensitivity analysis**

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

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Effect of an increase in the assumption: | | |
| Change in benefit take-up rate[1] | **6** | — |
| Change in silicosis prevalence[2] | **6** | — |
| Change in disease progression rates[3] | **3** | — |
| Effect of a decrease in the assumption: | | |
| Change in benefit take-up rate[1] | **(6)** | — |
| Change in silicosis prevalence[2] | **(6)** | — |
| Change in disease progression rates[3] | **(3)** | — |

[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.

The above sensitivity analyses are 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 these matters remains uncertain, with a possible failure to reach a settlement or to obtain the requisite court approval of the settlement. The provision recorded in the financial statements is consequently subject to adjustment or reversal in the future, depending on the progress of the working group discussions and stakeholder consultations, and the ongoing legal proceedings.

## 28 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 10%, no increases in employer subsidies (in terms of the agreement) and mortality rates according to the SA 1956/62 mortality table (SA “”a mf”” tables) (retirement age of 60 years) and a medical inflation rate of 8% (2016: discount rate of 9.7%, retirement age of 60 years and 7.7% 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 2017 year (2016: 9.5%). The fund is a defined contribution plan.

The PNG Superannuation Act 2002 requires a compulsory employer contribution of 8.4% (2016: 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 2017 financial year amounted to US$40.6 million (2016: US$34.3 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’s obligation in this regard 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. Except for the abovementioned employees, Harmony has no other post-retirement obligation for the other group employees.

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 2017, using the projected unit credit method. The next actuarial valuation will be performed on 30 June 2018.

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

- t 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.
- It is assumed that the only dependants will be spouses.

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 net actuarial loss for 2017 was mainly due to exists of employed and retired members being lower than expected and actual subsidy inflation being higher than assumed (2016: net actuarial gain was mainly exits of current employees being higher than expected, partially offset by exits of CAWMS being lower than expected and the actual subsidy inflation being higher than assumed).

## 28 RETIREMENT BENEFIT OBLIGATION continued

**(b) Post-retirement benefits other than pensions** continued

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Present value of unfunded obligations | **14** | 11 |
| Current employees | **5** | 4 |
| Retired employees | **9** | 7 |
| Movement in the liability recognised in the balance sheet | | |
| Balance at beginning of year | **11** | 13 |
| Contributions paid | **(1)** | (1) |
| Other expenses included in staff costs/current service cost | **—** | — |
| Finance costs | **1** | 1 |
| Translation | **3** | (2) |
| **Balance at end of year** | **14** | 11 |

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| The net liability of the defined benefit plan is as follows: | | |
| Present value of defined benefit obligation | **14** | 11 |
| Fair value of plan assets | **—** | — |
| **Net liability of defined benefit plan** | **14** | 11 |

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

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Effect of a 1% increase on: | | |
| Aggregate of service cost and finance costs | **—** | — |
| Defined benefit obligation | **2** | 1 |
| Effect of a 1% decrease on: | | |
| Aggregate of service cost and finance costs | **—** | — |
| Defined benefit obligation | **(1)** | (1) |

The above sensitivity analyses are 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 2016.

The group expects to contribute approximately US$0.7 million to the benefit plan in 2018.

The weighted average duration of the defined benefit obligation is 14.9 years.

## 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

### FACILITIES

#### Nedbank Limited

On 20 December 2013, the company entered into a loan facility with Nedbank Limited, comprising a revolving credit facility of R1 300 million (US $125.6 million). The facility matured during February 2017 and was replaced with a new R1 billion (US$76.7 million) three-year revolving credit facility with similar terms to the previous facility on 20 February 2017.

Interest accrues on a day-to-day basis over the term of the loan at a variable interest rate.

#### US dollar revolving credit facilities

In February 2015 the company concluded a loan facility agreement which was jointly arranged by Nedbank Limited and Barclays Bank Plc, comprising a revolving credit facility of up to US$250 million.

Interest accrues on a day-to-day basis over the term of the loan at a variable interest rate.

Refer to note 36 for details of events after the reporting date.

### TERMS AND DEBT REPAYMENT SCHEDULE AT 30 JUNE 2017

| | Interest charge | Repayment terms | Repayment date | Security |
|---|---|---|---|---|
| Nedbank Limited (Secured loan - rand revolving credit facility) | 1, 3 or 6 month JIBAR plus 3.15%, payable at the elected interest interval | Repayable on maturity | 20 February 2020 | Cession and pledge of operating subsidiaries' shares and claims |
| US dollar revolving credit facility (Secured loan) | 3 or 6 month LIBOR plus 3%, payable at the elected interest interval | Repayable on maturity | 6 February 2018 | Cession and pledge of operating subsidiaries' shares and claims |

### 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 not be less than five (EBITDA[1]/Total interest paid);
- Tangible Net Worth[2] to total net debt ratio shall not be less than six times or eight 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.

The debt covenant tests are performed on a quarterly basis. No breaches of the covenants were identified during the tests in the 2016 and 2017 financial years.

## 29 **BORROWINGS** continued

### INTEREST BEARING BORROWINGS

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| **Non-current borrowings** | | |
| Nedbank Limited (secured loan - R1.3 billion revolving credit facilities) | **—** | — |
| Balance at beginning of year | **—** | 33 |
| Draw down | **—** | 24 |
| Repayments | **—** | (28) |
| Transferred to current liabilities | **—** | (20) |
| Translation | **—** | (9) |
| Nedbank Limited (secured loan - R1.0 billion revolving credit facility) | **23** | — |
| Balance at beginning of year | **—** | — |
| Draw down | **24** | — |
| Translation | **(1)** | — |
| US dollar revolving credit facility (secured loan) | **—** | 139 |
| Balance at beginning of year | **139** | 247 |
| Draw down | **30** | — |
| Repayments | **(30)** | (110) |
| Amortisation of issue costs | **1** | 2 |
| Transferred to current liabilities | **(140)** | — |
| **Total non-current borrowings** | **23** | 139 |

## 29 BORROWINGS continued

### INTEREST BEARING BORROWINGS continued

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| **Current borrowings** | | |
| Nedbank Limited (secured loan) | **—** | 20 |
| Balance at beginning of year | **20** | — |
| Repayments | **(20)** | — |
| Transferred from non-current liabilities | **—** | 20 |
| US dollar revolving credit facility (secured loan) | **140** | — |
| Balance at beginning of year | **—** | — |
| Transferred from non-current liabilities | **140** | — |
| **Total current borrowings** | **140** | 20 |
| **Total interest-bearing borrowings** | **163** | 159 |
| **The maturity of borrowings is as follows:** | | |
| Current | **140** | 20 |
| Between one to two years | **—** | 139 |
| Between two to five years | **23** | — |
| | **163** | 159 |
| **Undrawn committed borrowing facilities:** | | |
| Expiring within one year | **110** | 68 |
| Expiring after one year | **53** | 110 |
| | **163** | 178 |

### EFFECTIVE INTEREST RATES

| | **2017** | 2016 |
|---|---|---|
| | **%** | % |
| Nedbank Limited - rand revolving credit facility | **10.5** | 10.4 |
| US dollar revolving credit facility | **3.9** | 3.5 |

## 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.

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| **Non-current liabilities** | | |
| **Financial liabilities** | | |
| Sibanye Beatrix ground swap royalty (a) | **1** | 1 |
| **Total non-current trade and other payables** | **1** | **1** |

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| **Current liabilities** | | |
| **Financial liabilities** | | |
| Trade payables | **40** | 24 |
| Other liabilities | **7** | 5 |
| **Non-financial liabilities** | | |
| Payroll accruals | **28** | 26 |
| Leave liabilities (b) | **30** | 23 |
| Shaft related accruals | **37** | 24 |
| Other accruals | **7** | 8 |
| ESOP share-based payment liability (c) | **—** | 1 |
| Value added tax | **4** | 4 |
| Income and mining taxes | **—** | 3 |
| **Total current trade and other payables** | **153** | **118** |

During the 2017 financial year, Harmony acquired Newcrest's interest in the Hidden Valley operation. Refer to note 10 for details of the transaction and the balances taken on as a result.

**(a) Sibanye Beatrix ground swap royalty**

During 2014, Harmony and Sibanye Gold Limited (Sibanye) entered into an agreement whereby the Joel mine exchanged two portions of its mining right for two portions of Sibanye's Beatrix mine's mining right, as well as acquiring two additional portions from Beatrix (sale portions). The transaction was completed in May 2014. The purchase consideration of the sale portions acquired by Joel is payable as a royalty of 3% on gold revenue generated from these two portions. The royalty liability recorded is the net present value of 3% of future gold revenue of the sale portions. An amount of US$1.1 million (2016: US$0.4 million) has been reclassified as current. Refer to note 15 for further details on the key assumptions for the calculation of the provision, which is based on the life-of-mine plan of Joel.

## 30 TRADE AND OTHER PAYABLES continued

### (b) 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:

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Balance at beginning of year | **23** | 26 |
| Benefits paid | **(29)** | (26) |
| Total expense per income statement | **31** | 27 |
| Acquisition of Hidden Valley | **3** | — |
| Translation | **2** | (4) |
| **Balance at end of year** | **30** | 23 |

### (c) ESOP share-based payment liability

The liability relates to the cash-settled share-based payment transaction following the award of ESOP SARs to qualifying employees through the Tlhakanelo Trust. Refer to note 33 for more details.

## 31 CASH GENERATED BY OPERATIONS

| | US dollar | | |
|---|---|---|---|
| *Figures in million* | **2017** | 2016 | 2015 |
| **Reconciliation of profit/(loss) before taxation to cash generated by operations:** | | | |
| Profit/(loss) before taxation | **(20)** | 109 | (436) |
| Adjustments for: | | | |
| Amortisation and depreciation | **185** | 149 | 216 |
| (Reversal of impairment)/impairment of assets | **131** | (3) | 285 |
| Share-based payments | **29** | 23 | 18 |
| Net decrease in provision for post-retirement benefits | **(1)** | (1) | (8) |
| Net increase/(decrease) in provision for environmental rehabilitation | **(8)** | (7) | (6) |
| Profit on sale of property, plant and equipment | **(3)** | — | (1) |
| Loss on scrapping of property, plant and equipment | **10** | 4 | 42 |
| (Profit)/loss from associates | **1** | — | 2 |
| Gain on bargain purchase | **(60)** | — | — |
| Interest received | **(20)** | (17) | (21) |
| Finance costs | **17** | 19 | 22 |
| Inventory adjustments | **31** | 7 | 18 |
| Foreign exchange translation difference | **(16)** | 45 | 34 |
| Non cash portion of gains on derivatives | **(7)** | (25) | — |
| Day one loss amortisation | **6** | — | — |
| Silicosis claim provision | **70** | — | — |
| Other non-cash adjustments | **(5)** | 1 | 7 |
| **Effect of changes in operating working capital items** | | | |
| Receivables | **(30)** | 12 | 10 |
| Inventories | **2** | 5 | — |
| Payables | **8** | 1 | (14) |
| **Cash generated by operations** | **320** | 322 | 168 |

### 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 2017, US$163.4 million (2016: US$177.9 million) (2015: US$74.0 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 full ownership of Hidden Valley were fulfilled and the transaction was completed. Refer to note 10 for details on the acquired assets, included cash acquired, and assumed liabilitities.

**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 29 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 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.

| | **2017** | 2016 |
|---|---|---|
| Number of permanent employees as at 30 June: | | |
| South African operations | **26 478** | 25 861 |
| International operations[1] | **1 403** | 1 339 |
| **Total number of permanent employees** | **27 881** | 27 200 |

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| **Aggregate earnings** | | |
| The aggregate earnings of employees including directors were: | | |
| Salaries and wages and other benefits | **563** | 459 |
| Retirement benefit costs | **41** | 34 |
| Medical aid contributions | **15** | 13 |
| **Total aggregated earnings[2]** | **619** | 506 |

[1] The MMJV employees included in the total is 103 (2016: 1 267). The acquisition of Newcrest's 50% of Hidden Valley operation resulted in the decrease as the Hidden Valley employees are now Harmony employees.
[2] 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 2017 financial year US$6.5 million (2016: US$6.5 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:
● Equity-settled share-based payments plan where the group grants share options to certain employees in exchange for services received;
● Equity-settled and cash-settled employee share ownership plan.

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 net of any directly attributable transaction costs are credited to share capital (nominal value) and share premium when the options are exercised.

Cash-settled share-based payments are measured at fair value. The liability is remeasured at each balance sheet date until the date of settlement.

### CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

The fair value of options granted is being determined using either a binomial, Black-Scholes or 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.

### EMPLOYEE SHARE-BASED PAYMENTS

The group has the 2012 employee share ownership plan (ESOP) and the 2006 share plan that are active. 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:

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| 2012 employee share ownership plan (a) | 1 | 2 |
| 2006 share plan (b) | 28 | 21 |
| **Total employee share-based payments included in cost of sales** | 29 | 23 |

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, 6 218 067 share option awards have been issued in terms of the 2006 share plan. 49 990 794 outstanding share option awards have been granted in terms of the 2006 share plan.

**(a) 2012 employee share ownership plan**

During August 2012, Harmony issued the first awards under its ESOP. The ESOP is overseen by the Tlhakanelo Trust. In terms of the ESOP rules, qualifying employees are offered one scheme share for every two share appreciation rights (SARs).

The scheme shares are accounted for as equity-settled.

The vesting of the SARs is linked to the positive share appreciation of Harmony's share price from the grant of the award. The SARs incorporate a cash bonus with a minimum pay-out guarantee of R18 (applicable where there is no share appreciation or share appreciation less than R18) and a maximum pay-out ceiling of R32 per SAR over the vesting period. The SARs include an equity-settled portion as well as a cash-settled portion related to the cash bonus. The cash-settled portion has been recognised as a liability in the balance sheet (refer to note 30), the fair value of which was remeasured at each reporting date.

The Tlhakanelo Trust is now wound up and the remaining shares will be sold. Refer to note 24.

The total cost relating to the 2012 ESOP is made up as follows:

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| *2012 employee share ownership plan* | | |
| Equity-settled | **1** | 1 |
| Cash-settled | **—** | 1 |
| | **1** | 2 |

## 33 SHARE-BASED PAYMENTS continued

**(a) 2012 employee share ownership plan** continued

**Activity on awards**

All the awards were settled in 2017.

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Gain realised by participants on awards traded during the year | **2** | 3 |
| Fair value of awards exercised during the year | **2** | 3 |

**Measurement**

**Cash-settled liability**

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Movement in the cash-settled liability recognised in the balance sheet: | | |
| Balance at beginning of year | **1** | 2 |
| IFRS 2 share-based payment charge for the year | **—** | 1 |
| Awards paid | **(1)** | (1) |
| Translation | **—** | (1) |
| **Balance at end of year** | **—** | 1 |

**(b) 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.<br><br>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. | *2009 to 2013 allocation:*<br>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 2016 allocation:*<br>• 50% of the number of rights awarded are linked to the total shareholder return of the group on an absolute basis.<br>• 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.<br><br>*2014 allocation:*<br>*• the number of the rights awarded are linked to the group's performance in comparison to the South African Gold Index.*<br><br>*2012 to 2013 allocation:*<br>• 50% (senior management) or 70% (management) of the number of the rights awarded are linked to the annual gold production of the group in relation to the targets set annually.<br>• 50% (senior management) or 30% (management) of 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

**(b) Options granted under the 2006 share plan** continued

**Activity on share options**

| Activity on options and rights granted but not yet exercised | SARs Number of options and rights | SARs Weighted average option price (SA rand) | PS Number of rights | RS Number of rights |
|---|---|---|---|---|
| **For the year ended 30 June 2017** | | | | |
| Balance at beginning of year | **14 156 782** | **34.74** | **34 978 038** | **859 974** |
| Options granted and accepted | **—** | **—** | **9 320 599** | **—** |
| Options accepted | **113 899** | **21.88** | **—** | **—** |
| Rights vested and locked up | **—** | **—** | **(160 271)** | **—** |
| Options exercised | **(451 187)** | **27.49** | **(2 171 953)** | **(158 562)** |
| Options forfeited and lapsed | **(1 342 797)** | **47.39** | **(4 117 840)** | **—** |
| **Balance at end of year** | **12 476 697** | **32.60** | **37 848 573** | **701 412** |
| **For the year ended 30 June 2016** | | | | |
| Balance at beginning of year | 16 419 967 | 38.86 | 14 322 508 | 677 102 |
| Options granted and accepted | — | — | 25 652 631 | 508 920 |
| Options granted | 669 824 | 18.42 | — | — |
| Options exercised | (432 650) | 24.58 | (803 301) | (272 482) |
| Options forfeited and lapsed | (2 500 359) | 59.21 | (4 193 800) | (53 566) |
| **Balance at end of year** | 14 156 782 | 34.74 | 34 978 038 | 859 974 |

| **Options and rights vested but not exercised at year end** | PS and RS 2017 | PS and RS 2016 | SARs 2017 | SARs 2016 |
|---|---|---|---|---|
| Options and rights vested but not exercised | **—** | — | **2 869 859** | 1 427 179 |
| Weighted average option price (SA rand) | **n/a** | n/a | **57.52** | 85.22 |

## 33 SHARE-BASED PAYMENTS continued

**(b) 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 2017** | | | |
| *Share appreciation rights* | | | |
| November 15, 2011 | 549 843 | 104.79 | 0.4 |
| November 16, 2012 | 1 281 918 | 68.84 | 1.4 |
| November 15, 2013 | 4 396 213 | 33.18 | 2.4 |
| November 17, 2014 | 6 248 723 | 18.41 | 3.4 |
| | 12 476 697 | | |
| *Performance shares* | | | |
| November 17, 2014 | 6 093 253 | n/a | 0.4 |
| November 16, 2015 | 22 288 019 | n/a | 1.4 |
| February 17, 2016 | 512 000 | n/a | 1.4 |
| November 29, 2016 | 8 955 301 | n/a | 2.4 |
| | 37 848 573 | | |
| *Restricted shares*[1] | | | |
| November 15, 2011 | 64 000 | n/a | 0.4 |
| November 16, 2012 | 143 353 | n/a | 1.4 |
| November 17, 2014 | 64 000 | n/a | 0.4 |
| November 16, 2015 | 430 059 | n/a | 1.4 |
| | 701 412 | | |
| **Total options and rights granted but not yet exercised** | 51 026 682 | | |

[1] The 2010, 2011 and 2012 restricted shares vested in November 2013, November 2014 and November 2015 respectively. Restricted shares that were not exercised, partially or fully, at that time remain restricted for a further three years, but were supplemented by a matching grant of restricted shares. All restricted shares are then only settled after the end of a further three year period.

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| Gain realised by participants on options and rights traded during the year | 8 | 2 |
| Fair value of options and rights exercised during the year | 8 | 3 |

## 33 SHARE-BASED PAYMENTS continued

**(b) Options granted under the 2006 share plan** continued

**Measurement**

The fair value of equity instruments granted during the year was valued using the Monte Carlo simulation on the market-linked PS, Cox-Ross- Rubinstein binomial tree on the SARs and spot share price on grant date for the RS.

**(i) Assumptions applied at grant date for awards granted during the year**

| | Performance shares |
|---|---|
| **29 November 2016 allocation** | |
| Risk-free interest rate: | 7.94% |
| Expected volatility: [1] | 63.87% |
| Expected dividend yield: | 0.00% |
| Vesting period (from grant date) | 3 years |

1 The volatility is measured as annualised standard deviation of historical share price returns, using an exponentially weighted moving average (EWMA) model, with a lambda of 0.99. The volatility is calculated on the grant date, and takes into account the previous three years of historical data.

## 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).

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 PhoenixCo 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 PhoenixCo 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 US $2.3 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 2014 or in any proposed transaction that has affected or will materially affect Harmony or its subsidiaries, other than as stated below.

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.

During 2017, the executive directors received remuneration of US$2.0 million, comprising of US$1.2 million for salaries, US$0.2 million for retirement contributions, US$0.4 million for bonuses and US$0.2 million from the exercising or settlement of share options. The non-executive directors received US$0.7 million in directors' fees.

During 2016, the executive directors received remuneration of US$3.4 million, comprising of US$1.2 million for salaries, US$0.1 million for retirement contributions, US$0.4 million for bonuses and US$1.7 million from the exercising or settlement of share options. The non-executive directors received US$0.6 million in directors' fees. The aggregate of remuneration received by executive management was US$2.4 million (including share options exercised).

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

| | Number of shares | |
|---|---|---|
| Name of director/prescribed officer | **2017** | 2016 |
| Directors | | |
| Andre Wilkens | **101 301** | 101 301 |
| Frank Abbott [1] | **606 742** | 521 790 |
| Harry 'Mashego' Mashego | **593** | 593 |
| Ken Dicks | **35 000** | 35 000 |
| Prescribed officers | | |
| Beyers Nel [2] | **17 553** | 2 907 |
| Johannes van Heerden [2] | **25 000** | — |
| Philip Tobias | **11 750** | 11 750 |

[1] During the 2017 financial year, 84 952 shares issued on the vesting of performance shares were voluntarily locked-up in terms of the minimum shareholding requirement of the 2006 Share Plan but remains beneficially owned.

[2] The shares for 2017 relate to performance shares that vested and the resulting shares retained.

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. The contract has a value of up to US$0.4 million per annum, with approximately US$0.07 million having been paid during FY17. The contract has a 30-day notice period.

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 21.

Refer to note 10 for the details of the transaction related to the Hidden Valley acquisition.

| | | US dollar | |
|---|---|---|---|
| *Figures in million* | Notes | **2017** | 2016 |
| **Sales and services rendered to related parties** | | | |
| Joint operations | | **—** | 1 |
| Associates[1] | | **—** | 1 |
| **Total** | | **—** | 2 |
| **Purchases and services acquired from related parties** | | | |
| Associates | | **2** | 2 |
| **Total** | | **2** | 2 |
| **Outstanding balances due by related parties** | | | |
| Associates[1] | | **—** | 4 |

[1] Refer to note 19 and 21 for details relating to the loan to associate. During 2017, the loan was converted to redeemable preferance shares.

## 35 COMMITMENTS AND CONTINGENCIES

### COMMITMENTS AND GUARANTEES

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| **Capital expenditure commitments** | | |
| Contracts for capital expenditure | 12 | 11 |
| Share of joint venture's contract for capital expenditure | 16 | 2 |
| Authorised by the directors but not contracted for | 60 | 21 |
| **Total capital commitments** | 88 | 34 |

Contractual obligations in respect of mineral tenement leases amount to US$13.0 million (2016: US$17.2 million). This includes US$12.7 million (2016: US$16.8 million) for the MMJV.

| | US dollar | |
|---|---|---|
| *Figures in million* | **2017** | 2016 |
| **Guarantees** | | |
| Guarantees and suretyships | **1** | 1 |
| Environmental guarantees[1] | **37** | 33 |
| **Total guarantees** | **38** | 34 |

[1] At 30 June 2017, US$4.7 million (2016: US$4.0 million) has been pledged as collateral for environmental guarantees in favour of certain financial institutions. Refer to note 17.

### 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 13 May 2016, the Johannesburg High Court ordered the certification of a silicosis class and a tuberculosis class, which are to proceed as a single class against several mining companies including the Harmony group. Developments in the negotiations and progress made by the industry working group have led to a provision being recognised as at 30 June 2017 in respect of the estimated settlement amount (refer to note 27).

(b) 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 Harmony's acquisition of the Wafi deposits in PNG. The shares were valued at US$23 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.

(c) 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.

As at 30 June 2017, water treatment facilities were successfully implemented at both Doornkop and Kusasalethu. These facilities are now assisting in reducing our dependency on Rand 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 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.

## 35 COMMITMENTS AND CONTINGENCIES

### CONTINGENT LIABILITIES continued

(d) 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 Resource and affected mining companies are involved in 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. 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.

e) 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). As part of the Water Use License Application (WULA) process for the respective operations, Harmony has requested certain exemptions (relevant to the respective mining operations) from GNR 704 of 4 June 1999, "Regulations on the use of water for mining and related activities aimed at the protection of water resources". The respective WULA's have subsequently not yet been approved by DWS. Two Water Use Licences have been issued by DWS for Kalgold and Kusasalethu, 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.

(f) 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 US$5.1 million of potential claims. Rand Uranium is therefore liable for all claims up to US$5.1 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.

(g) 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. The defendants intend to defend the claims. No active steps have been taken by the plaintiffs in this proceeding for more than five years. It is not practicable to make any reasonable assessment of the prospects of the plaintiffs succeeding should they proceed with these claims, nor the potential liability of the defendants if the plaintiffs were to succeed. As a result, no provision has been recognised in the financial statements for this matter.

## 36 SUBSEQUENT EVENTS

(a) Subsequent to 30 June 2017, a new increased US$350 million, three-year facility was negotiated on similar terms to the previous facility of US$250 million. The new facility matures on 15 August 2020. The syndicate consists of Nedbank Limited, ABSA Bank Limited, J.P.Morgan Chase Bank, Caterpillar Financial Services Corporation, HSBC Bank Plc, State Bank of India, Citibank as well as the Bank of China.

The key terms of the new facility are:

| | |
|---|---|
| Term Facility: | $175 million |
| Margin on term facility: | 3.15% over 3 month LIBOR |
| Revolving facility: | $175 million |
| Margin on revolving facility | 3.00% over 3 month LIBOR |
| Maturity | Three years from close |
| Security | Same as existing facility |

(b) On 15 August 2017, the board declared a final dividend for the 2017 year of 35 SA cents per share, payable on 16 October 2017.

(c) On 19 October 2017, Harmony announced that it would acquire Anglogold Ashanti Limited's Moab Khotsong and Great Noligwa mines together with other assets and related infrastructure for a cash consideration of the Rand equivalent of US$300 million. The transaction is subject to approval from Harmony's shareholders and other conditions precedent, including regulatory approvals. The Board of Harmony has unanimously approved the transaction and has resolved to recommend the transaction to its shareholders.

US$100 million of the consideration will be settled from Harmony's existing US$350 million syndicated loan facility. The remaining US $200 million will be funded through a fully underwritten US$200 million bridge facility, which has a 12-month term with similar terms and covenants as the existing loan facilities. Harmony is assessing various alternatives to optimally repay the bridge, including a potential rights issue. The mandated bridge providers are UBS Limited, Nedbank Limited, Absa Bank Limited and JP Morgan Securities plc.

The assets and liabilities will be acquired by a wholly-owned subsidiary of Harmony. When all conditions precedent have been met, Harmony will apply the principles of IFRS 3, *Business Combinations* and the process of a purchase price allocation of the assets acquired and liabilities assumed will begin.

## 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, the reportable segments were determined as: Tshepong, Phakisa, Bambanani, Joel, Doornkop, Target 1, Kusasalethu, Masimong and Unisel. Target 3 was placed on care and maintenance in October 2014 and its mining assets have been included in the reconciling items for 2016 and 2017. All other operating segments have been grouped together under all other surface operations.

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 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.

The CODM has previously been identified as the executive committee (Exco). During April 2017, the top management structure was changed, creating a group 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. The group CEO's office has replaced Exco as the CODM. There has been no change to the information reported to the CODM.

## 37 SEGMENT REPORT continued

| | Revenue 30 June | | | Production cost 30 June | | | Production profit/ (loss) 30 June | | | Mining assets 30 June | | | Capital expenditure# 30 June | | | Ounces produced* 30 June | | | Tons milled* 30 June | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2017 | 2016 | 2015 | 2017 | 2016 | 2015 | 2017 | 2016 | 2015 | 2017 | 2016 | 2015 | 2017 | 2016 | 2015 | 2017 | 2016 | 2015 | 2017 | 2016 | 2015 |
| | US$ million | | | US$ million | | | US$ million | | | US$ million | | | US$ million | | | oz | | | t'000 | | |
| **South Africa** | | | | | | | | | | | | | | | | | | | | | |
| **Underground** | | | | | | | | | | | | | | | | | | | | | |
| Tshepong (a) | **203** | 190 | 170 | **149** | 127 | 141 | **54** | 63 | 29 | **330** | 283 | 331 | **28** | 21 | 27 | **154 934** | 161 751 | 137 540 | **1 132** | 1 200 | 1 095 |
| Phakisa (a) | **169** | 151 | 124 | **121** | 95 | 103 | **48** | 56 | 21 | **315** | 288 | 354 | **24** | 22 | 35 | **128 893** | 128 217 | 100 246 | **737** | 756 | 674 |
| Bambanani | **116** | 112 | 116 | **64** | 56 | 62 | **52** | 56 | 54 | **57** | 55 | 68 | **6** | 7 | 10 | **88 415** | 96 870 | 93 495 | **254** | 256 | 253 |
| Joel | **96** | 84 | 91 | **69** | 57 | 67 | **27** | 27 | 24 | **69** | 49 | 48 | **18** | 15 | 16 | **72 211** | 73 239 | 72 596 | **567** | 597 | 607 |
| Doornkop | **114** | 102 | 107 | **91** | 72 | 95 | **23** | 30 | 12 | **227** | 203 | 184 | **18** | 14 | 21 | **85 939** | 87 772 | 85 618 | **706** | 695 | 665 |
| Target 1 | **111** | 126 | 152 | **99** | 86 | 104 | **12** | 40 | 48 | **154** | 192 | 229 | **24** | 22 | 26 | **85 809** | 108 895 | 122 944 | **822** | 814 | 826 |
| Kusasalethu | **189** | 143 | 169 | **153** | 125 | 174 | **36** | 18 | (5) | **217** | 256 | 298 | **21** | 25 | 40 | **141 270** | 124 198 | 127 092 | **670** | 736 | 1 001 |
| Masimong | **107** | 91 | 98 | **82** | 72 | 87 | **25** | 19 | 11 | **33** | 33 | 73 | **9** | 8 | 15 | **81 599** | 78 190 | 79 187 | **706** | 716 | 739 |
| Unisel | **67** | 64 | 67 | **62** | 52 | 60 | **5** | 12 | 7 | **40** | 37 | 49 | **6** | 4 | 9 | **51 280** | 54 785 | 54 495 | **436** | 467 | 460 |
| Target 3 (b) | **—** | — | 19 | **—** | — | 15 | **—** | — | 4 | **—** | — | 44 | **—** | — | 2 | **—** | — | 15 529 | **—** | — | 99 |
| **Surface** | | | | | | | | | | | | | | | | | | | | | |
| All other surface operations | **134** | 110 | 117 | **102** | 88 | 95 | **32** | 22 | 22 | **37** | 30 | 40 | **19** | 5 | 4 | **102 175** | 95 553 | 94 105 | **12 179** | 12 112 | 11 488 |
| **Total South Africa** | **1 306** | 1 173 | 1 230 | **994** | 830 | 1 003 | **314** | 343 | 227 | **1 479** | 1 426 | 1 718 | **173** | 143 | 205 | **992 525** | 1 009 470 | 982 847 | **18 209** | 18 349 | 17 907 |
| **International** | | | | | | | | | | | | | | | | | | | | | |
| Hidden Valley | **110** | 91 | 118 | **97** | 84 | 100 | **13** | 7 | 18 | **175** | 44 | 114 | **98** | 8 | 11 | **95 327** | 72 565 | 94 619 | **3.186** | 1.906 | 2 012 |
| **Total international** | **110** | 91 | 1 348 | **97** | 84 | 100 | **13** | 7 | 7 | **175** | 44 | 114 | **98** | 8 | 11 | **95 327** | 72 565 | 94 619 | **3 186** | 1 906 | 2 012 |
| **Total operations** | **1 416** | 1 264 | 1 348 | **1 089** | 914 | 1 103 | **327** | 350 | 245 | **1 654** | 1 470 | 1 832 | **271** | 151 | 216 | **1 087 852** | 1 082 035 | 1 077 466 | **21 395** | 20 255 | 19 919 |
| Reconciliation of the segment information to the consolidated income statement and balance sheet (refer to note 38) | **—** | — | — | **—** | — | — | | | | **1 312** | 1 045 | 1 140 | | | | | | | | | |
| | **1 416** | 1 264 | 1 348 | **1 089** | 914 | 1 103 | **327** | 350 | 245 | **2 966** | 2 515 | 2 972 | **271** | 151 | 216 | **1 087 852** | 1 082 035 | 1 077 466 | **21 395** | 20 255 | 19 919 |

# The capital expenditure for 2017 includes the cost for stripping activities and therefore the figures for 2016 have been restated for Hidden Valley and All other surface assets, which includes Kalgold.
(a) Tshepong and Phakisa are two separate segments for the 2017 year. As of 1 July 2017, they have been integrated into Tshepong Operations and will be treated as one segment for the 2018 year. Refer to note 6.
(b) Target 3 was placed on care and maintenance in October 2014 and is included in the reconciling items for 2016 and 2017.
*Production statistics are unaudited.

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

| | US dollar | | |
|---|---|---|---|
| *Figures in million* | **2017** | 2016 | 2015 |
| **Reconciliation of production profit to consolidated profit/(loss) before taxation** | | | |
| Total segment revenue | **1 416** | 1 264 | 1 348 |
| Total segment production costs | **(1 089)** | (914) | (1 103) |
| Production profit | **327** | 350 | 245 |
| Cost of sales items other than production costs | **(359)** | (174) | (542) |
| Amortisation and depreciation of mining assets | **(179)** | (144) | (211) |
| Amortisation and depreciation of assets other than mining assets | **(6)** | (5) | (5) |
| Rehabilitation credit (net) | **(2)** | 3 | 1 |
| Care and maintenance cost of restructured shafts | **(8)** | (8) | (9) |
| Employment termination and restructuring costs | **(5)** | (1) | (22) |
| Share-based payments | **(29)** | (23) | (18) |
| (Impairment) of assets/reversal of impairment | **(131)** | 3 | (285) |
| Other | **1** | 1 | 7 |
| Gross profit/(loss) | **(32)** | 176 | (297) |
| Corporate, administration and other expenditure | **(38)** | (28) | (33) |
| Exploration expenditure | **(18)** | (13) | (23) |
| Gain on derivatives | **75** | 30 | — |
| Other operating expenses | **(68)** | (54) | (80) |
| Operating profit/(loss) | **(81)** | 111 | (433) |
| Gain on bargain purchase | **60** | — | — |
| Loss on liquidation of subsidiaries | **(1)** | — | — |
| Profit/(loss) on associate | **(1)** | — | (2) |
| Investment income | **20** | 17 | 21 |
| Finance costs | **(17)** | (19) | (22) |
| **Profit/(loss) before taxation** | **(20)** | 109 | (436) |
| **Reconciliation of total segment assets to consolidated assets includes the following:** | | | |
| **Non-current assets** | | | |
| Property, plant and equipment | **638** | 563 | 598 |
| Intangible assets | **46** | 59 | 73 |
| Restricted cash | **5** | 4 | 4 |
| Restricted investments | **203** | 170 | 196 |
| Investments in financial assets | **—** | — | — |
| Investments in associates | **4** | — | — |
| Inventories | **3** | 3 | 3 |
| Other non-current receivables | **14** | 12 | 7 |
| Derivative financial asset | **24** | — | — |
| **Current assets** | | | |
| Inventories | **86** | 79 | 106 |
| Restricted cash | **1** | 1 | 1 |
| Trade and other receivables | **76** | 44 | 64 |
| Derivative financial assets | **117** | 25 | — |
| Cash and cash equivalents | **95** | 85 | 88 |
| | **1 312** | 1 045 | 1 138 |