



**INTERIM  
RESULTS  
FOR THE  
SIX MONTHS ENDED  
31 DECEMBER**

**2016**



**We do it better**

## Shareholder information:

Issued share capital at 31 December 2016	218 576 510 shares
Market capitalisation at 31 December 2016	ZAR21.5 billion
Market capitalisation at 31 December 2016	US\$1.6 billion
Closing share price at 31 December 2016	R98.50
Six-months high (1 July 2016 – 31 December 2016)	R115.87
Six-months low (1 July 2016 – 31 December 2016)	R75.01
Average daily volume traded for the six months	796 014 shares
Primary listing	JSE Limited
JSE Share Code	ARI
ADR ticker symbol	AFRBY

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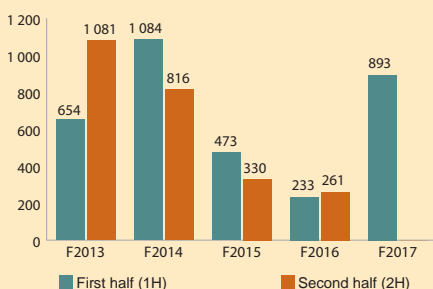
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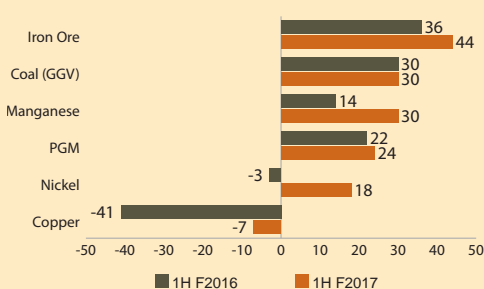
## Salient features

- **Headline earnings increased by 234% to R1 693 million (1H F2016: R507 million). Headline earnings per share increased 283% to 893 cents compared to 233 cents in the corresponding period last year.**
- **Basic earnings were a loss of R254 million (1H F2016: R996 million loss) and were mainly impacted by (i) an attributable impairment of the Nkomati Nickel Mine assets of R711 million after tax and (ii) an attributable impairment of the Modikwa Platinum Mine assets of R734 million after tax and non-controlling interest.**
- **US\$ prices for the ARM suite of commodities increased significantly during the last quarter of the reporting period.**
- **Good cost containment achieved at all mines except Goedgevonden (GGV) and Nkomati where unit costs increased as a result of lower production.**
- **Attributable segmental capital expenditure decreased by 15% to R1 159 million (1H F2016: R1 368 million).**
- **Cash dividends received from the Assmang joint venture increased to R988 million (1H F2016: R500 million).**
- **ARM's financial position continues to be robust with a net debt to equity ratio of 15.4%.**
- **Since the period end, ARM received a dividend of R1.5 billion from Assmang.**

Headline earnings per share (cent)



Segmental EBITDA margins (%)



## ARM operational review

The ARM Board of Directors (the Board) announces much improved headline earnings of R1 693 million for the six months ended 31 December 2016 (1H F2017). Headline earnings are 234% higher than the previous corresponding period largely due to excellent results in the ARM Ferrous division and the Two Rivers Platinum Mine (Two Rivers).

There was an improvement in headline earnings in both the ARM Coal division and the Nkomati Nickel Mine (Nkomati) from losses incurred in the previous period. Headline loss for ARM Copper improved from R275 million to R178 million. Modikwa Platinum Mine (Modikwa) reported a headline loss of R54 million (1H F2016: R47 million loss).

Average Rand prices for most of the commodities which ARM produces increased in comparison to the previous corresponding period.

### Headline earnings by division/operation

six months ended 31 December			
R million	2016	2015	% change
<b>ARM Platinum</b>	<b>179</b>	(9)	–
Two Rivers	205	155	32
Modikwa	(54)	(47)	(15)
Nkomati	28	(117)	–
<b>ARM Ferrous</b>	<b>1 779</b>	599	197
Iron ore division	1 023	478	114
Manganese division	378	97	>200
Chrome division*	374	39	>200
Consolidation adjustment	4	(15)	–
<b>ARM Coal</b>	<b>99</b>	(129)	–
GGV	(26)	(24)	(8)
PCB Operations	125	(105)	–
<b>ARM Copper</b>	<b>(178)</b>	(275)	35
<b>ARM Strategic Services and Exploration</b>	<b>(12)</b>	(10)	(20)
<b>Gold</b>	<b>32</b>	–	–
<b>Corporate and other</b>	<b>(206)</b>	331	–
<b>ARM headline earnings</b>	<b>1 693</b>	507	234

\* Includes Chrome discontinued operation contribution of R378 million relating to the sale of ARM's effective 50% stake in the Dwaarsrivier chrome mine. The Machadodorp Works is the only remaining chrome operation in Assmang.

These results have been achieved in conjunction with ARM's partners at the various operations, Anglo American Platinum Limited (Anglo Platinum), Assore Limited (Assore), Impala Platinum Holdings Limited (Implats), Norilsk Nickel Africa (Pty) Ltd (Norilsk), Glencore South Africa (Glencore), Vale S.A. (Vale) and Zambian Consolidated Copper Mines Investment Holdings (ZCCM-IH).

The interim results for the six months ended 31 December 2016 have been prepared in accordance with International Financial Reporting Standards (IFRS) and the disclosures are in accordance with IAS 34: Interim Financial Reporting.

Rounding of figures may result in minor computational discrepancies on the tabulations.

## Improving operational efficiencies and reducing unit costs

Most operations, except Goedgedvonden Coal Mine (GGV) and Nkomati, achieved unit cost increases below inflation.

The iron ore, manganese ore, PCB coal and Lubambe Copper Mine (Lubambe) operations achieved decreases in on-mine costs per tonne. At Modikwa and Two Rivers unit costs per PGM ounce increased by 7% and 9% respectively.

Nkomati reduced on-mine unit costs by 19% to R254 per tonne milled excluding capitalised waste stripping. C1 unit cost went up by 43% to US\$6.05/lb which includes the capitalised waste stripping of R364 million.

GGV production costs increased by 34% as a result of mining high cost areas and producing lower saleable tonnes. Mining has moved to the new pit and as a result unit costs should decrease in the coming months.

## Capital expenditure

Attributable segmental capital expenditure for 1H F2017 reduced by R209 million or 15% to R1 159 million (1H F2016: R1 368 million).

A large portion of the capital expenditure relates to the Black Rock Project.

Nkomati's capitalised waste stripping cost was increased to R364 million (1H F2016: R220 million) due to limited flexibility in the pit.

## Restructuring loss making operations

Lubambe continued with restructuring through downsizing of output and the reduction of related labour cost. There was an improvement in head grade while unit costs decreased by 7% to US\$2.22/lb (1H F2016: US\$2.39/lb). Lubambe remains under review and an announcement will be made when appropriate.

The ARM Coal division recorded headline earnings of R99 million (1H F2016: R129 million loss). This is a R228 million turnaround mainly due to improved coal prices and low unit costs at PCB.

Nkomati achieved a headline profit for the period, but is entering a difficult three-year phase with declining output. Waste stripping needs to be accelerated to open up the ore reserves and obtain more mining flexibility. The pit requires piling work on the western section to improve the slope stability due to saprolite slumping in the area. The eastern section of the pit has lower grade ore resulting in a forecast reduction in sales volumes over the next three years.

Modikwa reported a headline loss of R54 million (1H F2016: R47 million). The new South 2 project is ramping up production but much slower than was originally planned due to infrastructure installations being late.

## Operating safely

- ARM has been fatality free since May 2015.
- 37 Lost Time Injuries (LTIs) for the financial year-to-date (F2017), compared to 44 LTIs for the corresponding period in F2016.
- 28 Reportable Injuries for the financial year-to-date, compared to 30 over the same period in F2016.
- The Lost Time Injury Frequency Rate (LTIFR) for the financial year-to-date was 0.33 per 200 000 man-hours (compared to 0.32 at end December 2016).

### Safety achievements in the period under review:

- Black Rock Mine completed five million fatality free shifts on 11 October 2016.
- Modikwa achieved three million fatality free shifts on 26 September 2016.
- In November 2016, Beeshoek achieved 15 000 Fatality Free Production Shifts. This is for the reporting period 1 July 2016 to 31 December 2016.

*Safety figures and statistics in this report are presented on a 100% basis and exclude the ARM Coal operations which are managed by ARM's partner.*

## **Changes to mineral resources and reserves**

There has been no material change to ARM's Mineral Resources and Reserves as disclosed in the Integrated Annual Report for the financial year ended 30 June 2016, other than depletion due to continued mining activities at the operations. Dwarsrivier Mine Mineral Resources and Reserves will, however, no longer be reported by ARM following the completion of the disposal of ARM's interest in Dwarsrivier mine to Assore in July 2016.

## Financial commentary

Headline earnings of R1 693 million for the six-month period to 31 December 2016 were R1 186 million or 234% higher than the prior corresponding period's headline earnings (1H F2016: R507 million). This equates to headline earnings per share of 893 cents (1H F2016: 233 cents) based on the weighted average number of shares of 189.53 million (1H F2016: 217.55 million).

Basic earnings were a loss of R254 million (1H F2016: R996 million loss) and were mainly impacted by (i) an attributable impairment of the Nkomati assets of R711 million after tax and (ii) an attributable impairment of the Modikwa assets of R734 million after tax and non-controlling interest as well as (iii) an impairment loss of R422 million within the Assmang joint venture related to the sale of Dwarsrivier. 1H F2016 basic losses were negatively impacted by special items of R1 503 million after tax and non-controlling interests largely relating to an attributable impairment of the Lubambe assets of R1 404 million after non-controlling interest. The reconciliation of basic earnings to headline earnings is provided in note 9 to the financial statements. Basic loss per share improved from a basic loss of 458 cents reported in the previous comparable period to a basic loss of 134 cents.

Sales for the reporting period were 3% higher than the corresponding period in F2016 at R4 481 million (1H F2016: R4 332 million). Sales for ARM Ferrous increased by 34% to R6 088 million (1H F2016: R4 546 million).

The average gross profit margin increased to 15% (1H F2016: 5%). The gross profit margins achieved at each operation may be ascertained from the detailed segment reports provided in note 2 to the financial statements as well as in the write-ups for each operation.

The 1H F2017 average Rand/US Dollar exchange rate of R13.98/US\$ is 3% weaker than the prior corresponding period average of R13.61/US\$, while US Dollar commodity prices increased for most commodities. For reporting purposes, the closing Rand/US Dollar exchange rate was R13.73/US\$ (1H F2016: R15.46/US\$).

ARM's earnings before interest, tax, depreciation and amortisation (EBITDA), excluding special items and income from associates and joint ventures, were R673 million (1H F2016: R891 million). The reduction is largely due to unrealised foreign exchange losses (1H F2016: unrealised foreign exchange gains) on the ARM loans to Lubambe.

The income from joint venture (ARM Ferrous) was R1 356 million after special items which is 139% higher than the corresponding period in 1H F2016 (1H F2016: R567 million).

The detailed and expanded segmental contribution analysis is provided in note 2 to the financial statements. Key features from the segmental contribution analyses are:

- The ARM Ferrous contribution to ARM's headline earnings increased by R1 180 million to R1 779 million (1H F2016: R599 million), largely due to increased contributions of R545 million and R281 million from the iron ore and manganese (manganese ore and alloys) divisions respectively. The iron ore division's contribution was R1 023 million (1H F2016: R478 million), while the manganese division's contribution was R378 million (1H F2016: R97 million). This was primarily due to an increase in the average realised US Dollar prices for iron ore and manganese ore as well as 11% higher iron ore sales volumes. The results of the Chrome division includes income from the chrome discontinued operation of R378 million relating to the sale of ARM's effective 50% stake in the Dwarsrivier chrome mine more fully explained in note 12 to the financial statements. The Machadodorp Works are the only remaining chrome operation in Assmang.
- The ARM Platinum segment, which includes the results of Nkomati, contributed increased headline earnings of R179 million (1H F2016: R9 million headline loss) mainly due to increased headline earnings at Two Rivers of R205 million (1H F2016: R155 million) and at Nkomati of R28 million (1H F2016: R117 million headline loss). Net impairment losses of R711 million and R734 million were recorded for Nkomati and Modikwa.
- The ARM Coal segment result reflected headline earnings of R99 million (1H F2016: R129 million headline loss) while cash operating profit was R687 million (1H F2016: R321 million). Goedgevonden Mine made a headline loss of R26 million (1H F2016: R24 million) while the PCB operations contributed headline earnings of R125 million (1H F2016: R105 million headline loss).

- ARM Copper, which largely comprises the Vale/ARM joint venture interest in Lubambe, amounted to an improved headline loss of R178 million for the period (1H F2016: R275 million headline loss) which includes interest on shareholder loans of R125 million (1H F2016: R104 million). The improvement in the loss was mainly due to the downsizing of production and associated costs.
- The costs for the ARM Exploration segment increased marginally to R12 million (1H F2016: R10 million).
- The ARM Corporate, other companies and consolidation segment contributed a headline loss of R206 million (1H F2016: R331 million headline earnings). The headline loss is largely due to unrealised foreign exchange losses on US Dollar based loans made by ARM to Lubambe, resulting from the strengthening of the closing Rand versus the US Dollar exchange rate from R14.68/US\$ at 30 June 2016 to R13.73/US\$ at 31 December 2016. The ARM Company loans to Lubambe amounted to US\$170 million at 31 December 2016 (31 December 2015: US\$148 million).

At 31 December 2016 cash and cash equivalents were R1 335 million (31 December 2015: R1 444 million) the details of which are reflected in note 5 to the financial statements. This excludes the attributable cash and cash equivalents held at ARM Ferrous (50% of Assmang) of R2 588 million (31 December 2015: R2 036 million).

Total borrowings at the end of the period were higher at R4 843 million (31 December 2015: R4 124 million) of which R2 347 million (31 December 2015: R2 298 million) comprises partner loans. There was no debt at ARM Ferrous at 31 December 2016 (31 December 2015: nil).

The net debt position at 31 December 2016 amounts to R3 508 million (31 December 2015: R2 680 million). The increase was largely due to an increase in the amount owing on the ARM corporate facility of R1 025 million (31 December 2015: R300 million) and the ARM BBEE Trust of R500 million (31 December 2015: nil) resulting from the restructuring of the funding of the ARM BBEE Trust in April 2016.

Cash generated from operations increased to R826 million (1H F2016: R473 million), largely due to increased sales. Dividends received from the Assmang joint venture were R988 million (1H F2016: R500 million) and R32 million (1H F2016: nil) from the Harmony investment.

Dividends paid in October 2016 were R426 million (1H F2016: R761 million).

Cash expended on capital expenditure was 15% or R85 million lower at R489 million for the period (1H F2016: R574 million). Attributable capital expenditure at the Assmang joint venture was 29% lower at R555 million (1H F2016: R779 million).

The consolidated ARM total assets of R31.7 billion (1H F2016: R33.5 billion) include the decreased mark-to-market valuation of ARM's investment in Harmony of R1 333 million (1H F2016: R1 million increase) at a share price of R31.53 per share at 31 December 2016 (1H F2016: R15.60 per share).

Since the period end ARM received a dividend of R1.5 billion from Assmang which was partly utilised to repay the outstanding amount owing on the ARM corporate facility of R1 025 million.



## ARM Ferrous

Market conditions for iron ore and manganese ore improved significantly over the six months ended 31 December 2016 and the average US Dollar prices were higher than those which prevailed in 1H F2016. Average index prices for 62% fines iron ore delivered in China improved by 27% to approximately US\$65 per metric tonne for 1H F2017. Manganese ore showed a similar increase, with average prices for high-grade ore (44%) at US\$6.02 per manganese unit, delivered in China.

In addition, sales volumes for iron ore were 11% higher than those in 1H F2016.

Improved commodity prices, increased sales volume for iron ore and operational improvements resulted in ARM Ferrous headline earnings increasing by 197% to R1 779 million (1H F2016: R599 million). A 3% weakening in the average Rand/US Dollar exchange rate also had a positive impact on earnings. ARM Ferrous achieved a good safety performance, with a 35% improvement year-on-year in the LTIFR. All the Ferrous operations exceeded one million fatality free shifts, with Black Rock achieving five million fatality free shifts during the period.

### ARM Ferrous headline earnings (on 100% basis)

six months ended 31 December			
R million	2016	2015	% change
Iron ore division	2 049	957	114
Manganese division	756	193	>200
Chrome division*	748	78	>200
Total	3 553	1 228	189
ARM share	1 775	614	189
Consolidation adjustments	4	(15)	–
<b>Total per IFRS financial statements</b>	<b>1 779</b>	<b>599</b>	<b>197</b>

\* Includes chrome discontinued operation contribution of R378 million relating to the sale of ARM's effective 50% stake in the Dwarsrivier chrome mine. The Machadodorp Works is the only remaining chrome operation in Assmang.

ARM Ferrous achieved solid operational performance for production and sales volumes.

The Khumani Mine (Khumani) supplies the export iron ore market, while Beeshoek Mine (Beeshoek) supplies a South African steel producer. The village pit at Beeshoek is in the process of ramping up to full production of three million tonnes per annum.

To improve water availability, on-site boreholes at Khumani were drilled and test work is being carried out to evaluate the feasibility thereof. If the test results are positive the necessary permitting will be applied for.

The modernisation and the upgrading of the Black Rock Mine (Black Rock) continued with the Nchwaning 2 shaft upgrade and refurbishment successfully completed. Due to the upgrade, shaft operations were stopped in March 2016, resulting in manganese ore production declining to 1.31 million tonnes which is 15% less than in 1H F2016. Despite this reduced production, total manganese ore sales were down by only 4% to 1.42 million tonnes, of which 1.35 million tonnes were exported and 70 thousand tonnes were sold into the local market.

Three of the six furnaces at Cato Ridge Works are currently producing high carbon ferromanganese, which is fed to Cato Ridge Alloys to produce medium carbon ferromanganese. Manganese alloy sales volumes increased by 21% to 97 thousand tonnes. Global demand and prices for manganese alloy have increased during the period under review.

Sakura commissioned both furnaces successfully and the furnaces are in the ramp up phase of production. The alloy production is meeting customer specifications.

Machadodorp Works is currently only recovering ferrochrome from the slag dump through the metal recovery plant, with approximately six months of processing left. Thereafter, the operation will recover ferromanganese slag for approximately eight months.

ARM and Assore are currently evaluating all possible options for the future of Machadodorp Works.

## Assmang sales volumes (on 100% basis)

	six months ended 31 December		
Thousand tonnes	2016	2015	% change
Iron ore*	8 805	7 920	11
Manganese ore*	1 417	1 471	(4)
Manganese alloys (local)	97	80	21
Manganese alloys (Sakura)	42	–	–
Charge chrome	10	5	100
Chrome ore**	–	545	–

\* Excluding intra-group sales.

\*\* Dwarsrivier mine sold with effect from 1 July 2016.

## Assmang production volumes (on 100% basis)

	six months ended 31 December		
Thousand tonnes	2016	2015	% change
Iron ore	8 641	8 643	–
Manganese ore	1 306	1 530	(15)
Manganese alloys (local)	67	73	(8)
Manganese alloys (Sakura)	68	–	–
Chrome ore*	–	529	–

\* Dwarsrivier mine sold with effect from 1 July 2016.

Khumani and Beeshoek produced 7.1 million tonnes and 1.5 million tonnes of iron ore respectively, resulting in total production of 8.6 million tonnes.

Manganese alloy production at Cato Ridge Works was 8% less than in 1H F2016 due to lower furnace availability, variability in ore grade from the mine and a longer than expected planned shutdown of furnace 5 in Q1 F2017. The operation has an action plan in place to recover the deficit by the end of the financial year.

## Assmang cost and EBITDA margin performance

Commodity group	Unit cost of sales** % change	On-mine unit production cost** % change	EBITDA margin %
Iron ore*	(0)	4	44
Manganese ore	(1)	(11)	17
Manganese alloys	4	7	5

\* Excluding the Khumani housing element.

\*\* Brackets refer to a decrease in unit costs while no brackets refer to an increase in unit costs.

Improvement in safety and operational performance, as well as the reduction and containment of unit costs, remained the focus of the division.

The following highlights were achieved:

### **Khumani Mine:**

- One million fatality free shifts, which is 1.5 years without a fatality.
- The lumpy proportion of total production was improved from 54% to 57%.
- The design for an ultra-fines recovery circuit, which will recover an additional 250 thousand tonnes of ultra-fine iron ore product per annum, was finalised and construction commenced. Commissioning is expected towards the end of F2017.

### **Beeshoek Mine:**

- Three million fatality free shifts and 15 000 Fatality Free Production Shifts were reached after mining for 14 years without a fatality.
- A lost time injury frequency rate of 0.15 per 200 000 man-hours was achieved.
- Sustained production tonnage, ore quality and lumpy ratio of 60% to honour its off-take agreements.

### **Black Rock Mine:**

- Achieved five million fatality free shifts after mining 7.5 years without a fatality.
- A decline in the lost time injury frequency rate of 56% to 0.16 per 200 000 man-hours.
- Successfully completed the upgrade and refurbishment of Nchwaning 2 shaft.

### **The Cato Ridge Works**

- The operation continued to focus on improving flexibility and profitability.
- The fabrication of a bridle, enabling the transport of metal ladles with a slag hauler, now allows Cato Ridge Works to transfer molten metal to Cato Ridge Alloys.
- In order to offset these cost pressures, briquettes comprising bag house dust, metal fines, carbon fines and other fine materials are agglomerated on-site reducing the requirement for expensive ores by 10%.

## ARM Ferrous capital expenditure

100% basis	six months ended 31 December	
R million	2016	2015
Iron ore division	368	518
Manganese division	786	1 049
Chrome division*	–	66
<b>Total</b>	<b>1 154</b>	<b>1 633</b>

\* Dwarsrivier mine sold with effect from 1 July 2016.

Capital expenditure decreased by 29% to R1.15 billion. This included R650 million for the Black Rock project.

At Khumani, capital expenditure was R243 million, consisting mainly of waste stripping at the Bruce and King pits, infill drilling, maximising ultra-fines recovery, vehicle proximity detection, replacement of mining equipment and the ongoing evaluation of alternative water resources.

Capital expenditure of R124 million at Beeshoek mainly comprised the Village Pit waste removal, vehicle proximity detection and replacement capital.

Black Rock's total capital expenditure of R786 million was largely for the Black Rock Project, for the modernisation of the mine and improvement in unit cost of production.

## Logistics

ARM Ferrous continues to ensure execution of its medium-term manganese export capacity allocation (MECA2) from Transnet and engagements are ongoing regarding the synchronisation of the ramp-up of Black Rock with the medium and longer-term (MECA3) Transnet capacity processes.

Transnet is providing good service on the 14 million tonnes per annum iron ore export supply route from Khumani to the port of Saldanha.

A junior iron ore producer and exporter was able to export nearly 500 000 tonnes during the reporting period, using the Khumani load-out facility.

## Projects

### Black Rock Project

The total capital requirement for the Black Rock Project has been reduced to R6.0 billion. This project's progress is on-time and within budget.

Most of the underground development work that would have been executed by specialist contractors has been performed by mine employees, significantly reducing the cost of the project without changing the scope. Project management structures have also been reviewed and streamlined to ensure a cost efficient execution of the project.

The underground development and infrastructure work proceeded according to plan. The shutdown to upgrade Nchwaning 2 shaft and surface plant infrastructure was completed successfully and the Nchwaning 2 shaft was handed over for production in early January 2017.

## The primary focus of the project remains:

- The modernisation of the mine to optimise resource exploitation and to maximise utilisation of production hours, production fleet and mining equipment.
- The cost efficient exploitation of the Seam 1 and Seam 2 manganese resources at the Nchwaning mining complex, targeting the production of high-grade manganese products.
- The modernisation of the surface plant infrastructure to ensure the cost efficient processing and separation of the various high-grade manganese products from the two Seams.
- Creating the flexibility within the underground operations at the Nchwaning shafts to ensure the mine can react more effectively to changes in market product requirements.
- Creating the ability to exploit the high-grade ore within Nchwaning 1.
- Establishing the load-out capacity and efficiencies to meet the requirements as set by Transnet for the Ngqura port facility.

## Sakura Ferroalloys Project

The project cost remains within the original budget of US\$328 million. Both furnaces 1 and 2 have been hot commissioned and handed over to operations. Production levels continue to ramp-up to design capacity and high carbon ferromanganese is being sold to customers who are satisfied with the quality of the product.

The agglomeration plant (Brex) is still in construction and planned to be completed at the end of March 2017.

Sakura is utilising the Bintulu port until the Samalaju port is completed in August 2017.

## Khumani Mine – Ultra Fines Recovery Project

The design work for the Ultra Fines Recovery circuit is complete and the capital approved. The project is in the execution phase and will be completed at the end of this financial year. This project will enable the recovery of additional iron units from the tailings stream and will see the production of an additional 250 000 tonnes per annum of ultra-fines iron ore product, once fully operational.

This project is on-time and within budget.

## Beeshoek Village Pit

The Beeshoek Village Pit (Village Pit) capital project is progressing according to the mining schedule and is on-time and within budget. The first iron ore, as per the approved mining schedule, was extracted successfully in April 2016. The ore extracted conforms to the quality specifications derived from the geological drilling work which was performed to motivate the exploitation of the Village Pit. The Village Pit projects extends the Life of Mine for Beeshoek from two years to twelve years at a sustainable production rate of three million tonnes per annum.

*The ARM Ferrous operations, held through its 50% investment in Assmang, consist of three divisions: iron ore, manganese and chrome. Assore Limited, ARM's partner in Assmang, owns the remaining 50%.*

## ARM Platinum

ARM Platinum increased attributable headline earnings to R179 million (1H F2016 R9 million headline loss). This increase resulted from a sharp increase in chrome prices, benefiting both Two Rivers and Nkomati, a R200 million positive mark-to-market adjustment at Nkomati on the realisation during the reporting period of the debtors at 30 June 2016, as well as increased volumes at Two Rivers.

Due to Nkomati's PGM production declining by 45%, ARM Platinum's PGM production (on a 100% basis) decreased by 7% to 407 846 6E ounces (1H F2016: 437 207 6E ounces). Nkomati's nickel production decreased to 6 627 tonnes (1H F2016: 11 554 tonnes) as a result of reduced tonnes mined, combined with a lower grade. Two Rivers achieved record PGM production of 207 147 6E ounces (1H F2016: 198 063 6E ounces) and remains positioned at the bottom of the unit cost curve. Of these ounces, 5 992 ounces were produced through toll treating at the Modikwa concentrator plant. Modikwa's PGM volumes increased marginally to 151 562 6E ounces (1H F2016: 149 326 6E ounces).

### ARM Platinum attributable headline earnings/loss

six months ended 31 December			
	2016	2015	% change
Two Rivers	205	155	32
Modikwa	(54)	(47)	(15)
Nkomati	28	(117)	–
<b>Headline earnings/(loss) attributable to ARM</b>	<b>179</b>	<b>(9)</b>	<b>–</b>

With the exception of Rhodium, all metal prices, in US Dollar and Rand terms, were higher than the corresponding period. Average Rand per 6E kilogram basket prices for Modikwa and Two Rivers increased by 11% and 10% to R333 388 (1H 016: R301 574) and R335 433 (1H F2016: R303 612) respectively.

The tables below set out the relevant price comparison:

### Average US Dollar metal prices

average for the six months ended 31 December				
		2016	2015	% change
Platinum	US\$/oz	1 013	948	7
Palladium	US\$/oz	676	610	11
Rhodium	US\$/oz	667	721	(8)
Gold	US\$/oz	1 257	1 114	13
Nickel	US\$/t	10 270	9 732	6
Copper	US\$/t	5 081	4 940	3
Chrome concentrate (CIF)	US\$/t	175	109	60

## Average Rand metal prices

average for the six months ended 31 December				
		2016	2014	% change
Exchange rate	R/US\$	13.98	13.61	3
Platinum	R/oz	14 157	12 901	10
Palladium	R/oz	9 444	8 308	14
Rhodium	R/oz	9 329	9 819	(5)
Gold	R/oz	17 575	15 167	16
Nickel	R/t	143 576	132 456	8
Copper	R/t	71 039	67 234	6
Chrome concentrate (CIF)	R/t	2 443	1 639	49

Capital expenditure at ARM Platinum operations (on a 100% basis) increased marginally to R718 million (1H F2016: R703 million).

## ARM Platinum capital expenditure (on 100% basis)

six months ended 31 December		
	2016	2015
Modikwa	160	195
Two Rivers	175	180
Nkomati	19	108
Nkomati capitalised waste stripping	364	220
<b>Total</b>	<b>718</b>	<b>703</b>

As previously reported, market conditions necessitated Modikwa's capital projects to be reviewed to reduce capital expenditure without adversely affecting the mine's future ability to ramp-up production. Capital expenditure reduced by 18% to R160 million (1H F2016: R195 million).

Of the capital spent at Two Rivers, 45% is associated with fleet replacement and refurbishment. The deepening of the Main and North declines, together with its electrical and mechanical installations, comprised 43% of the total capital expenditure.

Nkomati's capital expenditure was mainly for the commencement of the construction of a second anchored pile wall (R16 million). Capitalised waste stripping cost increased by 66% as waste mining volumes increased after being reduced in December 2015 to preserve cash. This is required to open up the ore reserves and gain mining flexibility.

## Two Rivers Mine

A sharp increase in chrome prices resulted in attributable headline earnings at Two Rivers increasing by 32% to R205 million (1H F2016: R155 million). Increased tonnes milled, combined with an improved plant recovery to 88%, resulted in PGM ounces increasing by 5%. Of the 1.75 million tonnes milled, 58 689 tonnes were toll treated at Modikwa as part of Two Rivers' working capital reduction initiatives.

Two Rivers increased chrome concentrate sales to 142 721 tonnes, contributing R218 million (1H F2016: R80 million) to cash operating profit (on 100% basis).

Unit costs increased by 9% to R5 838 per 6E ounce (1H F2016: R5 368 per 6E ounce). There was a 196 950 tonne decrease in the UG2 Run-of-Mine stockpile to a total of 307 885 tonnes of ore.

ARM and Implats reached an agreement to increase ARM's shareholding in Two Rivers from 51% to 54%. Completion of the agreement is awaiting a Section 11 consent to transfer ownership of mining assets from ARM to Two Rivers.

## Two Rivers Mine operational statistics (on 100% basis)

		six months ended 31 December		
		2016	2015	% change
Cash operating profit	R million	783	645	21
– PGMs	R million	565	566	–
– Chrome	R million	218	80	174
Tonnes milled	Mt	1.75	1.70	3
Head grade	g/t, 6E	4.03	4.09	(1)
PGMs in concentrate	Ounces, 6E	207 147	198 063	5
Chrome concentrate sold	Tonnes	142 721	140 870	1
Average basket price	R/kg, 6E	335 433	303 612	10
Average basket price	US\$/oz, 6E	746	694	8
Cash operating margin	%	37	35	
Cash cost	R/kg, 6E	187 685	172 594	9
Cash cost	R/tonne	692	626	11
Cash cost	R/Pt oz	12 505	11 582	8
Cash cost	R/oz, 6E	5 838	5 368	9
Cash cost	US\$/oz, 6E	418	394	6
<b>Headline earnings attributable to ARM</b>	R million	<b>205</b>	155	32



## Modikwa Mine

Modikwa's attributable headline loss increased by 15% to a loss of R54 million (1H F2016: R47 million headline loss). A 2% increase in headgrade, offset by a 1% decrease in milled tonnes, resulted in PGM production increasing by 1% to 151 562 6E ounces (1H F2016: 149 326 6E ounces). Unit costs increased by 7% to R8 559 per 6E PGM ounce (1H F2016: R7 970 per 6E PGM ounce).

This mine continues to make a loss due to a slower ramp-up of production at South 2 shaft. Management expect production to increase over the next year with increased output at South 2 shaft.

ARM recorded an attributable impairment of R734 million after tax and non-controlling interest (1H F2016: nil) of Modikwa assets.

### Modikwa Mine operational statistics (on 100% basis)

		six months ended 31 December		
		2016	2015	% change
Cash operating loss	R million	(61)	(14)	(>200)
Tonnes milled	Mt	1.02	1.03	(1)
Head grade	g/t, 6E	5.45	5.33	2
PGMs in concentrate	Ounces, 6E	151 562	149 326	1
Average basket price	R/kg, 6E	333 388	301 574	11
Average basket price	US\$/oz, 6E	742	689	8
Cash operating margin	%	(5)	(1)	
Cash cost	R/kg, 6E	275 163	256 237	7
Cash cost	R/tonne	1 273	1 156	10
Cash cost	R/Pt oz	22 084	20 610	7
Cash cost	R/oz, 6E	8 559	7 970	7
Cash cost	US\$/oz, 6E	612	586	5
<b>Headline loss attributable to ARM</b>	<b>R million</b>	<b>(54)</b>	<b>(47)</b>	<b>(15)</b>

## Nkomati Mine

Nkomati generated attributable headline earnings of R28 million (1H F2016: R117 million headline loss) for the period under review. This was mainly driven by a positive mark-to-market adjustment of R200 million, stemming from the increased nickel price since the date at which the relevant sales were recognised. A major cost reduction (mainly due to reduced mining volumes) in unit cost per tonne milled also contributed to this result.

Chrome concentrate sales decreased by 50% to 96 821 tonnes (1H F2016: 195 583 tonnes), but still contributed R161 million to cash operating profit. The decrease in chrome production was mainly as a result of the chrome washing plant being stopped in November 2015 due to depressed market conditions, and a lower than expected mass pull on the PCMZ plant. Due to the recent improvement in the chrome price, the chrome washing plant was restarted during October 2016.

Nkomati's total tonnes milled decreased by 15% to 3.58 million tonnes. Nickel units produced decreased significantly by 43% to 6 627 tonnes (1H F2016: 11 554 tonnes). The main reasons for this underperformance are:

- Poor mining efficiencies resulted in lower ore supply to both the PCMZ and MMZ plants. The mining contractor was affected by an unprotected strike which lasted 15 days, having a negative impact on production. The mining contractor performance was also negatively affected by safety stoppages which resulted in a total of six production shifts lost.
- A change in the mining sequence which was caused by insufficient waste stripping during the last 12 months resulted in a decrease in the plant feed head grade and plant recoveries.
- A second large pile wall needs to be constructed for slope stability protection. This results in mining being confined to the eastern benches only, which has a lower grade.

Nkomati's C1 unit cash costs net of by-products increased by 37% to US\$6.05/lb (1H F2016: US\$4.40/lb) largely due to the decrease in nickel units produced. Low mining volumes and an increase in capitalised waste stripping costs resulted in unit cost per tonne milled decreasing by 19% to R254 per tonne (1H F2016: R313 per tonne).

The R364 million capitalised waste stripping is excluded from the unit cost per tonne milled and included in the C1 cash unit cost net of by-products.

ARM recorded an attributable impairment of R711 million after tax (1H F2016: R83 million) of Nkomati assets.

## Nkomati Mine operational statistics (on 100% basis)

		six months ended 31 December		
		2016	2015	% change
Cash operating (loss)/profit	R million	308	(132)	–
– Nickel Mine	R million	147	(261)	–
– Chrome Mine	R million	161	130	24
Cash operating margin	%	17	(6)	
Tonnes milled	Mt	3.58	4.19	(15)
Head grade	% nickel	0.28	0.39	
Nickel on-mine cash cost per tonne milled	R/tonne	254	313	(19)
Cash cost net of by-products*	US\$/lb	6.05	4.40	37
<b>Contained metal</b>				
Nickel	Tonnes	6 627	11 554	(43)
PGMs	Ounces	49 137	89 818	(45)
Copper	Tonnes	3 245	5 250	(38)
Cobalt	Tonnes	318	552	(42)
Chrome concentrate sold	Tonnes	96 821	195 583	(50)
<b>Headline earnings/(loss) attributable to ARM</b>	R million	28	(117)	–

\* This reflects US Dollar cash costs net of by-products (PGMs and Chrome) per pound of nickel produced.

## Projects

### Modikwa Mine

In order to improve mining flexibility a decision was taken to deepen North Shaft and sink the new South 2 Shaft. The current status of these projects are detailed below:

- **Deepening of North Shaft** – This project entails the deepening of North Shaft from Level 6 to Level 9 thereby establishing three new mining levels. To curtail capital expenditure portions of this project were deferred during F2016, resulting in current development being delayed at Level 9. Level 7 and 8 are both fully equipped with all the required mining infrastructure and the chairlift installation and construction to surface was commissioned in February 2017.
- **Sinking of South 2 Shaft** – This project entails the establishment of an additional new decline shaft system South of the current South Shaft Infrastructure. The first phase of the project will enhance mining flexibility while also contributing to the overall production build-up of the mine. Phase one of the project has been completed and will take the production capacity to 50 000 tonnes of ore per month by 2019. The second phase will follow and increase to the design capacity of this shaft system to 100 000 tonnes per month.

*The ARM Platinum division comprises:*

- *Three operating mines:*
  - o *Modikwa – ARM Mining Consortium has an effective 41.5% interest in Modikwa where local communities hold an 8.5% effective interest. The remaining 50% is held by Anglo American Platinum.*
  - o *Two Rivers – an incorporated joint venture with Implats, with ARM holding 51% and Implats 49%. ARM and Implats have reached agreement to increase ARM's shareholding in Two Rivers by 3% from 51% from 54% on incorporation of the Tamboti property into Two Rivers once the Section 11 is approved.*
  - o *Nkomati – a 50:50 partnership between ARM and Norilsk Nickel Africa.*
- *Two prospecting rights:*
  - o *the "Kalplats prospecting right" in which ARM Platinum holds 46% and Platinum Australia (PLA) holds 44%, with Anglo American holding 10%.*
  - o *the "Kalplats Extended Area prospecting right" in which ARM Platinum and PLA each have a 50% interest.*

## ARM Coal

ARM Coal achieved attributable headline earnings of R99 million for 1H F2017, a R228 million improvement over the headline loss of R129 million recorded in 1H F2016. This significant improvement was mainly due to average realised US Dollar export prices being 43% higher than in 1H F2016 with the price exceeding \$65 per tonne for Q2 F2017.

Export coal prices were influenced by the Chinese government who reduced working days for coal mines to 276 days per annum, effective 1 May 2016. This action reduced coal supply and saw the USD API4 (6000NAR export thermal coal price ex RBCT) peak at almost US\$100 per tonne during the reporting period. The higher prices, aided by a 3% weakening of the Rand/US Dollar exchange rate, resulted in realised Rand prices increasing from R593 per tonne in 1H F2016 to R839 per tonne in 1H F2017.

ARM Coal export coal sales volumes were 7% lower than the comparable period as Transnet Freight Rail's (TFR) annual maintenance shutdown, which lasted for 14 days, occurred during July 2016 to coincide with the Indian monsoon rain season. Previously, it was done during the first half of the calendar year. Saleable production at GGV improved by 8% compared to 1H F2016 but additional expenditure to improve in-pit inventory levels and saleable production, resulted in unit production costs, excluding capitalised stripping costs, to be 34% higher than in 1H F2016. The PCB operations on the other hand achieved an increase of 17% in saleable production and a 7% reduction in on-mine unit production costs.

### ARM Coal attributable profit analysis

	six months ended 31 December		
R million	2016	2015	% change
Cash operating profit	687	321	114
Less: Interest paid	(271)	(240)	(13)
Amortisation	(246)	(223)	(10)
Fair value adjustments	(32)	(36)	11
Loss before tax	138	(178)	–
Less: Tax	(39)	49	–
<b>Headline loss attributable to ARM</b>	<b>99</b>	<b>(129)</b>	<b>–</b>

### Goedgevonden Mine

Production at GGV for 1H F2017 was 8% higher than the previous reporting period, however, on-mine unit cost of production increased by 34%. The mine was impacted by low opening in-pit stock levels at the start of F2017 which emanated from mining in a constrained pit as well as low availability of drills, dragline and the Hitachi shovel during F2016. ROM coal purchases to fill the plant, and contractors brought in to assist with overburden stripping, resulted in on-mine production costs, excluding capitalised costs, being 29% higher than in 1H F2016. The dragline has commenced mining in a new pit with adequate pit length and as a result, in-pit stocks have increased during the last quarter, which resulted in a steady improvement in production levels during this period.

## Goedgevonden Mine operational statistics

six months ended 31 December				
		2016	2015	% change
<b>Total production sales (100% basis)</b>				
Saleable production	Mt	3.61	3.33	8
Export thermal coal sales	Mt	1.71	1.98	(14)
Eskom thermal coal sales	Mt	1.67	1.77	(6)
Local thermal coal sales	Mt	0.20	0.07	185
<b>Attributable production and sales</b>				
Saleable production	Mt	0.94	0.87	8
Export thermal coal sales	Mt	0.44	0.51	(14)
Eskom thermal coal sales	Mt	0.43	0.46	(7)
Local thermal coal sales	Mt	0.05	0.02	150
<b>Average received coal price</b>				
Export (FOB)	US\$/tonne	59.99	43.54	38
Eskom (FOT)	R/tonne	228.26	251.81	(9)
Local (FOR)	R/tonne	508.74	137.02	271
On-mine saleable cost	R/tonne	289.40	215.50	(34)
<b>Cash operating profit</b>				
Total	R million	567	483	17
Attributable (26%)	R million	147	126	17
<b>Headline loss attributable to ARM</b>	R million	(26)	(24)	(8)

## Goedgevonden Mine attributable profit analysis

six months ended 31 December				
R million		2016	2015	% change
Cash operating profit		147	126	17
Less: Interest paid		(105)	(89)	(18)
Amortisation		(72)	(62)	(16)
Fair value adjustments		(7)	(8)	12
Loss before tax		(37)	(33)	(12)
Less: Tax		10	9	11
<b>Headline loss attributable to ARM</b>		(26)	(24)	(8)

## Participating Coal Business (PCB)

The PCB business experienced an exceptionally good six months with saleable production increasing by 17% from 6.78 mtpa to almost 8 mtpa. Although total on-mine costs increase by 8.7%, the cost per saleable tonne produced decreased by 7%, aided by significant volumes of ROM coal being fed into the plant from the stockpile that was built during the construction phase of the Tweefontein Optimisation Project. The attributable cash operating profit increased from R195 million to R539 million as a result of a 40% increase in revenue offset by a 6% increase in cost of sales. Although export sales volumes decreased by 5%, export revenue was R383 million higher than 1H F2016 due to a 43% increase in average US Dollar sales prices and a weakening of the Rand/Dollar exchange rate. PCB achieved attributable headline earnings of R125 million for 1H F2017 (1H F2016: R105 million headline loss).

### PCB operational statistics

six months ended 31 December				
		2016	2015	% change
<b>Total production sales (100% basis)</b>				
Saleable production	Mt	7.93	6.78	17
Export thermal coal sales	Mt	6.62	6.95	(5)
Eskom thermal coal sales	Mt	0.77	0.67	15
Local thermal coal sales	Mt	0.54	0.44	22
<b>Attributable production and sales</b>				
Saleable production	Mt	1.60	1.37	17
Export thermal coal sales	Mt	1.34	1.40	(4)
Eskom thermal coal sales	Mt	0.16	0.14	14
Local thermal coal sales	Mt	0.11	0.09	22
<b>Average received coal price</b>				
Export (FOB)	US\$/tonne	63.97	44.68	43
Eskom (FOT)	R/tonne	245.85	230.74	7
Local (FOR)	R/tonne	523.14	428.75	22
On-mine saleable cost	R/tonne	272.51	293.20	7
<b>Cash operating profit</b>				
Total	R million	2 669	966	176
Attributable (20.2%)	R million	539	195	176
<b>Headline earnings/(loss) attributable to ARM</b>	R million	125	(105)	–

## Participating Coal Business attributable profit analysis

six months ended 31 December			
R million	2016	2015	% change
Cash operating profit	539	195	176
Less: Interest paid	(166)	(151)	(10)
Amortisation	(173)	(161)	(7)
Fair value adjustments	(26)	(28)	7
Profit/(loss) before tax	174	(145)	–
Less: Tax	(49)	40	–
<b>Headline earnings/(loss) attributable to ARM</b>	<b>125</b>	<b>(105)</b>	<b>–</b>

## Projects:

### Tweefontein Optimisation Project (TOP)

TOP comprises of opencast operations which include the mining of some pillars in the old underground operations and the construction of the new and more efficient Coal Handling and Processing Plant.

As at 31 December 2016, 99% of the total project cost had been committed and spent. The project is now in full production and only some minor infrastructure items still have to be completed. A saving of R681 million occurred and anticipate final project cost of R7.5 billion.

*ARM's economic interest in PCB is 20.2%. PCB consists of two large mining complexes situated in Mpumalanga. ARM has a 26% effective interest in the Goedgevonden Mine situated near Ogies in Mpumalanga.*

*Attributable refers to 20.2% of PCB whilst total refers to 100%.*

## ARM Copper

The mine performed well during a very difficult period by downsizing production and associated personnel. The C1 cash unit cost of production decreased by 7% during 1H F2017, to US\$2.22/lb of copper produced (1H F2016: US\$2.39/lb). The largest contributors to the unit cost savings were a reduction in labour cost due to a 66% reduction in expatriate labour, a reduction in stoping dilution obtained through an improvement in the mining stoping method, and a 4% increase in plant recoveries obtained through plant optimisation initiatives.

During the period under review, the average realised copper price of US\$5 004 per tonne was 1% lower than the corresponding period in F2016. In November and December 2016, the copper price substantially increased and the average price for December 2016 was US\$5 666 per tonne (US\$2.57/lb).

### Lubambe Mine operational statistics (100% basis)

		six months ended 31 December		
		2016	2015	% change
Waste development	Metres	1 209	2 081	(42%)
Ore development	Metres	1 212	2 792	(57%)
Ore development	Tonnes	74 288	173 167	(57%)
Ore stoping	Tonnes	423 803	548 114	(23%)
Ore tonnes mined	Tonnes	498 091	721 281	(31%)
Tonnes milled	Thousand	545 162	715 007	(23%)
Mill head grade	% copper	2.09	2.00	5%
Concentrator recovery	%	84.6	81.1	—
Copper concentrate produced	Tonnes	23 193	28 598	(19%)
Copper concentrate sold	Tonnes	22 139	28 550	(22%)
Average realised copper price	US\$/lb	2.27	2.30	(1%)
C1 cash cost per pound of copper produced	US\$/lb	2.22	2.39	(7%)
Capital expenditure	US\$000	5 229	7 443	(30%)
<b>Contained metal</b>				
Copper produced	Tonnes	9 644	11 711	(18%)
Copper sold	Tonnes	9 255	11 714	(21%)
<b>Headline loss attributable to ARM (40%)</b>	R million	<b>(178)</b>	(275)	35%

The improvement initiatives and cost reduction measures implemented at Lubambe decreased the headline loss from R275 million in 1H F2016 to R178 million in 1H F2017.



## **Lubambe Copper Mine**

1H F2017 represents the first reporting period in which Lubambe operated in accordance with the reduced production target of 80 000 tonnes of ore per month. The reduced target was implemented in March 2016 to curtail operating losses, save cash and preserve the orebody whilst implementing a strategy to upgrade the underground dewatering infrastructure. Notwithstanding these challenges, Lubambe milled 545 162 tonnes and achieved the target for the first phase of the dewatering strategy with a 30% reduction on capital costs compared to 1H F2016. A 5% improvement in the head grade combined with a 4% increase in the concentrator plant recovery, resulted in copper production of 9 644 tonnes which is a 9% improvement in copper produced.

During 1H F2017, more than 300% increase in underground pumping capacity was obtained through the successful upgrade of the underground pumping infrastructure. The upgrades enabled Lubambe to dewater all declines that were previously flooded for a period of 10 months. Following the dewatering, substantial progress was made in the development of the declines. During November and December 2016, decline development advance was well in excess of requirements for sustainable production. This achievement will enable Lubambe to obtain access to new ore development areas at a faster rate, which will enhance the ability to ramp-up mining production.

During the period under review a labour restructuring programme was successfully concluded which aligned the total labour complement with the revised lower production rate of 80 000 tonnes per month.

Ongoing capital expenditure was curtailed to preserve cash with the majority of expenditure being incurred for mine ramp development.

## **The Lubambe Extension Project**

The Lubambe Extension Project has been put on hold until an opportune time when conditions are suitable for additional investment.

This high-grade area remains an integral part of the future development of the Lubambe ore body.

*ARM owns 100% of ARM Copper. ARM Copper owns 50% of the Vale/ARM joint venture. The effective interest of ARM in the Lubambe Copper Mine is 40% as ZCCM-IH has a 20% shareholding.*

## **ARM Strategic Services and Exploration**

The Strategic Services and Exploration division undertakes information technology, technical support, strategic support, project development, exploration and new business opportunity evaluations.

Costs for the ARM Strategic Services and Exploration division were R12 million (1H F2016: R10 million).

### **Projects**

The Projects Development team works closely with the operating divisions to manage major capital projects.

The Black Rock Mine efficiency and modernisation project in the Northern Cape Province, South Africa has progressed within budget and timing. The refurbishments on the Nchwaning 2 Shaft have been completed and the shaft is now operational, ramping up to full planned production. All other mine development is proceeding as per project schedule.

The Sakura Ferroalloys Smelter project at Bintulu, Sarawak State, Malaysia has been completed and both furnaces are fully commissioned and operational producing high carbon Ferromanganese alloys.

### **Exploration and New Business**

ARM has established a focussed team to identify new mineral business opportunities for sustainable and responsible development. New growth will come from expanding existing operations where possible, as well as through new minerals commodity opportunities in emerging regions. The unit undertakes business intelligence, studies and evaluations for acquisitions and mergers.

ARM pursues new mineral investment opportunities through a "commodity driven strategy", based on commodities within ARM's current portfolio, such as PGM's, copper, nickel, iron, manganese and coal, and their various by-products. The commodity suite is aligned to its existing portfolio of products and will leverage ARM's competencies to ensure the best future growth potential for ARM.

## Harmony Gold Mining Company Limited (Harmony)

Harmony reported headline earnings of R657 million for the six months ended 31 December 2016. Headline earnings per share amounted to 150 cents compared to 324 cents per share reported for the six months ended 30 June 2016 (2H F2016). The 1H F2017 headline earnings per share represent a significant turnaround to the headline loss of 103 cents reported in the previous comparable six months.

Revenue, including the gold hedge, increased by 3% to R9.9 billion compared to 2H F2016 mainly as a result of a 6% increase in gold sold to 16 923 kg. The 1H F2017 US Dollar gold price received was 7% higher relative to 2H F2016 but was 3% lower on a Rand basis owing to a 9% strengthening of the Rand versus the US Dollar.

Harmony's production profit decreased to R2.5 billion from R3.1 billion in 2H F2016 after accounting for an increase in cash operating costs. All-in sustaining unit costs increased below inflation (by 4%) to R510 506/kg in 1H F2017 compared to R492 898/kg in 2H F2016.

Positive operational cash flow generation in the past 12 months enabled Harmony to pay a final dividend of R218 million in September 2016 for F2016, and reduce net debt from R1.1 billion at the end of 30 June 2016 to R289 million at the end of 31 December 2016. Harmony declared an interim dividend of 50 cents per share for 1H F2017.

The ARM Statement of Financial Position as at 31 December 2016 reflects a mark-to-market investment in Harmony of R2.0 billion at a share price of R31.53 per share (1H F2016: R15.60 per share). Changes in the value of the investment in Harmony, to the extent that they represent a significant or prolonged decline below the cost of the investment, are adjusted through the Income Statement, net of tax. Gains above the cost are accounted for, net of deferred capital gains tax, through the Statement of Comprehensive Income. Dividends are recognised in the ARM Income Statement on the last day of registration following dividend declaration.

Harmony's results for the six months ended 31 December 2016 can be viewed on Harmony's website at [www.harmony.co.za](http://www.harmony.co.za).

*ARM owns 14.6% of Harmony's issued share capital.*

## Outlook

The mining industry has benefitted from increased US Dollar commodity prices particularly in bulk commodities. The increase in prices can be attributed to a number of factors including (i) the stabilisation of global commodity supply, (ii) the outcome of the US presidential elections and (iii) decreasing commodity inventory levels. The price increases particularly in the latter part of the period under review, have in many instances been quite marked indicating that the previously depressed prices were not sustainable. The recent strengthening of the Rand against the US Dollar has to some extent partly offset the US dollar price gains.

Looking forward it is estimated that US Dollar commodity prices could come off recent highs and settle at lower levels while the Rand could remain relatively strong. As a result, ARM continues to focus on areas within its control such as cost containment, prudence of capital expenditure, capital allocation and the detailed review of unprofitable operations.

Since the period end ARM has repaid the ARM corporate facility borrowings partly utilising the dividend received from Assmang of R1.5 billion. ARM continues to investigate a number of growth opportunities including organic growth projects, research and development projects and merger and acquisition transactions.

## Review by independent auditors

The financial results for the six months ended 31 December 2016 have not been reviewed or audited by the Company's registered auditors, Ernst & Young Inc.

Signed on behalf of the Board:

**P T Motsepe**  
Executive Chairman

**M P Schmidt**  
Chief Executive Officer

Johannesburg  
16 March 2017

## NOTES



# Group financial statements

## Contents

30	Group statement of financial position
31	Group income statement
32	Group statement of comprehensive income
33	Group statement of changes in equity
34	Group statement of cash flows
35	Notes to the group financial statements

## Group statement of financial position

as at 31 December 2016

		Unaudited Six months ended 31 December		Audited Year ended 30 June
	Note	2016 Rm	2015 wRm	2016 Rm
<b>ASSETS</b>				
<b>Non-current assets</b>				
Property, plant and equipment	3	8 801	11 155	10 966
Intangible assets		135	143	137
Deferred tax assets		510	565	151
Loans and long-term receivables		38	43	40
Investment in associate		1 279	1 258	1 153
Investment in joint venture	4	14 460	14 161	14 623
Other investments		2 194	1 172	3 521
		27 417	28 497	30 591
<b>Current assets</b>				
Inventories		759	844	759
Trade and other receivables		2 179	2 729	2 453
Taxation		10	5	4
Financial assets		—	2	1
Cash and cash equivalents	5	1 335	1 444	1 316
		4 283	5 024	4 533
<b>Assets held for sale</b>		1	—	3
<b>Total assets</b>		31 701	33 521	35 127
<b>EQUITY AND LIABILITIES</b>				
<b>Capital and reserves</b>				
Ordinary share capital		11	11	11
Share premium		4 268	4 210	4 217
Treasury shares	6	(2 405)	—	(2 405)
Other reserves		2 342	1 158	3 395
Retained earnings		17 921	18 161	18 601
<b>Equity attributable to equity holders of ARM</b>		22 137	23 540	23 819
Non-controlling interest		644	999	762
<b>Total equity</b>		22 781	24 539	24 581
<b>Non-current liabilities</b>				
Long-term borrowings	7	3 618	2 767	4 171
Deferred tax liabilities		1 394	1 984	2 014
Long-term provisions		677	630	665
		5 689	5 381	6 850
<b>Current liabilities</b>				
Trade and other payables		1 600	1 872	1 787
Short-term provisions		294	303	355
Taxation		112	69	174
Overdrafts and short-term borrowings	7	1 225	1 357	1 380
		3 231	3 601	3 696
<b>Total equity and liabilities</b>		31 701	33 521	35 127



## Group income statement

for the six months ended 31 December 2016

	Note	Unaudited Six months ended 31 December		Audited Year ended 30 June
		2016 Rm	2015 Rm	2016 Rm
<b>Revenue</b>		<b>4 950</b>	4 708	9 600
Sales		4 481	4 332	8 745
Cost of sales		(3 817)	(4 124)	(8 147)
<b>Gross profit</b>		<b>664</b>	208	598
Other operating income		381	925	1 148
Other operating expenses		(821)	(760)	(1 527)
<b>Profit from operations before special items</b>		<b>224</b>	373	219
Income from investments		122	87	160
Finance costs		(303)	(153)	(375)
Income/(loss) from associate		125	(105)	(210)
Income from joint venture*	4	1 356	567	1 301
<b>Profit before taxation and special items</b>		<b>1 524</b>	769	1 095
Special items	8	(2 322)	(1 855)	(1 860)
<b>Loss before taxation</b>		<b>(798)</b>	(1 086)	(765)
Taxation	10	515	(189)	8
<b>Loss for the period</b>		<b>(283)</b>	(1 275)	(757)
<b>Attributable to:</b>				
Non-controlling interest		(29)	(279)	(192)
Equity holders of ARM		(254)	(996)	(565)
		(283)	(1 275)	(757)
<b>Additional information</b>				
Headline earnings (R million)	9	1 693	507	1 051
Headline earnings per share (cents)		893	233	494
Basic loss per share (cents)		(134)	(458)	(265)
Diluted headline earnings per share (cents)		869	232	487
Diluted basic loss per share (cents)		(130)	(455)	(262)
Number of shares in issue at end of period (thousands)		218 577	217 935	218 022
Weighted average number of shares in issue (thousands)	6	189 529	217 550	212 990
Weighted average number of shares used in calculating fully diluted earnings per share (thousands)	6	194 880	218 650	215 825
Net asset value per share (cents)		10 128	10 801	10 925
EBITDA (R million)		673	891	1 185
Dividend declared after year-end (cents)		–	–	225

\* Impairment included in income from joint venture R422 million before tax of nil, (1H F2016: R44 million before tax of R12 million; F2016: R202 million before tax of R56 million).

## Group statement of comprehensive income

for the six months ended 31 December 2016

	Available- for-sale reserve Rm	Other Rm	Retained earnings Rm	Total share- holders of ARM Rm	Non- controlling interest Rm	Total Rm
<b>Six months ended 31 December 2016 (Unaudited)</b>						
Loss for the period	–	–	(254)	(254)	(29)	(283)
Other comprehensive income that may be reclassified to the income statement in subsequent periods:						
Revaluation of listed investment*	(1 333)	–	–	(1 333)	–	(1 333)
Deferred tax on above	299	–	–	299	–	299
Net impact of above	(1 034)	–	–	(1 034)	–	(1 034)
Foreign currency translation reserve movement	–	(66)	–	(66)	–	(66)
<b>Total other comprehensive loss</b>	<b>(1 034)</b>	<b>(66)</b>	<b>–</b>	<b>(1 100)</b>	<b>–</b>	<b>(1 100)</b>
<b>Total comprehensive loss for the period</b>	<b>(1 034)</b>	<b>(66)</b>	<b>(254)</b>	<b>(1 354)</b>	<b>(29)</b>	<b>(1 383)</b>
<b>Six months ended 31 December 2015 (Unaudited)</b>						
Loss for the period	–	–	(996)	(996)	(279)	(1 275)
Other comprehensive income that may be reclassified to the income statement in subsequent periods:						
Revaluation of listed investment*	1	–	–	1	–	1
Deferred tax on above	–	–	–	–	–	–
Net impact of above	1	–	–	1	–	1
Foreign currency translation reserve movement	–	(121)	–	(121)	–	(121)
<b>Total other comprehensive income/(loss)</b>	<b>1</b>	<b>(121)</b>	<b>–</b>	<b>(120)</b>	<b>–</b>	<b>(120)</b>
<b>Total comprehensive income/(loss) for the period</b>	<b>1</b>	<b>(121)</b>	<b>(996)</b>	<b>(1 116)</b>	<b>(279)</b>	<b>(1 395)</b>
<b>Year ended 30 June 2016 (Audited)</b>						
Loss for the year	–	–	(565)	(565)	(192)	(757)
Other comprehensive income that may be reclassified to the income statement in subsequent periods:						
Revaluation of listed investment*	2 347	–	–	2 347	–	2 347
Deferred tax on above	(448)	–	–	(448)	–	(448)
Deferred tax rate change	35	–	–	35	–	35
Net impact of revaluation of listed investment	1 934	–	–	1 934	–	1 934
Foreign currency translation reserve movement	–	101	–	101	–	101
<b>Total other comprehensive income</b>	<b>1 934</b>	<b>101</b>	<b>–</b>	<b>2 035</b>	<b>–</b>	<b>2 035</b>
<b>Total comprehensive income/(loss) for the year</b>	<b>1 934</b>	<b>101</b>	<b>(565)</b>	<b>1 470</b>	<b>(192)</b>	<b>1 278</b>

\* The fair value of the available-for-sale listed investment is determined with reference to the market share price. The share price of Harmony Limited at 31 December 2016 was R31.53, at 30 June 2016 R52.47, at 31 December 2015 R15.60, and at 30 June 2015 R15.59 per share.

# Group statement of changes in equity

for the six months ended 31 December 2016

	Share capital and premium Rm	Treasury share capital Rm	Available-for-sale reserve Rm	Other Rm	Retained earnings Rm	Total share-holders of ARM Rm	Non-controlling interest Rm	Total Rm
<b>Six months ended 31 December 2016 (Unaudited)</b>								
<b>Balance at 30 June 2016</b>	4 228	(2 405)	1 934	1 461	18 601	<b>23 819</b>	762	<b>24 581</b>
Loss for the period	—	—	—	—	(254)	<b>(254)</b>	(29)	<b>(283)</b>
Other comprehensive loss	—	—	(1 034)	(66)	—	<b>(1 100)</b>	—	<b>(1 100)</b>
Total comprehensive loss for the period	—	—	(1 034)	(66)	(254)	<b>(1 354)</b>	(29)	<b>(1 383)</b>
Performance shares issued to employees	51	—	—	(51)	—	—	—	—
Dividend paid	—	—	—	—	(426)	<b>(426)</b>	—	<b>(426)</b>
Dividend paid to Impala Platinum	—	—	—	—	—	—	(89)	<b>(89)</b>
Share-based payments	—	—	—	98	—	<b>98</b>	—	<b>98</b>
<b>Balance at 31 December 2016</b>	4 279	(2 405)	900	1 442	17 921	<b>22 137</b>	644	<b>22 781</b>
<b>Six months ended 31 December 2015 (Unaudited)</b>								
<b>Balance at 30 June 2015</b>	4 194	—	—	1 212	20 113	<b>25 519</b>	1 386	<b>26 905</b>
Loss for the period	—	—	—	—	(996)	<b>(996)</b>	(279)	<b>(1 275)</b>
Other comprehensive income/(loss)	—	—	1	(121)	—	<b>(120)</b>	—	<b>(120)</b>
Total comprehensive income/(loss) for the period	—	—	1	(121)	(996)	<b>(1 116)</b>	(279)	<b>(1 395)</b>
Bonus and performance shares issued to employees	27	—	—	(27)	—	—	—	—
Change due to insurance restructuring – net of tax	—	—	—	—	(195)	<b>(195)</b>	—	<b>(195)</b>
Dividend paid	—	—	—	—	(761)	<b>(761)</b>	—	<b>(761)</b>
Dividend paid to Impala Platinum	—	—	—	—	—	—	(108)	<b>(108)</b>
Share-based payments	—	—	—	93	—	<b>93</b>	—	<b>93</b>
<b>Balance at 31 December 2015</b>	4 221	—	1	1 157	18 161	<b>23 540</b>	999	<b>24 539</b>
<b>Year ended 30 June 2016 (Audited)</b>								
<b>Balance at 30 June 2015</b>	4 194	—	—	1 212	20 113	<b>25 519</b>	1 386	<b>26 905</b>
Loss for the year 30 June 2016	—	—	—	—	(565)	<b>(565)</b>	(192)	<b>(757)</b>
Other comprehensive income	—	—	1 934	101	—	<b>2 035</b>	—	<b>2 035</b>
Total comprehensive income/(loss) for the year	—	—	1 934	101	(565)	<b>1 470</b>	(192)	<b>1 278</b>
Bonus and performance shares issued to employees	34	—	—	(34)	—	—	—	—
Changes due to insurance restructuring – net of tax	—	—	—	—	(195)	<b>(195)</b>	—	<b>(195)</b>
Dividend paid	—	—	—	—	(761)	<b>(761)</b>	—	<b>(761)</b>
Dividend paid to Impala Platinum	—	—	—	—	—	—	(370)	<b>(370)</b>
Restructuring of the ARM BBEE Trust	—	(2 405)	—	—	—	<b>(2 405)</b>	(62)	<b>(2 467)</b>
Share-based payments	—	—	—	191	—	<b>191</b>	—	<b>191</b>
Transfer	—	—	—	(9)	9	—	—	—
<b>Balance at 30 June 2016</b>	4 228	(2 405)	1 934	1 461	18 601	<b>23 819</b>	762	<b>24 581</b>

## Group statement of cash flows

for the six months ended 31 December 2016

		Unaudited Six months ended 31 December	Audited Year ended 30 June
	Note	2016 Rm	2015 Rm
CASH FLOW FROM OPERATING ACTIVITIES			
Cash receipts from customers		5 139	4 655
Cash paid to suppliers and employees		(4 313)	(4 182)
Cash generated from operations	11	826	473
Interest received		65	65
Interest paid		(106)	(32)
Dividends received		32	—
Dividends received from joint venture	4	988	500
Dividends paid to non-controlling interest – Impala Platinum		(89)	(108)
Dividend paid		(426)	(761)
Taxation paid		(232)	(126)
Net cash inflow from operating activities		1 058	11
CASH FLOW FROM INVESTING ACTIVITIES			
Additions to property, plant and equipment to maintain operations		(489)	(538)
Additions to property, plant and equipment to expand operations		—	(36)
Proceeds on disposal of property, plant and equipment		4	30
Proceeds on disposal of subsidiary		—	—
Proceeds on disposal of investment		238	—
ARM BBEE Trust cash consolidated following trust restructuring		—	—
Investments in Richards Bay Coal Terminal		(2)	(7)
Loans and receivables received		2	6
Net cash outflow from investing activities		(247)	(545)
CASH FLOW FROM FINANCING ACTIVITIES			
Proceeds on exercise of share options		5	—
Long-term borrowings raised		—	300
Long-term borrowings repaid		(459)	(55)
Repurchase of ARM shares		—	—
Short-term borrowings repaid		(259)	(216)
Net cash (outflow)/inflow from financing activities		(713)	29
Net increase/(decrease) in cash and cash equivalents		98	(505)
Cash and cash equivalents at beginning of period		667	1 445
Foreign currency translation on cash balances		11	(18)
Cash and cash equivalents at end of period	5	776	922
Cash generated from operations per share (cents)		436	217

# Notes to the financial statements

for the six months ended 31 December 2016

## 1. STATEMENT OF COMPLIANCE

The Group financial statements for the six months ended 31 December 2016 are prepared in accordance with and contain the information required by IAS 34 – Interim Financial Reporting and comply with International Financial Reporting Standards (IFRS) and Interpretations of those standards, as adopted by the International Accounting Standards Board (IASB), requirements of the South African Companies Act 2008, the SAICA Financial Reporting Guides as issued by the Accounting Practices Committee and Financial Pronouncements as issued by the Financial Reporting Standards Council and the Listings Requirements of the JSE Limited.

### BASIS OF PREPARATION

The Group financial statements for the six months ended 31 December 2016 have been prepared on the historical cost basis, except for certain financial instruments, which include listed investments, that are fairly valued by mark-to-market. The accounting policies used are consistent with those in the most recent annual financial statements except for those listed below and comply with IFRS. The Group financial statements for the period have been prepared under the supervision of the financial director, Mr M Arnold CA(SA).

The Group has adopted no new and revised standards and interpretations issued by the International Financial Reporting Interpretation Committee (IFRIC) of the IASB during the period under review.

The following amendments, standards or interpretations have been issued but are not yet effective. The effective date refers to periods beginning on or after, unless otherwise indicated.

Standard	Subject	Effective date
IFRS 2	Classification and measurement of share-based payment transactions (Amendment)	1 January 2018
IFRS 4 and IFRS 9	Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts – Amendments to IFRS 4	1 January 2018
IFRS 5	Non-current Asset Held for Sale and Discontinued Operations (Annual improvement project)	1 January 2016
IFRS 7	Financial Instruments: Disclosures (Annual improvement project)	1 January 2016
IFRS 9	Financial Instruments	1 January 2018
IFRS 10	Consolidated Financial Statements (Amendment)	1 January 2016
IFRS 11	Accounting for Acquisitions of Interest in Joint Operations (Amendment)	1 January 2016
IFRS 12	Disclosure of Interest in Other Entities (Amendment)	1 January 2016
IFRS 14	Regulatory Deferral Accounts	1 January 2016
IFRS 15	Revenue from Contracts with Customers	1 January 2018
IFRS 16	Leases	1 January 2019
IAS 16 and IAS 38	Clarification of Acceptable Methods of Depreciation and Amortisation (Amendment)	1 January 2016
IAS 16 and IAS 41	Agriculture: Bearer Plants (Amendment)	1 January 2016
IAS 1	Disclosure initiative (Amendment)	1 January 2016
IAS 7	Disclosure initiative (Amendment)	1 January 2017
IAS 12	Recognition of deferred tax asset for unrealised losses (Amendment)	1 January 2017
IAS 19	Employee Benefits (Annual improvement project)	1 January 2016
IAS 27	Separate Financial Statements – Equity method (Amendment)	1 January 2016
IAS 28	Investment in Associates and Joint Ventures (Amendment)	1 January 2016
IAS 34	Interim Financial Reporting (Annual improvement project)	1 January 2016

The Group does not intend early adopting any of the above amendments, standards or interpretations.

The impact of the above standards or interpretations is still being assessed.

# Notes to the financial statements

for the six months ended 31 December 2016

## 2. SEGMENTAL INFORMATION

### Primary segmental information

For management purposes the Group is organised into operating divisions. The operating divisions are ARM Platinum (which includes platinum and nickel), ARM Ferrous, ARM Coal, ARM Copper, Corporate and other, ARM Exploration, and Gold. Corporate and other, ARM Exploration and Gold are included in ARM Corporate in the table below.

	ARM Platinum Rm	*ARM Ferrous Rm	ARM Coal Rm	ARM Copper Rm	ARM Corporate Rm	Total Rm	**IFRS Adjust- ment Rm	Total per IFRS  financial state- ments Rm
<b>2.1 Six months ended</b>								
<b>31 December 2016 (Unaudited)</b>								
Sales	3 678	6 088	498	305	–	10 569	(6 088)	4 481
Cost of sales	(3 065)	(3 619)	(445)	(296)	17	(7 408)	3 591	(3 817)
Other operating income	43	17	20	2	293	375	6	381
Other operating expenses	(131)	(615)	(2)	(96)	(592)	(1 436)	615	(821)
<b>Segment result</b>	<b>525</b>	<b>1 871</b>	<b>71</b>	<b>(85)</b>	<b>(282)</b>	<b>2 100</b>	<b>(1 876)</b>	<b>224</b>
Income from investments	15	386	–	–	107	508	(386)	122
Finance cost	(28)	(19)	(107)	(13)	(136)	(303)	19	(284)
Finance cost ZCCM:								
Shareholders' loan Vale/ARM joint venture	–	–	–	(19)	–	(19)	–	(19)
Finance cost ARM:								
Shareholders' loan Vale/ARM joint venture	–	–	–	(106)	106	–	–	–
Income from associate	–	–	125	–	–	125	–	125
Income from joint venture***	–	(22)	–	–	–	(22)	1 378	1 356
Special items	(2 243)	(424)	–	–	(79)	(2 746)	424	(2 322)
Taxation	495	(440)	10	(1)	10	74	441	515
<b>(Loss)/profit after tax</b>	<b>(1 236)</b>	<b>1 352</b>	<b>99</b>	<b>(224)</b>	<b>(274)</b>	<b>(283)</b>	<b>–</b>	<b>(283)</b>
Non-controlling interest	(30)	–	–	46	13	29	–	29
Consolidation adjustment	–	4	–	–	(4)	–	–	–
<b>Contribution to earnings</b>	<b>(1 266)</b>	<b>1 356</b>	<b>99</b>	<b>(178)</b>	<b>(265)</b>	<b>(254)</b>	<b>–</b>	<b>(254)</b>
<b>Contribution to headline earnings</b>	<b>179</b>	<b>1 779</b>	<b>99</b>	<b>(178)</b>	<b>(186)</b>	<b>1 693</b>	<b>–</b>	<b>1 693</b>
<b>Other information:</b>								
Segment assets including investment in associate and joint venture	7 786	18 546	3 431	1 581	4 443	35 787	(4 086)	31 701
Investment in associate	–	–	1 279	–	–	1 279	–	1 279
Investment in joint venture	–	–	–	–	–	–	14 460	14 460
Segment liabilities	1 571	1 413	1 809	1 196	2 838	8 827	(1 413)	7 414
Unallocated – Deferred taxation and taxation	–	–	–	–	–	–	–	–
<b>Consolidated total liabilities</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>4 179</b>	<b>(2 673)</b>	<b>1 506</b>
<b>Cash generated/(utilised)</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>13 006</b>	<b>(4 086)</b>	<b>8 920</b>
from operations	799	1 688	132	(57)	(48)	2 514	(1 688)	826
Cash inflow/(outflow) from operating activities	538	1 726	156	(68)	(556)	1 796	(738)	1 058
Cash (outflow)/inflow from investing activities	(347)	(550)	(102)	(36)	238	(797)	550	(247)
Cash outflow from financing activities	(35)	–	(61)	(8)	(609)	(713)	–	(713)
Capital expenditure	448	555	119	37	–	1 159	(555)	604
Amortisation and depreciation	302	454	79	65	3	903	(454)	449
Impairment loss	(2 243)	(422)	–	–	–	(2 665)	422	(2 243)
<b>EBITDA</b>	<b>827</b>	<b>2 325</b>	<b>150</b>	<b>(20)</b>	<b>(279)</b>	<b>3 003</b>	<b>(2 330)</b>	<b>673</b>

There were no significant inter-company sales.

\* Refer note 2.7 and note 4 for more detail on the ARM Ferrous segment.

\*\* Includes IFRS 11 adjustments related to ARM Ferrous.

\*\*\* Impairment included in income from joint venture R422 million after tax of nil.

# Notes to the financial statements

for the six months ended 31 December 2016

## 2. SEGMENTAL INFORMATION (continued)

	ARM Platinum Rm	*ARM Ferrous Rm	ARM Coal Rm	ARM Copper Rm	ARM Corporate Rm	Total Rm	**IFRS Adjust- ment Rm	Total per IFRS financial state- ments Rm
<b>2.2 Six months ended</b>								
<b>31 December 2015 (Unaudited)</b>								
Sales	3 620	4 546	424	288	–	8 878	(4 546)	4 332
Cost of sales	(3 281)	(3 775)	(414)	(429)	17	(7 882)	3 758	(4 124)
Other operating income	70	190	49	–	768	1 077	(152)	925
Other operating expenses	(231)	(262)	(2)	(93)	(434)	(1 022)	262	(760)
<b>Segment result</b>	178	699	57	(234)	351	1 051	(678)	373
Income from investments	17	96	2	–	68	183	(96)	87
Finance cost	(18)	(18)	(92)	(6)	(19)	(153)	18	(135)
Finance cost ZCCM: Shareholders' loan Vale/ARM joint venture	–	–	–	(18)	–	(18)	–	(18)
Finance cost ARM: Shareholders' loan Vale/ARM joint venture	–	–	–	(86)	86	–	–	–
Loss from associate	–	–	(105)	–	–	(105)	–	(105)
Income from joint venture***	–	25	–	–	–	25	542	567
Special items	(116)	(44)	–	(1 755)	16	(1 899)	44	(1 855)
Taxation	(15)	(176)	9	–	(177)	(359)	170	(189)
<b>Profit(loss) after tax</b>	46	582	(129)	(2 099)	325	(1 275)	–	(1 275)
Non-controlling interest	(138)	–	–	420	(3)	279	–	279
Consolidation adjustment	–	(15)	–	–	15	–	–	–
<b>Contribution to earnings</b>	(92)	567	(129)	(1 679)	337	(996)	–	(996)
<b>Contribution to headline earnings</b>	(9)	599	(129)	(275)	321	507	–	507
<b>Other information:</b>								
Segment assets including investment in associate and joint venture	10 387	18 197	3 322	1 889	3 762	37 557	(4 036)	33 521
Investment in associate			1 258			1 258		1 258
Investment in joint venture							14 161	14 161
Segment liabilities	1 847	1 363	1 697	1 280	2 105	8 292	(1 363)	6 929
Unallocated – Deferred taxation and taxation						4 726	(2 673)	2 053
<b>Consolidated total liabilities</b>						13 018	(4 036)	8 982
Cash generated/(utilised) from operations	279	1 060	188	(99)	105	1 533	(1 060)	473
Cash inflow/(outflow) from operating activities	72	1 031	206	(101)	(666)	542	(531)	11
Cash (outflow)/inflow from investing activities	(385)	(980)	(157)	(33)	30	(1 525)	980	(545)
Cash (outflow)/inflow from financing activities	(57)	–	(56)	43	99	29	–	29
<b>Capital expenditure</b>	442	779	105	41	1	1 368	(779)	589
Amortisation and depreciation	329	511	70	116	3	1 029	(511)	518
<b>EBITDA</b>	507	1 210	127	(118)	354	2 080	(1 189)	891

There were no significant inter-company sales.

\* Refer note 2.8 and note 4 for more detail on the ARM Ferrous segment.

\*\* Includes IFRS 11 adjustments related to ARM Ferrous.

\*\*\* Impairment included in income from joint venture R44 million before tax of R12 million.

# Notes to the financial statements

for the six months ended 31 December 2016

## 2. SEGMENTAL INFORMATION (continued)

	ARM Platinum Rm	ARM Ferrous Rm	ARM Coal Rm	ARM Copper Rm	ARM Corporate Rm	Total Rm	**IFRS Adjust- ment Rm	Total per IFRS financial state- ments Rm
<b>2.3 Year ended 30 June 2016 (Audited)</b>								
Sales	7 367	10 327	797	581	–	19 072	(10 327)	8 745
Cost of sales	(6 563)	(7 870)	(798)	(794)	37	(15 988)	7 841	(8 147)
Other operating income	33	164	70	8	970	1 245	(97)	1 148
Other operating expenses	(426)	(770)	(3)	(229)	(869)	(2 297)	770	(1 527)
<b>Segment result</b>	411	1 851	66	(434)	138	2 032	(1 813)	219
Income from investments	32	208	–	–	128	368	(208)	160
Finance cost	(48)	(31)	(188)	(26)	(77)	(370)	31	(339)
Finance cost ZCCM: Shareholders' loan Vale/ARM joint venture	–	–	–	(36)	–	(36)	–	(36)
Finance cost ARM: Shareholders' loan Vale/ARM joint venture	–	–	–	(194)	194	–	–	–
Loss from associate	–	–	(210)	–	–	(210)	–	(210)
Income from joint venture***	–	(9)	–	–	–	(9)	1 310	1 301
Special items before tax	(125)	(194)	–	(1 754)	19	(2 054)	194	(1 860)
Taxation	(85)	(497)	35	(2)	71	(478)	486	8
<b>Profit/(loss) after tax</b>	185	1 328	(297)	(2 446)	473	(757)	–	(757)
Non-controlling interest	(285)	–	–	488	(11)	192	–	192
Consolidation adjustment	–	(27)	–	–	27	–	–	–
<b>Contribution to earnings</b>	(100)	1 301	(297)	(1 958)	489	(565)	–	(565)
<b>Contribution to headline earnings</b>	(10)	1 441	(297)	(555)	472	1 051	–	1 051
<b>Other information:</b>								
Segment assets including investment in associate	10 059	18 897	3 553	1 692	5 199	39 400	(4 273)	35 127
Investment in associate	–	–	1 153	–	–	1 153	–	1 153
Investment in joint venture	–	–	–	–	–	–	14 623	14 623
Segment liabilities	2 075	1 653	1 778	1 265	3 240	10 011	(1 653)	8 358
Unallocated – Deferred taxation and taxation	–	–	–	–	–	4 773	(2 585)	2 188
Consolidated total liabilities	–	–	–	–	–	14 784	(4 238)	10 546
Cash inflow/(outflow) generated from operations	947	2 927	241	(131)	168	4 152	(2 927)	1 225
Cash inflow/(outflow) from operating activities	331	2 588	236	(154)	(1 303)	1 698	(1 088)	610
Cash (outflow)/inflow from investing activities	(553)	(1 796)	(226)	(66)	45	(2 596)	1 796	(800)
Cash outflow from financing activities	(68)	–	–	(23)	(467)	(558)	–	(558)
Capital expenditure	667	1 422	185	75	3	2 352	(1 422)	930
Amortisation and loss depreciation	614	966	143	204	5	1 932	(966)	966
Impairment loss	(122)	(202)	–	(1 755)	–	(2 079)	202	(1 877)
EBITDA	1 025	2 817	209	(230)	143	3 964	(2 779)	1 185

There were no significant inter-company sales.

\* Refer note 2.9 and note 4 for more detail on the ARM Ferrous segment.

\*\* Includes IFRS 11 adjustments related to ARM Ferrous.

\*\*\* Impairment included in income from joint venture R202 million before tax of R56 million.



# Notes to the financial statements

for the six months ended 31 December 2016

## 2. SEGMENTAL INFORMATION (continued)

The ARM platinum segment is analysed further into Nkomati, Two Rivers Platinum Proprietary Limited and ARM Mining Consortium Limited which includes 50% of the Modikwa Platinum Mine.

	Two Rivers Rm	Modikwa Rm	Nkomati Rm	ARM Platinum Rm
<b>2.4 Six months ended 31 December 2016 (Unaudited)</b>				
Sales	2 143	618	917	3 678
Cost of sales	(1 485)	(706)	(874)	(3 065)
Other operating income	8	6	29	43
Other operating expenses	(93)	(9)	(29)	(131)
<b>Segment result</b>	573	(91)	43	525
Income from investments	7	5	3	15
Finance cost	(16)	(4)	(8)	(28)
Special items	–	(1 255)	(988)	(2 243)
Taxation	(162)	390	267	495
<b>Profit/(loss) after tax</b>	402	(955)	(683)	(1 236)
Non-controlling interest	(197)	167	–	(30)
<b>Contribution to earnings</b>	205	(788)	(683)	(1 266)
<b>Contribution to headline earnings</b>	205	(54)	28	179
<b>Other information:</b>				
Segment assets	4 095	1 961	1 730	7 786
Segment liabilities	847	332	392	1 571
Cash inflow from operating activities	246	29	263	538
Cash outflow from investing activities	(77)	(80)	(190)	(347)
Cash outflow from financing activities	(24)	–	(11)	(35)
Capital expenditure	175	80	193	448
Amortisation and loss depreciation	128	55	119	302
Impairment loss	–	(1 255)	(988)	(2 243)
EBITDA	701	(36)	162	827
<b>2.5 Six months ended 31 December 2015 (Unaudited)</b>				
Sales	1 865	588	1 167	3 620
Cost of sales	(1 351)	(657)	(1 273)	(3 281)
Other operating income	9	9	52	70
Other operating expenses	(100)	(22)	(109)	(231)
<b>Segment result</b>	423	(82)	(163)	178
Income from investments	6	4	7	17
Finance cost	(10)	(2)	(6)	(18)
Special items	–	–	(116)	(116)
Taxation	(116)	23	78	(15)
<b>Profit/(loss) after tax</b>	303	(57)	(200)	46
Non-controlling interest	(148)	10	–	(138)
<b>Contribution to earnings</b>	155	(47)	(200)	(92)
<b>Contribution to headline earnings</b>	155	(47)	(117)	(9)
<b>Other information:</b>				
Segment assets	4 145	3 206	3 036	10 387
Segment liabilities	858	354	635	1 847
Cash inflow/(outflow) from operating activities	206	(127)	(7)	72
Cash outflow from investing activities	(124)	(98)	(163)	(385)
Cash outflow from financing activities	(44)	–	(13)	(57)
Capital expenditure	180	98	164	442
Amortisation and depreciation	139	62	128	329
EBITDA	562	(20)	(35)	507

## Notes to the financial statements

for the six months ended 31 December 2016

### 2. SEGMENTAL INFORMATION (continued)

	Two Rivers Rm	Modikwa Rm	Nkomati Rm	ARM Platinum Rm
<b>2.6 For the year ended 30 June 2016 (Audited)</b>				
Sales	3 917	1 205	2 245	<b>7 367</b>
Cost of sales	(2 830)	(1 323)	(2 410)	<b>(6 563)</b>
Other operating income	16	13	4	<b>33</b>
Other operating expenses	(211)	(44)	(171)	<b>(426)</b>
<b>Segment result</b>	<b>892</b>	<b>(149)</b>	<b>(332)</b>	<b>411</b>
Income from investments	14	8	10	<b>32</b>
Finance cost	(31)	(4)	(13)	<b>(48)</b>
Special items	–	(6)	(119)	<b>(125)</b>
Taxation	(254)	45	124	<b>(85)</b>
<b>Profit/(loss) after tax</b>	<b>621</b>	<b>(106)</b>	<b>(330)</b>	<b>185</b>
Non-controlling interest	(303)	18	–	<b>(285)</b>
<b>Contribution to earnings</b>	<b>318</b>	<b>(88)</b>	<b>(330)</b>	<b>(100)</b>
<b>Contribution to headline earnings</b>	<b>318</b>	<b>(84)</b>	<b>(244)</b>	<b>(10)</b>
<b>Other information:</b>				
Segment assets	4 090	3 235	2 734	<b>10 059</b>
Segment liabilities	1 016	376	683	<b>2 075</b>
Cash inflow/(outflow) generated from operations	1 109	(156)	(6)	<b>947</b>
Cash inflow/(outflow) from operating activities	482	(150)	(1)	<b>331</b>
Cash outflow from investing activities	(175)	(137)	(241)	<b>(553)</b>
Cash outflow from financing activities	(51)	–	(17)	<b>(68)</b>
Capital expenditure	282	141	244	<b>667</b>
Amortisation and depreciation	279	108	227	<b>614</b>
Impairment loss	–	–	(122)	<b>(122)</b>
EBITDA	1 171	(41)	(105)	<b>1 025</b>

# Notes to the financial statements

for the six months ended 31 December 2016

## 2. SEGMENTAL INFORMATION (continued)

Analysis of the ARM Ferrous segment on a 100% basis.

	Iron ore division Rm	Manga- nese division Rm	Continued operation Chrome division Rm	Continued operation ARM Ferrous Total Rm	Discon- tinued operation Chrome division Rm	ARM Ferrous Total Rm	ARM share Rm	*IFRS Adjust- ment Rm	Total per IFRS financial state- ments Rm
<b>2.7 Six months ended 31 December 2016 (Unaudited)</b>									
Sales	7 572	4 510	95	12 177	—	12 177	6 088	(6 088)	—
Other operating income	207	62	2	271	—	271	17	(17)	—
Other operating expenses	(787)	(661)	(13)	(1 461)	(4)	(1 465)	(615)	615	—
Operating profit/(loss)	2 623	1 135	(10)	3 748	(4)	3 744	1 871	(1 871)	—
Contribution to earnings and total comprehensive income	2 044	757	(8)	2 793	(88)	2 705	1 352	4	1 356
Contribution to headline earnings	2 049	756	(8)	2 797	756	3 553	1 775	4	1 779
<b>Other information:</b>									
Segment assets	26 062	11 849	278	38 189	—	38 189	18 546	(4 086)	14 460
Segment liabilities	5 864	2 401	215	8 480	—	8 480	1 413	(1 413)	—
Cash inflow from operating activities	897**	580	—	1 477	—	1 477	1 726	(1 726)	—
Cash outflow from investing activities	(373)	(726)	—	(1 099)	—	(1 099)	(550)	550	—
Capital expenditure	368	786	—	1 154	—	1 154	555	(555)	—
Amortisation and depreciation	741	223	—	964	—	964	454	(454)	—
EBITDA	3 364	1 358	(10)	4 712	(4)	4 708	2 325	(2 325)	—
<b>Additional information for ARM Ferrous at 100%</b>									
<b>Non-current assets</b>									
Property, plant and equipment						21 161		(21 161)	—
Investment in joint venture						2 551		(2 551)	—
Other non-current assets						897		(897)	—
<b>Current assets</b>									
Inventories						3 356		(3 356)	—
Trade and other receivables						4 964		(4 964)	—
Financial asset						84		(84)	—
Cash and cash equivalents						5 176		(5 176)	—
<b>Non-current liabilities</b>									
Other non-current liabilities						6 355		(6 355)	—
<b>Current liabilities</b>									
Trade and other payables						1 332		(1 332)	—
Short-term provisions						499		(499)	—
Taxation						292		(292)	—

Refer note 2.1 and note 4 for more detail on the ARM Ferrous segment.

\* Includes consolidation and IFRS 11 adjustments.

\*\* Dividend paid amounting to R1.975 billion included in cash flows from operating activities.

# Notes to the financial statements

for the six months ended 31 December 2016

## 2. SEGMENTAL INFORMATION (continued)

	Iron ore division Rm	Manga- nese division Rm	Continued operation Chrome division Rm	Continued operation <b>ARM Ferrous Total</b> Rm	Discon- tinued operation Chrome division Rm	<b>ARM Ferrous Total</b> Rm	<b>ARM share Rm</b>	*IFRS Adjust- ment Rm	Total per IFRS financial state- ments Rm
<b>2.8 Six months ended 31 December 2015 (Unaudited)</b>									
Sales	5 126	3 016	61	<b>8 203</b>	890	<b>9 093</b>	<b>4 546</b>	(4 546)	—
Other operating income	230	227	6	<b>463</b>	9	<b>472</b>	<b>190</b>	(190)	—
Other operating expenses	(324)	(201)	(11)	<b>(536)</b>	(80)	<b>(616)</b>	<b>(262)</b>	262	—
Operating profit	1 068	202	23	<b>1 293</b>	106	<b>1 399</b>	<b>699</b>	(699)	—
Contribution to earnings and total comprehensive income	956	130	4	<b>1 090</b>	74	<b>1 164</b>	<b>582</b>	(15)	<b>567</b>
Contribution to headline earnings	957	193	4	<b>1 154</b>	74	<b>1 228</b>	<b>614</b>	(15)	<b>599</b>
<b>Other information:</b>									
Segment assets	25 001	10 926	357	<b>36 284</b>	1 184	<b>37 468</b>	<b>18 197</b>	(4 036)	<b>14 161</b>
Segment liabilities	5 605	2 077	215	<b>7 897</b>	477	<b>8 374</b>	<b>1 363</b>	(1 363)	—
Cash inflow from operating activities	809**	118	—	<b>927</b>	136	<b>1 063</b>	<b>1 031</b>	(1 031)	—
Cash outflow from investing activities	(586)	(1 308)	—	<b>(1 894)</b>	(66)	<b>(1 960)</b>	<b>(980)</b>	980	—
Capital expenditure	518	1 049	—	<b>1 567</b>	66	<b>1 633</b>	<b>779</b>	(779)	—
Amortisation and depreciation	779	224	—	<b>1 003</b>	52	<b>1 055</b>	<b>511</b>	(511)	—
EBITDA	1 847	426	23	<b>2 296</b>	158	<b>2 454</b>	<b>1 210</b>	(1 210)	—
<b>Additional information for ARM Ferrous at 100%</b>									
<b>Non-current assets</b>									
Property, plant and equipment						<b>21 057</b>		(21 057)	—
Investment in joint venture						<b>2 625</b>		(2 625)	—
Other non-current assets						<b>905</b>		(905)	—
<b>Current assets</b>									
Inventories						<b>4 422</b>		(4 422)	—
Trade and other receivables						<b>2 738</b>		(2 738)	—
Financial asset						<b>79</b>		(79)	—
Cash and cash equivalents						<b>4 071</b>		(4 071)	—
Asset held for sale						<b>1 571</b>		(1 571)	—
<b>Non-current liabilities</b>									
Other non-current liabilities						<b>6 107</b>		(6 107)	—
<b>Current liabilities</b>									
Trade and other payables						<b>1 070</b>		(1 070)	—
Short-term provisions						<b>470</b>		(470)	—
Taxation						<b>129</b>		(129)	—
Liabilities directly associated with asset held for sale						<b>598</b>		(598)	—

Refer note 2.2 and note 4 for more detail on the ARM Ferrous segment.

\* Includes consolidation and IFRS 11 adjustments.

\*\* Dividend paid amounting to R1 billion included in cash flows from operating activities.

# Notes to the financial statements

for the six months ended 31 December 2016

## 2. SEGMENTAL INFORMATION (continued)

	Iron ore division Rm	Manga- nese division Rm	Continued operation Chrome division Rm	Continued operation <b>ARM Ferrous Total</b> Rm	Discon- tinued operation Chrome division Rm	<b>ARM Ferrous Total</b> Rm	<b>ARM share</b> Rm	*IFRS Adjust- ment Rm	Total per IFRS financial state- ments Rm
<b>2.9 For the year ended 30 June 2016 (Audited)</b>									
Sales	12 110	6 651	166	<b>18 927</b>	1 727	<b>20 654</b>	<b>10 327</b>	(10 327)	–
Other operating income	501	242	34	<b>777</b>	6	<b>783</b>	<b>164</b>	(164)	–
Other operating expenses	(1 196)	(571)	(9)	<b>(1 776)</b>	(218)	<b>(1 994)</b>	<b>(770)</b>	770	–
Operating profit	2 961	581	11	<b>3 553</b>	149	<b>3 702</b>	<b>1 851</b>	(1 851)	–
Contribution to earnings and total comprehensive income	2 440	104	8	<b>2 552</b>	103	<b>2 655</b>	<b>1 328</b>	(27)	<b>1 301</b>
Contribution to headline earnings	2 429	396	8	<b>2 833</b>	103	<b>2 936</b>	<b>1 468</b>	(27)	<b>1 441</b>
<b>Other information:</b>									
Segment assets	25 982	11 251	301	<b>37 534</b>	1 367	<b>38 901</b>	<b>18 897</b>	(4 274)	<b>14 623</b>
Segment liabilities	5 853	2 153	223	<b>8 229</b>	631	<b>8 860</b>	<b>1 653</b>	(1 653)	–
Cash inflow from operating activities	2 110**	1 181	–	<b>3 291</b>	134	<b>3 425</b>	<b>2 588</b>	(2 588)	–
Cash outflow from investing activities	(934)	(2 509)	–	<b>(3 443)</b>	(150)	<b>(3 593)</b>	<b>(1 796)</b>	1 796	–
Capital expenditure	901	1 928	–	<b>2 829</b>	149	<b>2 978</b>	<b>1 422</b>	(1 422)	–
Amortisation and depreciation	1 517	472	–	<b>1 989</b>	–	<b>1 989</b>	<b>966</b>	(966)	–
EBITDA	4 478	1 053	11	<b>5 542</b>	149	<b>5 691</b>	<b>2 817</b>	(2 817)	–
<b>Additional information for ARM Ferrous at 100%</b>									
<b>Non-current assets</b>									
Property, plant and equipment						<b>20 982</b>		(20 982)	–
Investment in joint venture						<b>3 036</b>		(3 036)	–
Other non-current assets						<b>901</b>		(901)	–
<b>Current assets</b>									
Inventories						<b>3 713</b>		(3 713)	–
Trade and other receivables						<b>3 558</b>		(3 558)	–
Financial asset						<b>72</b>		(72)	–
Cash and cash equivalents						<b>4 798</b>		(4 798)	–
Asset held for sale						<b>1 842</b>		(1 842)	–
<b>Non-current liabilities</b>									
Other non-current liabilities						<b>5 997</b>		(5 997)	–
<b>Current liabilities</b>									
Trade and other payables						<b>1 321</b>		(1 321)	–
Short-term provisions						<b>698</b>		(698)	–
Taxation						<b>213</b>		(213)	–
Liabilities directly associated with asset held for sale						<b>630</b>		(630)	–

Refer note 2.3 and note 4 for more detail on the ARM Ferrous segment.

\* Includes consolidation and IFRS 11 adjustments.

\*\* Dividend paid amounting to R1.75 billion included in cash flows from operating activities.

## Notes to the financial statements

for the six months ended 31 December 2016

### 2. SEGMENTAL INFORMATION (continued)

ARM Corporate as presented in the table on page 36 is analysed further into the ARM Exploration, Corporate and other, and Gold segments.

Primary segmental information	ARM Exploration Rm	Corporate* and other Rm	Gold Rm	Total ARM Corporate Rm
<b>2.10 Six months ended 31 December 2016 (Unaudited)</b>				
Cost of sales	–	17	–	17
Other operating income	–	293	–	293
Other operating expenses	(12)	(580)	–	(592)
<b>Segment result</b>	(12)	(270)	–	(282)
Income from investments	–	75	32	107
Finance cost	–	(30)	–	(30)
Special items	–	(79)	–	(79)
Taxation	–	10	–	10
<b>(Loss)/profit after tax</b>	(12)	(294)	32	(274)
Non-controlling interest	–	13	–	13
Consolidation adjustment	–	(4)	–	(4)
<b>Contribution to earnings</b>	(12)	(285)	32	(265)
<b>Contribution to headline earnings</b>	(12)	(206)	32	(186)
<b>Other information:</b>				
Segment assets	–	2 437	2 006	4 443
Segment liabilities	–	2 838	–	2 838
Cash utilised from operations	(12)	(36)	–	(48)
Cash (outflow)/inflow from operating activities	(12)	(576)	32	(556)
Cash inflow from investing activities	–	238	–	238
Cash inflow from financing activities	–	(609)	–	(609)
Amortisation and depreciation	–	3	–	3
EBITDA	(12)	(267)	–	(279)

\* Corporate, other companies and consolidation adjustments.

# Notes to the financial statements

for the six months ended 31 December 2016

## 2. SEGMENTAL INFORMATION (continued)

ARM Corporate as presented in the table on page 37 is analysed further into the ARM Exploration, Corporate and other, and Gold segments.

	ARM Exploration Rm	Corporate* and other Rm	Gold Rm	Total ARM Corporate Rm
<b>2.11 Six months ended 31 December 2015 (Unaudited)</b>				
Cost of sales	–	17	–	17
Other operating income	–	768	–	768
Other operating expenses	(10)	(424)	–	(434)
<b>Segment result</b>	<b>(10)</b>	<b>361</b>	<b>–</b>	<b>351</b>
Income from investments	–	68	–	68
Finance cost	–	67	–	67
Special items	–	16	–	16
Taxation	–	(177)	–	(177)
<b>(Loss)/profit after tax</b>	<b>(10)</b>	<b>335</b>	<b>–</b>	<b>325</b>
Non-controlling interest	–	(3)	–	(3)
Consolidation adjustment	–	15	–	15
<b>Contribution to earnings</b>	<b>(10)</b>	<b>347</b>	<b>–</b>	<b>337</b>
<b>Contribution to headline earnings</b>	<b>(10)</b>	<b>331</b>	<b>–</b>	<b>321</b>
<b>Other information:</b>				
Segment assets	–	2 769	993	3 762
Segment liabilities	–	2 105	–	2 105
Cash (utilised)/generated from operations	(10)	115	–	105
Cash outflow from operating activities	(10)	(656)	–	(666)
Cash inflow from investing activities	–	30	–	30
Cash inflow from financing activities	–	99	–	99
Capital expenditure	–	1	–	1
Amortisation and depreciation	–	3	–	3
EBITDA	(10)	364	–	354

\* Corporate, other companies and consolidation adjustments.

## Notes to the financial statements

for the six months ended 31 December 2016

### 2. SEGMENTAL INFORMATION (continued),

ARM Corporate as presented in the table on page 38 is analysed further into the ARM Exploration, Corporate and other, and Gold segments.

	ARM Exploration Rm	Corporate* and other Rm	Gold Rm	Total ARM Corporate Rm
<b>2.12 Year ended 30 June 2016 (Audited)</b>				
Cost of sales	–	37	–	37
Other operating income	–	970	–	970
Other operating expenses	(23)	(846)	–	(869)
<b>Segment result</b>	<b>(23)</b>	<b>161</b>	<b>–</b>	<b>138</b>
Income from investments	–	128	–	128
Finance cost	–	117	–	117
Special items	–	19	–	19
Taxation	–	71	–	71
<b>(Loss)/profit after tax</b>	<b>(23)</b>	<b>496</b>	<b>–</b>	<b>473</b>
Non-controlling interest	–	(11)	–	(11)
Consolidation adjustment	–	27	–	27
<b>Contribution to earnings</b>	<b>(23)</b>	<b>512</b>	<b>–</b>	<b>489</b>
<b>Contribution to headline earnings</b>	<b>(23)</b>	<b>495</b>	<b>–</b>	<b>472</b>
<b>Other information:</b>				
Segment assets	–	1 860	3 339	5 199
Segment liabilities	–	3 240	–	3 240
Cash outflow from operating activities	(23)	(1 280)	–	(1 303)
Cash inflow from investing activities	–	45	–	45
Cash outflow from financing activities	–	(467)	–	(467)
Capital expenditure	–	3	–	3
Amortisation and depreciation	–	5	–	5
EBITDA	(23)	166	–	143

\* Corporate, other companies and consolidation adjustments.



# Notes to the financial statements

for the six months ended 31 December 2016

## 3. PROPERTY, PLANT AND EQUIPMENT

### 3.1 Nkomati Nickel Mine

At 31 December 2016, an impairment loss of the Nkomati Nickel Mine cash generating unit was recognised, largely as a result of:

- (i) A revision of the mine plan with a resultant lower metal output profile.
- (ii) A significant decline from the prior year forecast long-term price of nickel and a further strengthening of the Rand/US\$ exchange rate.

ARM's attributable share of the impairment charge amounted to R988 million before tax and R711 million after tax.

The recoverable amount of the cash generating unit was determined based on the value-in-use calculation performed in terms of International Financial Reporting Standards.

A pre-tax discount rate of 20.72% was used for the impairment calculation together with the following metal prices and exchange rate assumptions.

	2H F2017 Nominal	F2018 Nominal	F2019 Nominal	F2020 Nominal	Long-term Real
Nickel – US\$/tonne	11 053	11 561	12 606	14 029	16 475
Platinum – US\$/ounce	986	1 073	1 171	1 247	1 270
Palladium – US\$/ounce	712	751	805	825	790
Gold – US\$/ounce	1 221	1 260	1 295	1 307	1 194
Copper – US\$/tonne	5 356	5 362	5 555	5 803	5 975
Cobalt – US\$/lb	14.00	13.89	13.51	13.58	11.86
Chrome concentrate – US\$/tonne	235	180	160	165	175
Exchange rate – R/US\$	13.84	14.24	14.22	14.30	14.00

### 3.2 Modikwa Platinum Mine

At 31 December 2016, an impairment loss of the Modikwa Platinum Mine cash generating unit attributable to ARM, was recognised largely as a result of:

- (i) Lower forecast PGM output over the short- to medium-term;
- (ii) Higher forecast unit cost of production;
- (iii) A reduction in the forecast long-term platinum price and a further strengthening of the Rand/US\$ exchange rate.

ARM's attributable share of the impairment amounted to R1 255 million before tax, R890 million after tax and R734 million after non-controlling interest and tax.

The recoverable amount of the cash generating unit was determined based on the value-in-use calculation performed in terms of International Financial Reporting Standards.

A pre-tax discount rate of 18.72% was used for the impairment calculation together with the following metal prices and exchange rate assumptions.

	2H F2017 Nominal	F2018 Nominal	F2019 Nominal	F2020 Nominal	Long-term Real
Platinum – US\$/ounce	986	1 073	1 171	1 247	1 270
Palladium – US\$/ounce	712	751	805	825	790
Rhodium – US\$/ounce	845	800	800	850	850
Gold – US\$/ounce	1 221	1 260	1 295	1 307	1 194
Iridium – US\$/ounce	500	500	500	500	500
Ruthenium – US\$/ounce	40	40	50	50	55
Nickel – US\$/tonne	11 053	11 561	12 606	14 029	16 475
Copper – US\$/tonne	5 356	5 362	5 555	5 803	5 975
Cobalt – US\$/lb	14.00	13.89	13.51	13.58	11.86
Exchange rate – R/US\$	13.84	14.24	14.22	14.30	14.00

# Notes to the financial statements

for the six months ended 31 December 2016

## 3. PROPERTY, PLANT AND EQUIPMENT (continued)

### 3.3 Lubambe Copper Mine

At 31 December 2015 an impairment of Lubambe Copper Mine assets was recognised largely as a result of:

- (i) A decline in the forecast of the short to medium-term copper price;
- (ii) A revision to the mine plan, and
- (iii) An increase in the discount rate used in the valuation of the mine.

ARM's attributable share after tax of the impairment amounted to R1 404 million. For the impairment calculation a pre-tax discounted rate of 24.43% and the following real term copper prices were used.

	2H F2016	F2017	F2018	F2019	Long-term
US\$/tonne	4 569	4 615	4 939	5 427	6 369

	Unaudited Six months ended 31 December	Audited Year ended 30 June
	2016 Rm	2015 Rm

## 4. INVESTMENT IN JOINT VENTURE

This investment relates to ARM Ferrous and comprises Assmang as a joint venture which includes iron ore, manganese and chrome operations. The chrome operation was sold effective 1 July 2016.

Opening balance	14 623	14 094	14 094
Net income for the period	1 356	567	1 301
Income for the period	1 352	582	1 328
Consolidation adjustments	4	(15)	(27)
Foreign currency translation reserve	(215)	–	103
Less: Dividends received for the period	(1 304)	(500)	(875)
In specie dividend	(316)	–	–
Cash dividend	(988)	(500)	(875)
Closing balance	14 460	14 161	14 623

Refer to notes 2.1, 2.2, 2.3, 2.7, 2.8 and 2.9 for further detail relating to the ARM Ferrous segment.

## 5. CASH AND CASH EQUIVALENTS

– African Rainbow Minerals Limited	103	234	129
– ARM BBEE Trust	2	–	2
– ARM Coal Proprietary Limited	–	–	1
– ARM Finance Company SA	10	22	12
– ARM Platinum Proprietary Limited	34	24	32
– ARM Treasury Investments Proprietary Limited	35	69	35
– Nkomati	37	14	–
– Two Rivers Platinum Proprietary Limited	10	21	12
– Vale/ARM joint venture	21	26	27
– Venture Building Trust Proprietary Limited	5	6	2
– Restricted cash*	1 078	1 028	1 064
Total as per statement of financial position	1 335	1 444	1 316
Less overdrafts (refer note 7)	559	522	649
Total as per statement of cash flows	776	922	667

\* Includes amounts relating to an insurance captive cell (R728 million; 1H 2016: R702 million; F2016: R722 million). The remaining amount relates largely to rehabilitation trust funds at respective operations.

# Notes to the financial statements

for the six months ended 31 December 2016

	Unaudited Six months ended 31 December		Audited Year ended 30 June
	2016 Rm	2015 Rm	2016 Rm
<b>6. RESTRUCTURING OF THE ARM BBEE TRUST</b>			
Following the restructuring of the ARM BBEE Trust on 22 April 2016, the ARM BBEE Trust is consolidated into the ARM consolidated financial results, as ARM now controls the Trust for reporting purposes. The consolidation of the ARM BBEE Trust results in ARM shares bought back by Opilac Proprietary Limited a wholly-owned subsidiary of ARM, and the remaining shares owned by the Trust, reducing the number of shares used in the calculation of headline, basic and diluted earnings per share. The number of shares in issue are however not affected. The treasury shares are excluded, effectively from 22 April 2016, in the weighted average and diluted average number of shares.			
The carrying value of the treasury shares are as follows:			
12 717 328 shares at R51.19 bought from the ARM BBEE Trust by Opilac Proprietary Limited	651		651
15 897 412 shares at R110.31 held in the ARM BBEE Trust	1 754		1 754
	<b>2 405</b>		<b>2 405</b>
<b>7. BORROWINGS</b>			
<b>Long-term borrowings are held as follows:</b>			
– African Rainbow Minerals Limited	1 025	300	1 400
– ARM BBEE Trust	500	–	501
– ARM Coal Proprietary Limited (partner loan)	1 358	1 364	1 423
– ARM Finance Company SA	–	309	88
– Nkomati	15	29	23
– Two Rivers Platinum Proprietary Limited	43	33	24
– Vale/ARM joint operation	8	20	16
– Vale/ARM joint operation (partner loan)	669	712	696
	<b>3 618</b>	<b>2 767</b>	<b>4 171</b>
<b>Short-term borrowings are held as follows:</b>			
– African Rainbow Minerals Limited	–	1	–
– Anglo Platinum Limited (partner loan)	114	114	114
– ARM Coal Proprietary Limited (partner loan)	206	108	123
– ARM Finance Company SA	274	448	426
– Nkomati	9	13	12
– Two Rivers Platinum Proprietary Limited	48	48	39
– Vale/ARM joint operation	15	103	17
	<b>666</b>	<b>835</b>	<b>731</b>
<b>Overdrafts are held as follows:</b>			
– African Rainbow Minerals Limited	1	1	3
– ARM Mining Consortium Limited	31	37	29
– Nkomati	–	–	24
– Two Rivers Platinum Proprietary Limited	301	311	354
– Vale/ARM joint operation	205	153	219
– Other	21	20	20
	<b>559</b>	<b>522</b>	<b>649</b>
<b>Overdrafts and short-term borrowings</b>	<b>1 225</b>	<b>1 357</b>	<b>1 380</b>
<b>Total borrowings</b>	<b>4 843</b>	<b>4 124</b>	<b>5 551</b>

## Notes to the financial statements

for the six months ended 31 December 2016

	Unaudited Six months ended 31 December		Audited Year ended 30 June
	2016 Rm	2015 Rm	2016 Rm
<b>8. SPECIAL ITEMS</b>			
Impairment loss of property, plant and equipment – Nkomati	(988)	(116)	(122)
Impairment loss of property, plant and equipment – Lubambe	–	(1 755)	(1 755)
Impairment loss of property, plant and equipment – Modikwa	(1 255)	–	–
Loss on disposal of investment	(79)	–	–
Profit on sale of subsidiary	–	–	4
Profit on sale of property, plant and equipment	–	16	13
<b>Special items per income statement before taxation effect</b>	<b>(2 322)</b>	<b>(1 855)</b>	<b>(1 860)</b>
Impairment loss of property, plant and equipment accounted for directly in joint venture – Assmang	–	(44)	(202)
Impairment loss of investment accounted for directly in joint venture – Assmang	(422)	–	–
(Loss)/profit on sale of property, plant and equipment accounted for directly in joint venture – Assmang	(2)	–	8
<b>Special items before taxation effect</b>	<b>(2 746)</b>	<b>(1 899)</b>	<b>(2 054)</b>
Taxation accounted for in joint venture – impairment loss in Assmang	–	12	56
Taxation – impairment loss of Modikwa assets	365	–	–
Taxation – impairment loss of Nkomati assets	277	33	33
Taxation accounted for in joint venture – loss/(profit) on sale of property, plant and equipment	1	–	(2)
<b>Special items after taxation effect</b>	<b>(2 103)</b>	<b>(1 854)</b>	<b>(1 967)</b>
Non-controlling interest – Lubambe impairment loss	–	351	351
Non-controlling interest – Modikwa impairment loss	156	–	–
<b>Total amount adjusted for headline earnings</b>	<b>(1 947)</b>	<b>(1 503)</b>	<b>(1 616)</b>
<b>9. HEADLINE EARNINGS</b>			
Basic loss attributable to equity holders of ARM	(254)	(996)	(565)
Impairment loss of property, plant and equipment – Lubambe	–	1 755	1 755
Impairment loss of property, plant and equipment – Modikwa	1 255	–	–
Impairment loss of property, plant and equipment – Nkomati	988	116	122
Impairment loss of property, plant and equipment in joint venture – Assmang	–	44	202
Impairment loss of investment – Assmang	422	–	–
Loss on disposal of investment	79	–	–
Loss/(profit) on sale of property, plant and equipment in joint venture – Assmang	2	–	(8)
Profit on sale of property, plant and equipment	–	(16)	(13)
Profit on sale of subsidiary	–	–	(4)
	<b>2 492</b>	<b>903</b>	<b>1 489</b>
Taxation accounted for directly in associate and joint venture	(1)	(12)	(54)
Taxation – impairment loss of Modikwa assets	(365)	–	–
Taxation – impairment loss of Nkomati assets	(277)	(33)	(33)
	<b>1 849</b>	<b>858</b>	<b>1 402</b>
Non-controlling interest – Lubambe impairment loss	–	(351)	(351)
Non-controlling interest – Modikwa impairment loss	(156)	–	–
<b>Headline earnings</b>	<b>1 693</b>	<b>507</b>	<b>1 051</b>

# Notes to the financial statements

for the six months ended 31 December 2016

	Unaudited Six months ended 31 December		Audited Year ended 30 June
	2016 Rm	2015 Rm	2016 Rm
<b>10. TAXATION</b>			
South African normal tax – current year	171	99	290
– mining	118	77	243
– non-mining	53	22	47
– prior year	(6)	–	1
Deferred tax – current year	(680)	90	(303)
Foreign taxes	–	–	4
	(515)	189	(8)
<b>11. CASH GENERATED FROM OPERATIONS</b>			
Cash generated from operations before working capital movement	1 272	729	1 305
Working capital changes	(446)	(256)	(80)
Movement in inventories	(10)	43	118
Movement in payables and provisions	(741)	(197)	(338)
Movement in receivables	305	(102)	140
Cash generated from operations (per statement of cash flows)	826	473	1 225
<b>12. DWARSRIEVER CHROME MINE DISPOSAL</b>			
For accounting purposes, the disposal of the Dwarsrivier Chrome Mine was effective on 1 July 2016. The accounting result for ARM of this disposal was as follows:			
(i) The attributable equity loss realised in Assmang amounted to R44 million which includes an impairment of R422 million before tax (Tax nil).			
(ii) Attributable contribution to headline earnings amounting to R378 million.			
(iii) Cash dividend received from Assmang amounting to R238 million and an <i>in specie</i> dividend of R316 million.			
(iv) Proceeds of R238 million received from Assore by ARM on the sale of its investment in Dwarsrivier Chrome Mine resulting in a loss amounting to R79 million before tax (Tax nil).			
<b>13. COMMITMENTS AND CONTINGENT LIABILITIES</b>			
Commitments in respect of future capital expenditure which will be funded from operating cash flows and by utilising debt facilities at entity and corporate levels, are summarised below:			
Approved by directors			
– contracted for	105	111	118
– not contracted for	2	2	67
Total commitments	107	113	185
There have been no significant changes in the contingent liabilities of the Group as disclosed since 30 June 2016 integrated annual report.			
For a detailed disclosure on contingent liabilities, refer to ARM's integrated annual report for the year ended 30 June 2016 available on the group's website ( <a href="http://www.arm.co.za">www.arm.co.za</a> ).			
<b>14. EVENTS AFTER REPORTING DATE</b>			
Since the period end ARM received a dividend of R1.5 billion from Assmang and repaid the corporate facility borrowings partly utilising this dividend received. No other significant events have occurred subsequent to the reporting date that could materially affect the reported results.			

## NOTES

## NOTES

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## NOTES



## Contact details and administration

### African Rainbow Minerals Limited

Incorporated in the Republic of South Africa  
Registration number 1933/004580/06  
ISIN code: ZAE000054045

### Registered office

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South Africa

Telephone: +27 11 779 1300  
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Website: <http://www.arm.co.za>

### Transfer secretaries

Computershare Investor Services  
Proprietary Limited  
Rosebank Towers  
15 Biermann Avenue  
Rosebank, 2196  
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Telephone: +27 11 370 5000  
Telefax: +27 11 688 5222  
E-mail: [web.queries@computershare.co.za](mailto:web.queries@computershare.co.za)  
Website: <http://www.computershare.co.za>

### Sponsor

Deutsche Securities (SA) Proprietary Limited

## Forward-looking statements

Certain statements in this report constitute forward-looking statements that are neither reported financial results nor other historical information. They include but are not limited to statements that are predictions of or indicate future earnings, savings, synergies, events, trends, plans or objectives. Such forward-looking statements may or may not take into account and may or may not be affected by known and unknown risks, uncertainties and other important factors that could cause the actual results, performance or achievements of the Company to be materially different from the future results, performance or achievements expressed or implied by such forward-looking statements. Such risks, uncertainties and other important factors include among others: economic, business and political conditions in South Africa; decreases in the market price of commodities; hazards associated with underground and surface mining; labour disruptions; changes in government regulations, particularly environmental regulations; changes in exchange rates; currency devaluations; inflation and other macro-economic factors; and the impact of the HIV and Aids epidemic in South Africa. These forward-looking statements speak only as of the date of publication of these pages. The Company undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after the date of publication of these pages or to reflect the occurrence of unanticipated events.

### Directors

P T Motsepe (Executive Chairman)  
M P Schmidt (Chief Executive Officer)  
F Abbott\*  
M Arnold  
Dr M M M Bakane-Tuoane\*  
T A Boardman\*  
A D Botha\*  
J A Chissano (Mozambican)\*

W M Gule\*  
A K Maditsi\*  
H L Mkatshana  
J P Möller\*  
Dr R V Simelane\*  
Z B Swanepoel\*  
A J Wilkens

\* Independent Non-executive

