Sakura Ferroalloys, Malaysia

In this section:

Reviews and reports

Mineral Resources and Reserves summary

The summaries below reflect the Measured and Indicated Resources and the corresponding Proved and Probable Reserves for each mine or project. The complete Mineral Resources and Reserves report is located on the group's website under "Annual reports" in the "Investor centre". The Mineral Resources are inclusive of those modified to produce Mineral Reserves.

Joint-venture entity – Assmang, as at 30 June 2016

	Mineral Resources						Mineral Reserves					
	Measured		Indicated		Measured and Indicated		Proved		Probable		Proved and Probable	
Iron Ore	Mt	Fe%	Mt	Fe%	Mt	Fe%	Mt	Fe%	Mt	Fe%	Mt	Fe%
Beeshoek Mine												
All pits	98,08	64,09	9,63	63,81	107,71	64,06	42,94	64,74	3,85	63,95	46,79	64,67
Stockpiles									6,06	55,15	6,06	55,15
Khumani Mine												
Bruce	110,74	64,47	81,97	64,42	192,71	64,45	83,94	64,44	73,96	64,47	157,90	64,46
King	284,04	64,24	94,39	64,16	378,43	64,22	259,02	64,32	9,09	65,19	268,11	64,35
Stockpiles									4,45	60,00	4,45	60,00

	Mineral Resources						Mineral Reserves					
	Measured		Indicated		Measured and Indicated		Proved		Probable		Proved and Probable	
Manganese	Mt	Mn%	Mt	Mn%	Mt	Mn%	Mt	Mn%	Mt	Mn%	Mt	Mn%
Nchwaning Mine												
Seam 1	57,78	45,2	72,11	41,7	129,89	43,3	44,10	45,2	52,90	41,8	97,00	43,3
Seam 2	65,01	42,6	114,77	42,2	179,78	42,3	47,80	41,6	76,20	41,5	124,00	41,5
Black Rock (Koppie Area)												
Seam 1	9,03	40,3	34,57	40,7	43,60	40,6						
Seam 2	8,23	37,4	18,58	39,2	26,81	38,6						
Gloria Mine												
Seam 1	51,40	37,5	97,85	37,3	149,25	37,4	42,60	36,3	79,60	36,0	122,20	36,1
Seam 2			32,04	28,3	32,04	28,3						

	Mineral Resources						Mineral Reserves					
	Measured		Indicated		Measured and Indicated		Proved		Probable		Proved and Probable	
Chromite	Mt	Cr_2O_3%	Mt	Cr_2O_3%	Mt	Cr_2O_3%	Mt	Cr_2O_3%	Mt	Cr_2O_3%	Mt	Cr_2O_3%
Dwarsrivier Mine*												
LG6 Chromitite Seam	28,38	37,56	40,66	38,41	69,04	38,06	18,01	32,81	30,33	33,23	48,34	33,07

** With effect from 1 July 2016, Assore owns 100% of Dwarsrivier Chrome Mine (refer note 36 to the consolidated financial statements).*

Subsidiary companies, as at 30 June 2016

	Mineral Resources					Mineral Reserves		
	Mineral	Measured Mt	Indicated Mt	Inferred Mt	**Total Resource**	Proved Mt	Probable Mt	**Total Reserve**
Wonderstone	Pyrophyllite	3,6	9,9	107,2	**120,7**	3,4	9,4	**12,8**
Rustenburg Minerals (LG6[#])	Chromite	3,6	1,7	9,8	**15,1**	0,0	0,0	**0,0**
Zeerust Chrome (LG1, 2 and 3[#])	Chromite	0,3	1,1	6,6	**8,0**	0,0	0,0	**0,0**

[#] The chromite grades of individual seams are included in the complete Mineral Resources and Reserves report.

Joint-venture entity – Assmang, as at 30 June 2015

Iron Ore	Mineral Resources						Mineral Reserves					
	Measured		Indicated		Measured and Indicated		Proved		Probable		Proved and Probable	
	Mt	Fe%	Mt	Fe%	Mt	Fe%	Mt	Fe%	Mt	Fe%	Mt	Fe%
Beeshoek Mine												
All Pits	104,10	64,07	9,63	63,81	113,73	64,05	47,64	64,63	3,86	63,95	51,50	64,58
Stockpiles									7,42	55,38	7,42	55,38
Khumani Mine												
Bruce	119,58	64,48	83,39	64,42	202,97	64,46	90,35	64,38	73,48	64,37	163,83	64,37
King	301,04	64,23	96,24	64,13	397,28	64,21	274,72	64,30	9,40	65,11	284,12	64,33
Stockpiles									4,76	55,79	4,76	55,79

Manganese	Mineral Resources						Mineral Reserves					
	Measured		Indicated		Measured and Indicated		Proved		Probable		Proved and Probable	
	Mt	Mn%	Mt	Mn%	Mt	Mn%	Mt	Mn%	Mt	Mn%	Mt	Mn%
Nchwaning Mine												
Seam 1	57,13	44,5	75,89	41,9	133,02	43,0	45,02	43,9	59,19	41,8	104,21	42,7
Seam 2	66,31	41,2	117,85	40,5	184,16	40,8	43,08	41,5	75,45	40,6	118,53	40,9
Black Rock (Koppie Area)												
Seam 1	9,03	40,3	34,57	40,7	43,60	40,6						
Seam 2	8,23	37,4	18,58	39,2	26,81	38,6						
Gloria Mine												
Seam 1	49,01	37,3	77,44	36,7	126,45	36,9	35,69	37,3	56,93	36,5	92,62	36,8
Seam 2			30,73	28,0	30,73	28,3						

Chromite	Mineral Resources						Mineral Reserves					
	Measured		Indicated		Measured and Indicated		Proved		Probable		Proved and Probable	
	Mt	Cr_2O_3%	Mt	Cr_2O_3%	Mt	Cr_2O_3%	Mt	Cr_2O_3%	Mt	Cr_2O_3%	Mt	Cr_2O_3%
Dwarsrivier Mine												
LG6 Chromitite Seam	22,34	37,92	30,73	37,87	53,07	37,89	14,32	33,88	23,27	34,53	37,60	34,28

Subsidiary companies, as at 30 June 2015

	Mineral Resources					Mineral Reserves		
	Mineral	Measured Mt	Indicated Mt	Inferred Mt	**Total Resource**	Proved Mt	Probable Mt	**Total Reserve**
Wonderstone	Pyrophyllite	3,6	11,8	107,2	**122,6**	3,4	11,2	**14,6**
Rustenburg Minerals (LG6#)	Chromite	3,9	1,7	9,8	**15,4**	2,4	1,0	**3,5**
Zeerust Chrome (LG1, 2 and 3#)	Chromite	0,3	1,1	6,6	**8,0**	0,0	0,0	**0,0**

The chromite grades of individual seams are included in the complete Mineral Resources and Reserves report.

Chairman's statement

- **Commodity prices recover in the second half**
- **Headline earnings decline by 11,7%**
- **Acquisition of Dwarsrivier Chrome Mine completed**
- **First furnace at Sakura Ferroalloys in production, second commissioned**
- **Dividends for the year increased to R7,00 per share**
- **Strong cash position maintained**

Prices for the group's products recovered during the second half of the financial year. However, global economic conditions remain challenging, with continued oversupply in the group's markets. Despite these dynamics, record sales volumes of iron and chrome ores were achieved by the group for the second year in a row. The level of profitability in the second half has recovered to levels similar to those achieved during the previous financial year.

The year under review

The past financial year has yielded higher earnings than originally anticipated. This was particularly evident in the second half of the year, with prices for iron and manganese ores making a sustained recovery since January. Average prices for iron ore for the second half were approximately 3% higher than the first half, while those for manganese ore were 18% higher. However, in rand terms, prices for chrome ore were 13% lower in this period.

In addition to the improved prices for iron ore, the premium for "lumpy" grade iron ore in the second half of the year was approximately US$4 higher per tonne than in the first half. While the gains in the prices of iron and manganese ores noted above appear to be modest, the group benefited from improved production at its mines and higher railings in the second half, which led to record sales volumes being achieved for iron and chrome ores for 2016. This, coupled with a weaker rand/US dollar exchange rate, which was approximately 12% weaker during the second half at R/US$15,38, gave rise to more favourable trading conditions compared with the first half of the year. These factors resulted in a recovery of profitability, giving rise to headline earnings for the year of R1,7 billion, compared with R2,0 billion in 2015, with just over R1,0 billion of these headline earnings recorded in the second half of the financial year. The contributions to headline earnings by the divisions of Assmang (Iron Ore, Manganese and Chrome) and the other business conducted by the group over the past five years are illustrated in Figure 1.

Market conditions

The main factors during the previous financial year which gave rise to depressed commodity prices, remained evident during the first half of this financial year. Firstly, additional volumes of both iron and manganese ores entered the market, with little tonnage being removed from the market. Secondly, world crude steel production declined by 2% in the 2015 calendar year, and this trend is expected to continue in this calendar year. Chinese crude steel production for this year has, however, remained at a similar level to that achieved in 2015, with excess production being exported, placing pressure on steel prices and consequently on prices of the group's base mineral products. The market for manganese alloys remained in oversupply, despite the closure of more than 3 million tonnes of worldwide capacity per annum.

The group has benefited from the application of tighter environmental controls being imposed in China, which has increased the demand and pricing for the higher-grade products which the group produces. In addition, the Chinese government launched economic stimulus measures, creating temporary pricing gains for the group's products. With low inventory levels of chrome ore in China not being met with sufficiently decreased levels of stainless steel production, prices for chrome ore increased sharply towards the end of the financial year. A stagnant freight market kept freight rates low throughout the year, largely as a result of low crude oil prices, and this provided the group with opportunities to optimise net landed prices for its customers.

Expansion and capital expenditure

The acquisition of Dwarsrivier Chrome Mine (Dwarsrivier) was concluded on 29 July 2016 and is expected to improve the balance in the group's product risk. Initial improvements in productivity have already been implemented and the mine is planning to produce approximately 1,3 million tonnes of saleable ore in the forthcoming year, which is 13% more than the sales volumes recorded for 2016. Sakura Ferroalloys, in which Assmang holds a 54,36% interest, has successfully commissioned its two recently constructed ferromanganese furnaces, within the original budget of US$328 million. The second furnace achieved first production of alloy in September and it is expected that it will be converted from high-carbon ferromanganese to silico manganese in the first quarter of 2017.

Several initiatives are currently under way in IronRidge Resources Limited (IronRidge), an AIM (London) – listed exploration company in which the group holds a 29,9% equity interest. Satisfactory progress has been made in prospecting for iron ore in Gabon, while recent developments include assessing bauxite, lithium and gold deposits in Australia, Ghana and Chad respectively.

The most significant feature in Assmang's capital expenditure, which amounted to R3,0 billion for the year (2015: R3,8 billion), is the expansion project at its Black Rock

Figure 1: **Headline earnings/(loss)** – R million

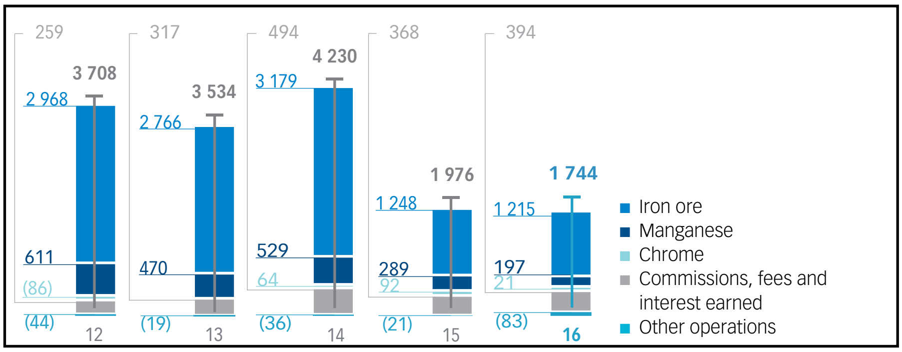
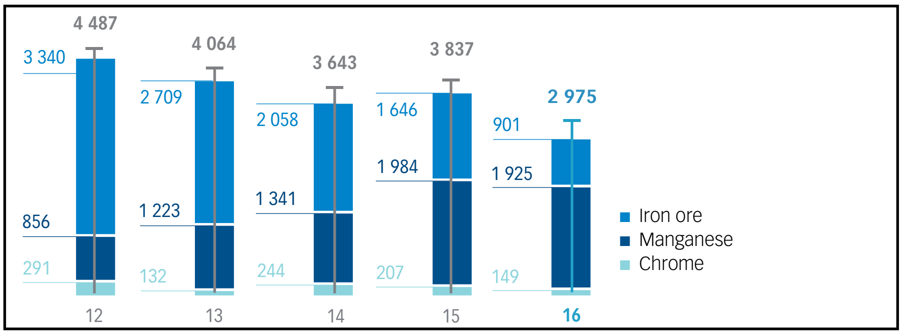


Figure 2: **Assmang's capital expenditure** – R million



Manganese Mines, on which R1,7 billion was spent (2015: R1,3 billion). R383 million was spent on waste-stripping at its iron ore mines, with remainder of the expenditure on replacement items. The allocation of capital expenditure over the past five years across the divisions of Assmang is set out in Figure 2.

Dividends

Despite difficult trading conditions, the group has managed to retain cash within the business, and capital projects remain funded from these reserves. Accordingly, with the improved level of earnings in the second half of the year, the final dividend was increased from R3,00 per share to R5,00 per share, making the total dividend for the year R7,00 (2015: R6,00) per share.

Outlook

The better than expected level of Chinese steel production in recent months is encouraging. However, the supply of iron ore worldwide has increased, causing price levels to remain under pressure. The impact of prospective interest rate increases in the United States of America remains unclear, while conditions in the Chinese economy, which have been the driver of increased demand for commodities over the recent past, remains relatively weak and the continued economic impact of the stimulus measures introduced by its government is also in doubt. The result of these and other global factors has a major impact on the level of certainty required for additional steel-producing capacity, with world economic growth expected to be 2,9% for 2016 with a projected increase to 3,4% in 2017.

Prices for the group's products have increased over the levels achieved in the first half of the year, which has encouraged additional sales volumes of ores, particularly for the lower grades. Although the group is favourably placed in terms of its ratios of production of higher grade ores, pricing pressure is expected to remain a feature of the markets for the medium term. In the near term, prices for iron ore are expected to remain under pressure, with additional capacity entering the market from Australia and Brazil as well as certain high-cost producers re-entering the market following improved sales prices for ore. For manganese and chrome ores, prices have improved markedly, with current published prices for manganese ore approximately 50% higher than the average prices achieved in the second half of the financial year. Drivers behind these higher prices include inventory shortages and environmental controls, which favour the use of high-grade products by steel producers. Additional upward pressure on manganese ore prices has arisen as a result of logistical concerns at the export facilities for manganese in Port Elizabeth.

Appreciation

Taking into account the uncertainties pervading the mining industry both locally and overseas, this year has been a successful year for the group, with the acquisition of Dwarsrivier and the commissioning of the low-cost producing manganese alloy furnaces in Malaysia.
I thank my fellow directors, the management and staff for their ongoing support and commitment during the year. Additionally, I remain very appreciative of the roles played by our customers, agents, suppliers and bankers who continue to contribute greatly to the group's achievements.

Desmond Sacco
Chairman

19 October 2016

Board of directors

Executive directors

Chairman

Desmond Sacco

BSc (Hons) (Geology)

Des qualified as a geologist and joined the Assore group in 1968. He was appointed to the Assore board in 1974 and, on the retirement of his father, Guido, in 1992, was appointed Chairman and Managing Director. In that year, he was also appointed Deputy Chairman of Assmang Limited and in 1999 he became Chairman of Assmang. He is a fellow of the Institute of Directors (IoD) and of the Geological Society of South Africa (GSSA).

Chief Executive Officer

Christopher J Cory

BA, CA(SA), MBA (Wits)

Chris completed articles with Alex, Aiken & Carter (now KPMG) and qualified as a chartered accountant in 1982. In 1989, he joined the Assore group as Group Accountant. In 1992, he was appointed Group Financial Director and made Chief Executive Officer in June 2004 when the roles of Chairman and Managing Director were split. He was appointed to the Assmang board as a non-executive director in 1993 and currently chairs the Assmang Audit Committee. He is a member of the South African Institute of Chartered Accountants (SAICA).

Group Marketing Director

Patrick E Sacco

BA (Indus Psych), MA (Marketing)

Pat joined the Assore group in 2003 after completing a master's degree at the University of Colorado (USA). He was appointed a director of Ore & Metal, the selling and marketing agent for all the group's products, in 2007, and as from 1 March 2016, has been appointed as its Managing Director. Pat was appointed as a director of Assmang in 2008, and is on the board of Oresteel Investments Proprietary Limited, the ultimate holding company of Assore. On 1 July 2015, he was appointed as a director of the International Manganese Institute (IMnI) and was appointed as Group Marketing Director on 1 March 2016.

Group Operations and Growth Director

Bastiaan H van Aswegen

BEng (Metallurgy), BCom, MEng

Tiaan obtained a BEng (Metallurgy) from the University of Pretoria (UP) in 1982 and later obtained BCom (Unisa) and MEng (UP) degrees. After working for Iscor and Samancor in production and on projects, he was appointed by Samancor as General Manager of the Palmiet Ferrochrome Operation (Mogale) in 1999. He joined Assore in 2003 as Consulting Metallurgist and is a member of the Assmang Operations Committee. In September 2012, he was appointed Group Technical and Operations Director of Assore and a director of Assmang. In June 2014, he was appointed as Chairman of Assmang subsidiary, Sakura Ferroalloys SDN BHD, Malaysia.

Independent non-executive directors

Deputy Chairman and lead independent non-executive director

Edward M Southey

BA, LLB

Ed was admitted as an attorney, notary and conveyancer in 1967 and practiced as a partner of Webber Wentzel until his retirement as senior partner of that firm in 2006. He remains an executive consultant to the firm. He is a former president of the Law Society of the Northern Province and of the Law Society of South Africa and is a director of a number of companies. He joined the Assore board as a non-executive director in January 2009, and was appointed as Deputy Chairman and lead independent director in November 2010. He is the chairman of the group's Audit and Risk, and Remuneration Committees.

Independent non-executive director

Thandeka N Mgoduso

BA, MA (Clinical Psychology)

Thandeka is a clinical psychologist and obtained her qualifications at the universities of Fort Hare and the Witwatersrand. While in commerce, she held various leadership positions in operations, as well as in human resources, including a non-executive directorship of the South African Reserve Bank, and currently consults in strategy and human resources. She chairs her company, Jojose Investments, and is a non-executive director on the board of Tongaat Hulett. She was appointed to the board with effect from 2 February 2015 and serves on the Social and Ethics Committee.

Independent non-executive director

Sydney Mhlarhi

BCom, BAcc, CA(SA)

Sydney qualified as a chartered accountant in 1998 following the completion of his articles at Ernst & Young in 1997. He co-founded Tamela Holdings Proprietary Limited (Tamela) in 2008, which holds investments in various industries. Sydney has held various senior positions in the investment banking sector, including those of divisional director at Standard Bank and Chief Investment Officer of Makalani Holdings Limited, a mezzanine financier which listed on the JSE in 2005. Sydney was appointed to the board on 15 October 2012 and serves on the group's Audit and Risk Committee.

Independent non-executive director

William F Urmson

CA(SA)

Bill was appointed as an independent non-executive director in October 2010 and chairs the group's Social and Ethics Committee. He also serves on the group's Audit and Risk, and Remuneration Committees. He is a former Deputy Chairman of Ernst & Young and has served the accounting profession as Chairman of the Accounting Practices and Ethics Committees of the South African Institute of Chartered Accountants. He is a former director: surveillance of the JSE and consulted to the exchange on a part-time basis until December 2013.

Operational review and commentary

The financial results of the Assore group are largely dependent on the level of global economic growth, as almost all commodities produced are used in the production of crude and stainless steels, the consumption of which is intimately related to the incidence of global capital spend.

Group results are significantly affected by US dollar commodity prices, exchange rates and world economic growth, all of which are risks that cannot be directly controlled.

Refer "Risks and opportunities" on pages 14 and 15.

The group

The group's markets are mostly centred in the Far East, India, Europe, North America and South Africa. The market into which the group sells the majority of its products is the Chinese market. The group continues to develop other markets in an attempt to diversify this risk.

Customers in the group's markets continue to show strong support for its products, but constrained economic growth during the year has limited real growth in their overall demand. India and China have demonstrated the highest potential for growth and relationships continue to be built in these markets.

As anticipated, world crude steel production declined by 2% in the 2015 calendar year, with a further decline expected for the 2016 calendar year. China continued to dominate world crude steel production, producing approximately 50% of the world total production, but following reduced demand for crude steel, production slowed. In order to maintain production levels, Chinese steel mills increased the level of exports from approximately 94 million tonnes in 2014 to approximately 112 million tonnes in 2015, with most of the product being sold into Southeast Asian markets. This caused a major disruption in all markets and contributed extensively to the decrease in pricing across all steel products.

Early in 2016, Chinese authorities applied economic stimulus measures, which, in conjunction with heightened environmental restrictions, assisted in maintaining or in some cases, strengthening the prices of the group's commodities to more profitable levels

Contributions to the group's headline earnings/(losses) by commodity were as follows:

	2016 R million	2015 R million
Iron ore	**1 215**	1 248
Manganese	**198**	289
Chrome	**(20)**	81
Other group transactions	**351**	358
Per consolidated income statement	**1 744**	1 976

The group, through its wholly owned subsidiary Ore & Metal, is the sole marketing and distribution agent for all the group's products, including those of Assmang.

The sales volumes for Assmang for the current and previous years were as follows:

	2016 Metric tonnes '000	2015 Metric tonnes '000	% increase/ (decrease)
Iron ore	**17 008**	16 185	5
Manganese ore*	**3 030**	2 736	11
Manganese alloys	**175**	223	(22)
Chrome ore	**1 147**	1 068	7

** Excludes intra-group sales to alloy plants.*

Iron ore

Iron ore sales volumes for the year increased to a record 17,0 million tonnes (2015: 16,2 million tonnes), up 5% compared to the previous year, mainly as a result of local sales volumes increasing by 15%. Export sales increased by 3% over the previous year on the back of improved production at the Khumani Iron Ore Mine and improved rail performance from the mine to Saldanha Bay port.

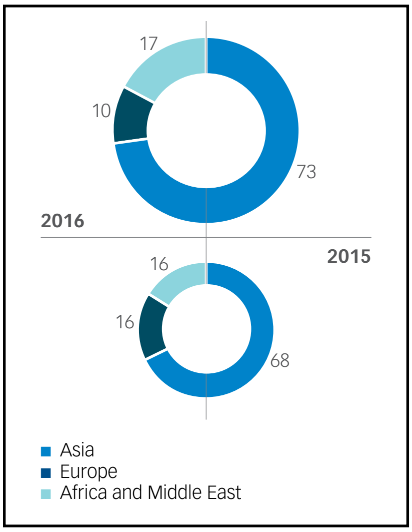
The geographical sales distribution was further optimised during the year, with specific focus applied to achieving improved diversification of sales to regions and customers, where higher net prices were realised. Sales volumes into Asia increased from 68% to 73% mainly as a result of a higher proportion of spot sales volume to the Chinese market due to increased production of steel, which also assisted in higher price realisation. The proportion of sales into India remained similar to the previous year, while export sales to the European market declined to 10% of total sales (2015: 14%).

The supply of global seaborne iron ore continued to grow over the year. As was the case in 2015, the major contributors to the increased supply of iron ore were the low-cost producers in Australia and Brazil.

Higher than anticipated Chinese steel production supported iron ore prices during the second half of the financial year. The average price for 62% iron content fines grade, delivered into China was 28% lower for the current financial year, at US$51 per tonne (2015: US$72 per tonne). The premium for lumpy grade ores (lumpy premium) has, on average, also been lower across the year at approximately US$7,80 per tonne (2015: US$12,00 per tonne). However, the average lumpy premium recovered during the second half of the financial year and increased to approximately US$10 per tonne as demand out of China increased as productivity improvements in blast furnaces were prioritised and steel demand improved. Approximately half of the group's iron ore sold is "lumpy grade" product, which results in lower emission levels, when used in blast furnaces in the steel production process due to it replacing higher polluting sinter capacity.

Lower ocean freight rates also supported margins during the financial year, due in part to the continued excess global shipping capacity and lower oil prices. On a per-region basis, the sales volumes for the year and the previous financial year are illustrated as follows:

Sales of iron ore on a per-region basis – %



The contribution to Assore's headline earnings by Assmang's Iron Ore division decreased marginally by 2,6% to R1 215 million (2015: R1 248 million). Capital expenditure during the year in Assmang's Iron Ore division amounted to R901 million (2015: R1,6 billion) of which R383 million was spent on waste-stripping at both mines, with replacement capital comprising most of the balance spent.

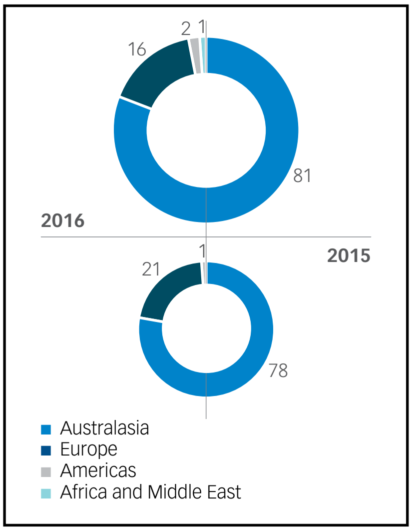
Manganese ore and alloys

The manganese ore market during the year under review was marked by extreme volatility. Fairly rapid cycles of demand and lack of demand resulted in notable price instability. As in the past, China's demand, resulting from internal factors and government stimulus, had the most significant influence on the seaborne market.

The oversupply of semi-carbonate ores from South Africa continued during the year, with miners in the Kalahari increasing both their production and export volumes in recent years. The lowest prices were experienced in January 2016 and these price levels prompted the significant withdrawal of export volumes and production cuts. A cycle of high demand followed with prices recovering gradually towards April, which in turn prompted increased supplies, causing the price to recede again. The average medium grade (lumpy) ore price index (36% manganese content) for the financial year was US$2,31 per dry metric tonne unit (dmtu), free on board from South Africa (2015: US$2,94 per dmtu).

The supply of high-grade ores (oxide ores) was steadier, but prices for these grades followed a pattern similar to the semi-carbonate ores, since these two ore types are partly interchangeable. International suppliers also took advantage of the periodically higher prices, which compounded the overall lower price environment throughout the year. The average high-grade lumpy ore price index (44% manganese content) was US$2,88 per dmtu, delivered in China (2015: US$3,90 per dmtu). The distribution of manganese ore sales on a per-region basis for the current and previous financial year is illustrated as follows:

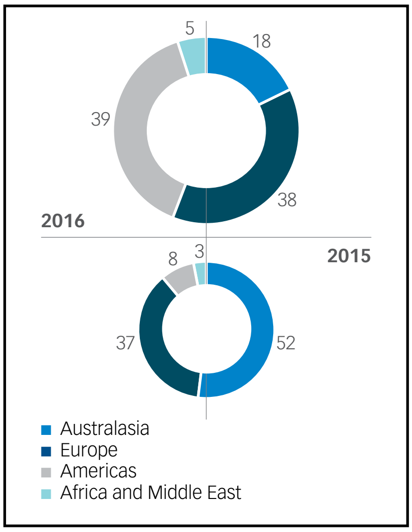
Sales of manganese ore on a per-region basis – %



The global oversupplied situation that has lingered since the middle of 2015 and the reduced crude steel capacity utilisation (which has dropped below 70% from as high as 76%) have resulted in manganese alloy demand over the past 12 months remaining weak. As a result, world manganese alloy production has reduced in an attempt to match this lower demand, evidenced by the numerous plant closures over the past few months in comparison to new global projects. Notwithstanding these supply cuts, which net of new capacity of 840 000 tonnes, amounted to 2,7 million tonnes, the supply/demand balance is yet to be restored. A further obstacle to improved demand during the year has been the negative impact that the increased export of cheap Chinese steel has had on the global market. This has caused a reduction in domestic crude steel production in steel producing countries. Market prices therefore remained weak over the year and particularly over the past few months; however, some recent strengthening in prices has commenced, mainly on the back of stronger prices for manganese ores.

Sales volumes of manganese alloys for the year were lower than during the previous year as a result of the mothballing of the last operating furnace at Assmang's Machadodorp Works. The distribution of ferromanganese sales on a per-region basis for the current and previous financial year are illustrated as follows:

Sales of ferrochrome on a per-region basis – %



The contribution to Assore's headline earnings from Assmang's Manganese division decreased by 31,5% to R198 million for the current year (2015: R289 million). Capital expenditure during the year in Assmang's Manganese division amounted to R1,9 billion (2015: R2,0 billion), most of which (R1,7 billion) was spent on the expansion and continued sustainability of the Black Rock mines to reach a sustainable output capacity of at least four million tonnes of manganese product per annum by 2020.

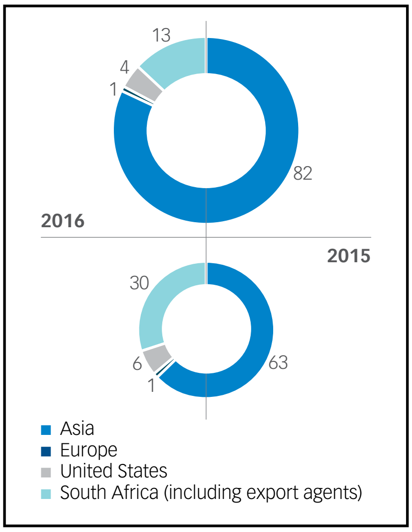
Sakura Ferroalloys, Assmang's joint-venture ferromanganese smelting project in Malaysia, in which it has a 54,36% stake, commissioned one of its two furnaces in May 2016 to produce high-carbon ferromanganese. The construction of the second furnace has continued and remains within budget (US$328 million) and on time to be commissioned in September 2016. Once fully commissioned, the plant will be able to produce 110 000 tonnes of high-carbon ferromanganese and 70 000 tonnes of silico manganese annually.

Chrome

In 2015, global stainless steel production contracted slightly to 42 million tonnes, with China's contribution remaining at approximately half of this volume. In line with the contraction in the stainless steel market, global ferrochrome production also reduced.

China continues to be the driving force for demand of both chrome ore and ferrochrome. Lower than usual levels of port stocks towards the middle of 2016 resulted in prices recovering from the lows seen during December 2015 and January 2016. South Africa remains the world's largest chrome ore supplier, with approximately 7,6 million tonnes supplied into China during the 2015 calendar year, representing 73% of this market. Prices for chrome ore (LG6 concentrate 44% grade, delivered in China) dropped from US$180 per tonne to lows of approximately US$90 per tonne in the early part of the 2016 calendar year, but recovered to levels of US$165 per tonne towards the end of the financial year. Due to South Africa's contribution to the level of global supply of chrome ore, much of the pricing dynamic in this market is derived from the rand/US dollar exchange rate and the weaker rate during the year has supported favourable net prices. Combined with lower logistical costs, this has resulted in Dwarsrivier Chrome Mine (Dwarsrivier) recording a profit for the second consecutive year. Dwarsrivier achieved record sales volumes for the year, with sales of ore on a per-region basis for the current and previous financial years illustrated as follows:

Sales of chrome ore on a per-region basis – %



Subsequent to the end of the financial year, the group acquired the remaining indirect 50% interest in Dwarsrivier from ARM (refer note 36 to the consolidated financial statements). Dwarsrivier spent R149 million on capital items during the year, of which approximately one-third was spent on shaft development.

During the year, Rustenburg Minerals sold approximately 135 000 tonnes (2015: 137 000 tonnes) of lumpy and concentrate grades and Zeerust sold approximately 4 000 tonnes of waste material. The open-cast resources at Rustenburg Minerals have been depleted and the underground shaft development was suspended in 2015, while the remaining waste material at Zeerust has been processed and sold. Accordingly, the facilities of these operations have been impaired in full (refer note 2 to the consolidated financial statements) and attempts are being made to dispose of these mines.

Wonderstone

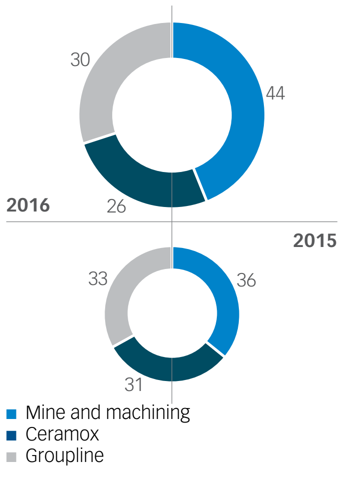
Since 1937, the group has mined a type of pyrophyllite which, for trade purposes, is referred to as Wonderstone. The deposit, which is located outside Ottosdal approximately 300 kilometres west of Johannesburg, is volcanic in origin and displays unique heat holding, insulation and pressure-resistant properties. The bulk of the material mined is beneficiated and reworked into components for export to the USA, the United Kingdom and the Far East. These components are utilised in various high-tech industrial applications, including the manufacture of synthetic diamonds and consumable products for the welding and electronics industries, and are sold as specialist ceramic products. The most significant market for Wonderstone products is its use in the manufacture of polycrystalline diamond (PCD) cutters for drilling in the oil and gas well industries. Other uses for Wonderstone occur in insecticides, while investigations into heat and energy storage are being undertaken.

The significant reduction in the oil price in the past few years has impacted on oil drilling activity with a resultant decline in demand for Wonderstone. However, the market is recovering and improved levels of sales are being recorded. There has also been growth in demand from local customers for Wonderstone powders and the sale of Wonderstone run-of-mine (ROM) material to China is growing steadily.

Alumina wear-resistant tiles are produced by Ceramox, a division of Wonderstone (Ceramox), most of which are supplied to local installers of wear-resistant linings, which have shown significant sales growth over the recent past. Wonderstone, through its division Groupline Projects (Groupline), specifies, selects and installs a range of lining products, including Ceramox alumina tiles, to assist in solving a wide range of industrial wear and flow problems associated with mined commodities. On account of depressed economic growth in South Africa, local market conditions in the past year were difficult and Ceramox and Groupline recorded losses for the year. Due to a shortage of its traditional project work, Groupline adopted a turnaround strategy, which includes expanding its footprint in South Africa, with branches established in Rustenburg, the Northern Cape and Richards Bay, which have improved its ability to deliver maintenance services.

Sales of Wonderstone's various divisions for the current and previous financial years are illustrated as follows:

Sales of Wonderstone by division – %



Capital expenditure by Wonderstone for the year amounted to R2,0 million (2015: R4,6 million), most of which was spent on mining and machining equipment.

Marketing and shipping

Wholly owned subsidiary Ore & Metal Company Limited is responsible for the marketing and shipping of all the group's products, including those produced by the three divisions of Assmang. Strong relationships have been established with customers in the Far East, Europe, North America, South America, Africa and India, and products with a market value of approximately R21,1 billion (2015: R21,6 billion) were marketed and distributed in these regions during the year. The company is an established supplier to steel and allied industries worldwide and has operated effectively in these markets for over 80 years. Commission income is based on the value of sales negotiated during the year, and attributable profit after taxation for the year improved to R271,3 million (2015: R222,9 million) for the year under review, due mainly to higher sales volumes of ores, increased interest income and lower operating costs.

Minerais U.S. LLC

The group holds a 51% share in Minerais U.S. LLC (Minerais) which is a limited liability company registered in the state of New Jersey in the United States of America (USA). Minerais is responsible for marketing and sales administration of the group's products in the USA, in particular manganese alloys, and it trades in other commodities related to the steelmaking industry. Reduced levels of sales of alloy products in the USA resulted in Minerais' contribution to the group's attributable profit for the year declining to R11,4 million (2015: R31,2 million).

Technical and operational management

As technical adviser to Assmang and other group companies, African Mining and Trust Company Limited provides operational management services to the group's mines and plants. For these services it receives fee income, which is related to turnover in Assmang and other group companies. The impact of increased commissions received, arising from higher sales volumes of ores in Assmang and higher interest rates, in the amount of R17,0 million, was negated by increased operating costs (R5,5 million) and the cost of the exit from the iCerMax business (R18,3 million) (refer note 34.3 to the consolidated financial statements), resulting in its attributable net profit after taxation for the year decreasing to R101,5 million (2015: R109,8 million).

The group holds a 29,9% interest in IronRidge Resources Limited (IronRidge), which is accounted for using the equity method (refer note 5 to the consolidated financial statements for more detail). Exploration activities by IronRidge continue, with reconnaissance prospecting for iron ore in Gabon at an advanced stage. Other deposits, which are at various stages of assessment, include bauxite in Queensland, Australia, gold in Chad and lithium in the Ivory Coast. The market value of the group's investment in IronRidge has increased from GBP2,9 million (R56,5 million) at 30 June 2015 to GBP9,0 million (R160,7 million) at 23 September 2016.

Investments

The group maintains a limited portfolio of listed shares which are selected and held in accordance with long-term investment criteria. In accordance with IFRS, the portfolio is valued in the financial statements at market value. During the year, the market value of this portfolio declined and the group recorded a loss of R41,8 million (2015: R93,0 million loss) on its revaluation (after allowing for capital gains taxation relief). At 30 June 2016, the market value of the portfolio was R180,1 million (2015: R233,9 million), based on a cost of R293,4 million (2015: R293,4 million). Other income for the group includes interest received of R210,4 million (2015: R155,3 million) generated on cash in excess of current requirements which was invested on a short-term basis in the money market. The higher amount of interest received is due to higher average available cash balances and higher rates of interest.

Corporate governance and risk management report

The Assore board (the board) is of the opinion that strong corporate governance and risk management not only enhance sustainability of the organisation but are essential to preserving organisational reputation, investor confidence, access to capital when required and sustainable employee motivation.

The group subscribes in all its activities to principles of best practice in business management and corporate governance for South African companies, as set out in the King Report on Corporate Governance (King III), which it implements in accordance with the following framework:

- Establishing a risk and control environment within each of its business entities where management, in conjunction with the necessary support from the Audit and Risk, and Social and Ethics Committees, is responsible for identifying, quantifying and managing risks related to the achievement of the organisation's objectives on a sustainable basis. The process of quantification takes into account qualitative aspects in addition to their potential financial impact.
- Creating a process which provides the board, through the Audit and Risk, and Social and Ethics Committees, with assurance regarding the adequacy of internal control within the organisation, ie that the risk and control environment in place is appropriate for the business concerned and that the business is operated in a manner which provides the board with reasonable assurance that the group's assets are appropriately safeguarded.
- Implementing a formalised review process to identify the effectiveness of both the risk management environment and the assurance processes. This is generally the role of the internal audit function and other independent technical assurance specialists used on a consultancy basis.

The company's shares are listed on the JSE, which requires all listed companies to comply with the Code of Corporate Practices as set out in King III. Management reviews business practice across the group on an ongoing basis and ensures wherever possible that the group is substantially compliant with all the material requirements of King III. Where it is not practical for the group to adopt these requirements, relevant comment is provided and reference is made in this report to the alternative procedures which the board has adopted in each instance to compensate for not applying the requirements of King III. The group's application of King III has been assessed and rated by the Institute of Directors as AAA (2015: AAA), utilising its Governance Assessment Instrument. The detailed governance register is located on the group's website, under the "About us" tab.

Board of directors

The directors are committed to the principles of corporate discipline, transparency, independence, accountability, fairness, employment equity and social responsibility.

Composition

The Assore board has a unitary structure, comprising eight directors, four of whom are executive and four non-executive. Since the Chairman represents the controlling shareholder, and in order to enhance the balance of power and authority on the board, the Chairman does not have a casting vote. Additionally, the board has appointed a lead independent director, who also occupies the position of Deputy Chairman.

The independent non-executive directors have, between them, considerable experience gained at senior management levels in diverse listed and unlisted companies and professional firms operating in South Africa and abroad.

Independent non-executive directors are appointed in terms of three-year renewable contracts and the board evaluates their independence annually, based on returns submitted by each director. The roles of the Chairman and CEO are separate and non-executive directors are not permitted to serve for periods longer than nine years in the aggregate and do not receive any benefits from the company other than their fees for services as directors.

Election and succession

Appointments to the board in an executive directorship capacity are based on the nominees holding appropriate professional qualifications and having had substantial exposure to business as a whole, and in particular in the mining industry, in senior managerial roles and/or related professional practice, including knowledge of applicable legislation, rules, codes and standards. Incoming non-executive directors are fully appraised on appointment of the group's activities, and on all issues relevant to the business, by the executive directors. Assore believes that these requirements and processes obviate the necessity for a formalised orientation and mentorship programme for its directors, as recommended by King III.

In accordance with the company's Memorandum of Incorporation (MoI), all non-executive directors are subject to retirement by rotation and re-election by shareholders at least once every three years, provided that at least one-third of their number offer themselves for re-election at each Annual General Meeting (AGM) as required by the Listings Requirements of the JSE. In addition, all directors are subject to re-election by shareholders at the first AGM following their initial appointment. A brief *curriculum vitae* of each director is set out on pages 26 and 27. The appointment to the board and the assessment of continued eligibility on the board are made by the executive directors with the oversight of the non-executive directors and in consultation with the board as a whole. Therefore, a formal policy for appointing board members and a nomination committee are not considered necessary.

Each executive director is understudied by appropriately qualified and experienced senior staff members, ensuring sufficient depth of expertise in areas that are critical to the continuation of the group's business activities. Therefore, taking the managerial structure and the current make-up of the board into account, a detailed succession plan is not warranted. The CEO assumes ultimate responsibility for all executive issues, including the information technology (IT) function, and ensures that issues raised within the group's various committees and subcommittees are addressed by the responsible staff and, further, that these issues are elevated to the appropriate level when it is apparent that more senior management involvement is necessary. Based on a submission by the Audit and Risk Committee, dispensation has been granted by the JSE for the roles of CEO and Financial Director to be combined on condition that the appropriateness of the situation is reviewed and confirmed by the Audit and Risk Committee on an annual basis. The most recent review in this regard was undertaken on 17 February 2016.

Meetings

The board meets at least four times per annum on predetermined dates, with meetings convened on an *ad hoc* basis when considered necessary. The board met four times in the year under review and attendance at these meetings is tabled below:

	Possible attendance	Attended
Desmond Sacco	4	4
EM Southey	4	4
CJ Cory	4	4
PE Sacco#	1	1
AD Stalker*	3	3
BH van Aswegen	4	4
TN Mgoduso	4	4
S Mhlarhi	4	3
IN Mkhari^	4	3
WF Urmson	4	4

* *Resigned 29 February 2016.*
# *Appointed 1 March 2016.*
^ *Resigned 26 May 2016.*

Board and committee performance evaluation

Ongoing evaluation of the board and its various committees does not occur on a formal basis. However, due to the fact that the Chairman represents the controlling shareholder, and due to the structure of the management of the business, regular interaction occurs between all levels of management to ensure that the various structures in the Assore group operate in accordance with their terms of reference. As stated in the section on remuneration (refer page 19), executive directors are not appointed in terms of contracts, and their services may be terminated in accordance with legal requirements without exposing the group to pre-existing financial obligations. Documented terms of reference for the board are not required, since all of the directors have substantial business experience gained at a senior level.

The composition and size of the board as described above enable regular formal and informal interaction between directors to take place to ensure appropriate application of authority in the decision-making process. This ensures that resolutions cannot be passed without the agreement of at least one of the independent non-executive directors.

A key aspect of the group's activities includes marketing and distribution. As a result the reputation of and relationships with its customers and all other stakeholders is assessed in all of the board's actions, and not in isolation. Further insight into the group's activities is provided to the Chairman at regularly convened Executive Committee meetings, which are attended by the executive directors and other senior members of management. The skills set required of executive directors of other group companies is determined by the Assore executive. Attendance by external advisers at meetings of the board and its various committees is arranged when considered necessary.

Group boards

The subsidiary and joint-venture companies of the group have boards of directors that operate independently in relation to the affairs of these companies. The board of the holding company respects the fiduciary duties of the directors of these companies, and policies and procedures adopted by these companies are considered by the respective boards prior to their adoption, necessary alteration or rejection.

Audit and Risk Committee

The committee meets at least three times per annum on predetermined dates, with *ad hoc* meetings convened to consider significant risk and accounting issues when considered necessary. The committee met three times in the year under review and attendance at these meetings is tabled below:

	Possible attendance	Attended
EM Southey (Chair)	3	3
S Mhlarhi	3	3
WF Urmson	3	3

The Chairman of the committee reports on its activities at each board meeting. Representatives of the internal and external auditors are invited to attend all meetings of the committee and, if necessary, have access in private to the Chairman of the committee throughout the year. The CEO, Group Accountant and representatives of the Company Secretary attend all meetings by invitation. Internal and external auditors meet with members of the committee at least once annually without members of management being present in order to discuss the quality of their relationship and evaluate the level of cooperation which they were afforded during the conduct of their audit work in the year under review. The committee recommended the approval of the integrated annual report for 2016 to the board on 19 October 2016.

The terms of reference of the Audit and Risk Committee are documented, have been approved by the board, and are reviewed periodically to ensure they remain appropriate to the activities of the group. The prime objectives of the committee that emanate from its terms of reference and which were applied during the year under review, are to:

- monitor the risk profile as compiled by internal audit and agreed to with management and make recommendations on the composition and classification of the risk profile for the group (refer "Risk management" on page 35);
- integrate the activities of assurance providers so that all risks are identified and appropriate mitigation steps are taken;
- provide a forum for management and representatives of the external and internal audit functions to resolve issues which arise from all external and internal audit activities;
- make recommendations to the board regarding the appointment of the external auditors;
- review the activities, services and performance of the external auditors, evaluate their independence and review their overall role and the appropriateness of fees charged;
- review and approve the annual financial statements, interim reports and related disclosures and other significant announcements made by the group, making the necessary recommendations to the board;
- consider the appropriateness of the group's accounting policies;
- monitor and supervise the effectiveness of the internal audit function (refer "Internal audit and internal control" on page 35) to ensure that the roles of both internal and external audit are clear in order to provide an objective overview of the operational effectiveness of the group's systems of internal control and reporting;
- receive and consider feedback on issues relevant to the committee raised at meetings of the Social and Ethics Committee (refer "Social and Ethics Committee" on page 36);
- obtain reports from management, and make the necessary enquiries from external and internal audit and of management, on any matters which are the subject of litigation, ensure compliance with material aspects of legislation and create awareness of pending changes to legislation (refer "Legal compliance" on page 36); and
- monitor the ethical tone of the group through discussion with its executives and senior staff (refer "Ethics" on page 36).

All the members of the committee, including the Chairman (who will make himself available to take questions at the AGM), are independent non-executive directors, who collectively possess the appropriate professional and business experience pertaining to legislative requirements, financial risks, financial and sustainability reporting, and internal controls applicable to the group.

Internal audit has adopted its terms of reference from the Audit and Risk Committee, and all internal audit work is undertaken based on the ongoing risk assessment process which is presented annually by internal audit to the Audit and Risk Committee, to ensure that the focus of the internal audit activities are optimised and integrated with the external audit function (refer "Risk management" and "Internal audit and internal control"). The internal audit function of Assore is outsourced, and the responsible senior executive on the engagement has direct access to the Chairman of the committee.

Independent meetings are conducted with external audit in order to exchange views on the risk environment to which the group is exposed, as well as on issues that may have a bearing on the external audit process and internal audit objectives based on fieldwork performed by them. Internal audit provides assurance to the board and the committee on an annual basis that the internal and financial controls have not revealed any significant breakdown in internal controls or corporate governance principles or any issues that require the attention of the committee. The committee, having due regard to materiality and the nature of the business, is satisfied that the internal controls were effective, and operated as designed for the period under review. In addition, the committee, having reviewed the reports tabled by internal and external audit at its meetings, and having invited enquiries of the attendees at its meetings, is not aware of any breakdowns of internal controls or corporate governance that resulted in, or could lead to, material financial losses, fraud or material errors during the year under review.

The committee does not consider a formal audit review of the interim results necessary, as the interim results of Assmang, which generate the majority of the group's earnings, are reviewed and reported on by its external auditors in terms of ISRE 2410 – Review of Interim Financial Information Performed by its Independent Auditor of the Entity, prior to the publication of the group's interim results. Dependent on the contribution to the group's earnings from Dwarsrivier Chrome Mine Proprietary Limited (Dwarsrivier), an audit review may be considered necessary. (Refer note 36 to the consolidated financial statements for details regarding the acquisition of Dwarsrivier subsequent to the end of the financial year.) The committee, after due enquiry of external and internal audit, has satisfied itself as to the appropriateness of the expertise, the adequacy of the finance function and the experience of the senior members of management responsible for the financial function.

Internal audit and internal control

The board, through its Audit and Risk Committee, is responsible for ensuring the implementation of appropriate internal controls, which are reviewed regularly for efficiency and effectiveness, taking into account the risk profile of the group (refer pages 14 to 16). These controls are designed to manage the risk of failure of internal controls and provide reasonable assurance that there are adequate systems of internal control and appropriate corporate governance procedures in place. As with all management systems, the assurance which is provided is not absolute and the risk of failure cannot be eliminated entirely. Internal auditors monitor the operation of the internal control systems and governance processes and, after discussion with management, report findings and recommendations to the Audit and Risk Committee. Corrective action is taken to address control deficiencies as and when they are identified. Material issues of compliance are among standard items on the agenda of the Audit and Risk Committee, and minutes of these meetings are made available to internal audit. The group does not extend an invitation to the head of internal audit to attend Executive Committee meetings; however, access to the Chairman of the Audit and Risk Committee is available throughout the year. Nothing has come to the attention of the Audit and Risk Committee or the board to indicate that any material breakdown in the effective functioning of internal controls or corporate governance procedures has occurred during the year under review.

Representatives of the internal audit firms are invited to attend Audit and Risk Committee meetings and, where areas of new risk are identified, such as initiation of capital projects or new systems of internal control or IT systems implementation, separate independent investigations take place on an *ad hoc* basis in addition to the programmed reviews referred to above.

Risk management

The board has delegated the assessment and management of the group's risk profile, which is compiled by the internal audit function, to the Audit and Risk Committee, which advises the board of any unresolved risk management issues. Risk is an inherent feature of conducting business, and in the mining and smelting industries it is exacerbated by the remoteness of location of the operations, the physical danger inherent in the day-to-day activities of these operations and compliance with legislative requirements, particularly with regard to environmental management with which this industry has to comply. These risks are compounded by the volatility of exchange rates and international commodity prices to which the group is exposed on a daily basis and which are largely beyond the group's control.

Management of group risk is critical to the sustainability of the group and is achieved through the identification and control by various risk management committees of all risks, including operational risks, which could adversely affect the achievements of the group's business objectives. Risk assessments are ongoing, and risk registers for all significant operations in the joint-venture entity, Assmang, are prepared and updated quarterly by a dedicated risk management department, with assistance from specialist external consultants.

For larger business entities in the group, independent risk engineering consultants grade each operation against international risk standards for fire, security, engineering, commercial crime, contingency planning and mining, as well as environmental risk, to monitor whether current practices meet the set criteria and are being maintained. Input is obtained from various risk management committees comprising representatives from senior management. On completion and review of these processes, insurance cover is taken out on insurable risks where considered appropriate. In addition to these processes, other risks deemed relevant to the Assore group are presented to the Audit and Risk Committee, which is given the opportunity to comment and provide input on the assessments which are tabled. The assets of the group are included in a comprehensive insurance programme, with an independent valuation of fixed assets occurring every three years.

The respective risk management committees are also responsible for ensuring that appropriate financial and insurance mechanisms are integrated into the risk plan and that the group is protected against catastrophic risk. Therefore, the group risk management process includes an ongoing review of compliance with relevant legislation and standards in the following areas (refer "Group sustainability performance" on page 42):

- Environmental rehabilitation management.
- Health and safety management.
- Human resource management.
- Quality of products and management systems.

Details of the principal risks to which the group is exposed are included on pages 14 to 16 of this report.

Information technology

The management of information technology (IT) falls within the remit of the CEO, who chairs regular meetings of the IT Steering Committee (IT Steerco). The IT Steerco consists of responsible IT staff as well as staff responsible for finance and major IT projects. The purpose of the IT Steerco is to address the appropriateness and relevance of the IT infrastructure, monitor and further the progress of major IT projects, information security, the design and maintenance of disaster recovery procedures and related staffing and administrative issues, and the IT Steerco seeks external advice when required. Matters of relevance to the business are communicated by the CEO to the Audit and Risk Committee or the board, where appropriate. Documented terms of reference for the IT Steerco are not considered necessary, given the degree of involvement by the CEO and senior management on an ongoing basis in these issues. In addition, the IT systems are subjected to a detailed annual external audit, the results of which are reported on to the Audit and Risk Committee for attention and action where necessary. Disaster recovery (DR) is catered for by means of daily back-ups of electronic information and media, which are physically housed in a building separate from where the IT hardware is located. The group has also replicated its hardware environment in a separately housed DR area.

Social and Ethics Committee

In accordance with its documented terms of reference approved by the board, the committee is required to meet at least twice per annum on predetermined dates. The committee met twice during the year and attendance at these meetings is tabled below:

	Possible attendance	Attended
WF Urmson (Chair)	2	2
RA Davies	2	2
BH van Aswegen	2	2
TN Mgoduso	2	2

The Social and Ethics Committee (SEC) reports to the board and provides feedback on issues raised at its meetings to the board and to the Audit and Risk Committee for consideration where relevant. The key aspects of its terms of reference include the monitoring of the group's activities relating to any relevant legislation affecting the group's activities, or prevailing codes of best practice with regard to matters relevant to:

- its corporate strategy and any changes that may be necessary from time to time;
- the social and economic development of communities located in the areas surrounding its operations;
- the maintenance of good corporate citizenship credentials;
- environmental, health and public safety issues at all its operations, including the impact of the group's activities and of its products or services on the environment;
- consumer relationships, including the group's advertising, public relations and compliance with all legislation relating to the group's activities; and
- labour and employment, including working conditions and employee development.

Legal compliance

The board has delegated the responsibility for oversight of legal compliance to the Social and Ethics Committee, from which management receives any guidance deemed necessary for the fields appropriate to its terms of reference. Suitably qualified consultants have been appointed to ensure that legal compliance is maintained in the business sectors in which the group operates. Accordingly, the CEO has not appointed an individual person responsible for the management of compliance. Due to the importance attached to compliance with competition law requirements, the group operates a competition law compliance programme and has ensured that all senior staff members are familiar with the requirements of the Competition Act. The Audit and Risk Committee ensures that matters containing significant levels of risk material to the group receive the appropriate attention, and that adequate provision and appropriate disclosure are made for known and determinable exposures.

Safety, health and environmental (SHE) legal compliance audits are conducted on an ongoing basis for all operations. In addition, a high-level compliance review is conducted every second year for Assore's subsidiary operations and reports are submitted to the SEC. Following the recent acquisition of Dwarsrivier, the extent of SHE legal compliance audits conducted at this operation is currently being reviewed (refer "Audit and Risk Committee" on page 34).

The size of the group, as well as the experience of the executive directors and senior management, afford management the opportunity to resolve disputes in these areas. External legal counsel is consulted when considered necessary to ensure the appropriateness of the methods adopted to resolve issues.

Ethics

Ethical issues are managed by way of executive involvement in day-to-day management processes of the group, and by senior management who interact with staff at all levels to ensure that high ethical standards commensurate with board expectations are maintained. Issues that cannot be resolved by line management are addressed by way of oversight by the SEC (refer page 36). The group is in the process of adopting a code of ethics, which, once approved by the SEC, will be applied across the group. Various channels to facilitate effective whistle-blowing procedures are in place at certain of the larger operations in the group to afford employees and other parties the opportunity to bring unethical practices to the attention of senior management on an anonymous basis. The board believes that management is sufficiently experienced to ensure that the requirements of the group in respect of laws, rules, codes and standards do not expose the group to material risks in this respect. In addition, senior management consults with external legal counsel in unfamiliar and complex areas.

Insider trading and closed periods

The group declares a closed period applicable to all members of staff in relation to dealing in Assore shares prior to the publication of its interim and final results. During these periods directors, officers and staff are prohibited from dealing in the shares of the company. The closed period extends from the first day of the month following the end of a financial reporting period and expires on the day on which the interim or final results are published. Where appropriate, dealing is also restricted where a public announcement is imminent and includes information considered to be price sensitive.

All directors and staff are required to obtain the written approval of the CEO prior to dealing in the company's shares at any time during the year. Any dealings by the CEO in Assore shares require the approval of the lead independent director. Due to the significance of the group's involvement in Assmang, as well as Assmang's bearing on the results of Assore's joint-venture partner, African Rainbow Minerals Limited (ARM), senior staff members are also precluded from dealing in ARM's shares in these closed periods.

Company Secretary

The company has appointed a wholly owned subsidiary, African Mining and Trust Company Limited (AMT), as Company Secretary (refer page 31). The board and senior staff of that company, who are all appropriately qualified, ensure that all applicable provisions of the Companies Act are applied in the affairs and management of the group. The board of directors of AMT includes an adequate number of persons with professional qualifications to ensure that an appropriate level of independence is maintained and that its affairs are conducted on an arm's length basis.

Black economic empowerment status report

Assore strongly endorses the broad-based black economic imperatives contained in the Minerals and Petroleum Resources Development Act (the MPRD Act) and the Broad-based Socio-economic Empowerment Charter for the South African Mining Industry issued thereunder (the Mining Charter), and since their inception has embarked on a number of initiatives aimed at meeting these requirements at its mining operations, as set out below.

In terms of the MPRD Act, which came into effect on 1 May 2004, the state has assumed sovereignty and custodianship of all mineral rights in South Africa and grants prospecting rights and mining rights to applicants based on the merits of their applications (which are designated as new-order rights). A transitional period from that date to 1 May 2014 was provided for, during which holders of existing mineral and exploration rights (designated as old-order rights), upon meeting certain requirements, could convert such existing in-use old-order rights into new-order rights or, in the case of unused rights, could apply for new-order rights.

The Mining Charter is intended to facilitate the entry of historically disadvantaged South Africans (HDSAs) into the mining industry. The scorecard which the state issued pursuant to the Mining Charter required, *inter alia*, that mining companies should achieve 26% HDSA ownership of mining assets by 1 May 2014. The Mining Charter also requires, *inter alia*, that mining companies provide plans for achieving employment equity at management level, and procuring goods and services from black empowered organisations on a preferential basis, in accordance with the predetermined criteria set out in such plans. Since 2004, with a view to meeting the Charter's requirements, Assore, through its various group companies, has achieved the following empowerment milestones:

- Concluded an empowerment transaction with Mampa Investment Holdings (being the commercial arm of the Mankwe Development Foundation (Mampa)) in April 2004, pursuant to which new-order mining rights were obtained for the chrome operations in Rustenburg Minerals Development Company Proprietary Limited (Rustenburg Minerals) on the farms Groenfontein, Zandspruit and Vogelstruisnek.
- Having met the requirements of the MPRD Act regarding conversion of old-order mining rights, Assmang has secured new-order mining rights for all its operations. The rights for the manganese deposits at Black Rock (comprising Assmang's Nchwaning and Gloria mines) were registered in September 2015.
- Pursuant to the acquisition from ARM of its effective 50% share in Dwarsrivier Chrome Mine, Assore owns 100% of Dwarsrivier Chrome Mine Proprietary Limited (DCM) with effect from 1 July 2016. The new-order right was registered on 30 June 2016 (refer note 36 to the consolidated financial statements for more detail).
- Successful conversion and execution of old-order mining rights to new-order mining rights for pyrophyllite (Wonderstone).
- Implemented a preferential procurement policy at all its operations (refer "Preferential procurement").
- Developed social and labour plans (SLPs) for each of its operations, as well as local economic development (LED) projects which support the integrated development plan of the relevant local authority. The plans, which have received the approval of the relevant departments, include the construction of schools and crèches, food security projects, and presentation of programmes on adult education, health and safety, and environmental awareness (refer "Sustainability report", located on the group's website under "Annual reports" in the "Investor centre").

The extent of compliance with the Charter is reported on and monitored on a regular basis, both at Exco level and by the board, through the Social and Ethics Committee and specifically with regard to new-order mining rights, which are subject to audit by the DMR. To date, the DMR has not reported any significant non-compliance issues.

Following the introduction of the MPRD Act Assore has, specifically at a holding company level, entered into empowerment-related transactions, which have resulted in HDSAs holding 26,07% of Assore's ordinary shares, as follows:

Shareholder	% shareholding
Boleng Trust	14,28
Fricker Road Trust	11,79
Total	26,07

The Boleng and Fricker Road trusts

The Boleng and Fricker Road trusts (the trusts) have been established for the benefit of HDSAs and broad-based HDSA community groupings residing in the areas in which the Assore group's mines and beneficiation plants are located. Since the objectives of the trusts are very similar and they have the same trustees, the Boleng Trust has been made a beneficiary of the Fricker Road Trust.

In terms of agreements between Assore and the trusts, the Fricker Road Trust qualified for dividends (after dividends tax) of R7,5 million (2015: R16,4 million) during the year, while the Boleng Trust is entitled to a flow-through payment of at least R2 million per annum, irrespective of the commitments to the Assore group with regard to the funding of the transaction provided by Assore. The boards of trustees of these trusts are as follows:

Dr TG Sibiya (Chairman)*
CJ Cory#
RN Lekgatle#
Ms K Makhaya*
M Mtshali*
Ms TPJ Ngxulelo*

** Independent trustee.*
 # Founder trustee.

Assore has concluded agreements with the trusts in order to regulate the relationships between the respective parties to ensure the continued compliance by the trusts (as the Assore group's BEE partners) with the direct ownership requirements of the Mining Charter and the appropriate restrictions on the transfer of Assore shares by the trusts.

During the 2016 financial year, and pursuant to the trust deeds, the trustees have approved expenditure on its major projects amounting to R13,8 million (2015: R9,6 million) and have committed themselves to spending a further R37,6 million on these and other projects, details of which are as follows:

Operation	Description	Spend to date R'000	Commitment R'000	Total R'000
Wonderstone	Tsholonang Children's Disability Centre	4 289	4 461	8 750
	Boleng Trust Bridging school, and related expenditure	2 988	9 934	12 922
	Student boarding facility at Ottosdal	2 411	2 500	4 911
	Support of various student requirements, including bursaries and transport	2 066	9 293	11 359
Rustenburg Minerals	Imfundo Likusasalethu, primary educational intervention	1 999	962	2 961
Other projects			10 450	10 450
		13 753	37 600	51 353

Further detail of the expenditure on these projects is included in the "Sustainability report" located on the group's website under "Annual reports" in the "Investor centre".

Boleng and Fricker Road trusts

Independent trustees

Chairman
Independent trustee

Dr TG Sibiya

PhD (IT&IS), Med (ISD), Pittsburgh, BSc (Information systems), Carnegie Mellon, USA

Independent trustee

K Makhaya

BusAdmin (Finance), Gonzaga University, Washington

Independent trustee

M Mtshali

BLaws, LLB, UCT

Independent trustee

TPJ Ngxulelo

The Assore Employee Trust

Independent trustees of Assore Employee Trust

Chairman
Independent trustee

M Pillay

LLB
LLM (Duke, USA)

Independent trustee

NP Mngomezulu

LLB

Independent trustee

I Phalane

Black economic empowerment status report continued

The Assore Employee Trust was established by Assore for the economic benefit of the non-managerial employees of the Assore group by facilitating their participation in the dividend income distributed by Assore (dividend rights) and also participation in the increase in the value of Assore's ordinary shares listed on the JSE (equity rights). The beneficiaries of the Assore Employee Trust are full-time, permanent non-managerial employees of the Assore group who do not participate in pre-existing incentive schemes or performance bonus arrangements. Senior management and board members are precluded from participating in these benefits. The trust is overseen by a board of trustees, the majority of whom are HDSAs. The board of trustees is constituted as follows:

M Pillay‡* (Chairman)
T Bizure‡^
Ms MC James‡#
GN Lavielle^
Ms NP Mngomezulu‡*
Ms WT Mnisi‡^
I Phalane‡*

‡ HDSA trustee.
** Independent trustee.*
^ Employee representative trustee.
 # Founder trustee.

During the 2016 financial year, the trust made dividend rights distributions to employees totalling R6,2 million (2015: R10,7 million). The decrease in these distributions is due to lower dividends declared by Assore (2016 distribution: R5,00 per share; 2015 distribution: R7,50 per share). An independent valuation performed as at 30 June 2016 indicates that the fair value of equity rights granted to date to employees amounted to R9,6 million (2015: R2,0 million) (refer note 17, "Share-based payment liability", to the consolidated financial statements). The increase in the fair value is due to the improvement in the Assore share price from R103,50 at 30 June 2015 to R180,01 at 30 June 2016.

Preferential procurement

Assore is committed to bringing previously disadvantaged South Africans into the mainstream of the economy and specifically the mining industry by identifying and developing business opportunities and by making them available to broad-based black economic empowered (BBBEE) suppliers at all its operations. Without compromising on quality, Assore has adopted a policy of precluding vendors who do not have valid empowerment credentials from supplying goods and services to its operations. A summary of the percentage BBBEE procurement measured against total discretionary procurement is presented in the table below:

	Total discretionary procurement# R million	Aggregate BBBEE expenditure* R million	Aggregate % BBBEE†
2016			
Assmang^	**10 795,8**	**11 103,2**	**102,8**
Wonderstone	**46,0**	**45,1**	**98,1**
Rustenburg Minerals	**185,2**	**174,8**	**94,4**
Zeerust	**18,3**	**16,6**	**90,8**
African Mining and Trust	**58,5**	**66,1**	**112,8**
2015			
Assmang	11 424,5	12 243,0	107,2
Wonderstone	53,2	46,8	88,0
Rustenburg Minerals	198,9	187,0	94,0
Zeerust	79,9	71,2	89,1
African Mining and Trust	72,5	77,9	107,4

^ Subsequent to year-end, Dwarsrivier which was a division of Assmang became a subsidiary company of the Assore Group.
 # Total discretionary procurement is defined as total procurement less procurement effected through related entities (inter-company transactions).
** Aggregate BBBEE expenditure is recognised based on the respective recognition levels of the suppliers, in accordance with the codes published by the Department of Trade and Industry (dti).*
† Expenditure of levels 1 to 3 suppliers is recognised at more than 100% in terms of the dti codes.

The decline in the percentage of BBBEE expenditure within Assmang is due mostly to a lower proportion of level 3 expenditure (decline of 11,93%), with corresponding increases in levels 2, 4, 6 and 8.

The recognition percentages for the group's subsidiary companies continue to improve due to ongoing insistence by procurement staff to source from sufficiently empowered suppliers. The expenditure in Zeerust declined significantly, due to the mine being placed on care and maintenance, while the expenditure in Rustenburg, Wonderstone and African Mining and Trust declined due to declining commodity prices in 2016.

The amended dti Codes of Good Practice came into effect on 1 May 2015. These amended codes make provision for changes in the scoring methodology. All suppliers with a current verification certificate qualify as an empowering supplier for the validity period of the current certificate, resulting in the current results being maintained up to that date.

The new Nokuphile School, Midrand, a project of the Love Trust, funded by the group

Group sustainability performance

Financial year		2016		2015	
Indicator	Unit	**Assmang operations**	**Assore operations**	Assmang operations	Assore operations
HUMAN RESOURCES MANAGEMENT					
Total number of employees as of 30 June	Number	**11 441**	**400**	13 719	936*
– Permanent	Number	**5 686**	**175**	6 272	417*
– Contract	Number	**5 755**	**225**	7 447	519
Production days lost to strike action	Number	**–**	**–**	–	–
Total new employee houses completed	Number	**1 536**	**–**	1 460	–
SAFETY PERFORMANCE					
Fatalities	Number	**–**	**–**	2	–
Lost-time injuries	Number	**25**	**14**	32	18
Lost-time injury frequency rate	Per 200 000 hours	**0,22**	**1,99**	0,26	1,72
Section 54 notices issued (Mine Health and Safety Act)	Number	**6**	**3**	6	3
Production shifts lost due to section 54 notices	Number	**11**	**1**	23	33
Prohibition notices issues (Occupational Health and Safety Act)	Number	**0**	**–**	1	–
OCCUPATIONAL HEALTH AND WELLNESS MANAGEMENT					
Medicals performed	Number	**15 627**	**1 188**	18 224	1 431
Audiograms performed	Number	**14 718**	**1 191**	18 579	1 431
Noise-induced hearing loss cases referred for compensation	Number	**4**	**2**	16	3
New tuberculosis (TB) cases reported during the year	Number	**17**	**4**	8	7
Pulmonary TB cases diagnosed to date	Number	**52**	**2**	8	4
Multi-drug resistant TB cases diagnosed to date	Number	**2**	**2**	6	3
ENVIRONMENTAL MANAGEMENT					
Total greenhouse gas emissions	Tonnes CO_2e	**1 231 686**	**16 589**	1 627 380	28 133
– Scope 1 emissions	Tonnes CO_2e	**344 412#**	**7 617**	533 014	13 019
– Scope 2 emissions	Tonnes CO_2e	**887 274#**	**8 972**	1 094 366	15 114
Diesel consumption	'000 litres	**54 137#**	**2 887**	58 387	4 965
Electricity consumption	Mwh	**887 383#**	**9 594**	1 164 218	16 163
Water consumption	m^3	**11 513 727**	**438 849**	10 830 348	488 112*
Waste generation					
– Waste rock	m^3	**57 459 229**	**2 031 194**	56 985 457*	3 763 802
– Tailings/slag/discard waste*	Tonnes	**4 822 087**	**67 629**	4 468 777*	100 383
Financial provision for rehabilitation and closure	R million	**723,9**	**26,0**	700,2	21,0
Number of environmental administrative penalties/fines	Number	**–**	**4**	–	–
COMMUNITY ECONOMIC DEVELOPMENT					
Community and economic development expenditure	R million	**180,9**	**33,2**	107,2	15,3

All figures for the Assmang operations are stated on a 100% basis.

Refer "Independent assurance report" in the complete sustainability report located on the group's website.

* *Restated from previous year.*

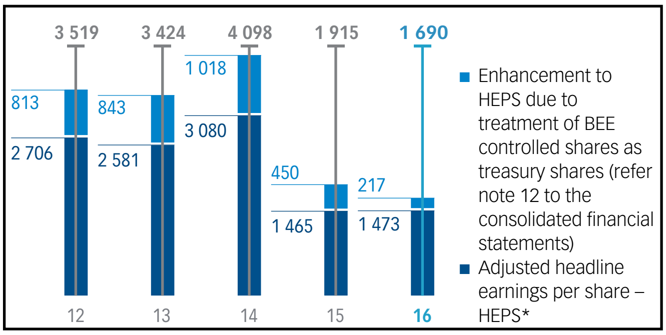
Iron ore product reclaimer at Khumani Iron Ore Mine

Five-year summary of the consolidated financial statements

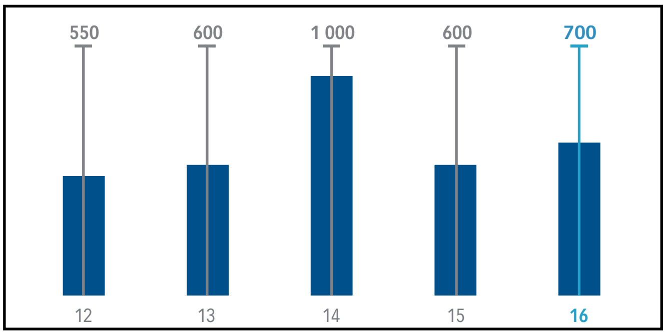
INCOME STATEMENTS	2012 R'000	2013 R'000	2014 R'000	2015 R'000	**2016 R'000**
Revenue	1 699 861	1 964 409	2 894 596	3 357 297	**2 941 047**
Profit excluding profit on disposal of available-for-sale listed investments	378 268	480 603	698 053	76 792	**400 303**
Profit on disposal of available-for-sale listed investments	472 200	27 850	–	–	**–**
Taxation	(245 427)	(171 227)	(240 486)	(102 293)	**(176 376)**
Share of profits and losses from joint-venture entity and foreign listed associate, after taxation (equity accounted)	3 441 994	3 092 476	3 572 155	1 315 941	**1 273 714**
Profit for the year	4 047 035	3 429 702	4 029 722	1 290 440	**1 497 641**
Attributable to:					
– Shareholders of the holding company	4 033 014	3 426 978	4 005 123	1 403 371	**1 539 363**
– Non-controlling shareholders	14 021	2 724	24 599	(112 931)	**(41 722)**
As above	4 047 035	3 429 702	4 029 722	1 290 440	**1 497 641**
Other information					
Attributable earnings as above (R'000)	4 033 014	3 426 978	4 005 123	1 403 371	**1 539 363**
Headline earnings (R'000)	3 707 763	3 533 823	4 229 890	1 976 351	**1 744 176**
Earnings per share (cents)	3 828	3 320	3 881	1 360	**1 491**
Headline earnings per share (cents)	3 519	3 424	4 098	1 915	**1 690**
Adjusted headline earnings per share (cents)*	2 706	2 581	3 080	1 465	**1 473**
Dividends declared during the year	698 036	767 839	1 116 856	1 186 660	**698 035**
Less: Dividends attributable to treasury shares	(182 000)	(200 200)	(291 200)	(309 400)	**(182 000)**
	516 036	567 639	825 656	877 260	**516 035**
Dividends relating to the activities of the group for the year under review (cents)					
– Interim declared and paid	250	250	450	300	**200**
– Final (declared subsequent to year-end)	300	350	550	300	**500**
	550	600	1 000	600	**700**
Weighted average number of shares for purposes of calculating earnings per share					
Ordinary shares in issue	139 607	139 607	139 607	139 607	**139 607**
Treasury shares, in accordance with IFRS*	(34 240)	(36 400)	(36 400)	(36 400)	**(36 400)**
Weighted average	105 367	103 207	103 207	103 207	**103 207**
Average exchange rates for the year:					
SA rand to US dollar	7,73	8,85	10,42	11,46	**14,65**
SA rand to euro	10,39	11,46	13,06	13,61	**15,97**

** Headline earnings per share including treasury shares in issue (this is a non-IFRS measure). Refer note 12 to the consolidated financial statements.*

Headline earnings per share (HEPS) – cents

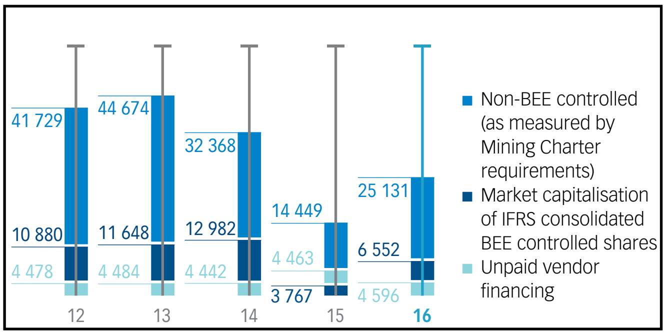


Total dividends per share relating to the activities of the group for the year under review – cents



STATEMENTS OF FINANCIAL POSITION	2012 R'000	2013 R'000	2014 R'000	2015 R'000	**2016 R'000**
ASSETS					
Non-current assets					
Investment in joint-venture entity	11 353 539	12 946 015	14 768 170	14 585 308	**15 094 529**
Property, plant and equipment and intangible assets	487 380	510 577	552 191	256 504	**178 609**
Investments					
– available-for-sale listed investments	239 333	178 430	377 988	233 972	**180 084**
– foreign listed associate	–	–	–	120 756	**124 848**
– available-for-sale unlisted investments	34 724	41 963	46 613	47 808	**44 591**
Pension fund surplus	–	12 315	56 973	57 474	**68 070**
Deferred taxation	–	–	–	4 964	**17 421**
	12 114 976	13 689 300	15 801 935	15 306 786	**15 708 152**
Current assets					
Other current assets	468 535	677 003	1 011 113	1 335 087	**1 455 937**
Cash resources (including restricted cash)	1 051 329	1 703 746	2 144 598	2 871 195	**3 664 447**
Total assets	13 634 840	16 070 049	18 957 646	19 513 068	**20 828 536**
EQUITY AND LIABILITIES					
Share capital and reserves					
Equity attributable to shareholders of the holding company	11 189 751	14 031 378	17 302 592	17 808 956	**18 945 480**
Non-controlling shareholders' interests	126 858	128 910	150 271	15 765	**(33 871)**
Total equity	11 316 609	14 160 288	17 452 863	17 824 721	**18 911 609**
Non-current liabilities					
Deferred taxation	44 835	43 622	63 426	–	**–**
Long-term liabilities	1 645 564	870 782	373 234	367 181	**28 918**
	13 007 008	15 074 692	17 889 523	18 191 902	**18 940 527**
Current liabilities					
Non-interest-bearing	435 813	645 933	529 535	360 300	**892 235**
Interest-bearing	192 019	349 424	538 588	960 866	**995 774**
Total equity and liabilities	13 634 840	16 070 049	18 957 646	19 513 068	**20 828 536**
Exchange rates at year-end					
SA rand to US dollar	8,31	9,96	10,58	12,27	**14,86**
SA rand to euro	10,45	13,00	14,44	13,73	**16,49**

Market capitalisation – analysis – R million



Total assets – R billion