



# **ZCCM INVESTMENTS HOLDINGS PLC**

# ANNUAL REPORT 2017







# **ZCCM Investments Holdings Plc**

Annual report and financial statements for the year ended 31 March 2017



# Contents

	Page
Directorate and Administration	1
Management Committee	2
Chairman's Statement	3 - 6
Report of the Directors	7 - 11
Operations Report	
Subsidiary Companies' Performance	12 - 13
Associate Companies' Performance	14 - 19
Other Investee Companies	20 - 21
Corporate Social Responsibility and Environmental Review	22 - 24
Directors' Responsibilities in Respect of the Preparation of Financial Statements	25
Independent Auditors'Report	26 - 32
Consolidated Statements of Financial Position	33
Separate Statements of Financial Position	34
Consolidated Statement of Profit or Loss and Other Comprehensive Income	35
Separate Statement of Profit or Loss and Other Comprehensive Income	36
Consolidated Statement of Changes in Equity	37
Separate Statement of Changes in Equity	38
Consolidated Statement of Cash Flows	39
Separate Statement of Cash Flows	40
Notes to the Financial Statements	41 - 148
Corporate Information	149



# **DIRECTORATE AND ADMINISTRATION**

# DIRECTORS

The Directors who held office during the year to 31 March 2017 and up to the date of this report were:

Mr. E S Silwamba, SC	Chairman and Non-Executive Director	(Appointed 6 March 2018)
Mr. F K Yamba	Vice Chairman and Non-Executive Director	(Appointed 15 December 2016)
Mr. P M Chanda	Non-Executive Director	(Retired 27 July 2016 and reappointed 15 December 2016)
Mr. M C Kaluba	Non-Executive Director	(Appointed 15 December 2016)
Mr. Y Kachinda	Non-Executive Directors	(Appointed 19 January 2017)
Mr. P Taussac	Non-Executive Director	
Dr. P C Kasolo	Chief Executive Office and Executive Director	
Mr. C Mwananshiku	Non-Executive Director	(Retired 27 July 2016)
Ms. S Mutemba	Non-Executive Director	(Retired 27 July 2016)
Dr. B K E Ng'andu	Non-Executive Director	(Retired 27 July 2016)
Mrs. P C Kabamba	Non-Executive Director	(Retired 27 July 2016)
Mr. T D Mulonga	Non-Executive Director	(Appointed 31 October 2016 and retired on 18 January 2017)



# **MANAGEMENT COMMITTEE**

Management Committee officials who held office during the year to 31 March 2017 and up to the date of this report were:

Dr P C Kasolo	Chief Executive Officer
Mr C Chabala	Chief Corporate Services Officer /Company Secretary
Mr M T Chipata	Chief Financial Officer
Ms Y Mkandawire	General Counsel
Ms W Mangambwa	Chief Risk and Internal Audit Officer
Mr W K Katoto	Chief Technical Officer
Mrs M P Lyama	Acting Chief Investments Officer
Mr P Banda	Human Resource Manager
Mr S C Mubano	Portfolio Manager
Mrs Y C Banda	Finance Manager
Mrs L M Kakoma	Public Relations Manager
Mr C Mjumphi	Corporate Services Manager



# **CHAIRMAN'S STATEMENT**

On behalf of the Board of Directors of ZCCM-IH, I am pleased to share with you the performance of ZCCM Investments Holdings Plc (ZCCM-IH) as a Company and that of its investee companies during the financial year ended 31 March 2017.

Mining will continue to be Zambia's main economic driver for the foreseeable future and, as such, ZCCM-IH will continue to leverage its unique position as a key player in the mining sector to create value for its shareholders. In recent years however, the mining industry by and large saw a dip in growth as a result of sustained low copper prices due to low demand by high copper consumer countries. Furthermore, the first half of 2016 saw a continued deficit in energy, which resulted in low production and productivity hence reduced revenues for most mining companies. The lower than expected performance in the mining sector resulted in reduced revenues for the Company and Group.

The last quarter of 2016 and the first quarter of 2017 saw an improvement in copper production for most major mining companies due to stability in energy supply and an improvement in copper prices on the world market.

Growth in the mining sector is expected to continue as major economies mainly the United States of America and China embark on expansion programs in the manufacturing and infrastructure development sectors. ZCCM-IH is poised to take advantage of the expected buoyance of the mining and related sectors to increase shareholder value.

### **Global economy**

According to the International Monetary Fund (IMF) Report for 2016, the global economy grew by 3.1% reflecting a more subdued growth in advanced economies due to geopolitical reasons mainly in Europe and weaker than expected growth in economic activity in the United States of America. The IMF predicted a recovery of the global economy on the strength of the long awaited recovery in manufacturing and trade with growth estimated to increase marginally to 3.5% at the end of 2017. This growth will further be seen in emerging and developing economies as a result of a gradual improvement in commodity prices. Furthermore, growth is expected to remain strong in China and many other commodity importers.

Growth in Sub-Saharan Africa remained fragile in 2016 owing to lower than expected demand for commodity prices globally. Following the rebound of some commodity prices particularly copper and other minerals, growth is expected to improve marginally to between 5 and 7.5%.

Global annual copper production increased marginally by about 4% to 19.4 million tonnes as at December 2016. London Metal Exchange (LME copper prices increased by 17%, from US\$ 4,710 per tonne at the end of December 2015 to US\$5,500 per tonne at the end of December 2016. The prices have continued to increase steadily since December 2016.

#### **Zambian Economy**

The Zambian economy continued to be affected by two major factors, namely declining copper prices and the energy deficit due to low water levels. Other factors, such as high inflation, negatively impacted the growth of the economy. While copper production was up by around 8.2% to 575,780 metric tonnes in the first nine months of 2016, the mining sector did not fully realise its potential owing to low copper prices and high cost of production as a result of energy deficits. By the end of 2016, the economy had grown to 3% against a target of 5%. As a consequence of these factors, the economy is expected to grow marginally to 3.4% in 2017.



### CHAIRMAN'S STATEMENT (continued)

### **Financial Performance**



The Group recorded turnover of K 95 million (2016: K199 million) and operating profit of K848 million (2016:loss of K 858 million). The low turnover is attributed to low sales recorded for lime and lime products at Ndola Lime Company Limited.



The Group reported a profit before tax of K1,244 million (2016: loss of K 2,865 million). The Group recorded a profit after tax of K 729 million (2016: loss of K 2,912 million). The Group's share of loss of equity accounted investees' losses was K 189 million (2016: loss of K 2,210 million).



## CHAIRMAN'S STATEMENT (continued)

#### Financial performance (continued)



The Group's retained earnings as at 31 March 2017 were positive at K891 million (2016: K 147 million). The increase in retained earnings is attributed to profit recorded at group level of K 729 million (2016: loss of K 2,912 million). The Company's retained earnings increased by 740 % to K 731 million (2016: K 87 million) owing to profit recorded at Company level.

#### **Strategic and New Investments**

#### **Recapitalisation of Ndola Lime Company Limited (NLC)**

Further to the hot commissioning phase of the Recapitalisation Project which commenced in prior the year, NLC continued to optimise the performance of the Vertical Kiln (VK2). The project was met with a series of technical hurdles which affected the performance the company.

The Board is undertaking a review of the entire operation of the company to determine an appropriate option that will result in improving the operations of NLC as well the performance of the Group.

#### **Energy Sector**

ZCCM-IH has continued to explore opportunities in the energy sector. With the commissioning of the first phase of the Maamba Collieries Limited (MCL) Thermal Power Plant (TPP), plans are underway to explore investment in the second phase of the TPP.

#### **Manufacturing Sector**

As part of its diversified program, ZCCM-IH is looking at value addition options for the limestone deposit in Ndola by developing a cement manufacturing plant. ZCCM-IH will develop the cement plant with the support of strategic and equity partners.



### CHAIRMAN'S STATEMENT (continued)

#### **Capital Market**

The ZCCM-IH share price on the Lusaka Securities Exchange closed the year at K38 (2016: K40). The market capitalisation as at 31 March 2017 reduced to K6,110 million (2016: K6,431 million). The marginal reduction in the share price is indicative of the general stock market performance, which has experienced low liquidity and hence low share transactions.

#### Outlook

The Zambian economy is expected to continue on a recovery path and maintain a steady growth of around 3.4 percent in 2017. This growth is hinged on key sector policy interventions in agriculture, tourism, industrialisation and mining within a diversification framework. The move to more cost reflective tariffs is expected to improve investment in the energy sector which will help drive growth in the key sectors of the economy.

Copper prices are expected to increase steadily premised on increased demand from high copper consumer countries. ZCCM-IH's performance is expected to improve as a result of the improvement in copper prices which drive the performance of the mining portfolio. Furthermore, as a result of good rains experienced during the 2016/17 season, the generation capacity of hydroelectricity is expected to improve, thereby stabilising energy supply.

The recovery in copper prices as well as stability in energy supply will contribute to the growth in copper production, which in turn will lead to growth in copper exports. The expected growth is further confirmed by additional investments of over \$ 2 billion over the next several years announced by major multinational investors in the mining sector of Zambia.

In response to the positive outlook, ZCCM-IH will implement a new Strategic Plan hinged on expansion of its investment footprint in various sectors of the economy including mining with a focus on industrialisation, energy, agriculture, manufacturing, real estate and financial services.

#### **Appreciation**

I express sincere gratitude to my fellow Board members, the immediate past Board members, the Management and Staff of ZCCM-IH for their dedication and commitment during the past year. I again extend my gratitude to the shareholders and investee companies for their efforts and contributions during the year.

Mr. Æ S Silwamba, SC Chairman



# **REPORT OF THE DIRECTORS**

The Directors submit their report together with the audited financial statements for the year ended 31 March 2017, which disclose the state of affairs of ZCCM Investments Holdings Plc ('the Company') and its subsidiaries (together "the Group").

#### Shareholding

The Group has the following interests in the undernoted companies:

1	Ndola Lime Company Limited	100.00%
2	Misenge Environmental and Technical Services Ltd	100.00%
3	Nkandabwe Coal Mine Limited	100.00%
4	Mawe Explorations and Technical Services Limited	100.00%
5	Kariba Minerals Limited	50.00%
6	Investrust Bank Plc	45.40%
7	Maamba Collieries Limited	35.00%
8	Konkola Copper Mines Plc	20.60%
9	Kansanshi Mining Plc	20.00%
10	Copperbelt Energy Corporation Plc	20.00%
11	CEC Africa Investments Limited	20.00%
12	Lubambe Copper Mine Plc	20.00%
13	CNMC Luanshya Copper Mines Plc	20.00%
14	NFC Africa Mining Plc	15.00%
15	Chibuluma Mines Plc	15.00%
16	Chambishi Metals Plc	10.00%
17	Mopani Copper Mines Plc	10.00%
18	Nkana Alloy Smelting Company Limited	10.00%

#### Share capital

The authorised share capital of the Company remained unchanged at K2,000,000 divided as follows:

120,000,000	"A" Ordinary Shares of K 0.01 each; and
80,000,000	"B" Ordinary Shares of K 0.01 each.

During the year, the issued share capital remained unchanged at 160,800,286 shares with a nominal value of K1, 608,003 as detailed below:

	Number of shares	Amount K
At beginning and end of year	160,800,286	1,608,003



The shares were held as follows:

	Olasa	Sharehold	Amount	
SHAREHOLDER	Class	Number of Shares	%	К
Industrial Development Corporation	А	96,926,669	60.30	969,267
Minister of Finance	В	27,735,173	17.30	277,352
NAPSA	В	24,120,043	15.00	241,200
Other Shareholders	В	12,018,401	7.40	120,184
Total	A and B	160,800,286	100.00	1,608,003

The 12,018,401 "B" ordinary shares are thinly spread and as at 31 March 2017 were held by 4,257 non-controlling shareholders, mainly based in Europe.

#### **Directors' interests in shares**

According to the register of directors' shareholdings:

- Dr P C Kasolo (Executive Director) held 2000 shares in the Company directly in his own name; and
- Mr P Taussac (Non-Executive Director) held 160,589 shares directly and indirectly.

#### **PRINCIPAL ACTIVITIES**

ZCCM –IH (" the Company") is an investments holdings company which has a primary listing on the Lusaka Securities Exchange and secondary listings on the London and Euronext Stock Exchanges. The Company has the majority of its investments held in the copper mining sector of Zambia. Its principal activities include managing the Zambian Government's stake in the mining sector. Other activities include:

- Developing and implementing investments strategies and aligning company operations towards maximizing of shareholder value;
- · Monitoring investee companies to ensure they consistently declare reasonable dividends and ensure Company growth;
- Ensuring effective representation on the boards of the investee companies;
- Establishing and securing joint venture partnerships for projects assessed to be viable; and
- Promoting Zambian ownership and management in mining assets.

#### **Strategic Focus Areas of the Company**

In its transformed state as an investments holding company, the Company's Strategic focus areas are in the following sectors:

- Mining;
- Energy;
- Financial Services;
- Real Estate;
- Manufacturing; and
- Agriculture.



#### **DIVIDENDS PAID**

The Directors proposed to pay a dividend of K 0.84 per share for the year ended 31 March 2017 (2016: Nil).

#### **CORPORATE GOVERNANCE**

CORPORATE GOVERNANCE

The Group continued to operate by enforcing good corporate governance practices.

Company activities were further streamlined by the full utilisation of the existing Audit, Remuneration and Investments Committees of the Board whose membership as at the date of this report is indicated below:

#### **Audit Committee**

Mr M Kaluba (Chairman) Mr Y Kachinda Mr P Taussac Dr P C Kasolo

# Remuneration Committee Mr P M Chanda (Chairman) Mr Y Kachinda Mr F K Yamba Dr P C Kasolo

#### **Investments Committee**

Mr P. Taussac Mr P Chanda Mr M Kaluba Dr P.C. Kasolo Mr M. T. Chipata Mrs M P Lyama Mr C Mpundu Mr B Nundwe Mr P Mapani (Chairman)

Chief Executive Officer Chief Financial Officer Acting Chief Investments Officer Co-opted Investments Specialist Co-opted Investments Specialist Co-opted Member



#### **CORPORATE GOVERNANCE** (continued)

Record of attendance of Board and Committee Meetings held during the year to 31 March 2017.

#### **Board Meetings:**

Date of Meeting	09-Jun-16	17/06/16	18/07/16	16/12/16	29/12/16	03/02/17
Mr Fredson K Yamba (V-Chairman)	N/A	N/A	N/A	$\checkmark$	$\checkmark$	$\checkmark$
Mr Yollard Kachinda	N/A	N/A	N/A	$\checkmark$	$\checkmark$	•
Mr Kaluba C Mateyo	N/A	N/A	N/A	$\checkmark$	$\checkmark$	$\checkmark$
Mr Cosmas Mwananshiku	$\checkmark$	$\checkmark$	$\checkmark$	N/A	N/A	N/A
Dr Bwalya Ng'andu	✓	$\checkmark$	$\checkmark$	N/A	N/A	N/A
Mrs Pamela C Kabamba	$\checkmark$	$\checkmark$	$\checkmark$	N/A	N/A	N/A
Ms Sophie Mutemba	✓	✓	~	N/A	N/A	N/A
Mr Phillipe Taussac	✓	$\checkmark$	~	~	✓	√
Mr Paul Chanda	✓	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Dr Pius C Kasolo		~	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$

### Audit Committee Meetings:

Date of Meeting	26/05/16	25/01/17	
Mr Kaluba C Mateyo(Chairman)	6		
Mr Cosmas Mwananshiku	✓ Si	N/A	
Mrs Pamela C Kabamba		N/A	
Ms Sophie Mutemba	1	N/A	
Mr Phillipe Taussac	Sec. √	$\checkmark$	
Dr Pius C Kasolo	$\checkmark$	1	
Mr Y Kachinda	N/A		

#### Investments Committee Meetings:

Date of Meeting	27/05/16	26/01/17
Mr Phillipe Taussac(Chairman)	$\checkmark$	$\checkmark$
Mrs Pamela C Kabamba	$\checkmark$	N/A
Mr Paul Chanda	$\checkmark$	
Dr Bwalya Ng'andu	$\checkmark$	N/A
Mr Charles Mpundu	$\checkmark$	$\checkmark$
Mr Patrick Chisanga	$\checkmark$	$\checkmark$
Mr Basil Nundwe		$\checkmark$
Mr S Mubano	$\checkmark$	$\checkmark$
Dr Pius C Kasolo	$\checkmark$	$\checkmark$
Mr Mabvuto Chipata	$\checkmark$	$\checkmark$
Mr. M Kaluba	N/A	$\checkmark$

Key

✓ In attendance

N/A Not in attendance

Not a member on stated date of meeting



#### **Remuneration Committee Meetings:**

Date of Meeting	19/04/16	26/05/16	15/07/16	24/01/17
Mr Paul Chanda (Chairman)	$\checkmark$	✓	✓	$\checkmark$
Dr Bwalya Ng'andu	$\checkmark$	$\checkmark$	N/A	N/A
Mr Cosmas Mwananshiku	$\checkmark$	✓	$\checkmark$	N/A
Ms Sophie Mutemba	$\checkmark$	✓	$\checkmark$	•
Dr Pius C Kasolo	$\checkmark$	✓	$\checkmark$	$\checkmark$
Mr Yollard Kachinda	N/A	N/A	N/A	•
Mr Fredson Yamba	N/A	N/A	N/A	$\checkmark$

✓ In attendance

Not in attendance

N/A Not a member on stated date of meeting

#### Average Number and Remuneration of Employees

The total remuneration of employees during the year amounted to K90.6 million (2016: K72.9 million) for the Group and K54.3 million (2016: K25.9 million) for the Company. The average number of employees was as follows:

Month	Subsidiaries	Company	Group	Month	Subsidiaries	Company	Group
April 2016	424	68	492	October 2016	376	70	446
May 2016	404	68	472	November 2016	373	72	445
June 2016	409	68	477	December 2016	365	74	439
July 2016	397	68	465	January 2017	364	74	438
August 2016	392	68	460	February 2017	361	74	435
September							
2016	391	70	461	March 2017	356	74	430

#### Staff expenses

Subsidiary Companies
ZCCM-IH

Signed on their behalf by:

Director

2017 2016 K'000 36,298 46,993 54,288 25,905 90,586 72,898

S-E. Director



# **OPERATIONS REPORT**

#### (A) Subsidiary Companies

The performance of the subsidiary companies for the year ended 31 March 2017 is summarised below:

#### 1 Ndola Lime Company Limited

Ndola Lime Company Limited (NLC) reported total revenues for the financial year ended 31<sup>st</sup> March 2017 of K89.6 million (2016: K196.6 million) and a loss before tax of K1,163 million (2016: K82.3 million loss).

Major contributors to the loss was lower sales of 75.7% (K279.4 million) below budget, impairment of the plant amounting to K861 million, finance costs and penalties on overdue Zambia Revenue Authority (ZRA) tax obligations totalling K93.7 million.

Ndola Lime Company ("NLC") has been working on optimizing a second vertical kiln ("VK-2") to be powered by coal that will result in additional capacity of 500 tonnes per day. The primary objectives of the VK2 is to substitute the inefficient and out-dated operations of the Rotary Kiln and reduce operational expenses attributable to the use of Heavy Fuel Oil ("HFO") through the use of coal. Following the perennial escalation in costs related to the Recapitalization Project (RP) and adverse financial performance from the latter half of 2013 onwards, owing to a myriad of factors including significant escalations in the price of HFO, loss of market share, ZCCM-IH resolved to finance the completion of the RP which has cost about \$105 million to date. The hot commissioning of the project started in December 2015. However, the commissioning of the project has been met with a lot of challenges.

There were no dividends declared during the year under review (2016: Nil).

#### 2 Misenge Environmental and Technical Services Limited (METS)



Photo 1: Improving access to safe drinking water in Sinda District of Zambia Rehabilitated Gullies at TD 10- Mufulira

Misenge Environmental and Technical Services Limited (METS) earned a total of K8.80 million as revenue for the year ended 31<sup>st</sup> March 2017 (2016: K6.22 million).



#### (A) Subsidiary Companies (continued)

#### 2 Misenge Environmental and Technical Services Limited (METS) (continued)

K2.63 million of the total revenue, was realised from recurring services to ZCCM-IH (2016: K5.15 million) and K6.17 million was from non-ZCCM-IH sources (2016: K1.10 million). METS recorded a loss before tax of K1.25 million (2016: K2.90 million loss).

During the year under review, ZCCM-IH advertised for the purchase of Fume extractors and Dust extractors to be installed at the Kabwe Analytical Laboratory. When the remaining works at the laboratory are complete, METS will be in a position to provide more analytical services at the laboratory and increase revenue.

There were no dividends declared during the year under review (2016: Nil).

#### 3 Mawe Exploration and Technical Services Limited and Nkandabwe Coal Mine Limited

The process of unwinding of Mawe Exploration and Technical Services Limited (Mawe), and Nkandabwe Coal Mine Limited (Nkandabwe) continued during the year under review. The winding up process commenced in 2015 after the operations of Mawe were reverted to ZCCM-IH in March 2015.

On the other hand, operations of Nkandabwe Coal Mines Limited ceased in March 2015 when its mining licence was cancelled and resissued to the previous owners, Collum Coal Mining Industries Limited.





#### (B) Associate Companies' Performance

The performance of associate companies for the year ended 31 March 2017 is summarised below:

#### 1. Kariba Minerals Limited

For the financial year ended 30th June 2016, Kariba Minerals Limited (Kariba) reported total revenues of K21.34 million (2015: K11.58 million - restated) with a profit after tax of K 1.14million (2015: K12.73 million loss - restated).

For the financial year ended 30<sup>th</sup>June 2016, Kariba Minerals produced a total of 964,548 Kg (2015: 983,707 Kg) of rough amethyst. During the same financial year, Kariba sold 16.7 million carats of high-grade rough amethyst through two auctions in Singapore in September 2015 and in Lusaka in April 2016 for a total of K6.51 million (US\$0.66 million) in revenue from the auctions. Kariba's ore production was at 15,927 tonnes in the year ending 30<sup>th</sup> June 2016 (2015: 30,432 tonnes).

Kariba constructed a new sort house to meet the market demand from new customer orders for specific high quality, small sizes of amethyst under natural light conditions. Additional storage silos were constructed to increase the stock holding capacity to 800 tonnes.

There were no dividends declared during the financial year ended 30<sup>th</sup> June 2016 (2015: Nil).

#### 2. Maamba Collieries Limited

Maamba Collieries Limited (MCL) reported total revenue of K100.38 million (US\$10.18 million) for the year ended 31<sup>st</sup> March 2017 (2016: K121.9 million (US\$12.34 million) and had profit after tax of K21.2 million (US\$2.15 million) (2016: K52.85 million (US\$5.35 million). The company's assets exceeded its liabilities by K1,023.8 million (US\$107.91 million) as at 31<sup>st</sup> March 2017 (2016: K1.180.61 million) (US\$105.6 million)). Additionally, the company has accumulated losses amounting to K842.72 million (US\$87.69 million) (2016: K999.49 million (US\$89.4 million).

During the year under review, MCL commissioned the first 150 MW Thermal Power Plant in August 2016 and the second 150MW was commissioned in November 2016 and the Commercial Operations Date was set for 31<sup>st</sup> December 2016.Maamba Collieries Limited is currently supplying 270MW to ZESCO. The revenue and financial position of the company is expected to improve in the future after the commissioning of the Thermal Power Plant.

There were no dividends declared during the year under review (2016: Nil).



#### (A) Associate Companies' Performance (continued)

#### 3 Konkola Copper Mines Plc

Konkola Copper Mines (KCM) reported total revenue of K8,621.47 million (US\$874.3 million) for the financial year ended 31<sup>st</sup> March 2017 (2016: K9,607.04 million (US\$972.5 million). The reduction in revenue was attributed to lower metal prices through a large part of the financial year, with copper prices surging upwards in the latter quarter thereof. The net loss for the year was at K1,367.72 million (US\$138.7 million) (2016: K3,685.75 million) (US\$373.1 million loss).

Total finished copper production during the financial year was marginally down 1.1% to 180 000 tonnes for the year ended March 2017 (2016: 182 000) compared to the previous financial year.

During the year under review, KCM production volumes were constrained due to the Nchanga Underground Mine being placed under care and maintenance on the tail end of the previous financial year and lower equipment availability across other operating units.

Moving forward, KCM's strategy continues to be underpinned by vigorously pursuing higher operating productivity levels at the Konkola underground mine, more reliable TLP facility with potential to increase recoveries, increased usage of the smelter by processing third-party concentrates from Zambia and DRC, and improved cost cutting measures.

There were no dividends declared during the year under review (2016: Nil).

#### 4 Kansanshi Mining Plc

Kansanshi Mining Plc (KMP) had sales revenue of K14.51 billion (US\$1.47 billion) (2015: K9.69 billion (US\$1.49 billion) for the financial year ended 31st December 2016. Although total copper production was up 20% at 272,843 tonnes (2015: 226,674 tonnes), realised prices were lower than the previous year resulting in a decline in revenue. Gold production was 9% higher at 148,220 ounces (2015: 136,257 ounces) due to higher concentrate production.

Over the next five to six years the Company plans on gradually shifting towards sulphide mining as oxide materials coming out of the mine are reducing. As a result there was need to double the Sulphide ore throughput to sustain current Copper Production levels. If the latter is not done the levels of production would gradually drop from 250,000 tonnes in 2017 to 245,000 tonnes in 2018, then to 240,000 tonnes in 2019, 202,000 in 2020, 174,000 in 2021 and would continue to decline to levels of 50% of current production post 2021.

In this connection, a US\$1.5 billion investment in the Company has been envisaged to sustain the said production and significantly improve other facets of mine operations. Additional smelter capacity would in turn be required as the current Smelter capacity would not be able to cater for increased Sulphide concentrate production. High level electricity would have to be supplied to the mine so as to also capacitate the two Smelters. The Company already has grave concerns over the security of power supply from ZESCO. Since the reduction of power supply from 200 megawatts to 165 megawatts, parts of the business had to be shut down such as the High Pressure Leach system which was still not operating.

The profit for the year 2016 was K1, 248.3 million (US\$126.5 million) (2015: loss of K9.11million (US\$1.4 million) and had been added to the retained earnings to contribute towards raising the US\$1.5 billion required for capital projects.

No dividends were paid during the year ended 31 December 2016 (2015: K52.04 million (US\$ 8 million).



#### (B) Associate Companies' Performance (continued)

#### 5 Copperbelt Energy Corporation Plc

The Company continued to be listed on the LuSE and has 50% direct shareholding in CEC Liquid Telecommunications Limited, a joint venture company registered and domiciled in Zambia. CEC Liquid Telecom wholly owns Hai Telecommunications Limited.

During the financial year ending 31st December 2016, adjusted EBITDA was K888.12 million (US\$90 million) compared to K520.35 million (US\$80 million) the previous period posting an increase of 12.5% average. The increase in adjusted EBITDA is attributed to increased power trading income and the aggressive cost management initiatives, which impacted positively on the results.

Revenue at K3,503.14 million (US\$355 million) was equivalent to the revenue in 2015 despite a drop of about 15% in domestic power supplies which had an equivalent reduction in domestic power sales from K2,743.3 million (US\$278 million) to K2,180.83 (US\$221 million.)

The increase in power trading supplies resulted in an overall increase of 86% in power trading revenue, which compensated for the drop in domestic power sales. Overall, domestic power sales remain the prime revenue source contributing 62% of the total revenue down from 78% the previous year, with power trading revenue increasing from 18% the previous year to 34% of total revenue.

The demand for electricity is expected to increase following plans to ramp up production on account of NFCA's South East body project, MCM's Synclinorium and KCM's Konkola Deep Mining Project.

CEC Liquid Telecom continues to outperform past financial and operational results. Revenue at K207.23 (US\$21 million) grew at 17% while gross margin and EBITDA increased by 10% and 33% respectively. The above financials are based on consolidated results of CEC Liquid Telecom incorporating Hai. The company, during the year, secured long term funding to support its expansion projects; mainly new backhaul bandwidth fibre connecting Zambia to Botswana and Namibia. This enables the creation of a robust network, reinforcing the strategy of operating the Zambian network as a regional hub. Further, the business commissioned its first investment in LTE spectrum, a wireless solution for provision of connectivity solutions as an alternative to fibre solution. Further investments are planned in this area to grow the business and realize the expected market disruption.

Effective 30th December 2016, CEC Africa was separated from the CEC Group and is now a sister company to CEC Plc rather than its wholly owned subsidiary. At an EGM held on 9th December 2016, the shareholders, on the proposal of the board, resolved to dividend out CEC Africa as a distribution to the shareholders of CEC. Hence, a dividend in specie of CEC Africa from CEC Plc to its shareholders was made. The effect of that transaction is that both CEC Plc and CEC Africa are now held by the same shareholders. The action was premised on the assumption that shareholders must be allowed to measure the performance of the two entities separate from each other as they face very different risks, and to enable the shareholders retain any upside that may occur in CEC Africa in the future.

The future business outlook for CEC Plc is positive, with growth expected to be derived from the increase in local power supply demand arising from the commissioning of new mine projects currently under construction. The positive outlook in the copper price demand forecast has further ignited mining activities in Zambia and the DRC, creating an opportunity for increased demand. Lastly, growth is expected to come from the strategy around power trading and focus on the DRC mining supplies market in addition to the support for industry-wide cost reflective tariffs.



#### (B) Associate Companies' Performance (continued)

#### 5 Copperbelt Energy Corporation Plc (continued)

During the year, the Company paid out two dividends to its ordinary shareholders, the first being a cash dividend of K161.84 million (US\$16.4 million) paid in the first quarter of 2016. The second dividend was a dividend in specie of CEC Africa of K9.68 (US\$1). This dividend was paid on 30th December 2016.

The CEC Board on Tuesday, 7th February 2017 recommended an interim dividend of US Cents 1.29 per ordinary share, which translates to 12.80 Ngwee (K0.1280) per share, using the Bank of Zambia mid-rate applicable on the date of declaration. The dividend was paid to the shareholders registered in the share register of the Company at the close of business on Friday, 3rd March 2017.

#### 6 CEC Africa Investments Ltd (CEC Africa)

The Company incurred a net loss for the year ended 31 December 2016 of K2, 656.58 million (US\$269.21 million) (2015: K6.15 million (US\$0.945 million)) and, at that date the Company's total liabilities exceeded total assets by K1, 630.08 million (US\$158.85 million (2015: total assets exceeded total liabilities by K805.73 million (US\$106.36 million)) and the current liabilities exceeded its current assets by K1, 808.36 million (US\$176.22 million) (2015: K284.41 million (US\$37.54 million)).

The Company's net loss was mainly due to the recognition of impairments on the trade and other receivables & intercompany loans with its subsidiary, KANN, of K2,548.53 million (US\$258.26 million) and an impairment of its investment in associate, North South Power Limited of K140.61 million (US\$14.25 million). The devaluation of the Naira against the US Dollar has also resulted in significant exchange losses recognised in the financial statements of KANN. Also CEC Africa has guaranteed the loan between KANN and the UBA. A notice of default has been issued by UBA which has resulted in the recognition of a liability in the Company's financial statements.

CEC Africa is refocusing efforts on consolidating and stabilizing the Nigerian operating assets in the immediate to medium term, and position for growth in the longer term. These efforts include:

- Immediate sale of CECA's stake in Sierra Leone to a reputable institutional investor/developer.
- Divestment of some early stage developments given the bankability challenges and limited resources available.

No dividends were declared and paid by the Company during the year (2015: Nil).



#### (B) Associate Companies' Performance (continued)

#### 7 Lubambe Copper Mine Limited

Lubambe continued with restructuring through downsizing of output and the reduction of related labour cost. The largest contributors to the unit cost savings were a reduction in labour cost due to a 66.00% reduction in expatriate labour, a reduction in stoping dilution obtained through an improvement in the mining stoping method, and a 4.00% increase in plant recoveries obtained through plant optimisation initiatives.

This is 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 ore body whilst implementing a strategy to upgrade the underground dewatering infrastructure

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 was 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.

During the second half of 2016, 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.

There were no dividends declared during the year under review (2015: Nil).



#### (B) Associate Companies' Performance (continued)

#### 8 CNMC Luanshya Copper Mines Plc

CNMC Luanshya Copper Mines plc (CNMC) recorded a turnover of K1, 700.75 million (US\$172.35 million) (unaudited) for the year ended 31st December 2016 (2015: K1, 311.94 million (US\$201.7 million). The loss after tax was K306.40 million (US\$31.05 million) (2015: K831.07 million (US\$127.77 million) loss).

There were no dividends declared during the year under review (2016: Nil).

#### 9 Investrust Bank Plc

Investrust Bank Plc (Investrust) recorded an 8.22% decrease in net interest income to K40.82 million during the year ended 31st December 2016 (2015: K37.72 million). Interest rates on loans and advances were adjusted upwards following the removal on the lending rate caps for commercial banks. Nonetheless, the growth in net interest income remained constrained due to the high cost of funds on term deposits which form a significant part of Investrust's deposit base.

Total operating expenses reduced by 19% to K148 million (2015: K183 million). This was mainly attributed to a non-recurring expense in respect of redundancy and severance booked the previous financial period. Salaries and staff benefit costs declined by 4% to K65 million (2015: K67 million). During the year under review, the bank recorded a loss of K48 million (2015: K51 million).

During the financial period, Investrust embarked on a capital raising exercise through a Clawback Rights Offer to meet the minimum capital requirement set by Bank of Zambia. ZCCM-IH fully underwrote the offer. Subsequent to the completion of the Rights Offer, ZCCM-IH's shareholding increased from 10.6% to 48.6%. In the latter part of the financial period, Investrust undertook another capital raise through the issuance of non-voting preference shares, which saw the bank's primary capital increase beyond the minimum capital requirement.

The bank's share price on the LuSE closed the period under review at K13.50 (2014: K13.50).

There were no dividends declared during the financial year ended 31st December 2015 (2014: Nil).



#### (C) Other Investments

#### 1 NFC Africa Mining Plc

NFC Africa Mining Plc (NFCA) recorded a turnover of K1,716.05 million (US\$173.9 million) for the financial year ending 31st December 2016 (2015: K677.11 million (US\$104.1 million) as a result of increased sales volumes. NFCA recorded a loss after tax of US\$31.1 million (2015: K45.8 million loss).

NFCA continues to work on the development of the South East Ore Body project. The company reported project expenditure of K2,666.33 million (US\$270.2 million) as at 31st December 2016. Total planned project investment is K8,537.65 (US\$832 million). Once completed, the project is expected to extend the life of the mine for 20 years. The design and annual capacity at full production is estimated at 3.3 million tonnes of ore containing 60 000 tonnes of copper.

There were no dividends paid during the year ended 31st December 2016 (2015: Nil).

#### 2 Chibuluma Mines Plc

Revenue for the financial year ended 31st December 2016 was K492.41 million (US\$49.9 million) (unaudited) (2015: K432.54 (US\$66.5 million)). Net loss over the same period was K29.60 million (US\$3.0 million) (2015: K127.49 million (US\$19.6 million). Chibuluma Mines PIc's (CMP) cash position increased to K16.83 million (US\$1.64 million) as at 31st December 2016 (2015: K0.42 million (US\$0.056 million).

Production continued to be negatively affected by the poor availability of mining production equipment due to frequent breakdowns of machines, a typical feature of an aged fleet, which coupled with depleting ore reserves resulted in reduced volumes and contributed to constrained cash flow at the company.

The Company has been making progress towards commissioning of the Chifupu Mine Project and was awaiting the installation of 220 Kw ventilation fans to service lower production mine levels.

The company continued implementation of various cost saving and cost containment initiatives to ensure it achieved its set Key Performance Indicators and advance from a loss to a profitable position.

Management was also focusing on identifying and progressing viable initiatives which would assist in extending the footprint of the Jinchuan/Metorex Group in Zambia beyond the current Life of Mine.

No dividends were paid for the financial year ended 31st December 2016 (2015: Nil).



#### (C) Other Investments (continued)

#### 3 Chambishi Metals Plc

The Company made a profit before tax of K43.42 million (US\$4.4 million) (2015: Net loss of K260.83 million (US\$40.1 million) and its current liabilities exceeded its current assets by K2,776.79 million (US\$270.6 million) (2015: net current liability position of K1,885.63 million (US\$289.9 million). The Company also had a deficit in shareholder funds of K1,232.42 million (US\$120.1 million) (2015: Deficit in shareholder funds of K809.80 million (US\$124.5 million).

The Eurasian Resources Group has confirmed its intention to continue to provide financial support to the Company to enable it to continue its operations and meet its obligations.

No dividends were paid in 2016 (2015: Nil).

#### 4 Mopani Copper Mines plc

During the financial year ending 31st December 2016, Mopani Copper Mines (MCM) recorded net revenue of K2, 519.99 million (US\$255.37 million) (2015: K7, 291.43 million (US\$1,121 million). The net loss was at K1, 776.14 million (US\$179.99 million) (2015: K1, 853.75) US\$285 million net loss).

During the year ending 31st December 2016, MCM produced a total of 41,100tonnes of copper from own sources (2015: 92,100 tonnes). The 55% lower production figures in 2016 compared to 2015 were driven by the partial suspension of production, which were aimed at improving MCM's operations and cost reduction. Progress was made in the upgrading as MCM's Synclinorium Shaft at Nkana was commissioned and started to hoist ore at the end of 2016.

During the year under review, Mopani produced 41,100 tonnes of copper from own sources and this was 51,000 tonnes (55%) lower than the previous year due to the partial suspension of production while the major upgrade projects are being completed.

There were no dividends paid during the financial year ended 31st December 2016 (2015: Nil).

#### 5 Nkana Alloy Smelting Company Limited

The interlocutory order of injunction on the company in the past, restraining it from interfering with activities on the slag dump was still in effect. The plaintiffs, Lunga Mineral and Exploration Limited, were to be handed the property for purposes of commencing prospecting works at the site as per the mineral processing licence until determination of the matter. The order further directed that the plaintiffs and the local community it has partnered with, be given reasonable, unfettered and immediate access to the process area.



#### (d) Corporate Social Responsibility and Environmental Review

#### (A) Corporate Social Responsibility (CSR)

The Company continued to meet its social obligations during the year by supporting various social and cultural events and educational programs among others. The major CSR activities for year were aimed at supporting the realisation of the United Nations' Sustainable Development Goals (SDG) particularly SDG number six (6) which aims at 'Ensuring access to water and sanitation for all'. During the year, ZCCM-IH spearheaded activities aimed at access to clean water in some remote areas of Zambia.





#### (d) Corporate Social Responsibility and Environmental Review (Continued)

#### (A) Corporate Social Responsibility (Continued)

ZCCM-IH supported livelihoods improvement interventions focused on women by promoting horticultural farming activities. ZCCM-IH provided Treadle Pumps to ten (10) women groups aimed at improving access to water for irrigation thereby increasing sources of income from farming activities.



Photo 2: Some beneficiaries of Treadle Pumps in Sinda District

In total, the Company spent K0.21 million (2016: K0.2 million) in supporting various corporate social responsibility activities.



#### (d) Corporate Social Responsibility and Environmental Review (continued)

#### (B) Environmental Review

The Company's environmental related activities continued to be managed through Misenge Environmental and Technical Services Company Limited (METS), a wholly owned subsidiary of ZCCM-IH. Some of the major activities undertaken included the following:

- Integrated Case Management (ICM) Monitoring and Testing: METS conducted home visitations in various townships of Kabwe. The purpose of conducting the home visitations was to assess and assist caregivers of children with persistently high blood lead levels on implementation of messages on aimed at prevention of lead exposure and poisoning. Further, ICM clinics were conducted at Chowa, Kasanda and Makululu Health Centres and a total of 3,031children attended ICM clinics during the year. Soil monitoring tests were also conducted in various communities to determine potential sources of lead exposure for children with persistently high blood lead levels.
- Inspection and Maintenance of Tailing Dams (TD) and Over Burdens (OB) in Kitwe and Mufulira. This
  included water sampling and testing from the spillways as well as dam seepage to ensure that there was
  limited contamination of water.
- Monitoring of the Radioactive Waste Storage Building in Kalulushi: radiation surveys were conducted to determine typical background dose rates and ensure that the levels were maintained within acceptable limits.
- Inspection and Maintenance of Uranium Tailings Engineered Disposal Cell: This included monitoring of radiation dose at the facility to ensure protection of the public and the environment from ionising radiation.

Dr. Pius C. Kasolo Chief Executive Officer



**ZCCM Investments Holdings Plc** Annual report for the year ended 31 March 2017

# Directors' responsibilities in respect of the preparation of consolidated and separate financial statements

The directors are responsible for the preparation and fair presentation of the consolidated and separate financial statements of ZCCM Investments Holdings Plc, comprising the statements of financial position at 31 March 2017, the statements of profit or loss and other comprehensive income, changes in equity and cash flows for the year then ended, and the notes to the financial statements, which include a summary of significant accounting policies and other explanatory notes, in accordance with International Financial Reporting Standards and the requirements of the Companies Act of Zambia. In addition, the directors are responsible for preparing the directorate and administration, management committee, chairman's statement, report of the directors, operations report and page 149 corporate information.

The directors are also responsible for such internal controls as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error and for maintaining adequate accounting records and an effective system of risk management.

The directors have made an assessment of the company and its subsidiaries' ability to continue as going concerns and have no reason to believe the businesses will not be going concerns in the year ahead.

The auditor is responsible for reporting on whether the consolidated and separate financial statements are fairly presented in accordance with International Financial Reporting Standards and the requirements of the Companies Act of Zambia and the securities Act of Zambia.

Following the enactment of the Securities Act of Zambia in December 2016, the Securities and Exchange Commission (SEC) issued a public notice temporarily exempting the Board of Directors and Auditors of a listed company or companies whose securities are registered with the Commission, from reporting on the effectiveness of the company's internal control system in the annual report as required by section 147.

The exemption covering periods ending on or before 31st December 2018 is to allow the Commission and stakeholders develop and implement an appropriate reporting framework to guide the form and content of compliance with the requirements of the Act.

#### Approval of the financial statements

The consolidated and separate financial statements of ZCCM Investments Holdings Plc, as identified in the first paragraph, were approved by the board of directors on 29 March 2018 and signed on its behalf by:

Director

Director



KPMG Chartered Accountants First Floor, Elunda Two Addis Ababa Roundabout Rhodes Park, Lusaka PO Box 31282 Lusaka, Zambia

#### Independent auditors' report to the shareholders of ZCCM Investments Holdings Plc

#### Report on the consolidated and seperate financial statements

Opinion

We have audited the consolidated and separate financial statements of ZCCM Investments Holdings Plc ("the Group and Company") set out on pages 33-148, which comprise the consolidated and separate statements of financial position as at 31 March 2017, and the consolidated and separate statements of profit or loss and other comprehensive income, consolidated and separate statements of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated and separate financial statements present fairly, in all material respects, the consolidated and separate financial position of ZCCM Investments Holdings Plc as at 31 March 2017, and its consolidated and separate financial performance and consolidated and separate cash flows for the year then ended in accordance with International Financial Reporting Standards and the requirements of the Companies Act and the Securities Act of Zambia.

#### **Basis for Opinion**

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated and Separate Financial Statements section of our report. We are independent of the group and company in accordance with International Ethics Standards Board for Accountants Code of Ethics for Professional Accountants (IESBA Code), and we have fulfilled our other ethical responsibilities in accordance with the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### **Key Audit Matters**

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

The key audit matters set out below relate to our audit of both the consolidated and the separate financial statements.

KPMG Chartered Accountants, a Zambian partnership, is a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved.

*Partners:* A list of partners is available at the above mentioned address.



# Valuation of investments in associates and financial assets at fair value through profit or loss - (applicable to separate financial statements)

(Refer to note 4 use of estimates and judgement, note 19 investments in associates, note 20 financial assets at fair value through profit or loss, note 36 financial instruments and note 39(c) accounting policies).

Key audit matter	How the matter was addressed
As at 31 March 2017, the investments in associates and financial assets at fair value through profit or loss (the "Investments") of ZMK5,365 million, represents 89% of total assets of the financial statements. These investments are measured at fair value in the separate financial statements and are categorised as a level 2 and 3 in terms of the fair value hierarchy. During the current year there was a significant increase in the fair values of these investments due to stability in the energy supply and improvement in the copper prices. The valuation of the Company's investments is performed by an external valuation expert and has applied the following valuation methods:	<ul> <li>Our audit procedures included:</li> <li>We evaluated the competence, experience and independence of the external valuation expert.</li> <li>We evaluated the design, implementation and operating effectiveness of key internal controls over management of valuation risk, as well as evaluating the methodologies and inputs, parameters used by the Group's external valuation expert in determining the fair value.</li> <li>We challenged the significant judgements and estimates applied by management against our understanding of current market practice and conditions.</li> <li>We involved our own valuation specialist in evaluating the appropriateness of the valuation models used</li> </ul>
The valuation of the Company's investments is performed by an external valuation expert and has applied the following valuation methods:	<ul><li>applied by management against our understanding of current market practice and conditions.</li><li>We involved our own valuation specialist in evaluating</li></ul>
	<ul> <li>and net asset value method, we evaluated the appropriateness of the fair value by comparing to latest financial information of the equity investments to comparable industry information.</li> <li>For all investments we evaluated whether the disclosures in the financial statements, including fair value hierarchy information and sensitivity to key inputs, appropriately reflected the Company's exposure to financial instrument valuation risk are in accordance with the applicable financial reporting standards.</li> </ul>



#### Provisions for environmental rehabilitation (applicable to the consolidated and separate financial statements)

(Refer to note 4 (b) use of estimates and judgements, note 32 provision for environmental rehabilitation, note 36 financial instruments and note 39 (j) accounting policies)

Key audit matter	How the matter was addressed
As required by the Mineral and Mining Act of Zambia, the mines are required to rehabilitate environmental disturbances caused by their operations. ZCCM-IH environmental provision includes environmental remedial obligations arising from the operations of the old ZCCM Limited, and ZCCM-IH's subsidiary (Ndola Lime Company Limited). The valuation of environmental rehabilitation provision was performed by the Group's independent environmental experts and a significant degree of judgement and estimation is applied to determine the environmental rehabilitation provision.	<ul> <li>Our audit procedures included:</li> <li>We evaluated the competence and independence of the Group's independent environmental expert.</li> <li>We obtained the Group's independent environmental expert report and challenged the judgements and estimates applied by comparing it to independently-sourced inputs that are available.</li> <li>Where valuation inputs were unobservable, we evaluated the reasonability of the inputs by comparing it to independently sourced information and compared these to management's valuation inputs</li> <li>We selected on a sample basis, the underlying data used by management and checked against independent sources of information.</li> <li>We challenged the appropriateness of the rate used through comparison to previous years and those used by similar entities;</li> <li>We performed a re-calculation of the provision and compared to the provision recorded in the financial statements; and</li> <li>We evaluated the adequacy of the financial statements disclosures, including disclosures of key assumptions, judgements and sensitivities are in accordance with the applicable financial reporting standards.</li> </ul>



(Refer to note 4 use of estimates and judgements, note 15 property, plant and equipment and note 39 accounting policies)		
Key audit matter	How the matter was addressed	
As at 31 March 2017, the Group recognised a significant impairment loss of ZMK 861 million primarily in respect of Ndola Lime Company Limited's plant and equipment, vertical and rotary kilns and work in progress relating to the mining and manufacturing of lime products business. Management considered that indicators of impairment of the plant and equipment, vertical and rotary kilns and work in progress existed at the reporting date. This was due to the continuing loss making position and operational challenges experienced by the entity. Management estimated the recoverable amount of the cash generating units. The recoverable amount was estimated using the discounted cash flows model. The fair value measurement is categorised as level 3 fair value and requires significant judgement and estimation on the inputs used for determining the recoverable amount.	<ul> <li>Our audit procedures included:</li> <li>We evaluated management's process and procedures for the identification of indicators of potential impairment of the Group's property, plant and equipment.</li> <li>We evaluated the methodology adopted by management in the preparation of the discounted cash flow forecasts and management's identification of CGUs and the amounts of property, plant and equipment allocated to the CGU with reference to the requirements of the prevailing accounting standards.</li> <li>We challenged the key estimates and assumptions adopted in the discounted cash flow forecasts, which included future revenue, future cost of sales and other operating expenses and the prevailing inflation rate, by comparing relevant data with the financial budgets which were approved by the Board of Directors and by comparison with market available data, industry statistics and our knowledge of the business of the Group.</li> <li>We evaluated whether the disclosures in the financial statements are in accordance with the applicable financial reporting standards.</li> </ul>	



#### Impairment of investment in associates (applicable to the consolidated financial statements)

(Refer to note 4 use of estimates and judgement, note 19 investments in associates, note 36 financial instruments and note 39 (a) accounting policies)

Key audit matter	How the matter was addressed
As at 31 March 2017, the carrying amounts of interests in associates amounted to ZMK 6,828 million, which represented approximately 71% of the Group's total assets. As disclosed in note 39 (a) to the consolidated financial statements, investments in associates are carried in the consolidated statement of financial position at cost and adjusted for post-acquisition changes in the Group's share of the net assets of the associates, less impairment in the values of individual investments. The Group is required to assess at the end of each reporting period whether there is any indication that the carrying amounts of interests in associates may be impaired. The Group applied significant judgement in assessing objective evidence for impairment to be used in the discounted future cash flows model.	<ul> <li>Our audit procedures included:</li> <li>We evaluated the appropriateness of accounting policies and evaluated the impairment of investment methodologies applied, and compared these to the requirements of IAS 39 Financial Instruments: Recognition and Measurements (IAS 39).</li> <li>Where valuation inputs were unobservable, we evaluated and challenged the reasonability of the valuation inputs used by management by comparing this to observable external information of similar industries.</li> <li>We obtained the fair values of the associates as determined by the Group's external valuation experts and compared these to ZCCM-IH's share of net assets. For investments with a significant difference between fair value and share of net assets we assessed whether it is appropriate to use the share of asset value in the consolidated financial statements.</li> <li>We agreed the Group's share of net assets of the associates to audited financial statements and management accounts of the associates as at 31 March 2017.</li> <li>We evaluated the disclosures in the financial statements in accordance with the applicable financial reporting standards.</li> </ul>

#### **Other Information**

The directors are responsible for the other information. The other information comprises the Annual Report, but does not include the consolidated and separate financial statements and our auditor's report thereon.

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

In connection with our audit of the consolidated and separate financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated and separate financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.



#### Responsibilities of the Directors for the Consolidated and Separate Financial Statements

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

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

#### Auditor's Responsibilities for the Audit of the Consolidated and Separate Financial Statements

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

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

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



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

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

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

Report on Other Legal and Regulatory Requirements

In accordance with Section 173(3) of the Companies Act of Zambia, we report that, in our opinion, the required accounting records, and registers have been properly kept in accordance with the Act.

In accordance with Schedule IV, Rule 18, of the Securities Act of Zambia CAP 254 of the laws of Zambia we confirm that, in our opinion:

- the Group has, throughout the financial year, kept proper accounting records in accordance with the requirements of the Securities and Exchange Commission Rules;
- the statement of financial position and statement of profit or loss and other comprehensive income are in agreement with the Group's accounting; and
- we have obtained all the information and explanations which, to the best of our knowledge and belief, are necessary for the purpose of our audit.

KPMG

**KPMG** Chartered Accountants

Jason Kazilimani, Jr Partner

11 May 2018

AUD/ F000336


### **Consolidated statement of financial position** *as at 31 March 2017*

In thousands of Kwacha

In thousands of Kwacha	Notes	2017	2016
Assets	Notes	2017	2016
Property, plant and equipment	15	144,842	1,030,284
Intangible assets	16 16	396	673
Investment property	10	61,157	100,778
Investment in associates	19	6,828,313	6,852,955
Financial assets at fair value through profit or loss	20	489,242	238,247
Trade and other receivables	22	549,837	313,642
Deferred tax assets	30	415,548	698,304
Non-current assets		8,489,335	9,234,883
Inventories	21	44,124	35,349
Trade and other receivables	22	369,055	136,018
Held-to-maturity investment securities	23	497,172	355,172
Cash and cash equivalents	24	178,931	35,850
Current assets		1,089,282	562,389
Total assets		9,578,617	9,797,272
Equity			
Share capital	27(i)	1,608	1,608
Share premium	27(ii)	2,089,343	2,089,343
Other reserves		5,032,409	6,088,394
Retained earnings		890,553	146,883
Equity attributable to shareholders		8,013,913	8,326,228
Liabilities			
Borrowings	29	135,526	221,754
Trade and other payables	25	25,838	29,437
Deferred tax liabilities	30	425,529	211,786
Retirement benefits	31	4,409	2,904
Provisions for environmental rehabilitation	32	145,610	263,491
Non-current liabilities		736,912	729,372
Bank overdraft	24	-	319
Borrowings	29	56,536	70,890
Trade and other payables	25	350,116	256,834
Provisions	26	143,548	139,197
Current tax liabilities	12	232,434	232,542
Retirement benefits	31	45,158	41,890
Current liabilities		827,792	741,672
Total liabilities		1,564,704	1,471,044
Total equity and liabilities		9,578,617	9,797,272

The financial statements were approved for issue by the Board of Directors on 29 March 2018 and signed on its behalf by:

..... Director

Jalusz . . . . . . . Director



### Separate statement of financial position In thousands of Kwacha

In thousands of Kwacha			
	Notes	2017	2016
Assets			
Property, plant and equipment	15	64,044	29,658
Intangible assets	16	265	540
Investment property	17	61,157	100,778
Investments in subsidiaries	18	-	95,644
Investment in associates	19	4,905,468	3,831,768
Financial assets at fair value through profit or loss	20	489,242	238,247
Trade and other receivables	22	549,837	313,642
Non-current assets		6,070,013	4,610,277
Trade and other receivables	22	338,796	95,722
Held-to-maturity investment securities	23	497,172	355,172
Cash and cash equivalents	24	178,271	34,982
Current assets		1,014,239	485,876
Total assets		7,084,252	5,096,153,
Envite			
Equity	07()	4 000	1 000
Share capital	27(i)	1,608	1,608
Share premium	27(ii)	2,089,343	2,089,343
Other reserves		2,669,579	2,000,626
Retained earnings		730,596	87,245
Equity attributable to shareholders		5,491,126	4,178,822
Liabilities			
Borrowings	29	-	155
Deferred tax liabilities	30	1,050,831	245,519
Retirement benefits	31	4,409	2,904
Provisions for environmental rehabilitation	32	114,967	218,754
Non-current liabilities		1,170,207	467,332
Borrowings	29	164	237
Trade and other payables	25	43,359	77,466
Provisions	26	143,548	136,588
Current tax liabilities	12	235,848	235,708
Current liabilities		422,919	449,999
Total liabilities		1,593,126	917,331
Total equity and liabilities		7,084,252	5,096,153
וסנמו פקעונץ מווע וומטווונופס		1,004,202	3,080,103

The financial statements were approved for issue by the Board of Directors on 29 March 2018 and signed on its behalf by:

..... Director

Jalusz Directok



### Consolidated statement of profit or loss and other comprehensive income

In thousands of Kwacha

	Notes	2017	2016
Revenue	6	95,345	198,661
Cost of sales		(109,861)	(180,368)
Gross (loss)/profit		(14,516)	18,293
Other income	7	1,930,520	9,882
Reversal of /(increase) in environmental provision	8	87,509	(73,282)
Administration expenses	9	(1,155,647)	(812,814)
Operating profit/(loss)		847,866	(857,921)
Finance income		699,058	431,957
Finance costs		(113,412)	(228,710)
Net finance income	11	585,646	203,247
Share of loss of equity-accounted investees, net of tax	19(b)	(189,233)	(2,210,199)
Profit/(loss) before tax		1,244,279	(2,864,873)
Income tax expense	12	(515,445)	(47,356)
Profit/(loss) for the year	<u> </u>	728,834	(2,912,229)
Other comprehensive income			
Items that will never be reclassified to profit or loss			
Revaluation of property, plant and equipment	15	-	16,748
Deferred tax on revaluation reserve	30	786	(4,733)
Actuarial (gain)/ loss on defined benefit pension plans	31	(465)	983
Deferred tax on defined benefit actuarial loss	30	163	(344)
		484	12,654
tems that are or may be reclassified to profit or loss	1000		
Foreign currency translation differences - equity - accounted inves-			
tees	19	(1,122,104)	4,122,445
Equity-accounted investees- share of OCI	19	80,471	(266,601)
		(1,041,633)	3,855,844
Other comprehensive (loss)/income, net of tax	_	(1,041,149)	3,868,498
Total comprehensive(loss)/income		(312,315)	956,269
Loss attributable to:			
Owners of the company		439,341	(2,259,890)
Non-controlling interests	_	289,493	(652,339)
		728,834	(2,912,229)
Total comprehensive income attributable to:			
Owners of the company		(188,263)	836,963
Non-controlling interests		(124,052)	119,306
		(312,315)	956,269
Earnings per share	40		<i></i>
Basic earnings per share (K)	13	4.53	(18.11)
Diluted earnings per share (K)	13	4.53	(18.11)



### Separate statement of profit or loss and other comprehensive income

for the year ended 31 March 2017 In thousands of Kwacha

	Notes	2017	2016
Revenue	6	41,330	48,782
	_		
Other income	7	726,433	9,665
Reversal of /(increase) in environmental provision	8	84,444	(77,892)
Administration expenses	9	(343,213)	(904,286)
Operating profit/(loss)		508,994	(923,731)
Finance income		701,507	467,865
Finance costs		(104,787)	(219,244)
Net finance income	11	596,720	248,621
Profit/(loss) before tax		1,105,714	(675,110)
Income tax (expense)/credit	12	(462,787)	248,843
			<i>(</i> )
Profit/(loss) for the year		642,927	(426,267)
Other comprehensive income			
Items that will never be reclassified to profit or loss			
Actuarial loss on defined benefit pension plans	31	(465)	983
Deferred tax on defined benefit actuarial loss	30	163	(344)
		(302)	639
Items that are or maybe reclassified to profit or loss			
Available-for-sale investments in subsidiaries – net change in fair value	18	(95,644)	(720,663)
Available-for-sale investments in associates – net change in fair value	19	1,030,275	44,352
Deferred tax on fair value change on subsidiaries	30	33,475	252,232
Deferred tax on fair value change on investments	30	(360,596)	(15,523)
Available-for-sale investments in associates – amounts reclassified to profit or			
loss		-	78,232
Available-for-sale investments in subsidiaries – amounts reclassified to profit or loss	18	95,644	720,663
Deferred tax on fair value change on investments in associates reclassified to	70	33,044	720,000
profit or loss	30	-	(27,381)
Deferred tax on fair value change on investments in subsidiaries reclassified			
to profit or loss	30	(33,475)	(252,232)
		669,679	79,680
Other comprehensive income, net of tax		669,377	80,319
Total comprehensive income		1,312,304	(345,948)
Earnings per share			
Basic earnings per share (K)	13	4.00	(2.65)
Diluted earnings per share (K)	13	4.00	(2.65)



# Consolidated statement of changes in equity

for the year ended 31 March 2017 In thousands of Kwacha Total

Retained

**Translation** 

Revaluation

Share

Share

Notes

	capital	premium	reserve	reserve	earnings	
Balance at 1 April 2015	1,608	2,089,343	13,724	2,207,752	3,057,532	7,369,959
Total comprehensive income						
Loss for the year		ı	ı	ı	(2,912,229)	(2,912,229)
Other comprehensive income						
Revaluation surplus on property, plant and equipment	15		16,748	ı	ı	16,748
Deferred tax on revaluation reserve	- 30	I	(4,733)	ı	ı	(4,733)
Currency translation – equity accounted investees		I	ı	4,122,445	ı	4,122,445
Amortisation of revaluation reserve	- 28		(941)	ı	941	ı
Actuarial loss on defined benefit	31 -		ı	ı	983	983
Share of associates 'OCI	- 19	•	235,217	(501,818)	ı	(266,601)
Deferred tax on defined benefit actuarial gains	30	•	•	1	(344)	(344)
Total comprehensive income			246,291	3,620,627	(2,910,649)	956,269
Balance at 31 March 2016	1,608	2,089,343	260,015	5,828,379	146,883	8,326,228
Balance at 1 April 2016	1,608	2,089,343	260,015	5,828,379	146,883	8,326,228
Total comprehensive income						
Loss for the year			ı	•	728,834	728,834
Other comprehensive income						
Deferred tax on revaluation reserve	30 -	•	786	'	•	786
Currency translation – equity accounted investees	- 19	•	ı	(1,122,104)	ı	(1,122,104)
Amortisation of revaluation reserve	- 28	•	(15,138)	'	15,138	
Actuarial loss on defined benefit	31 -	•	•	'	(465)	(465)
Deferred tax on defined benefit actuarial loses	30 -	•	ı	•	163	163
Share of associates' OCI	- 19	•	106	80,365	•	80,471
Total comprehensive income	•	•	(14,246)	(1,041,739)	743,670	(312,315)
Balance at 31 March 2017	1,608	2,089,343	245,769	4,786,640	890,553	8,013,913

Retained earnings are the brought forward recognised income, net of expenses, of the Group plus current period profit or loss attributable to shareholders. The notes on pages 41 to 148 are an integral part of these consolidated and separate financial statements.



### Separate statement of changes in equity

for the year ended 31 March 2017 In thousands of Kwacha

	Notes	Share	Share	Revaluation	Fair value	Retained	Total
		capital	Premium	reserve	reserve	earnings	
Balance at 1 April 2015		1,608	2,089,343	11,444	1,905,638	512,147	4,520,180
Total comprehensive income							
Loss for the year			I	I	I	(426,267)	(426,267)
Other comprehensive income			T	I	I		
Amortisation of revaluation surplus			I	(726)	I	726	I
Gain on retirement benefits	31	-	-	ı	ı	983	983
Change in fair value of available-for-sale investments in subsidiaries	18		'				·
Deferred tax fair value change on subsidiaries	30		•	ı	ı	(344)	(344)
Change in fair value of available-for-sale investments in associates	19		1	ı	122,584	ı	122,584
Deferred tax fair value change on investments	30		-		(38,314)		(38,314)
Total comprehensive income	State Section		-	(726)	84,270	(424,902)	(341,358)
Balance at 31 March 2016		1,608	2,089,343	10,718	1,989,908	87,245	4,178,822
Balance at 1 April 2016		1,608	2,089,343	10,718	1,989,908	87,245	4,178,822
Total comprehensive income				•		•	•
Profit for the year				•	·	642,927	642,927
Amortisation of revaluation surplus			•	(726)		726	
Loss on retirement benefits	31	•	•	•		(465)	(465)
Deferred tax on defined benefit actuarial loss	30	•	•	•		163	163
Change in fair value of available-for-sale investments in associates	19	•	•	•	1,030,275	•	1,030,275
Deferred tax on fair value change on investments	30	•	•	•	(360,596)	•	(360,596)
Total comprehensive income	I	•		(726)	669,679	643,351	1,312,304
Balance at 31 March 2017	I	1,608	2,089,343	9,992	2,659,587	730,596	5,491,126

Retained earnings are the carried forward recognised income, net of expenses, of the Company plus current period profit or loss attributable to shareholders.



### **Consolidated statement of cash flows**

for the year ended 31 March 2017 in thousands of Kwacha

	Note	2017	2016
Cash flows from operating activities			
Profit/ (loss)		728,834	(2,912,229)
Adjustments for:			
Depreciation	15	51,898	26,343
Amortisation	16	331	482
Impairment loss on property, plant and equipment	15	-	1,159
Interest income	11	(52,350)	(67,888)
Interest expense	11	5,603	4,358
Interest expense on borrowings	29	(37,074)	117,345
Unrealised foreign currency (gain)/loss		(844)	356
Chambishi Metals borrowing reversal	29	_	(27,950)
Change in fair value on financial assets at fair value through profit or loss	20	(257,436)	51,982
Impairment of investments	<u> </u>	(1,204,129)	630,323
	15 15	861,357	000,020
Impairment of property, plant and equipment	13 17		- (491)
Fair value change on investment property Defined benefits expense	31	11,464 12,027	1,637
Share of loss of equity – accounted investees, net of tax	37 19	189,233	2,210,199
	19 12	515,445	47,356
Tax expense	12	824,359	82,982
Change in:		024,000	02,002
Inventories		(8,775)	17,748
Trade and other receivables		(469,232)	(170,826)
Trade and other payables and provisions		94,034	140,633
Provision for environmental rehabilitation		(97,817)	155,263
Cash generated from operating activities		342,569	225,800
Interest paid		(5,603)	(4,358)
Tax paid	12	(18,103)	(83,614)
Benefits paid	31	(7,720)	(6,190)
Net cash from operating activities		311,143	131,638
Cash flows from investing activities			
Interest received	11	52,350	67,888
Dividend received	19	41,330	48,782
Acquisition of property and equipment	15	(19,665)	(265,422)
Acquisition of intangible assets	16	(54)	(125)
Acquisition of investment property	17	(56)	(85,287)
Acquisition of investment in associates	19	(36,749)	-
Acquisition of financial assets at fair value through profit or loss	20	(235)	-
Proceeds on maturity of fixed deposits	23	355,172	514,007
Acquisition of held to maturity investments	23	(497,172)	(355,172)
Net cash used in investing activities		(105,079)	(75,329)
Cash flows from financing activities			
Repayment of borrowings	29	(63,508)	(64,204)
Net cash used in financing activities		(63,508)	(64,204)
Net increase/(decrease) in cash and cash equivalents		142,556	(7,895)
Effect of movement in exchange rates on cash held		844	(356)
Cash and cash equivalents at 1 April	<b>.</b> .	35,531	43,782
Cash and cash equivalents at 31 March	24	178,931	35,531



### Separate statement of cash flows for the year ended 31 March 2017

for the year ended 31 March 2017 in thousands of Kwacha

	Note	2017	2016
Cash flows from operating activities			
Profit/(loss)		642,927	(426,267)
Adjustments for:			
Depreciation	15	3,062	2,470
Amortisation	16	329	445
Impairment of investee companies		-	78,232
Fair value changes of financial assets at fair value through profit or loss	20	(257,436)	51,982
Impairment of investment in subsidiaries	18	95,644	720,663
Defined benefits expense	31	1,266	1,637
Fair value change on investment property	17	11,464	(491)
Chambishi metals borrowing reversal		-	(27,950)
Interest expense on borrowings	29	87	344
Interest receivable	11	(57,205)	(103,796)
Interest expense	11	87	94
Unrealised foreign currency (gain)/loss		(844)	356
Tax credit/expense	12	462,787	(248,843)
		902,168	48,876
Change in:			
Trade and other receivables		(479,269)	(322,794)
Trade and other payables		(34,106)	39,605
Provisions		6,960	38,050
Provision for environmental rehabilitation		(103,787)	122,078
Cash generated from operating activities		291,966	(74,185)
Interest paid		(87)	(94)
Tax paid	12	(17,768)	(83,614)
Retirement paid		(227)	(84)
Net cash from/(used in) operating activities		273,884	(157,977)
Cash flows from investing activities			
Interest received	11	57,205	103,796
Acquisition of property, plant and equipment	15	(9,235)	(9,824)
Acquisition of intangible assets	16	(54)	(125)
Acquisition of investment property	17	(56)	(85,287)
Proceeds on maturity of fixed deposits	23	355,172	514,007
Acquisition of held to maturity investments	23	(497,172)	(355,172)
Acquisition of investments in associates	19	(36,749)	-
Acquisition of financial assets at fair value through profit or loss	20	(235)	-
Net cash flows (used in)/from investing activities		(131,124)	167,395
Cash flows from financing activities			
Repayment of borrowings		(315)	-
Net cash used in financing activities		(315)	-
Increase in cash and cash equivalents		142,445	9,418
Effect of movement in exchange rates on cash held		844	(356)
Cash and cash equivalents at 1 April		34,982	25,920
Cash and cash equivalents at 31 March	24	178,271	34,982



### Notes to the financial statements

in thousands of kwacha

### 1 Reporting entity

ZCCM Investments Holdings PIc (the "Company" or "ZCCM – IH") is domiciled in Zambia. The Company's registered office is at ZCCM-IH Office Park, Stand No. 16806, Alick Nkhata Road, Mass Media Complex Area . P.O Box 30048, Lusaka. These consolidated financial statements comprise the Company, its subsidiaries and investments in associates (together referred to as the 'Group'). The principal activity of the Company is to manage the Zambian Government's stake in the mining sector, as the Zambian Government through the Industrial Development Corporation (IDC), is the principal shareholder of the entity.

The Company's shares are listed on the Lusaka Securities Exchange (LuSE), the London Stock Exchange and Euronext.

### 2 Basis of accounting

These consolidated and separate financial statements have been prepared in accordance with International Financial Reporting Standards (IFRSs) and the requirements of the Companies Act and the Securities Act of Zambia.

Details of the Group's accounting policies, including changes during the year, are included in note 39.

### 3 Functional and presentation currency

These consolidated and separate financial statements are presented in Zambian Kwacha, which is the Company's functional currency. All amounts presented in Kwacha have been rounded to the nearest thousand, unless otherwise indicated.

Several of the Company's equity investments prepare financial statements in US Dollars which is their functional currency, due to the nature of the industry in which they operate. This has resulted in a foreign currency translation reserve at the consolidated level. More detail is included in note 19.

### 4 Use of estimates and judgements

In preparing these financial statements, management has made judgements, estimates and assumptions that affect the application of the Group and Company's accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to estimates are recognised prospectively.

### (a) Judgements

Information about judgements made in applying accounting policies that have the most significant effects on the amounts recognised in the consolidated and separate financial statements are included in;

- Note 39(a) (iv) determination of control over investees.
- Notes 18, 19 and 20 Valuation of investment in subsidiaries and associates and financial assets at fair value through profit or loss.
- Note 15 impairment of financial property, plant and equipment.
- Note 32 provision for environmental rehabilitation.



in thousands of kwacha

### 4 Use of estimates and judgements (continued)

### (b) Assumptions and estimation uncertainties

Information about assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment in the year ending 31 March 2017 is included in the following notes:

- Note 31 measurement of defined benefit obligations: key actuarial assumptions.
- Notes 18, 19 and 20 measurement of fair value of investee companies; key assumptions about discounted cash flow assumptions.
- Note 39(h) impairment test: key assumptions underlying recoverable amounts; and
- Note 32 and 34 recognition and measurement of provisions and contingencies: key assumptions about the likelihood and magnitude of an outflow of resources.

### Measurement of fair values

A number of the Group's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities.

The Group has an established control framework with respect to the measurement of fair values. Significant valuation issues are reported to the Group Audit Committee. This includes the Group finance department that has overall responsibilities for overseeing all significant fair value measurement including level 3 fair values and reports directly to the Chief Financial Officer (CFO).

The finance team regularly reviews significant unobservable inputs and valuation adjustments. If third party information arises such as broker quotes or pricing services, used to measure fair values, then the finance team assesses the evidence obtained from third parties to support the conclusion that such valuations meet the requirement of IFRS, including the level in the fair value hierarchy in which such valuations should be classified.

Significant valuations are reported to the Group Audit Committee.

When measuring the fair value of an asset or a liability, the Group uses observable market data as far as possible. Fair values are categorised into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

If the inputs used to measure the fair value of an asset or a liability fall into different levels of the fair value hierarchy, then the fair value measurement is categorised in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement.

Further information about the assumptions made in measuring fair values is included in the following notes:

- Note 36- financial instruments;
- Note 17 Investment property; and
- Note 19 Investment in associates.



in thousands of kwacha

### 5 Operating segments

### (a) Basis for segmentation

The Group has five reportable segments, as described below, which are the Group's strategic divisions. The strategic divisions offer different products and services, and are managed separately because they require different technology and marketing strategies.

Revenue Revenue Total Non-Reportable Total Current from **Operations** from segment current Segments revenue foreign assets Zambia assets assets countries Investment **ZCCM-IH Plc** 41,330 41,330 125,466 125,466 holding company Mining and Ndola Lime manufacturing Company Limited of Limestone products 89,569 75,445 14,124 118,715 74,591 44,124 Nkandabwe Coal Mines Limited Coal mining . \_ Misenge Environmental Environmental and and Technical technical services Services Limited 5,740 5,740 2,037 2,037 Mawe Exploration Exploration and and Technical technical services Services Limited 36 36 4,301 4,301 122,551 Totals 136,675 14,124 250,519 206,395 44,124

The following summary describes the operations of each reportable segment.

The Group's Chief Executive Officer reviews internal management reports of each segments at least quarterly.

### (b) Information about reportable segments

Information recorded on each reportable segment is set out below. Segment profit before tax, as included in internal management reports reviewed by the Group's Chief Executive Officer is used to measure performance because management believes that such information is the most relevant in evaluating the results of the respective segments relative to other entities that operate in the same industries.

# Notes to the financial statements (continued)

in thousands of Kwacha
5 Segment reporting (co

- Segment reporting (continued)
- (b) Information about reportable segment (continued)

The segment results for the Group were as follows:

2017							
	zccm-iH	Ndola Lime ZCCM-IH Company Limited	Misenge Environmental and Technical Services Limited	Mawe Exploration and Technical Services Limited	Nkandabwe Coal Mine Limited	Consolidation Adjustments	Consolidated
Revenue from external customers:							
Sales		89,569		'	'	•	89,569
Services			5,740	36		ı	5,776
Dividends	41,330				I	(41,330)	'
Other					'	I	'
Total revenue from external customers	41,330	89,569	5,740	36	I	(41,330)	95,345
Inter-segment revenue	41,330		3,065	'	'	(44,395)	'
Total segment revenue	41,330	89,569	8,805	36	•	(44,395)	95,345
Revenue							
Total revenue from reportable segments	41,330	89,569	8,805	36		·	139,740
Elimination of inter segment revenue						(44,395)	(44,395)
<b>Consolidated revenue</b>						(44,395)	95,345
Interest income	58,707	92	•	•		(4,947)	53,852
Interest expense	(87)	(10,463)	•	'		4,947	(2,603)
Depreciation and amortisation	3,391	48,468	29	340	'		52,228
Total profit or (loss) before tax for							
reported segments	1,105,714	(1,163,096)	(1,250)	(444)	(1)	1,492,589	1,433,512
Income tax credit/(expense)	(462,787)	19,681			•	(72,339)	(515,445)
Share of profit of equity accounted investees							(189,223)
Consolidated profit for the year							728,834

Ndola lime Company's major customers are the mines and these includes KCM, Chambishi Metals, Kalumbila Mines and Mopani Copper Mines.

# Notes to the financial statements (continued)

in thousands of Kwacha

5 Segment reporting (continued)

(b) Information about reportable segment (continued)

2017

	ZCCM-IH	Ndola Lime Company Limited	Environmental and Technical Services Limited	Exploration and Technical Services Limited	Nkandabwe Coal Mine Limited	Consolidation Adjustments	Consolidated
Segment assets*							
Opening balance	130,976	1,152,820	2,066	4,641			1,290,503
Additions	9,345	19,205				'	28,550
Impairment		(984,777)				(123,419)	(861,358)
Depreciation and amortisation	(3,391)	(48,468)	(29)	(340)			(52,228)
Fair value change	(11,464)						(11,464)
Closing balance	125,466	138,780	2,037	4,301	•	(123,419)	394,003
Equity accounted investees	4,905,468			-		1,922,845	6,828,313
Other assets	2,053,318	24,277	1,573	331	r	276,800	2,356,301
Total assets	7,084,252	163,057	3,610	4,632	က	2,323,064	9,578,617
Segment liabilities	262,924	30,643			•	'	293,567
Other liabilities	1,330,202	703,066	11,034	35,558	36,882	(845,605)	1,271,137
Total liabilities	1,593,126	733,709	11,034	35,558	36,882	(845,605)	1,564,704
Cashflows from operating activities	273,884	(8,415)	(52)		(1)	45,727	311,143
Cashflows from investing activities	(131,124)	(42,149)				68,194	(105,079)
Cashflows from financing activities	(315)	50,814		884		(114,891)	(63,508)

\* Segment assets exclude financial instruments, deferred tax assets and employee benefit assets

# Notes to the financial statements (continued)

in thousands of Kwacha

- 5 Segment reporting (continued)
- (b) Information about reportable segment (continued)

2016

2010							
	ZCCM-IH	Ndola Lime Company Limited	Misenge Ndola Lime Company Limited Limited	Mawe Exploration and Technical Services Limited	Nkandabwe Coal Mine Limited	Consolidation Adjustments	Consolidated
Revenue from external customers:							
Sales	E.	196,582		I	ı		196,582
Services	ı		1,611	468	ı		2,079
Dividends	48,782			T	I	(48,782)	'
Total revenue from external customers	48,782	196,582	1,611	468	I	(48,782)	198,661
Inter-segment revenue	48,782		4,610	-	I	(53,392)	I
Total revenue	48,782	196,582	6,221	468	I	(53,392)	198,661
Revenue							
Total revenue from reportable segments	48,782	196,582	6,221	468	48,782	I	252,053
Elimination of inter segment revenue		1	-		1	(53,392)	(53,392)
Consolidated revenue	48,782	196,582	6,221	468	48,782	(53,392)	198,661
Interest income	103,796	447	ı	I	I	(36,355)	67,888
Interest expense	(94)	(4,264)	I	I	I	I	(4,358)
Depreciation and amortisation	2,915	23,724	183	С	10		26,835
Total profit or loss before tax for reported							
segments	(675,110)	(82,275)	(2,915)	(10,900)	(2,685)	119,211	(654,674)
Income tax credit/(expense)	248,843	(3,988)	(6)	I	I	(292,202)	(47,356)
Share of loss of equity accounted invest-							
ees	I	1	•		1		(2,210,199)
Consolidated loss for the year	I	I	I	I	I	I	(2,912,229)

Ndola lime Company's major customers are the mines and these include KCM, Chambishi Metals, Kalumbila Mines and Mopani Copper Mines.

17

### Notes to the financial statements (continued)

in thousands of Kwacha

- Segment reporting (continued) ŝ
- (b) Information about reportable segment (continued)

2016

2016	ZCCM-IH	Ndola Lime Company Limited	Misenge Environmental and Technical Services Limited	Mawe Exploration and Technical Services Limited	Nkandabwe Coal Mine Limited	Consolidation Adjustments	Consolidated
Segment assets*							
Opening balance	121,027	1,107,428	1,726	4,641	I	(123,419)	1,111,403
Additions	9,949	45,392	340	T	1	1	55,681
Closing balance	130,976	1,152,820	2,066	4,641	1	(123,419)	1,167,084
Equity accounted investees	3,831,768			T	I	3,021,187	6,852,955
Other assets	1,133,409	72,380	213	754	1	570,477	1,777,233
Total assets	5,096,153	1,225,200	2,279	5,395	1	3,468,245	9,797,272
Segment liabilities	358,246	86,627		-	I	1	444,873
Other liabilities	559,085	542,339	8,280	35,878	36,882	(156,293)	1,026,171
Total liabilities	917,331	628,966	8,280	35,878	36,882	(156,293)	1,471,044
Cashflows from operating activities	(157,977)	23,196	274	5,870	(2,053)	262,328	131,638
Cashflows from investing activities	167,395	(45,392)	(340)	I	I	(196,992)	(75,329)
Cashflows from financing activities	I	(64,204)	5	I	I	(2)	(64,204)

\* Segment assets exclude financial instruments, deferred tax assets and employee benefit assets

Group reconciliation of reported assets and liabilities

(i)Other assets consist trade and other receivables, held to maturity investment securities, cash and cash equivalents.

Other liability includes tax liabilities, retirement benefits and liabilities classified as held for sale. (ii)

(iii)Elimination adjustments relate to intersegment transactions. The adjustment to other liabilities relates to the elimination of shareholder loans and the reclassification of deferred tax liabilities.



in thousands of Kwacha

### 6 Revenue

See accounting policies in note 39 (k)

Gro	oup	Com	pany
2017	2016	2017	2016
-	-	41,330	48,782
89,569	196,582	-	-
5,776	2,079	-	
95,345	198,661	41,330	48,782

### 7 Other income

	Group		Group Company	
	2017	2016	2017	2016
Management fee income	3,153	7,828	3,153	7,828
Fair value adjustment- investment property (note17)	-	491	-	491
Rental income	2,887	110	3,088	344
Reversal of impairment on investment in associates (note 19)	1,204,129	_	_	-
Reversal of impairment of KCM price participation receiva-	.,_0 .,0			
ble (note 22)	719,152	<u> </u>	719,152	-
Sundry income (i)	1,199	1,453	1,040	1,002
	1,930,520	9,882	726,433	9,665

### (i) Sundry income

Sundry income mainly includes income such as core shed viewing/sampling and sale of scrap.

### 8 Environmental expenses

Environmental expenses represent expenditures incurred in respect of meeting environmental remedial obligations arising from the operations of the old ZCCM Limited, before being taken over by the Company, and those of ZCCM-IH's subsidiary, Ndola Lime Company Limited.

	Group		Company	
	<b>2017</b> 2016		2017	2016
Provision charge for the year (note 32)	(87,509)	73,282	(87,509)	73,282
Environmental consultancy expenses	-		3,065	4,610
	(87,509)	73,282	(84,444)	77,892



### Notes to the financial statements (continued)

in thousands of Kwacha

### 9 Administration expenses

	Group		Company	
	2017	2016	2017	2016
Depreciation and amortisation (note 15,16)	6,654	5,538	3,391	2,915
Auditors' remuneration	2,285	1,878	1,439	1,058
Personnel expenses (note 10)	90,586	72,898	54,288	25,905
Impairment of investment in subsidiaries (note 18)	-	-	95,644	720,663
Impairment on investment in associates (note 19)	-	630,323	-	78,232
Impairment of receivables (note 36 iii)	22,295	1,454	133,333	36,877
Impairment of Ndola Lime plant (note 15)	861,357	-	-	-
Change in fair value of investment property (note 17)	11,464	-	11,464	-
Other administration expenses ((i) below)	161,006	100,723	43,654	38,636
	1,155,647	812,814	343,213	904,286

\*In 2017, staff costs and depreciation recognised as cost of sales amounted to K25 million (2016: K31million) and K3 million (2016: K2 million) respectively.

### (i) Other administration expenses

Other administrative expenses mainly include the subsidiary Ndola Lime's interest and penalties on overdue statutory obligations of K94 million (2016: K33million) legal expenses amounting to K5 million (2016: K40 million), rental expenses amounting to K 2.6 million (2016: K2.6 million), investment expenses K10 million (2016: K5 million) and sundry expenses of K27 million (2016: K19 million).

### 10 Personnel expenses

	Group		Company	
	2017	2016	2017	2016
Salaries and wages	86,620	67,842	52,125	23,685
Retirement benefit costs:				
Defined benefit scheme (note 31)	1,266	1,637	1,266	1,637
Mukuba Pension Scheme	795	669	369	249
African Life Financial Services	391	512	-	-
National Social Security Funds	1,514	2,238	528	334
	90,586	72,898	54,288	25,905

### 11 Finance income and finance costs

See accounting policies in note 39 (I), (j) and (b)

		Group	COII	ipally
	2017	2016	2017	2016
Fair value adjustment financial asset at fair value through				
profit or loss (note 20)	(73,078)	(177,494)	(73,078)	(177,494)
Exchange differences*	(33,733)	(7,894)	(31,622)	(3,084)
Interest expense	(5,603)	(4,358)	(87)	(94)
Loss on derivative	-	(38,572)	-	(38,572)
Unwinding of discount on site restoration	(998)	(392)	-	
Finance costs	(113,412)	(228,710)	(104,787)	(219,244)

Company



### Notes to the financial statements (continued)

in thousands of Kwacha

### 11 Finance income and finance costs (continued)

	Group		Comp	any
	2017	2016	2017	2016
Fair value adjustment financial asset at fair value				
through profit or loss (note 20)	330,514	125,512	330,514	125,512
Interest income from price participation (note 22)	1,502	-	1,502	-
Interest income from related parties	17,188	16,428	22,135	52,783
Unwinding on price participation fees (note 22)	143,355	-	143,355	-
Exchange differences	156,504	238,557	154,098	238,557
Gain on derivative	14,833	-	14,833	-
Interest from held to maturity investment securities	35,162	51,460	35,070	51,013
Finance income	699,058	431,957	701,507	467,865
Net finance income recognised in profit or loss	585,646	203,247	596,720	248,621

\*Exchange difference mainly arises from the revaluation of foreign currency denominated financial instruments such as loans and held-to-maturity investment securities.

### 12 Income tax expenses

See accounting policies in note 39 (m)

	Group		Comp	any
Amounts recognised in profit or loss Current tax expense	2017	2016	2017	2016
Current year	(17,995)	(185,725)	(17,908)	(185,411)
Deferred tax charge(note 30)	(497,450)	138,369	(444,879)	434,254
Income tax (expense)/credit	(515,445)	(47,356)	(462,787)	248,843

The tax on the Group's profit before income tax differs from the theoretical amount that would arise using the statutory income tax rate as follows:

	Gr	up Company		
	2017	2016	2017	2016
Loss before income tax	1,244,279	(2,864,873)	1,105,714	(675,110)
Less: share of post-tax profits from associates	(189,233)	2,210,199	-	
	1,055,046	(654,674)	1,105,714	(675,110)
Tax calculated at rates applicable to profits @ 35%	369,266	(229,136)	387,000	(236,289)
Tax effect of:				
Non-deductible expenses*	154,707	290,246	84,315	1,200
Income taxed at a lower rate**	(9,039)	(7,468)	(9,039)	(7,468)
Under/(over) recognition in prior years	511	(2,132)	511	(2,132)
Income not subject to tax	-	(4,154)	-	(4,154)
	515,445	47,356	462,787	(248,843)

\*Non-deductible expenses include the items below:

Impairment on investee companies Company secretary services Donations and gifts Investment property fair value Others

Gr	oup	Company		
2017	2016	2017	2016	
-	220,613	-	-	
60	286	60	286	
87	211	87	211	
4,564	-	4,564	-	
149,996	69,136	79,604	703	
154,707	290,246	84,315	1,200	



in thousands of kwacha

### 12 Income tax expenses (continued)

See accounting policies in note 39 (m)

\*\* Income taxes at lower rate relates to rental income and dividends taxed at 10% and 0% respectively.

Tax movement in the statement of financial position

	Group		Company	
	2017	2016	2017	2016
Opening balance 1 April	232,542	130,431	235,708	133,911
Charge for the year	17,995	185,725	17,908	185,411
Tax paid	(18,103)	(83,614)	(17,768)	(83,614)
Closing balance 31 March	232,434	232,542	235,848	235,708

### 13 Earnings per share

See accounting policies in note 39(n)

### (a) Basic earnings per share

The calculation of basic earnings per share has been calculated based on profit or loss attributable to ordinary shareholders and weighted average number of ordinary shares outstanding.

### i) Profit(loss) attributable to ordinary shareholders (basic)

Group

	2017	2016
Profit/(Loss) attributable to owners of the Company	728,834	(2,912,229)
Company		
Profit/(Loss) attributable to ordinary shareholders	642,927	(426,267)

### ii) Weighted average number of shares (basic)

	2017	2016
Opening balance at 1 April	160,800	160,800
Closing balance at 31 March 2017	160,800	160,800

The weighted average number of shares is determined by taking the number of additional shares issued and multiplying by the number of days the new shares were in issue over the reporting period.

### (b) Diluted earnings per share

There were no potentially dilutive shares outstanding at 31 March 2017 (2016: nil). Diluted earnings per share are therefore the same as basic earnings per share.

### 14 Dividends per share

The Directors proposed to pay a dividend of K 0.84 per share for the year ended 31 March 2017 (2016: Nil).



### Notes to the financial statements (continued)

in thousands of kwacha

### 15 Property, plant and equipment

See accounting policies in note 39(d)

### **Reconciliation of carrying amount**

Group	Land and Buildings	Plant and equip- ment	Vertical and rotary kilns	Motor vehicles	Work in progress	Total
Cost or revaluation						
Balance at 1 April 2015	25,126	73,675	72,753	61,868	645,495	878,917
Additions	6,383	661	-	3,158	255,220	265,422
Transfers	-	238,834	28,989	-	(267,823)	-
Revaluation	14,565	-		-		14,565
Balance at 31 March 2016	46,074	313,170	101,742	65,026	632,892	1,158,904
Balance at 1 April 2016	46,074	313,170	101,742	65,026	632,892	1,158,904
Additions	4,949	4,248	-	-	10,468	19,665
Transfers	-	2,103	84,561	488	(87,152)	-
Transfer from investment Property (note 17)	28,213		-	-		28,213
Balance at 31 March 2017	79,236	319,521	186,303	65,514	556,208	1,206,782

### Accumulated depreciation and impairment losses

Balance at 1 April 2015	1,788	31,845	24,863	43,818	987	103,301
Charge for the year	900	12,585	5,393	7,465	-	26,343
Impairment	-	1,159	-	-	-	1,159
Depreciation write-back on						
revaluation	(2,183)		-		-	(2,183)
Balance at 31 March 2016	505	45,589	30,256	51,283	987	128,620
Balance at 1 April 2016	505	45,589	30,256	51,283	987	128,620
Charge for the year	2,144	35,592	7,416	6,746	-	51,898
Environmental asset (Note 32)						
	-	-	20,065	-	-	20,065
Impairment	-	202,761	123,378	-	535,218	861,357
Balance at 31 March 2017	2,649	283,942	181,115	58,029	536,205	1,061,940
Carrying amounts						
Balance at 31 March 2016	45,569	267,581	71,486	13,743	631,905	1,030,284
Balance at 31 March 2017	76,587	35,579	5,188	7,485	20,003	144,842



in thousands of kwacha

### 15 Property, plant and equipment (continued)

Buildings of the subsidiary, Ndola Lime, were last revalued as at 31 March 2016, by Sherwood Greene Consultants, an independent registered valuations surveyor on the basis of an open market value. The valuation was in line with the Company's accounting policy to recognise its leasehold land and buildings at fair value. The carrying values of the properties were adjusted to their revalued amounts and the resultant surplus net of deferred income tax was credited to the revaluation surplus in shareholders' equity. The carrying values of property, plant and equipment approximates to their fair values. Revaluations are done with sufficient regularity to ensure that the carrying amount does not differ materially from the fair value.

The register showing the details of property, as required by section 193 of the Zambia Companies Act, is available for inspection during business hours at the registered office of the Company.

The carrying amounts of property would have been K2.2 million (2016:K2.4 million) had it not been using the cost model.

### Leased plant and equipment

The Group leases motor vehicles under a number of finance leases. At 31 March 2017, the net carrying amount of the leased assets was K1.7 million (2016: K5.5 million). The underlying assets are held as security for the finance lease obligations. The leases provide the Group with an option to buy the motor vehicles at a beneficial price.

### Security

The assets amounting to K75 million (2016: K1,111 million) of the subsidiary, Ndola Lime Company Limited are held as security for the US\$ 27.6 million loan from Standard Bank of South Africa.

### **Borrowing costs**

The Group is constructing the Ndola Lime vertical kiln (VK – 2). Borrowing costs included in property, plant and equipment during the year was nil (2016: K51 million) in respect of the construction works.

### Work in progress

The Group's subsidiary (Ndola Lime Company Limited) has embarked on construction of a new vertical kiln with a view of enhancing production to meet the increasing demand for both the local and export markets. The new kiln is still undergoing hot commissioning.

### Transfer from investment property

During the year, a building was transferred from investment property (note 17) to property plant and equipment, as it was wholly occupied and used as offices by the Group and was no longer leased to a third party. The transfer was done at cost in March 2017 when the building was occupied by the Group and before fair valuation.

### Fully depreciated assets

Included in cost of property, plant and equipment are fully depreciated assets amounting to K43.8 million (2016: K40 million).



in thousands of kwacha

### 15 Property, plant and equipment (continued)

### Impairment loss

During 2017, due to continuing loss making position and operational challenges experienced by the entity, the Group tested the related product line for impairment and recognised an impairment loss of K861 million with respect to Ndola Lime Company Limited's plant.

In assessing whether the Company's cash Generating Units (CGU) were impaired, Ndola lime Company Limited (NLC) considered the guidelines as set out under International Accounting Standards 36 –Impairment of Assets (IAS 36).

IAS 36 seeks to ensure that an entity's assets are not carried at more than their recoverable amount (i.e. the higher of fair value less costs of disposal and value in use).

In assessing impairment, management noted that there was no current sale agreement and no active market for the assets to arrive at the fair value. The value of the asset/ CGU has therefore been arrived at as the present value of the expected future cash flows at a discount rate that reflects the time value of money and risks associated with the cash flows.

The cash flows used in determining the present value have excluded any estimated future cash inflows expected to arise from enhancing the assets performance.

The key assumptions used in the estimation of the recoverable amount are set out below, the values assigned to the key assumption represent management's assessment of future trends in the relevant industries and have been based on historical information from both external and internal sources.

The key assumptions	Value
Cash flow period	10 years
Risk free rate	25%
Market risk premium	5.69%
Country risk premium	9.25%
Beta	0.43
Cost of equity	26.77%
Debt ratio	15%
Equity ratio	85%
Recoverable amount	Nil
Carrying amount	K861 million
Value in use	Nil

The value in use was found to be zero. Therefore the recoverable amount is zero.

The Weighted Average Cost of Capital (WACC) has been used to calculate the discount rate.

Capital Asset Pricing Model (CAPM) has been used to estimate the required return on equity capital.

A risk free rate based on 10 years Bank of Zambia bond tender has been used.

Ten years cash flows were included in the discounted cash flow model. Projected cash flows were based on expectations of future outcomes taking into account past experience, adjusted for anticipated revenue growth, cost of sales and other expenses. Costs were estimated based on Zambia's economic forecasts.

The values assigned to the key assumptions represent management's assessment of future trends in the relevant industries and have been based on historical data from both external and internal sources.



### Notes to the financial statements (continued)

in thousands of kwacha

### 15 Property, plant and equipment (continued)

Company	Property	Equipment, furniture and fittings	Motor vehicles	Work in progress	Total
Cost or revaluation	Tropoldy			progreee	
Balance at 1 April 2015	16,700	5,214	8,357	987	31,258
Additions	6,383	283	3,158	-	9,824
Balance at 31 March 2016	23,083	5,497	11,515	987	41,082
Balance at 1 April 2016	23,083	5,497	11,515	987	41,082
Additions	4,949	4,248	-	38	9,235
Transfer from investment property (note 17)	28,213	-	-	-	28,213
Balance at 31 March 2017	56,245	9,745	11,515	1,025	78,530
Accumulated depreciation and impairm	ent losses				
Balance at 1 April 2015		4,025	3,942	987	8,954
Charge for the year	506	636	1,328	-	2,470
Balance at 31 March 2016	506	4,661	5,270	987	11,424
Balance at 1 April 2016	506	4,661	5,270	987	11,424
Charge for the year	556	455	2,051	-	3,062
Balance at 31 March 2017	1,062	5,116	7,321	987	14,486
Carrying amount					
Balance at 31 March 2016	22,577	836	6,245		29,658
Balance at 31 March 2017	55,183	4,629	4,194	38	64,044

### **Reconciliation of carrying amount**

### Revaluation

Buildings were last revalued on 31 March 2015, by the Government Valuation Department. Valuations were made on the basis of the Open Market Value. The carrying values of the properties were adjusted to their revalued amounts and the resultant surplus net of deferred income tax was credited to the revaluation surplus in shareholders' equity. The carrying values of property, plant and equipment approximates their fair values. Revaluations are done with sufficient regularity to ensure that the carrying amount does not differ materially from the fair value.

The register showing the details of property, as required by section 193 of the Zambian Companies Act, is available for inspection during business hours at the registered office of the Company.

The carrying amounts of property would have been K1.2 million (2016:K1.3 million) had it been measured using the cost model.

### Leased plant and equipment

The Company leased a motor vehicle under a finance lease. As at 31 March 2017, the net carrying amount of the leased motor vehicle was K0.2 million (2016: K 0.3 million). The leased motor vehicle secures the lease obligations. The leases provide the Group with the option to buy the motor vehicles at a beneficial price.

### Fully depreciated assets

Included in cost of property, plant and equipment are fully depreciated assets amounting to K7.6 million (2016: K6.8 million).



### Notes to the financial statements (continued)

in thousands of kwacha

### 16 Intangible assets (computer software)

See accounting policies in note 39 (f)

### **Reconciliation of carrying amount Cost**

	Group	Company
Balance at 1 April 2015	1,996	1,648
Additions	125	125
Balance at 31 March 2016	2,121	1,773
Balance at 1 April 2016	2,121	1,773
Additions	54	54
Balance at 31 March 2017	2,175	1,827
Amortisation		
Balance at 1 April 2015	966	788
Amortisation (Note9)	482	445
Balance at 31 March 2016	1,448	1,233
Balance at 1 April 2016	1,448	1,233
Amortisation (Note 9)	331	329
Balance at 31 March 2017	1,779	1,562
Carrying amount		
Balance at 31 March 2016	673	540
Balance at 31 March 2017	396	265

### 17 Investment property

See accounting policies in note 39 (e)

### (a) Reconciliation of carrying amounts

	Group and	Company
	2017	2016
Balance at 1 April	100,778	15,000
Additions	56	85,287
Transfer to property, plant and equipment (note 15)	(28,213)	-
Change in fair value	(11,464)	491
Balance at 31 March	61,157	100,778

### Leases as lessor

The Group leases out its investment properties. Investment property comprises a number of commercial properties that are leased to third parties. No contingent rents are charged. The Group did not have any operating leases as a lessee on a non-cancellable period as at 31 March 2017.

Changes in fair values are recognised as gains in profit or loss and included in 'other income' or other 'administration expenses. All Gains or losses are unrealised.

### Transfer to property, plant and equipment

During the year, a building was transferred to property, plant and equipment, as it was wholly occupied and used as offices by the Group and was no longer leased to a third party. The transfer was done in March 2017 at cost, which is the fair value at the change of use.



in thousands of kwacha

### **17** Investment property (continued)

### (b) Measurement of fair value

### Amount recognised in profit or loss

During 2017, investment property rentals of K2.9 million at Group level (2016: K0.11million) and K3.1 million at Company level (2016: K0.344 million) were included in other income (see note 7). Maintenance expenses incurred during the year were K1.2 million (2016: K0.9 million).

### Fair value hierarchy

The fair value of investment property was determined by the Sandridge Associates, who are sufficiently independent property valuers, having appropriate recognised professional qualifications and recent experience in the location and category of the property being valued.

The fair value measurement for investment property of ZMW 61 million has been categorised as a Level 3 fair value based on the inputs to the valuation technique used (see note 39 (e)).

### Valuation techniques and significant unobservable inputs

The following table shows the valuation technique used in measuring the fair value of investment property, as well as the significant unobservable inputs used.

Valuation technique	Significant unobservable inputs	Inter-relationships between Key unobservable inputs and fair value measurement
The valuation technique used is the Discounted cash flows. This valua- tion method considers the present value of net cash flows to be gen- erated from the property, taking in to account expected rental growth rate, void periods, occupancy rate, lease incentive costs sum as rent-free periods and other costs not paid by tenants. The expect- ed net cash flows are discounted using risk adjusted discount rates. Among other factors, the discount rate estimation considers the qual- ity of a building and its location (prime vs secondary) tenant credit quality	<ul><li>weighted average 90%)</li><li>Rent-free periods (1-month period on new leases)</li></ul>	<ul> <li>The estimated fair value would increase or (decrease) if:</li> <li>expected market rental growth were higher (lower);</li> <li>void periods were shorter (longer);</li> <li>the occupancy rate were higher (lower):</li> <li>Rent-free periods were shorter (longer); or</li> <li>The risk-adjusted discount rate were lower (higher).</li> </ul>



in thousands of kwacha

### 18 Investment in subsidiaries

See accounting policies in note 39(a (iii))

Set out below is a list of subsidiaries, which are unlisted, of the Company.

### 2017

	Country of incorporation	Held % Interest	Cost	Addition	Change in fair value	Carrying amount
Ndola Lime Company Limited	Zambia	100	95,644	-	(95,644)	-
Misenge Environmental and Technical Services	Zambia	100	-	-	-	-
Mawe Exploration and Technical Services Limited (i)	Zambia	100	-	-	-	-
Nkandabwe Coal Mines Limited (ii)	Zambia	100	-	-	-	-
			95,644	-	(95,644)	-

### 2016

		and the second				
	Country of incorporation	Held % Interest	Cost	Addition	Change in fair value	Carrying amount
Ndola Lime Company Limited	Zambia	100	157,120	659,187	(720,663)	95,644
Misenge Environmental and Technical Services Mawe Exploration and Technical	Zambia	100	-	-	-	-
Services Limited (i)	Zambia	100	<u> </u>	-	-	-
Nkandabwe Coal Mines Limited (ii)	Zambia	100		-	-	-
			157,120	659,187	(720,663)	95,644

### (i) Mawe Exploration and Technical Services Limited (Mawe)

Mawe is a wholly owned subsidiary of ZCCM - IH and was the former technical department of the Company. Mawe's principal activity is exploration in mineral oil and gas. The Company commenced trading on 13 February 2014, following incorporation on 2 April 2013.

On 24th March 2015, the Board resolved to dissolve Mawe as its expenses had grown significantly and ZCCM – IH's income could not sustain funding of Mawe. Mawe was formally dissolved in April 2017.

### (ii) Nkandabwe Coal Mines Limited

In February 2015, the Government of the Republic of Zambia (GRZ) requested ZCCM – IH to assume operations that were run by Collum Coal Mine in Southern Province of Zambia, by setting up a new legal vehicle to run the mine. This was done by means of handing over the mining license to ZCCM-IH. ZCCM – IH then completed the legal formalities and took ownership of the mine operations under the name Nkandabwe Coal Mines Limited.

Nkandabwe Coal Mines Limited was incorporated on 03 May 2015, as a 100% subsidiary. Its principal activity is the production of coal.

In March 2015, GRZ withdrew the mining licenses from ZCCM-IH and handed them back to Collum Coal Mine. The company is in the process of being wound up.



in thousands of kwacha

### 18 Investment in subsidiaries (continued)

See accounting policies in note 39(a (iii))

### (a) Reconciliation of carrying amounts

	Company	
	2017	2016
Balance at 1 April	95,644	157,120
Conversion of loan to equity/additions	-	659,187
Change in fair value	(95,644)	(720,663)
Balance at 31 March	-	995,644

### (b) Measurement of fair value Valuation technique and significant unobservable inputs

The following table shows the valuation technique used in measuring the fair value of investment in subsidiaries, as well as the significant unobservable inputs used.

Subsidiary	Valuation technique	Significant unobservable inputs and assumptions	Inter-relationship between Key unobservable inputs and fair value measurement
Ndola Lime Company Limited The company has been categorized as a level 3 fair value based on the inputs to the valuation technique used.	Discounted cash flows: It is an income approach to valuation and the most widely used valuation methodology. It computes the value of a business by calculating the present value of anticipated future cash flow generated by the business. The expected net cash flows are discounted using risk adjusted discount rates.	<ul> <li>Target capital structure Debtto total capitalisation (2017:27%; 2016:48%). Equity to total capitalisation (2017:73%; 2016:52%)</li> <li>Cost of debt Cost of debt (2017:14%; 2016:4.7%) Effective tax rate (2017:30%; 2016:30%) After tax cost of debt (2017:9.8%; 2016:9.8%)</li> <li>Cost of Equity Risk free rate (2017:18.3%; 2016: 24.5%)* Market risk premium (2017:5.6%; 2016:9.2%) Levered beta, 2017: 0.84; 2016:0.8</li> </ul>	<ul> <li>The estimated fair value would increase (decrease) if:</li> <li>Equity to total capitalisation were higher (lower)</li> <li>Cost of debt were lower (higher)</li> <li>The cost of equity were higher (lower).</li> </ul>

\* Risk free rate is based on the Government of Zambia 10 year bond yield at the time of the valuation of 18.3% (2016: 24.5%) as a proxy for the risk-free rate.



in thousands of kwacha

### **18** Investment in subsidiaries (continued)

### (a) Measurement of fair value (continued)

Subsidiary	Valuation technique	Significant unobservable inputs	Inter-relationship between Key unobservable in- puts and fair val- ue measurement
Ndola Lime Company Limited		<ul> <li>Stock premium : 5.6%</li> <li>Cash flow assumptions were as follows: <ul> <li>Life of mine: 21 years</li> <li>Growth rate 5.5%</li> </ul> </li> </ul>	
		Earnings before interest, tax, depreciation and amortisation (EBITDA) were forecast at K34 million in the first year to K122 million in year 5.	
Nkandabwe Coal Mine Limited Mawe Exploration and Technical Services Misenge Environmental and Technical Services.	No fair value has been determined for these entities. As they are loss-making, fair value has been determined to be nil.	Not applicable.	Not applicable.

Equity value and sensitivity analysis for investment in subsidiaries



in thousands of kwacha

### **18** Investment in subsidiaries (continued)

### (a) Measurement of fair value (continued)

### **Ndola Lime Company Limited**

A sensitivity analysis table of the equity value, which is based on the discount rate and growth rate over the Life of Mine is provided below:

2017

			Implied Ec	uity Value		
			<b>Terminal Grow</b>	th Rate Over th	e Life of Mine	
		4.50%	5.00%	5.50%	6.00%	6.50%
	20.50%	30,750	39,156	47,876	56,924	66,314
Ö	22.00%	-11,376	-4,269	3,097	10,731	18,647
WACC	23.50%	-47,651	-41,614	-35,363	-28,891	-22,187
S	25.00%	-79,045	-73,893	-68,565	-63,052	-57,349
	26.50%	-106,343	-101,928	-97,366	-92,651	-87,777

2016

			Implied Ed	quityValue		
			<b>Terminal Grow</b>	th Rate Over th	e Life of Mine	
		4.50%	5.00%	5.50%	6.00%	6.50%
	20.80%	168,173	177,959	188,190	198,890	210,086
Ö	22.30%	121,573	129,698	138,177	103,015	156,278
WACC	23.80%	81,786	88,572	95,644	103,015	110,701
5	25.30%	47,785	53,493	59,431	65,612	72,047
	26.80%	18,364	38,837	28,208	33,419	38,837

The calculated equity value is K0.00 million (2016:K95.64 million).



### Notes to the financial statements (continued)

in thousands of kwacha

### 19 Investment in associates

See accounting policies in note 39 (a)(v)

### (a) Reconciliation of carrying amounts

	Gr	roup	Company	
	2017	2016	2017	2016
Balance at 1 April	6,852,955	5,886,415	3,831,768	3,787,416
Share of loss	(189,233)	(2,210,199)	-	-
Share of OCI	80,471	(266,601)	-	
Dividend received	(41,330)	(48,782)	-	-
Additions*	43,425	-	43,425	-
Reversal/(impairment)of investment in associates	1,204,129	(630,323)	-	-
Change in fair value	-	-	1,030,275	44,352
Currency translation adjustment	(1,122,104)	4,122,445	-	-
Balance at 31 March	6,828,313	6,852,955	4,905,468	3,831,768

\*Additions

Reclassified from financial assets at fair value through profit or loss (note 20)	6,676
Additions	36,749
	43.425

Investments in associates are measured at fair value in the Company's statement of financial position. In the consolidated financial statements, investments in associates are equity - accounted.

The increase in fair value of K1,030 million is mainly attributable to improvement in copper production for most major mining companies, due to stability in energy supply and an improvement in copper prices on the world market in the last quarter of 2016 and the first quarter of 2017.

### Reversal of impairment of investee company

The recovery of K1,204 million relates to reversal of CEC and KCM impairment provision amounting to K630 million and K574 million recognized in the 2016 and 2015 financial years respectively. The reversal of the CEC impairment has been necessitated by improved performance during the year and subsequent recuperating of its share price on the Lusaka Securities Exchange (LuSE). As for KCM there has been improvement in the mine's performance.



### Notes to the financial statements (continued)

in thousands of kwacha

### 19 Investment in associates (continued)

### (b) Investment in associates analysis

Name	Nature of relationship	Principal place of business	Ownership interest	Fair value of ownership interest	Functional currency
Konkola Copper Mines Plc	Strategic way of promoting Zambian participation in the mining sector	Zambia	20.60%	N/A	USD
Kansanshi Mining Plc	Strategic way of promoting Zambian participation in the mining sector	Zambia	20%	N/A	USD
Copperbelt Energy Corporation Plc	Strategic way of promoting Zambian participation in the power and energy sector	Zambia	20%	K334,750	USD
Investrust Bank Plc	Diversification of investments in Financial sector	Zambia	45.4%	K50,044	ZMW
CNMC Luanshya	Strategic way of promoting Zambian participation in the mining sector	Zambia	20%	N/A	USD
Kariba Minerals	Strategic way of promoting Zambian participation in the mining sector	Zambia	50%	N/A	ZMW
Maamba Collieries Limited	Strategic way of promoting Zambian participation in the mining sector	Zambia	35%	N/A	USD
Lubambe Copper Mines Limited	Strategic way of promoting Zambian participation in the mining sector	Zambia	20%	N/A	USD

The following are considered when determining the level of control or influence over the investee companies:

- ZCCM-IH's representation on the Board of the investee company
- Appointment of key management staff
- Number of voting rights

Currently ZCCM-IH appoints directors in line with its percentage holding on all the boards of its associates, and as such it exercise's significant influence over them. For Kariba Minerals, despite ZCCM-IH owning 50% of the mine, it only appoints two of the five Directors that sit on the Kariba Minerals board and as these are not charged with the responsibility of setting strategies to achieve objectives, ZCCM-IH is not deemed to have control of the entity.

Many of the investee companies have United States Dollars (USD) as their functional currency due to the nature of the mining industry, despite being domiciled in Zambia.

ZCCM Investments Holdings Plc ZCCM-IH for the year ended 31 March 2017

## Notes to the financial statements (continued)

in thousands of kwacha

- **19 Investment in associates** (continued)
- (b) Investment in associates analysis

### Group

Summary of financial information for material equity accounted investees.

2017	Accounting year end	Country of incorpora- tion	% In- terest	Assets Current	Non-Current Assets	Liabilities Current	Non- current	Net asset value	Revenues	Profit/(loss)	Share of profit/ (loss)	Share of profit/(loss) not recog- nised	Carrying Amount
Konkola Copper Mines Plc	31-Mar	Zambia	20.6	3,304,965	17,017,831	(8,441,644)	(9,694,820)	2,186,332	8,621,472	(1,367,721)	(281,751)		450,384
Kansanshi Mining Plc	31-Dec	Zambia	20	8,229,257	28,802,428	(2,813,881)	(7,084,676)	27,133,128	15,051,968	1,674,306	334,861		5,426,626
Copperbelt Energy Corporation PIc	31-Dec	Zambia	20	1,320,093	4,142,268	(850, 142)	(1,912,699)	2,699,520	3,590,754	(1,122,005)	(224,401)		539,904
CNMC Luanshya Copper Mine Plc	31-Dec	Zambia	20	1,948,752	3,401,465	(2,280,646)	(4,222,790)	(1,153,219)	1,788,085	(249,368)		(49,874)	
Kariba Minerals Limited	30-Jun	Zambia	50	85,944	71,020	(329,795)	(390,234)	(563,065)	20,643	(3,454)		(1,727)	
Maamba Collieries Limited	31-Mar	Zambia	35	1,328,938	6,479,951	(740,594)	6,031,197)	1,037,098	100,375	21,245	7,436		362,984
Lubambe Copper Mines Limited	30-Jun	Zambia	20	322,810	1,870,663	(322,053)	(6,654,723)	(4,783,303)	824,917	(422,148)		(84,430)	
CEC Africa Invest- ments Limited	31-Dec	Mauritius	20	1,051,304	2,837,801	(107,606)	(6,157,220)	(2,375,721)	1,705,845	(3,540,641)		(708,128)	
Investrust Bank Plc	31-Dec	Zambia	45.4	1,227,855		•	(1,121,214)	106,641	166,335	(55,898)	(25,378)	•	48,415
			I	18,819,918	64,623,427	(15,886,361)	(43,269,573)	24,287,411	31,870,394	(5,065,684)	(189,233)	(844,159)	6,828,313

The Group's share of accumulated unrecognised losses from associates who are in net liability position was K3,254 million (2016: K1,846 million) at year end.

The equity accounted value was zero for CNMC Luanshya Copper Mine Plc, Kariba Minerals Limited Lubambe Copper Mines Limited and CEC Africa Investments Limited as Where the equity accounted value is zero, no further losses are recognised by ZCCM-IH as there is no obligation to settle any liabilities. at 31 March 2017. There was no profit or loss from discontinued operations.

# Notes to the financial statements (continued)

in thousands of kwacha

- **19 Investment in associates** (continued)
- (b) Investment in associates analysis (continued)

Group

Summary of financial information for material equity accounted investees.

2016	Accounting year end	Accounting Country of year end incorporation	% Interest	Assets Current	Non-Cur- rent Assets	Liabilities Current	Non- current	Net asset value	Revenues	Profit/(loss)	Share of profit/(loss)	Share of profit/ (loss) not recognised	Carrying amount
Konkola Copper Mines PIc	31 March	Zamhia	20.6	20 6 3 860 454	20 830 576	(8 622 016)	(11 976 016)	4 092 998	9 607 036	(3 685 743)	(759 263)		269.352
Kansanshi Mining Plc	31 Dec	Zambia		20 10,746,216	35,022,468	(2,016,872)	(14,068,912)	29,682,900	15,669,090	(5,110,904)	(1,022,181)	'	5,936,581
Copperbelt Energy Corporation Plc	31 Dec	Zambia	20	4,624,671	9,965,937	(6,406,434)	(3,862,558)	4,321,616	6,392,512	(2,236,269)	(447,254)	ı	234,000
CNMC Luanshya Copper		:						1					
Mine Plc	31 Dec	Zambia	20	20 1,984,707	4,137,506	(2,510,122)	(4,887,471)	(1,275,380)	1,867,687	(1,052,111)	·	(210,422)	'
Kariba Minerals Limited	30 June	Zambia	50	8,142	8,437	(40,655)	(31,273)	(55,349)	19,306	5,582	ı	2,791	ı
Maamba Collieries													
Limited	31 March	Zambia	35	1,300,446	6,567,829	(894,804)	(5,793,407)	1,180,064	121,908	52,853	18,499	I	413,022
Lubambe Copper Mines													
Limited	30 June	Zambia	20	431,168	2,272,726	(782,645)	(7,109,697)	(5,188,448)	931,044	(3,810,191)	I	(762,038)	ı
			1	22,955,804	78,805,479	(21,273,548)	(47,729,334)	32,758,401	34,608,583	(15,836,783)	(2,210,199)	(969,669)	6,852,955

Where the equity accounted value is zero, no further losses are recognised by ZCCM-IH as there is no obligation to settle any liabilities.

The equity accounted value was zero for CNMC Luanshya Copper Mine Plc, Kariba Minerals Limited and Lubambe Copper Mines Limited as at 31 March 2016. There was no profit or loss from discontinued operations.



in thousands of kwacha

**19** Investment in associates (continued)

### (a) Investments in associates analysis

### Company

Summary of fair values for equity accounted investees held by the Company:

		% Interest	2017	2016
Copperbelt Energy Corporation Plc	b(i)	20.0	334,750	234,000
Investrust Bank Plc	b(ii)	45.4	50,044	-
CEC Africa Investments Limited	b(iii)	20.0	-	-
Kansanshi Mining Plc	b(iv)	20.0	1,979,742	1,128,465
Konkola Copper Mines Plc	b(v)	20.0	533,991	529,360
Lubambe Copper Mine Limited	b(vi)	20.0	-	-
Maamba Collieries Limited	b(vii)	35.0	1,987,289	1,925,744
Kariba Minerals Limited	b(viii)	50.0	19,652	14,199
CNMC Luanshya Copper Mines Plc	b(ix)	20.0	-	
			4,905,468	3,831,768

### (b) Measurement of fair value

### Fair value hierarchy

The fair values of the Company's investment in associates were determined by Deloitte Advisory Limited, an external independent fair valuation expert, having appropriate recognised professional qualifications and experience. The independent valuers provide the fair value of the Company's associates annually. The fair value moved from K3.83 billion in 2016 to K4.9 billion in 2017.

The fair value measurement for the Company's investment in associates of K4.52 billion has been categorised as a level 3 fair value based on the inputs to the valuation technique used (see Note 4(b). For Copperbelt Energy Corporation Plc and Investrust Bank, K 0.335 billion and K0.05 billion respectively has been categorised as a level 2 based on the level of activity in the market which is deemed to be insufficient i.e. shares are not traded sufficiently for it to be classified as a level 1 fair value.

The following table shows a reconciliation from the opening balances to the closing balances for level 2 and 3 fair values.

Level 2	Level 3	Total
234,000	3,597,768	3,831,768
43,425	-	43,425
107,368	922,907	1,030,275
384,793	4,520,675	4,905,468
204,750	3,582,666	3,787,416
29,250	15,102	44,352
234,000	3,597,768	3,831,768
	234,000 43,425 107,368 384,793 204,750 29,250	234,000         3,597,768           43,425         -           107,368         922,907           384,793         4,520,675           204,750         3,582,666           29,250         15,102



# Notes to the financial statements (continued)

in thousands of kwacha

- **19 Investment in associates (***continued***)**
- (b) Measurement of fair value (continued)

### Valuation technique and significant unobservable inputs

The following table shows the valuation technique used in measuring the fair value of the interest in investment in associates as well as the significant unobservable inputs used.

\*Risk free rate of 20% which is the risk free rate for West Africa coupled with the country risk.



in thousands of kwacha

- **19 Investment in associates** (continued)
- (b) Measurement of fair value (continued)

### Valuation technique and significant unobservable inputs

The following table shows the valuation technique used in measuring the fair value of investment in interest in investment in associates as well as the significant unobservable inputs used.

	-		
Associate	Valuation technique	Significant unobservable inputs and key assumptions	Inter-relationship between Key unob- servable inputs and fair value meas- urement
Kansanshi Mining	Discounted cash flows: It is an income approach to valuation and the most widely used valuation meth- odology. It computes the value of a business by calculating the present value of antic- ipated future cash flow generated by the busi- ness. The expected net cash flows are dis- counted using risk ad- justed discount rates.	<ul> <li>Target capital structure Debt to total capitalisation (2017:21%, 2016:17.0%). Equity to total capitalisation (2017:19%, 2016:33%) Cost of debt Cost of debt (2017:2.75%, 2016: 2.8%) Effective tax rate (2017:30.0%, 2016:1.8%) After tax cost of debt (2017:1.93%, 2016:1.8%) After tax cost of debt (2017:8.0%, 2016:1.8%) After tax cost of debt (2017:1.93%, 2016:1.8%) After tax cost of debt (2017:1.1.5%) After tax cost of debt (2017:1.1.</li></ul>	The estimated fair value would increase/ (decrease) if: Equity to total capitalisation were higher/ (lower) - Cost of debt were lower/(higher) - The cost of equity were higher /(lower). If the copper price reduced/ increased the fair value would be lower/higher.


# Notes to the financial statements (continued)

in thousands of kwacha

### **19 Investment in associates** (continued)

(b) Measurement of fair value (continued)

### Valuation technique and significant unobservable inputs

The following table shows the valuation technique used in measuring the fair value of investment in interest in investment in associates as well as the significant unobservable inputs used.

Associate	Valuation technique	Significant unobservable inputs and assumptions	Inter-relationship between Key unobservable inputs and fair value measurement
Konkola Copper Mines Plc	Discounted cash flows: It is an income approach to valuation and the most widely used valuation methodology. It computes the value of a business by calculating the present value of anticipated future cash flow generated by the business. The expected net cash flows are discounted using risk adjusted discount rates. There has been no changes to the valuation technique applied in the prior year.	<ul> <li>Target capital structure</li> <li>Debt to total capitalisation (2017:66.0%, 2016:60.4%).</li> <li>Equity to total capitalisation (2017:34.0%, 2016: 39.4%).</li> <li>Cost of debt (2017:3.94%, 2016: 3.3%)</li> <li>Effective tax rate (2017:3.94%, 2016: 3.3%)</li> <li>Effective tax rate (2017:2.68%, 2016: 2.1%)</li> <li>Cost of equity</li> <li>Risk free rate (2017:8.0%, 2016: 11.5%)</li> <li>Market risk premium (2017:2.68%, 2016: 5.2%)</li> <li>Levered beta (2017: 1.49, 2016: 11.0).</li> <li>Key assumptions considered were as follows:</li> <li>London Metal Exchange was at US\$5,583 for FY 2018 to increase to US\$6,274 in FY2022.</li> <li>Kwacha exchange rate of K9.61/US\$</li> <li>Projected increase in metal production by 43% in FY 2018.</li> <li>The sustainable capex is factored at USD50million in FY202P.</li> <li>Life of mine estimated to be 50 years.</li> </ul>	The estimated fair value would increase/(decrease) if: Equity to total capitalisation were higher/(lower) Cost of debt were lower/ (higher) The cost of equity were higher/ (lower). If copper prices increase/ (decrease) If exchange rate increase/ (decrease)



in thousands of kwacha

- **19 Investment in associates** (continued)
- (b) Measurement of fair value (continued)

## Valuation technique and significant unobservable inputs

The following table shows the valuation technique used in measuring the fair value of investment in interest in investment in associates as well as the significant unobservable inputs used.

Associate	Valuation technique	Significant unobservable inputs	Inter-relationship between Key unob- servable inputs and fair value meas- urement
CNMC Luanshya	Discounted cash flows: It is an income approach to valuation and the most widely used valuation methodology. It com- putes the value of a business by calculating the present value of an- ticipated future cash flow generated by the busi- ness. The expected net cash flows are discount- ed using risk adjusted discount rates. There has been no changes to the valuation technique applied in the prior year.	<ul> <li>Target capital structure</li> <li>Debt to total capitalisation (2017:60%).</li> <li>Equity to total capitalisation (2017:40%)</li> <li>Cost of debt (2017: 2.0%)</li> <li>Effective tax rate (2017: 30%)</li> <li>After tax cost of debt (2017: 1.4%)</li> <li>Cost of equity</li> <li>Risk free rate (2017: 0.86)</li> <li>Market risk premium (2017: 6.07%)</li> <li>Levered beta (2017: 0.86).</li> <li>Key assumptions considered were as follows:</li> <li>London Metal Exchange was at US\$5,500 for FY 2017P to increase to US\$6,000 in FY19P and remain the same until FY21P</li> <li>Kwacha exchange rate of K9.61/US\$</li> <li>Projected to grow revenues from USD184.6 million in FY17P to USD 246.3 million in FY21</li> <li>Projected 33,000 MT copper cathode production for the 5 year period from FY17P to PY21P.</li> </ul>	The estimated fair value would in- crease (decrease) if: Equity to total capitalisation were higher (lower) Cost of debt were lower/(higher) The cost of equity were higher/ (lower). If copper prices increase/(decrease) If exchange rate increase/(decrease)



# Notes to the financial statements (continued)

in thousands of kwacha

**19 Investment in associates** (continued)

(b) Measurement of fair value (continued)

## Valuation technique and significant unobservable inputs

The following table shows the valuation technique used in measuring the fair value of investment in interest in investment in associates as well as the significant unobservable

inputs used.			
Associate	Valuation technique	Significant unobservable inputs and assumptions	Inter-relationship between Key unobservable inputs and fair value measurement
Kariba Minerals Limited	Discounted cash flows: It is an income approach to val- uation and the most widely used valuation methodolo- gy. It computes the value of a business by calculating the present value of anticipated future cash flow generated by the business. The expected net cash flows are discounted using risk adjusted discount rates. There has been no changes to the valuation technique applied in the prior year.	<ul> <li>Target capital structure Debt to total capitalisation (2017: 16%, 2016:60%) Equity to total capitalisation (2017: 16%, 2016: 40%) Cost of debt (2017: 22.6%, 2016: 22.6%) Effective tax rate (2017: 22.6%, 2016: 22.6%) Effective tax root of debt (2017: 15.8%, 2016: 14.7%) After tax cost of debt (2017: 15.8%, 2016: 24.5%) Market risk premium (2017: 5.6%, 2016: 9.2%) Levered beta (2017: 0.95, 2016: 24.5%) Market risk premium (2017: 5.6%, 2016: 9.2%) Levered beta (2017: 0.95, 2016: 1.8). Devered beta (2017: 0.95, 2016: 24.5%) Market risk premium (2017: 5.6%, 2016: 9.2%) Levered beta (2017: 0.95, 2016: 1.8). Devered beta (2017: 0.95, 2016: 0.247P Devered beta (20</li></ul>	The estimated fair value would increase/(decrease) if: Equity to total capitalisation were higher/(lower) Cost of debt were lower/ (higher) The cost of equity were high- er/(lower). Annual growth rate in- creased/(decreased) Costs (increase)/decrease



# Notes to the financial statements (continued)

in thousands of kwacha

- 19 Investment in associates (continued)
- (b) Measurement of fair value (continued)

## Valuation technique and significant unobservable inputs

The following table shows the valuation technique used in measuring the fair value of investment in interest in investment in associates as well as the significant unobservable inputs used.

Associate	Valuation technique	Significant unobservable inputs and assumptions	Inter-relationship between Key unobservable inputs and fair value measurement
Maamba Collieries	Discounted cash flows: It is an income approach to valuation and the most widely used valuation and the most widely used valuation methodology. It computes the value of a business by calculating the present value of anticipated future cash flow generated by the business. The expected net cash flows are discounted using risk adjusted discount rates. There has been no changes to the valuation technique applied in the prior year.	<ul> <li>Target capital structure</li> <li>Debt to total capitalisation (2017:48%, 2016:72%).</li> <li>Equity to total capitalisation (2017:52%, 2016: 28%)</li> <li>Cost of debt</li> <li>Cost of debt (2017: 6.92%, 2016: 5.8%)</li> <li>Effective tax rate (2017: 5.8%, 2016: 3.8%)</li> <li>After tax cost of debt (2017: 4.50%, 2016: 3.8%)</li> <li>After tax cost of debt (2017: 4.50%, 2016: 3.8%)</li> <li>Cost of equity</li> <li>Risk free debt (2017: 8.0%, 2016: 11.5%)</li> <li>Market risk premium (2017: 6.07%, 2016: 5.2%)</li> <li>Levered beta (2017: 0.84, 2016: 11.5%)</li> <li>Market risk premium (2017: 6.07%, 2016: 5.2%)</li> <li>Levered beta (2017: 0.84, 2016: 1.3).</li> <li>The assumptions considered were as follow:</li> <li>Projected a growth in revenues from USD222 million in FY18P to USD 230 million in FY21P.</li> <li>Projects to generate 8% of the total revenue through high grade coal mining, which is subsequently expected to fall to 1% of the total revenue in FY21P.</li> <li>Agreement with ZESCO in case of power.</li> <li>CAPEX spend of USD 118 million in FY17P.</li> <li>Nominal energy tariff o be USD/kWh 0.3 from FY18P to F21P, to FY21P.</li> <li>Nominal energy tariff o be USD/kWh 0.3 from FY18P to FY21P.</li> </ul>	The estimated fair value would increase (decrease) if: • Equity to total capitalisation were higher/(lower) • Cost of debt were lower/(higher) • The cost of equity were higher (lower). • Coal sales prices (increase)/decrease. • Capital Expenditure (increase)/ decrease

# Notes to the financial statements (continued)

in thousands of kwacha

- **19 Investment in associates** (continued)
- (b) Measurement of fair value (continued)

## Valuation technique and significant unobservable inputs

The following table shows the valuation technique used in measuring the fair value of investment in interest in investment in associates as well as the significant unobservable inputs used.

Associate	Valuation technique	Significant unobservable inputs and assump- tions	Inter-relationship between Key unobservable inputs and fair value measurement
Lubambe Copper Mines	Discounted cash flows: It is an income approach to valuation and the most widely used valuation methodology. It computes the value of a business by calculating the present value of anticipated future cash flow generated by the business. The expected net cash flows are discounted using risk adjusted discount rates. There has been no changes to the valuation technique applied in the prior year.	<ul> <li>Target capital structure Debt to total capitalisation (2017: 38%, 2016: 75%). Equity to total capitalisation (2017: 62%, 2016: 25%) Equity to total capitalisation (2017: 6.09%, 2016: 3.5%) Cost of debt Cost of debt Cost of debt (2017: 3.96%, 2016: 3.5%) After tax cost of debt (2017: 3.96%, 2016: 3.5%) After tax cost of debt (2017: 5.0%) 2016: 11.5%) Market risk premium (2017:6.1%, 2016: 5.2%) Levered beta (2017: 1.28, 2016: 11.5%) Market risk premium (2017:6.1%, 2016: 5.2%) Levered beta (2017: 1.28, 2016: 1.1). The assumptions considered were as follows: Increase in copper produced from 17,685 tormes in FY17 to in 40,546 tornes in FY21P Increase in copper produced from 17,685 tormes in FY17 to in 40,546 tornes in FY21P Increase in copper produced from 55,236.76/MT in FY17P to \$6,437/MT in FY21P. Inflation forecast at 22%. Endition forecast at 22%. Under the years under review. Life of mine: 32 years </li> </ul>	The estimated fair value would increase/ (decrease) if: • Equity to total capitalisation were higher/(lower) • Cost of debt were lower/(higher) • The cost of equity were higher/ (lower). • Copper price were higher/(lower) • Exchange rate were higher/(lower) • Capital expenditure (higher)/lower



in thousands of kwacha

### 19 Investment in associates (continued)

(b) Measurement of fair value (continued)

### (i) Copperbelt Energy Corporation Plc (CEC)

CEC is listed on Lusaka Securities Exchange (LuSE) and consequently the valuation was based on the spot price and has been categorised as level 2 as shown below:

	2017	2016
Details	Mark to	market
Spot price per share at 31 March (K)	1.03	0.72
Number of issued shares	325,000,115	325,000,115
Market value (K'000)	334,750	234,000

### (ii) Investrust Bank Plc

Investrust Bank Plc is listed on Lusaka Securities Exchange (LuSE) and consequently the valuation was based on the spot price and has been categorised as level 2 as shown below:

	2017	2016
Details	Ma	ark to market
Spot price per share at 31 March (K)	13.5	13.5
Number of issued shares	3,706,963	494,514
Market value (K'000)	50,044	6,676

### (iii) CEC Africa Investments Limited

The equity value is K0.00 million (negative equity value is limited to a zero value due to the nature of the liability of the investee company.



in thousands of kwacha

### **19** Investment in associates (continued)

Equity value and sensitivity analysis for investment in associates

The equity values indicated below are that of the Group's interest in each associate company.

### (iv) Kansanshi Mining Plc

A sensitivity analysis table of the equity value, which is based on the discount rate and growth rate over the life of mine indicating reasonably possible changes at the reporting date to one of the relevant valuation assumptions, holding other assumptions constant, would have affected the value of the investment by the amounts shown below:

	Equity Value Sensitivity Analysis								
		1	Growth Rate Ove	er the Remaining	g Life of Mine				
		14.00%	14.50%	15.00%	15.50%	16.00%			
	10.1%	2,471,927	2,533,749	2,597,474	2,663,161	2,730,869			
с	11.6%	2,156,670	2,208,774	2,262,460	2,317,777	2,374,774			
WACC	13.1%	1,890,284	1,934,353	1,979,742	2,026,491	2,074,640			
5	14.6%	1,664,215	1,701,617	1,740,123	1,779,767	1,820,582			
	16.1%	1,471,541	1,503,392	1,536,169	1,569,901	1,604,616			

2017

### 2016

			Equity Value S	ensitivity Analysi	S	
			Growth Rate C	over the Remainin	ng Life of Mine	
		14.00%	14.50%	15.00%	15.50%	16.00%
	8.30%	1,365,427	1,377,522	1,389,835	1,402,370	1,415,130
Ö	13.30%	1,231,470	1,242,034	1,252,788	1,263,733	1,274,874
WACC	18.30%	1,109,815	1,119,056	1,128,465	1,138,031	1,147,771
5	23.30%	1,001,152	1,009,268	1,017,527	1,025,930	1,034,480
	28.30%	901,709	931,010	916,108	923,495	931,010

The equity value ranges from K1,702 million (2016: K1,009 million) to K2,318 million (2016: K1,264 million) with the calculated equity value being K1,980 million (2016: K1,128 million).



in thousands of kwacha

### 19 Investment in associates (continued)

(b) Measurement of fair value (continued)

### (v) Konkola Copper Mines Plc (KCM)

A sensitivity analysis table of the equity value, which is based on the discount rate and growth rate over the life of mine indicating reasonably possible changes at the reporting date to one of the relevant valuation assumptions, holding other assumptions constant, would have affected the value of the investment by the amounts shown below:

	Equity Value Sensitivity Analysis								
		Gro	owth Rate Over	the Remaining	Life of Mine				
		4.50%	5.00%	5.50%	6.00%	6.50%			
	5.10%	1,721,329	2,049,577	2,426,839	2,861,262	3,362,407			
с	6.60%	827,049	1,029,505	1,260,313	1,524,012	1,825,905			
WACC	8.10%	258,959	387,811	533,991	698,501	885,917			
>	9.60%	(114,830)	(30,219)	64,600	171,121	291,073			
	11.10%	(369,300)	(312,019)	(248,379)	(177,497)	(98,354)			

### 2017

### 2016

	Equity Value Sensitivity Analysis								
		C	Growth Rate Over	the Remaining I	ife of Mine				
		4.50%	5.00%	5.50%	6.00%	6.50%			
	5.20%	758,529	811,993	869,672	931,924	999,142			
0	6.70%	590,152	630,671	674,274	721,220	771,789			
WACC	8.20%	464,498	495,780	529,360	565,426	604,182			
5	9.70%	361,564	385,638	411,411	439,018	468,608			
	11.20%	283,206	302,072	322,217	343,739	366,748			

The equity value ranges from nil value (2016: K385 million) to K1,524 million (2016: K721 million) with the calculated equity value being K504 million (2016: K529 million).



in thousands of kwacha

### 19 Investment in associates (continued)

### (b) Measurement of fair value (continued)

Equity value and sensitivity analysis for Investment in associates (continued)

### (vi) Lubambe Copper Mine Limited

A sensitivity analysis table of the equity value, which is based on the discount rate and growth rate over the life of mine indicating reasonably possible changes at the reporting date to one of the relevant valuation assumptions, holding other assumptions constant, would have affected the value of the investment by the amounts shown below:

		Equi	ty Value Sensi	tivity Analysis	;	
		Gre	owth Rate for	the Remainin	g Life of Mine	
		4.50%	5.00%	5.50%	6.00%	6.50%
	4.60%	-416,624	-393,251	-368,198	-341,346	-312,525
o	6.10%	-498,609	-480,551	-461,254	-440,620	-418,546
MACC	7.60%	-563,295	(549 168)	-535,464	-518,089	-500,982
5	9.10%	-615,008			-579,354	-565,938
	10.60%	-656,841	-647,904	-638,438	-628,414	-617,785

### 2017

### 2016

	Equity Value Sensitivitys Analysis						
		G	rowth Rate for	the Remainin	ng Life of Mine		
		4.50%	5.00%	5.50%	6.00%	6.50%	
	11.70%	229,249	282,051	339,594	402,349	470,836	
υ	13.20%	98,846	139,547	183,750	231,796	284,055	
WACC	11.70%	- 1,118	30,691	65,115	102,402	142,822	
5	16.20%	- 78,820	- 53,621	- 26,448	2,881	34,564	
	17.70%	- 140,046	- 119,818	- 98,084	- 74,707	- 49,541	

The equity value is K0.00 million (negative equity value is limited to a zero value due to the limited liability nature of the investee company) (2016: K0.00 million).



in thousands of kwacha

### **19** Investment in associates (continued)

### (b) Measurement of fair value (continued)

Equity value and sensitivity analysis for Investment in associates (continued)

### (vii) Maamba Collieries Limited

A sensitivity analysis table of the equity value, which is based on the discount rate over the life of power plant indicating reasonably possible changes at the reporting date to one of the relevant valuation assumptions, holding other assumptions constant, would have affected the value of the investment by the amounts shown below:

Equity Value Sensitivity Analysis						
	100	4.50%	5.00%	5.50%	6.00%	6.50%
	8.90%	2,552,401	2,637,037	2,725,312	2817391	2913450
O	10.40%	2,180,749	2,250,910	2,324,019	2,400,210	2,479,621
WACC	11.90%	1,867,961	1,926,425	1,987,289	2,050,660	2,116,649
5	13.40%	1,602,937	1,651,901	1,702,828	1,755,802	1,810,916
	14.90%	1,376,906	1,418,117	1,460,938	1,505,441	1,551,698

The equity value ranges from K1,652 million (2016: K1,630 million) to K2, 400 million (2016: K2.276 million) with the calculated equity value being K1,987 million (2016: K1,926 million

20	1	6

	Equity Value Sensitiv	vity Analysis
		Equity value
	6.60%	2,688,868
Ö	8.10%	2,276,617
WACC	9.60%	1,925,744
S	11.10%	1,630,010
	12.60%	1,374,682

### 2017



in thousands of kwacha

- **19** Investment in associates (continued)
  - (b) Measurement of fair value (continued)
  - (viii) Kariba Minerals Limited

A sensitivity analysis table of the equity value, which is based on the discount rate and growth rate over the life of mine indicating reasonably possible changes at the reporting date to one of the relevant valuation assumptions, holding other assumptions constant, would have affected the value of the investment by the amounts shown below:

### 2017

	Equity Value Sensitivity Analysis						
	Growth Rate for the Remaining Life of Mine						
		4.0%	4.5%	5.0%	5.5%	6.0%	
	15.00%	25,205	25,768	26,358	26,976	27,622	
с	16.50%	21,781	22,237	22,713	23,211	23,732	
WACC	18.00%	18,881	19,252	19,652	20,044	20,465	
S	19.50%	16,405	16,708	17,025	17,355	17,698	
	21.00%	14,272	14,522	14,782	15,053	15,335	

2016

	Equity Value Sensitivity Analysis					
	Growth Rate for the Remaining Life of Mine					
		4.0%	4.5%	5.0%	5.5%	6.0%
	15.00%	16,175	18,828	19,204	19,600	20,017
O	16.50%	18,469	16,175	16,479	16,797	17,131
WACC	18.00%	13,712	13,950	14,199	14,459	14,731
5	19.50%	11,709	11,904	16,479	12,319	12,540
	21.00%	10,002	10,002	10,333	10,509	10,691

The equity value ranges from K16.7 million (2016: K11.9 million) to K 23.2 million (2016: K16.8 million) with the calculated equity value being K19.7 million (2016: K14.2 million).



in thousands of kwacha

### **19** Investment in associates (continued)

### (b) Measurement of fair value (continued)

Equity value and sensitivity analysis for Investment in associates (continued)

### (ix) CNMC Luanshya Copper Mines Plc

A sensitivity analysis table of the equity value, which is based on the discount rate and growth rate over the life of mine indicating reasonably possible changes at the reporting date to one of the relevant valuation assumptions, holding other assumptions constant, would have affected the value of the investment by the amounts shown below:

2017	

	Equity Value Sensitivity Analysis							
	Growth Rate over the Remaining Life of the Mine							
		4.00%	4.50%	5.00%	5.50%	6.00%		
ble	5.70%	-468,236	-462,077	-455,839	-449,523	-443,126		
Multiple	7.20%	-515,701		-504,530	-498,839	-493,076		
	8.70%	-558,572		-548,489	-543,352	-538,151		
Earnings	10.20%	-597,379	-592,848	-588,261	-583,617	-578,915		
Eai	11.70%	-632,579	-628,475	-624,320	-620,115	-615,857		

### 2016

	Equity Value Sensitivity Analysis							
		2 - 2 2 1	E	arnings after tax	(			
		-327,765	-227,765	-127,765	-27,235	72,235		
ú	14.0%	-6,700,012	-4,655,861	-2,611,702	-567,559	1,476,593		
Earnings	15.50%	-7,417,871		16 479	16,797	1,634,799		
	17.00%	-8,087,872	-5,620,289	-3,167,621	-685,124	1,782,458		
Price	18.50%	-8,853,588	-6,152,388	-3,451,178	-749,988	1,951,212		
L L	20.00%	-9,571,446	-6,651,230	-3,731,003	-810,787	2,109,418		

The equity value is K0.00 million (negative equity value is limited to a zero value due to the limited liability nature of the investee company) (2016: K0.00 million).



In thousands of Kwacha

- 20 Financial assets at fair value through profit or loss See accounting policies in note 39 (c (ii))
  - (a) Reconciliation of carrying amounts

Group and Company	
2017	2016
238,247	290,229
257,436	(51,982)
235	-
(6,676)	
489,242	238,247
	2017 238,247 257,436 235 (6,676)

### Additions

During the year, ZCCM-IH subscribed K0.235million to Chibuluma Mines increase in share capital at US\$1per share in order to maintain its 15% shareholding percentage.

Financial assets at fair value through profit or loss include the following:

Unlisted equities – at fair value       2017       2016         - Equity securities in Zambia       489,242       231,571         listed equities – at fair value       -       6,676         - Equity securities – Investrust Bank Plc       -       6,676         489,242       238,247         Investrust Bank Plc*       b(i)       -       6,676         Mopani Copper Mines Plc       b(ii)       223,518       52,311         Chibuluma Mines Plc       b(iii)       62,893       135,736         Chambishi Metals Plc       b(iv)       11,900       -         NEC Africa Mines Plc       b(v)       190,931       43,524			Group and Co	mpany
- Equity securities in Zambia       489,242       231,571         listed equities – at fair value       -       6,676         - Equity securities – Investrust Bank Plc       -       6,676         489,242       238,247       238,247         Investrust Bank Plc*       b(i)       -       6,676         Mopani Copper Mines Plc       b(ii)       223,518       52,311         Chibuluma Mines Plc       b(iii)       62,893       135,736         Chambishi Metals Plc       b(iv)       11,900       -			2017	2016
listed equities – at fair value       -       6,676         - Equity securities – Investrust Bank Plc       -       6,676         489,242       238,247         Investrust Bank Plc*       b(i)       -       6,676         Mopani Copper Mines Plc       b(ii)       223,518       52,311         Chibuluma Mines Plc       b(iii)       62,893       135,736         Chambishi Metals Plc       b(iv)       11,900       -	Unlisted equities – at fair value			
- Equity securities – Investrust Bank Plc - 6,676 489,242 238,247	- Equity securities in Zambia		489,242	231,571
- Equity securities – Investrust Bank Plc - 6,676 489,242 238,247				
489,242         238,247           Investrust Bank Plc*         b(i)         -         6,676           Mopani Copper Mines Plc         b(ii)         223,518         52,311           Chibuluma Mines Plc         b(iii)         62,893         135,736           Chambishi Metals Plc         b(iv)         11,900         -	listed equities – at fair value			
Investrust Bank Plc*         b(i)         -         6,676           Mopani Copper Mines Plc         b(ii)         223,518         52,311           Chibuluma Mines Plc         b(iii)         62,893         135,736           Chambishi Metals Plc         b(iv)         11,900         -	- Equity securities – Investrust Bank Plc		-	6,676
Investrust Bank Plc*         b(i)         -         6,676           Mopani Copper Mines Plc         b(ii)         223,518         52,311           Chibuluma Mines Plc         b(iii)         62,893         135,736           Chambishi Metals Plc         b(iv)         11,900         -			489,242	238,247
Investrust Bank Plc*         b(i)         -         6,676           Mopani Copper Mines Plc         b(ii)         223,518         52,311           Chibuluma Mines Plc         b(iii)         62,893         135,736           Chambishi Metals Plc         b(iv)         11,900         -			- S )	
Mopani Copper Mines Plc         b(ii)         223,518         52,311           Chibuluma Mines Plc         b(iii)         62,893         135,736           Chambishi Metals Plc         b(iv)         11,900         -			2017	2016
Chibuluma Mines Plc         b(ii)         62,893         135,736           Chambishi Metals Plc         b(iv)         11,900         -	Investrust Bank Plc*	b(i)	-	6,676
Chambishi Metals Plc b(iv) 11,900 -	Mopani Copper Mines Plc	b(ii)	223,518	52,311
	Chibuluma Mines Plc	b(iii)	62,893	135,736
NEC Africa Mines Plc	Chambishi Metals Plc	b(iv)	11,900	-
	NFC Africa Mines Plc	b(v)	190,931	43,524
<b>489,242</b> 238,247			489,242	238,247

### \*Transfer to associates

During the year ZCCM IH increased its investments in Investrust Bank Plc from 10.6% to 45.4%. Following this increase the investment met the criteria for reclassification to associates and was hence transferred from fair value through profit or loss (FVTPL) to associates (Note 19).

### (b) Measurement of fair value

### Fair value hierarchy

The fair value for the Company's financial investments at fair value through profit or loss was determined by Deloitte Advisory Limited, an external independent valuer, having appropriate recognised professional qualifications and recent experience of the financial investments being valued. The independent valuers provide the fair value of these investments annually.

The fair value changed from K238.2 million in 2016 to K489.2 million in 2017. The increase is mainly attributable to improvement in copper production for most major mining companies due to stability in energy supply and an improvement in copper prices on the world market in the last quarter of 2016 and the first quarter of 2017.



In thousands of Kwacha

### 20 Financial asset at fair value through profit or loss (continued)

### (b) Measurement of fair value (continued)

The fair value measurement for the Company's investments of K489.2 million has been categorised as a level 3 fair value based on the inputs to the valuation technique used.

### Level 2 and 3 fair value

The following table shows a reconciliation from the opening balances to the closing balances for level 1 and 3 fair values.

2017	Level 2	Level 3	Total
Balance at 1 April	6,676	231,571	238,247
Transfer to associates (see note 20(a))	(6,676)	-	(6,676)
Addition	-	235	235
Net change in fair value**	-	257,436	257,436
Balance at 31 March	-	489,242	489,242
2016			
Balance at 1 April	6,676	283,553	290,229
Net change in fair value**	-	(51,982)	(51,982)
Balance at 31 March	6,676	231,571	238,247
Net fair value change**		2017	2016
Fair value gain		330,514	125,512
Fair value loss		(73,078)	(177,494)
Net change in fair value		257,436	(51,982)

### Level 2 fair value

### Valuation technique and significant unobservable inputs

### Level 3 fair value

The following table shows the valuation technique used in measuring the fair value of investment in fair value through profit or loss, as well as the significant unobservable inputs used.



# Notes to the financial statements (continued)

In thousands of Kwacha

- 20 Financial asset at fair value through profit or loss (continued)
- (b) Measurement of fair value (continued)

Valuation technique and significant unobservable inputs (continued)

Level 3 fair value (continued)

	Valuation technique	Significant unobservable inputs and assumptions	unobservable inputs and fair value measurement
Mopani Discount Copper is an ind Mines Plc valuation widely methodol the valu by calcu value of cash flov usiness. There ha: to the v applied ir	Discounted cash flows: It is an income approach to valuation and the most widely used valuation methodology. It computes the value of a business by calculating the present value of anticipated future cash flow generated by the business. The expected net cash flows are discounted using risk adjusted discount rates. There has been no changes to the valuation technique applied in the prior year	<ul> <li>Target capital structure Debt to total capitalisation (2017: 60%, 2016: 60%).</li> <li>Debt to total capitalisation (2017: 40%, 2016: 50%).</li> <li>Equity to total capitalisation (2017: 40%, 2016: 40%)</li> <li>Cost of debt (2017: 3.81%, 2016: 3.5%)</li> <li>Tax rate (2017: 3.81%, 2016: 3.5%)</li> <li>Tax rate (2017: 3.81%, 2016: 3.5%).</li> <li>After tax cost of debt (2017: 2.66%, 2016: 2.7%).</li> <li>Cost of equity</li> <li>Market risk premium (2017: 6.07%, 2016: 5.2)</li> <li>Levered beta (2017: 0.99, 2016: 11.5%)</li> <li>Market risk premium (2017: 6.07%, 2016: 5.2)</li> <li>Levered beta (2017: 0.99, 2016: 1.0).</li> <li>The assumptions considered are as follows: <ul> <li>Copper price projected at US\$5,000 per tonne for financial year 2017 increasing to US\$7,309 per tonne in 2026.</li> <li>This is accompanied by an increase in production from 116,524 MT in FY17P to 206,574 MT in FY26P.</li> <li>Projected to pay off the working capital facility in FY26P.</li> <li>Life of mine: 26 years</li> </ul> </li> </ul>	<ul> <li>The estimated fair value would increase/ (decrease) if:</li> <li>Equity to total capitalisation were higher/(lower)</li> <li>Cost of debt were lower/(higher)</li> <li>The cost of equity were higher/ (lower)</li> <li>Target capital structure of debt to total capitalisation.</li> <li>Copper price higher/(lower)</li> </ul>



In thousands of Kwacha

Financial assets at fair value through profit or loss (continued) 20

(b) Measurement of fair value (continued) Valuation technique and significant unobservable inputs (continued)

Investee name	Valuation technique	Significant unobservable inputs and assumptions	Inter-relationship between Key un- observable inputs and fair value measurement
Chibuluma Mines Plc	Discounted cash flows: It is an income approach to valuation and the most widely used valuation methodology. It computes the value of a business by calculating the present value of anticipated future cash flow generated by the business. The expected net cash flows are discounted using risk adjusted discount rates. There has been no changes to the valuation technique applied in the prior year	<ul> <li>Target capital structure Debt to total capitalisation (2017:3%, 2016: 62%) Equity to total capitalisation (2017:3%, 2016: 62%) Cost of debt (2017: 2.23%, 2016: 4.1%) Tax rate (2017:30%, 2016: 4.1%) Tax rate (2017:30%, 2016: 1.5%) After tax cost of debt (2017: 1.56%, 2016: 2.9). After tax cost of debt (2017: 1.56%, 2016: 2.9). Cost of equity Risk free rate (2017: 1.05, 2016: 0.1, 1.5%) Market risk premium (2017: 6.1%, 2016: 5.2%) Levered beta (2017: 1.05, 2016: 0.9). The assumptions considered are as follows: Prevend beta (2017: 1.05, 2016: 0.9). The assumptions considered are as follows: Prevend beta (2017: 1.05, 2016: 0.9). The assumptions considered are as follows: Prevend beta (2017: 1.05, 2016: 0.9). The assumptions considered are as follows: Prevend beta (2017: 1.05, 2016: 0.9). The assumptions considered are as follows: Prevend beta (2017: 1.05, 2016: 0.9). The assumptions considered are as follows: Prevend beta (2017: 1.05, 2016: 0.9). The assumptions considered are as follows: Prevend beta (2017: 1.05, 2016: 0.9). The assumptions considered are as follows: Prevend beta (2017: 1.05, 2016: 0.9). The assumptions considered are as follows: Prevend beta (2017: 1.05, 2016: 0.9). The assumptions considered are as follows: Prevend beta (2017: 1.05, 2016: 0.9). The assumptions considered are as follows: Prevend beta (2017: 1.05, 2016: 0.9). The assumptions considered are as follows: Prevend beta (2017: 1.05, 2016: 0.9). The assumptions considered are as follows: Prevend beta (2017: 1.05, 2016: 0.9). The assumptions considered are as follows: Prevend beta (2017: 1.05, 2016: 0.9). The assumptions considered are as follows: Prevend beta (2017: 1.05, 2016: 0.9). The assumptions considered are as follows: Prevend beta (2017: 1.05, 2016: 0.9). The assumptions considered are as follows: Prevend beta (2017: 1.05, 2016: 0.9). Prevend beta (2017: 1.05, 2016: 0.9).</li></ul>	The estimated fair value would in- crease/(decrease) if: Equity to total capitalisation were higher/(lower) • Cost of debt were lower (higher) • The cost of equity were higher/ (lower) • Target capital structure of debt to total capitalisation.



for the year ended 31 March 2017

# Notes to the financial statements (continued)

In thousands of Kwacha

- 20 Financial assets at fair value through profit or loss (continued)
- (b) Measurement of fair value (continued)

Valuation technique and significant unobservable inputs (continued)

Investee name	Valuation technique	Significant unobservable inputs and assumptions	Inter-relationship between Key unobservable inputs and fair val- ue measurement
Chambishi Metals Plc	Discounted cash flows: • <i>Target capital structure</i> It is an income approach to valuation and the most widely used valuation methodology. It computes the value of a business by the value of a business by the value of a business by calculating the present value of anticipated future value of anticipated future cash flow generated by the business. The expected net cash flows adjusted discount rates. There has been no changes to the valuation technique applied in the prior year prior year million in FY 17P, followi projected for ead	<ul> <li>Target capital structure Debt to total capitalisation (2017: 54%, 2016: 46%). Equity to total capitalisation (2017: 54%, 2016: 54%)</li> <li>Cost of debt (2017: 9.0%, 2016: 9%). Cost of debt (2017: 9.0%).</li> <li>After tax cost of debt (2017: 5.85%, 2016: 5.9%). After tax cost of debt (2017: 5.85%, 2016: 5.9%).</li> <li>Cost of equity Risk free rate (2017: 0.6, 2016: 11.5%) Market risk premium (2017: 6.07%, 2016: 5.2%)</li> <li>Levered beta (2017: 0.6, 2016: 1.3).</li> <li>Projects copper prices to be at USD/tonne6,000 for the period FY17P to FY21Pwhile cobpart prices to be at USD/tonne6,000 for the period FY17P to FY21Pwhile cobpart prices to be at USD/tonne6,000 for the period FY17P to FY21Pwhile cobpart prices to be at USD/tonne6,000 for the period FY17P to Frojects growth in revenues from USD313 million in FY17P to USD 389 million in FY21P.</li> <li>Projects growth in revenues from USD313 million in FY17P to USD 389 million in FY21P.</li> <li>Projects growth in revenues from USD313 million in FY17P to USD 389 million in FY21P.</li> <li>Projects growth in revenues from USD313 million in FY17P to USD 389 million in FY17P to 12.5 in FY21</li> <li>Projects growth in revenues from USD313 million in FY17P to USD 389 million in FY17P following which, USD 5.0 million of capex spend has been projected for each year to FY21P.</li> </ul>	<ul> <li>The estimated fair value would increase/(decrease) if:</li> <li>Equity to total capitalisation were higher/lower)</li> <li>Cost of debt were lower/ (higher)</li> <li>The cost of equity were higher/ (lower)</li> <li>Target capital structure of debt to total capitalisation.</li> <li>Copper prices higher/(lower)</li> <li>Copper prices higher/(lower)</li> <li>Copper prices higher/(lower)</li> <li>Copper prices higher/(lower)</li> </ul>



# Notes to the financial statements (continued)

In thousands of Kwacha

- 20 Financial assets at fair value through profit or loss (continued)
- (b) Measurement of fair value (continued)

Investee name	Valuation technique	Significant unobservable inputs	Inter-relationship between Key unob- servable inputs and fair value meas- urement
NFC Africa Mines Plc	The RV Valuation Methodology is based upon how similar companies are currently priced by the market. RV Valuation methods establish the value of a business in comparison to pricing multiples from transactions involving similar businesses or valuation multiples from comparable business that are listed on stock exchanges There has been no changes to the valuation technique	<ul> <li>Price/Book Value (P/BV)</li> <li>P/BV Multiple - 2017: 1.1 (2016:0.26). (decrease) if:</li> <li>P/BV wer</li> <li>P/BV wuu</li> </ul>	<ul> <li>The estimated fair value would increase/ (decrease) if:</li> <li>P/BV were higher/(lower)</li> <li>P/BV multiple were higher/(lower)</li> </ul>
	applied in the prior year.		



In thousands of Kwacha

### 20 Financial assets at fair value through profit or loss (continued)

### (b) Measurement of fair value (continued)

Equity value and sensitivity analysis for investment in financial investments at fair value through profit or loss

The equity values indicated below are that of the Group's interest in each investee company.

### (i) Mopani Copper Mines Plc

A sensitivity analysis table of the equity value, which is based on the discount rate and growth rate over the life of mine indicating reasonably possible changes at the reporting date to one of the relevant valuation assumptions, holding other assumptions constant, would have affected the value of the investment by the amounts shown below:

			Equity Value S	ensitivity Anal	lysis	
			Growth Rate f	or the Remaini	ing Life of Mine	•
		4.50%	5.00%	5.50%	6.00%	6.50%
ပ္ပ	4.90%	814,222	838,824	863,898	889,455	915,502
WACC	6.40%	472,792	492,752	513,092	533,820	554,940
	7.90%	190,623	206,917	223,518	240,431	257,662
	9.40%	-52,598	-39,320	-25,795	-12,018	2,015
	10.90%	-255,221	-244,336	-233,251	-221,962	-210,466

2016

	Equity Value Sensitivity Analysis								
			Growth Rate for the Remaining Life of Mine						
		4.50%	5.00%	5.50%	6.00%	6.50%			
с С	4.90%	648,999	677,307	706,252	735,845	766,098			
WACC	6.40%	648,999	322,085	345,294	369,018	393,268			
	7.90%	15,194	33,551	52,311	71,474	91,061			
	9.40%	- 229,458	- 214,678	345,294	- 184,146	- 168,393			
	10.90%	- 429,793	- 417,797	- 199,574	- 405,543	- 380,265			

The equity value ranges from K0.00 million (2016: K0.00 million) to K533.82 million (2016: K 369.02 million) with the calculated equity value being K223.52 million (2016: K52.31 million).

### 2017



In thousands of Kwacha

### 20 Financial assets at fair value through profit or loss (continued)

### (b) Measurement of fair value (continued)

Equity value and sensitivity analysis for investment in financial investments at fair value through profit or loss

### (ii) Chibuluma Mines Plc

A sensitivity analysis table of the equity value, which is based on the discount rate and growth rate over the life of mine indicating reasonably possible changes at the reporting date to one of the relevant valuation assumptions, holding other assumptions constant, would have affected the value of the investment by the amounts shown below:

For Chibuluma, since the remaining life of the mine is 3 years, the sensitivity is only based on the WACC.

	Equity Value Sensitivity Analysis	
	No growth rate is assumed	
	16.40%	66,131
0	17.90%	64,459
MACC	19.40%	62,893
5	20.90%	61,300
	22.40%	59,806

2016

	Equity Value Sensitivity Analysis								
			Growth Rate for	the Remaining	Life of Mine				
		-0.50%	-0.50%	0.00%	0.50%	1.00%			
	15.50%	147,464	147,744	148,012	148,292	148,560			
U	17.00%	141,159	141,416	141,673	141,930	142,187			
WACC	18.50%	135,244	135,490	135,736	135,982	136,228			
>	20.00%	129,554	129,789	130,023	130,247	130,482			
	21.50%	124,210	124,433	124,657	124,881	125,104			

The equity value ranges from K61.30 million (2016: K129.79 million) to K64.46 million (2016: K141.93 million) with the calculated equity value being K62.89 million (2016: K135.74 million).



In thousands of Kwacha

### 20 Financial assets at fair value through profit or loss (continued)

### (b) Measurement of fair value (continued)

Equity value and sensitivity analysis for investment in financial investments at fair value through profit or loss (continued)

### (iv) Chambishi Metals Plc

A sensitivity analysis table of the equity value, which is based on the discount rate and growth rate over the life of mine indicating reasonably possible changes at the reporting date to one of the relevant valuation assumptions, holding other assumptions constant, would have affected the value of the investment by the amounts shown below:

20	17
----	----

	Equity Value Sensitivity Analysis							
		- ""	Growth Rate for	or the Remainir	ng Life of Mine	•		
		2.50%	3.00%	3.50%	4.00%	4.50%		
00	9.00%	147,760	182,878	95,495	274,184	335,055		
WACC	10.50%	48,936	70,664	95,495	124,148	157,575		
	12.00%	-18,834	-4,320	11,900	-30,148	50,828		
	13.50%	-67,992		-46,475	-34,018	-20,176		
	15.00%	-105,460	-97,936	-89,756	-80,837	-71,065		

The equity value ranges from K0.00 million (2016: K0.00 million) to K124.15 million (2016: K 0.00 million) with the calculated equity value being K11.90 million (2016: K0.00 million).



In thousands of Kwacha

### 20 Financial assets at fair value through profit or loss (continued)

### (b) Measurement of fair value (continued)

Equity value and sensitivity analysis for investment in financial investments at fair value through profit or loss (continued)

### (v) NFC Africa Mines Plc

A sensitivity analysis table of the equity value, which is based on Price Book Value (P/BV) and Net Asset Value (NAV) is provided below:

			Equity Value Sensitivity Analysis							
				NAV						
		-172,331.00	-788,694.00	1,749,719.00	2,710,744.00	3,671,769.00				
	1.00	-16,800	77,253	171,385	265,517	359,650				
P/BV	1.10	-18,568	84,978	190,931	292,069	395,615				
PI	2.10	-35,488	162,230	359,908	557,586	755,265				
	3.10	-52,327	239,483	531,293	823,104	1,114,914				

### 2017

2016

			Equity Value Se	ensitivity Analysis		
	193			Earnings		
		1,637	2,637	3,637	4,637	5,637
	6.47	- 17,653	4,573	26,787	49,002	71,217
WACC	8.97	- 28,677	7,424	43,524	79,624	115,735
MA	8.97	- 138,990	35,966	210,933	385,889	560,845
	13.97	- 249,292	64,520	378,331	692,143	1,005,965

The equity value ranges from K162.23 million (2016: K4.57 million) to K265.52 million (2016: K385.89 million) with the calculated equity value being K190.93 million (2016: K29.64 million).



In thousands of Kwacha

### 21 Inventories

See accounting policy in note 39 (g)

Group	
2017	2016
15,666	15,547
17,296	8,640
11,162	11,162
44,124	35,349

The cost of inventories recognised as an expenses and included in 'cost of sales' amounted to K39.4 million (2016: K99 million). There were no inventory write-offs and no inventories placed as security during the year (2016: nil).

2 Trade and other receivables See accounting policy in note 39 (c(ii))			
Group			
2017			
Current	Gross	Impairment	Net
Trade receivables	32,429	(2,109)	30,320
Dividend receivable	78,066	(78,066)	-
Other receivables *	111,383	(68,819)	42,564
Amounts due from related parties (note 33(iii))	716,989	(716,989)	-
Price participation receivable (see note below)	305,215	(9,044)	296,171
	1,244,082	(875,027)	369,055
Non-current			
Amounts due from related parties	279,708	-	279,708
Price participation receivable	270,129	-	270,129
	549,837	-	549,837
Total balance	1,793,919	(875,027)	918,892

Current	Gross	Impairment	Net
Trade receivables	39,385	(1,618)	37,767
Dividend receivable	78,066	(78,066)	-
Other receivables *	138,198	(39,946)	98,251
Price participation receivable (see note below)	729,575	(729,575)	-
	985,224	(849,205)	136,018
Non-current			

Amounts due from related parties (note 33(iii))	1,030,631	(716,989)
Total	2,015,855	(1,566,195)

313,642

449,660



In thousands of Kwacha

### 22 Trade and other receivables (continued)

Company 2017			
Current	Gross	Impairment	Net
Dividend receivable	78,066	(78,066)	-
Other receivables *	102,387	(63,821)	38,566
Amounts due from related parties (note 33(iii))	927,246	(923,187)	4,059
Price participation receivable (see note below)	305,215	(9,044)	296,171
	1,412,914	(1,074,118)	338,796
Non-current			
Amounts due from related parties (note 33(iii))	279,708	-	279,708
Price participation receivable	270,129	-	270,129
	549,837	<u> </u>	549,837
Total balance	1,962,751	1,074,118	888,633
Company 2016			
	Gross	Impairment	Net
Dividend receivable	78,066	(78,066)	-
Other receivables *	131,601	(39,942)	91,659
Amounts due from related parties (note 33(iii))	816,213	(812,150)	4,063
Price participation receivable (see note below)	729,575	(729,575)	-
	1,755,455	(1,659,733)	95,722
Non-current			

Amounts due from related parties (note 33(iii))	313,642	-	313,642
Total balance	2,069,098	1,659,733	409,364



### Notes to the financial statements (continued)

In thousands of Kwacha

### 22 Trade and other receivables (continued)

### Other receivables analysis

Group		2017			2016	
	Gross	Impairment	Net	Gross	Impairment	Net
Government receivables	10,364	(7,223)	3,141	12,314	(7,223)	5,091
Staff receivables	5,254	(55)	5,199	2,405	(55)	2,350
Management fees receivable	13,733	(13,733)	-	-	-	-
Sundry debtors	82,032	(47,808)	34,224	123,479	(32,669)	90,810
	111,383	(68,819)	42,564	138,198	(39,947)	98,251

Company	<b>2017</b> 2016					
	Gross	Impairment	Net	Gross	Impairment	Net
Government receivables	10,364	(7,223)	3,141	12,314	(7,223)	5,091
Staff receivables	5,251	(55)	5,196	2,405	(55)	2,350
Management fees receivable	13,733	(13,733)	-	-	-	-
Sundry debtors	73,039	(42,810)	30,229	116,882	(32,664)	84,218
	102,387	(63,821)	38,566	131,601	(39,942)	91,659

\*The carrying values approximated their fair values due to the low impact of discounting.

### Price participation receivable

	Group and Company	
	2017	2016
Opening balance	729,575	729,575
Unwinding of discount	143,355	-
Payment received	(489,948)	-
Interest on Konkala Copper Mine Plc price participation receivables	1,502	-
Write off of Chibuluma Mine Plc price participation	(1,380)	-
Exchange gains	192,240	
	575,344	729,575

The price participation debt of K575,344 million mainly relates to Konkola Copper Mine Plc outstanding amount of K566,300 million (2016: K719 million).

The balance of K566.3 million due from Konkola Copper Mine Plc is payable to the Group in 23 equal monthly instalments at an interest rate of 3% per annum.



In thousands of Kwacha

22 Trade and other receivables (continued)

### Price participation impairment analysis

	2017	2016
Opening balance	729,575	729,575
Reversal (KCM)	(719,152)	-
Write off	(1,380)	
Impaired balance	9,043	729,575

### 23 Held-to-maturity investment securities

See accounting policy in note 39 (c(ii))

Held to maturity investment securities relate to fixed deposits placed in various banks and they mature within one (1) year.

Group and Company

The movement in held to maturity investment securities is as follows:

	2017	2016
Balance at 1 April	355,172	514,007
Matured during the year	(355,172)	(514,007)
Additions	497,172	355,172
Balance at 31 March	497,172	355,172



In thousands of Kwacha

### 24 Cash and cash equivalents

See accounting policy in note 39 (c(ii))

For the purposes of the cash flow statement, cash and cash equivalents comprise the following:

	Group		Corr	npany
	2017	2016	2017	2016
Cash and bank balances	178,916	35,820	178,268	34,978
Cash in hand	15	30	3	4
Cash and cash equivalents in the statement of financial position	178,931	35,850	178,271	34,982
Bank overdraft	-	(319)	-	
Cash and cash equivalents in the statement of cash flows	178,931	35,531	178,271	34,982

Cash and cash equivalents includes K84 million marginal deposit in respect of a letter of credit held with Standard Chartered Bank..

### 25 Trade and other payables

See accounting policy in note 39 (c(ii))

2017	<b>Group</b> 2016	Com 2017	
2017	2016	2017	0010
		2011	2016
39,924	27,362	-	-
51,060	146,922	12,082	12,081
59,132	82,550	31,277	65,385
50,116	256,834	43,359	77,466
25,838	29,437	-	-
75,954	286,271	43,359	77,466
5	1,060 9,132 0,116	i1,060       146,922         i9,132       82,550         i0,116       256,834         i5,838       29,437	i1,060       146,922       12,082         i9,132       82,550       31,277         i0,116       256,834       43,359         i5,838       29,437       -

The carrying amount of the current payables and accrued expenses approximate their fair values due to the short term nature and low impact of discounting.

The non-current payables are statutory liabilities with an agreed repayment plan of more than one (1) year. Statutory obligations relate to penalties on VAT imposed by the Zambia Revenue Authority. Only part of liability was recognised as the remainder was determined to be a contingent liability note 34 (iv).



In thousands of Kwacha

### 25 Trade and other payables (continued)

See accounting policy in note 39 (c(ii))

Other payables and accrued expenses analysis\*

		Group	Company		
	2017	2016	2017	2016	
Staff payables	989	5,699	989	3,382	
Forward exchange contracts used for hedging	-	38,572	-	38,572	
Sundry payables	56,274	20,361	28,419	20,361	
Accrued expenses	1,869	17,918	1,869	3,070	
	59,132	82,550	31,277	65,385	

### 26 Provisions

See accounting policy in note 39 (j)

	Gi	oup	Company			
	2017	2016	2017	2016		
Provisions for legal cases	127,767	130,567	127,767	130,567		
Provisions – others	15,781	8,630	15,781	6,021		
	143,548	139,197	143,548	136,588		
Legal provision						
Opening balance	130,567	95,144	130,567	95,144		
Additional provision during the year		35,423	-	35,423		
Amounts used during the year	(2,800)		(2,800)			
Closing balance	127,767	130,567	127,767	130,567		

Provision arises mainly from a number of legal cases involving the Group. These cases relate to various legacy matters of the old ZCCM Limited, largely relating to employee cases.



In thousands of Kwacha

### 27 Share capital

See accounting policy in note 39 (c (iii))

Group and Company								
	Class A s	Class A shares			Тс	otal		
	2017	2016	2017	2016	2017	2016		
Balance at 31 March	969	969	639	639	1,608	1,608		

### (i) Ordinary shares

All ordinary shares rank equally with regards to the Company's residual assets and voting rights.

Holders of these shares are entitled to dividends as declared from time to time and are entitled to one vote per share.

The Group has authorised class A and B shares of 96,976,669 and 63,873,617 respectively of K0.01 each. Both class A and B shareholders have a right to vote, appoint directors, chairperson and receive a dividend.

### (ii) Share premium

	Class A	Class A shares		shares	Total		
	2017	2016	2017	2016	2017	2016	
Balance at 31 March	1,259,407	1,259,407	829,936	829,936	2,089,343	2,089,343	

### (iii) Number of shares

In thousands of shares	Class A shares		Class B s	shares	Total shares	
	2017	2016	2017	2016	2017	2016
In issue at 31 March – fully paid	96.927	96.927	63.873	63.873	160.800	160.800
Authorised – par value K0.01	120,000	120,000	80,000	80,000	200,000	200,000

### 28 Reserves

### (i) Revaluation reserve

The revaluation reserve arises from the periodic revaluation of property, plant and equipment, and represents the excess of the revalued amount over the carrying value of the property, plant and equipment at the date of revaluation. Deferred tax arising in respect of the revaluation of property, plant and equipment has been charged directly against revaluation reserves in accordance with IAS 12: Income Taxes.

### (ii) Translation reserve

The translation reserve arises from the translation of the results of the investments in equity accounted investees whose functional and presentation currency is the US Dollar.

### (iii) Fair value reserve

Fair value reserve comprises the cumulative net change in the fair value of available for sale financial assets until the assets are derecognised or impaired (see note 39 (c (ii)).



### Notes to the financial statements (continued)

In thousands of Kwacha

### 29 Borrowings

See accounting policy in note 39 (c (i) and (ii))

		Group	Company		
Non-current liabilities	2017	2016	2017	2016	
Bank borrowings (29 (i))	135,472	219,941	-	-	
Interest rate swaps (29(ii))	54	944	-	-	
Finance lease liabilities (note 29iii))	-	869	-	155	
	135,526	221,754	-	155	
Current					
Bank borrowings(29(i))	54,143	62,803	-	-	
Interest rate swaps (29(ii))	502	1,944	-	-	
Finance lease liabilities (note 29(iii))	1,890	6,143	164	237	
	56,536	70,890	164	237	
	192,062	292,644	164	392	

	G	Group	C	ompany
	2017	2016	2017	2016
Opening balance	292,644	267,453	392	27,998
Repayments	(63,508)	(64,204)	(315)	-
Exchange differences & interest	(37,074)	117,345	87	344
Chambishi metals borrowing reversal	-	(27,950)	-	(27,950)
Closing balance	192,062	292,644	164	392

The terms of the long term borrowings are as detailed below:

### (i) Bank borrowings

The loan of K244 million (USD 25.4 million) is due to Standard Bank of South Africa by Ndola Lime Company Limited at a carrying interest of 4.76% per annum. It is repayable over 54 months with interest and principal payable quarterly. The loan is secured under all leased assets held as security, ZCCM-IH loan repayment guarantee, Export Credit Insurance Corporation (of South Africa) cover, project accounts charge, mortgage debenture and security assignment.

### (ii) Interest rate swap

The interest rate swaps relate to an agreement that was entered into by Ndola Lime Company Limited and Standard Bank South Africa in December 2011 with the understanding of fixing the interest rate on the Standard Bank South Africa loan facility during the operational and construction phases of the recapitalization project.



### Notes to the financial statements (continued)

In thousands of Kwacha

29 Borrowings (continued)

See accounting policy in Note 39(c (i) and (ii))

The movement in the fair value of the interest rate swap are tabulated below.

(ii) Interest rate swap (continued)

	2017	2016
Balance at 1 April	2,888	3,501
Payments	(1,741)	(3,233)
Valuation movement	(591)	2,620
Balance at year end	556	2,888

### (iii) Finance lease liabilities

Finance lease liabilities are payable as follow:

Group	Future minimum lease payments		Interest		Present value of minimum lease payments		
	2017	2016	2017	2016	2017	2016	
Less than one year	2,147	6,490	257	347	1,890	6,143	
Between one and five years	- 2,147	921 7,411	- 257	52 399	- 1,890	869 7,012	
Company		Future minimum		Interest		Present value of	

Company	Future minimum lease payments		Interest				minimu	value of Im lease nents
	2017	2016	2017	2016	2017	2016		
Less than one year	179	301	15	64	164	237		
Between one and five years		196	-	41	-	155		
	179	497	15	105	164	392		

There was no contingent rent payable, evaluation charges and restrictions imposed by the lease arrangements.



In thousands of Kwacha

### 30 Deferred tax

See accounting policy in note 39 (m)

### Group

Deferred tax assets are recognised for provisions to the extent that the future related tax benefits will be realised. There were no unrecognised deferred tax assets during the period. The deferred tax asset is considered to be recoverable, as it arises largely to the impairment provision on the debt owed to ZCCM-IH by Konkola Copper Mine, which is expected to reverse in future due to the outcome of a court case brought by ZCCM-IH in which a judgement was awarded in ZCCM-IH's favour.

Deferred tax was calculated using the enacted income tax rate of 35% (2016: 35%).

	Assets		Liabilities		Net	
Recognised deferred tax assets and liabilities	2017	2016	2017	2016	2017	2016
Property plant and equipment	(7,123)	-	-	30,398	(7,123)	30,398
Property plant and equipment – revaluation		- /	9,241	10,027	9,241	10,027
Exchange difference			232,816	74,323	232,816	74,323
Provisions for gratuity and leave pay	(2,195)	(797)	-	-	(2,195)	(797)
Other provisions	(15,554)	(30,911)	-	-	(15,554)	(30,911)
Bad debt provision	(303,785)	(548,168)	-	-	(303,785)	(548,168)
Legal provision	(44,798)	(45,698)	-	-	(44,798)	(45,698)
Employee provision	- 199 <del>-</del>		9,424	10,932	9,424	10,932
Change in investment property	(1,852)	<u> </u>		2,160	(1,852)	2,160
Change on financial assets at fair value through profit or loss			174,048	83,946	174,048	83,946
Environmental provision	(40,238)	(58,411)	-	-	(40,238)	(58,411)
On losses from derivatives	(3)	(14,319)			(3)	(14,319)
	(415,548)	(698,304)	425,529	211,786	9,981	(486,518)



### Notes to the financial statements (continued) In thousands of Kwacha

### **30 Deferred tax** (continued)

Group	Balance 1 April 2015	Recognised in profit or loss	Recognised OCI	Balance 31 March 2016	Recognised in profit or loss	Recognised OCI	Balance 31 March 2017
Movement in temporary differences during the year							
Property, plant and equipment	18,351	12,047	-	30,398	(37,521)	ı	(7,123)
Property, plant and equipment – Revaluation	5,565	(271)	4,733	10,027		(186)	9,241
Unrealised exchange gains	155,477	(79,428))		76,049	167,958		244,007
Provision for gratuity and leave pay	(681)	(116)	T	(797)	(1,398)		(2,195)
Other provisions	(20,114))	(10,797)	1	(30,911)	15,357		(15,544)
Bad debt Provision	(548,249)	81		(548,168)	244,383		(303,785)
Legal Provision	(33,300)	(12,398)	1	(45,698)	006		(44,798)
Employee provision	9,299	1,289	344	10,932	(1,345)	(163)	9,424
Change in investment property	1,988	172	1	2,160	(4,012)		(1,852)
Change in financial assets at fair value through profit or loss	102,140	(18,194)	I	83,946	90,102	ı	174,048
Environmental provision	(33,837)	(24,574)	ı	(58,411)	18,173	•	(40,238)
On losses from derivatives	(1,250)	(13,069))	'	(14,319))	14,316		(3)
Unrealised exchange losses	(8,615)	6,889	I	(1,726)	(9,465)		(11,191)
	(353,226)	(138,369)	5,077	486,518	497,448	(949)	9,981

**ZCCM Investments Holdings Plc** Annual report for the year ended 31 March 2017 ZCCM-IH Strate

# Notes to the financial statements (continued) In thousands of Kwacha

### 30 Deferred tax (continued)

Company

Deferred tax assets are recognised for provisions to the extent that the future related tax benefits will be realised. There were no unrecognised deferred tax assets during the period.

Deferred tax assets and liabilities are attributable to the following items:

	4	Assets	Liat	Liabilities	Z	Net
Recognised deferred tax assets and liabilities	2017	2016	2017	2016	2017	2016
Property, plant and equipment	(3,028)	(3,414)	I	ı	(3,028)	(3,414)
Property, plant and equipment – Revaluation	'	-	4,829	4,829	4,829	4,829
Provisions for gratuity and leave pay	(2,228)	(830)		ı	(2,228)	(830)
Change on financial assets at fair value through profit or loss	'		173,314	83,212	173,314	83,212
Change on investment property	(1,852)	1	I	2,160	(1,852)	2,160
Fair value change on equity accounted investment and subsidiaries	ı	I	1,111,934	784,813	1,111,934	784,813
Other provisions	(2,032)	(874)	I	ı	(2,032)	(874)
Bad debt Provision	(375,941)	(581,461)	I	I	(375,941)	(581,461)
Legal Provision	(44,718)	(45,618)	I	I	(44,718)	(45,618)
Employee provision	(1,543)	(1,016)	I	I	(1,543)	(1,016)
Environmental provision	(40,238)	(58,411)	I	I	40,238	(58,411)
On losses from derivatives	I	(13,500)	I	ı	1	(13,500)
Exchange difference	•	ı	232,334	75,629	232,334	75,629
	(471,580)	(705,124)	1,522,411	950,643	1,050,831	245,519



# Notes to the financial statements (continued) In thousands of Kwacha

**30 Deferred tax** (continued)

Company (continued)

	Balance 1 April 2015	Recognised in profit or loss	Recognised OCI	Balance 31 March 2016	Recognised in profit or loss	Recognised OCI	Balance 31 March 2017
Movement in temporary differences during the year							
Property, plant and equipment	(1,607)	(1,807)	1	(3,414)	386	'	(3,028)
Property, plant and equipment – Revaluation	5,100	(271)		4,829		'	4,829
Unrealised exchange gains	153,711	(77,823)		75,888	166,170	'	242,058
Provision for gratuity and leave pay	(714)	(116)		(830)	(1,398)	'	(2,228)
Change in financial assets at fair value through profit or loss	101,406	(18,194)		83,212	90,102		173,314
Change in investment property	1,988	172		2,160	(4,012)	ı	(1,852)
Fair value change on investments in subsidiaries	54,398	(252,232)		(197,834)	(33,475)	ı	(231,309)
Fair value change on investments in associates	971,714	(27,381)	38,314	982,647	·	360,596	1,343,243
Other provisions	(1,191)	319	1	(874)	(1,158)	'	(2,032)
Bad debt Provision	(568,589)	(12,872)	I	(581,461)	(205,520)	,	(375,941)
Legal Provision	(33,300)	(12,318)	I	(45,618)	006	'	44,718
Employee provision	(816)	(544)	344	(1,016)	(364)	(163)	(1,543)
Environmental provision	(33,837)	(24,574)	I	(58,411)	18,173	ı	(40,238)
Unrealised exchange Losses	(7,148)	6,889		259	(9,465)	ı	(9,724)
On losses from derivatives	T	(13,500)	T	(13,500)	13,500	'	
	641,115	(434,254)	38,658	245,519	444,879	360,433	1,050,831



In thousands of Kwacha

### 31 Retirement benefits

The amounts recognised in the statement of financial position are determined as follows:

	Grou	ıp	Com	pany
	2017	2016	2017	2016
Present value of unfunded obligations	49,567	44,794	4,409	2,904

Movement in the defined benefit obligation over the year is as follows:

	Gro	oup	Co	mpany
	2017	2016	2017	2016
Balance at 1 April	44,794	50,330	2,904	2,334
Charge for the period	12,493	654	1,732	654
Benefit paid during the period	(7,720)	(6,190)	(227)	(84)
Balance at 31 March	49,567	44,794	4,409	2,904
Non-current liability	4,409	2,904	4,409	2,904
Current liability*	45,158	41,890	-	
	49,567	44,794	4,409	2,904

\* Ndola Lime ceased operating the defined benefit plan after all employees were transferred to the defined contribution scheme in April 2012.Upon transfer the benefits crystallised and became payable.

### Included in profit or loss for the year as follows:

	Gro	up	Co	mpany
	2017	2016	2017	2016
Current service cost	575	1,473	575	1,473
Past service cost	-	(411)	-	(411)
Interest cost	691	575	691	575
Personnel expenses ( note 10)	1,266	1,637	1,266	1,637
Interest expense	11,452		-	
Total employees benefit expensed	12,027	1,637	1,266	1,637

Included in	n OCI for	the year a	as follows:
-------------	-----------	------------	-------------

	2017	2016	2017	2016
Experience adjustment	877	(1,349)	877	(1,349)
Demographic assumptions	(380)	-	(380)	-
Financial assumptions	(32)	366	(32)	366
Total	465	(983)	465	(983)

Group

Company


In thousands of kwacha

### **31 Retirement benefits** (continued)

The Group contributes to a defined benefit plan that provides pension benefits for employees on retirement. The plan entitles a retired employee to receive three (3) months' pay for each year of service that the employee provides. The normal retirement age for all employees is 60 years. The defined benefit is unfunded and there are no assets held separately in respect of the plan.

Critical assumptions are made by the actuary in determining the present value of retirement benefit obligation including the discount rate. The carrying amount of the provision and the key assumptions made in estimating the provision were as follows:

		2017	2016
	Discount rate	22.50%	25.44%
•	Future salary increases	20.00%	22.94%

The liability and actuarial assumptions are based on the actuarial valuation report as at 31 March 2017.

### Characteristics and risks of the arrangement

The plan provides benefits of a defined benefit nature (i.e. salary and services related). Therefore one of the main risks relating to the benefits under the plan is the rates of salary growth. As the benefits are based on the final salary, any changes in salary that differ from the salary escalation rate assumed will have a direct bearing on the benefits paid under the plan.

### Sensitivity of the results

The results of the actuarial valuation are sensitive to changes in the financial assumptions than changes in the demographic assumptions. In preparing the sensitivity analysis of the results to the discount rate used, the actuarial relied on calculations of the duration of the liability. Based on this methodology, the results of the sensitivity analysis are summarized in the table below:

	2017	2016
	Present value of obligation	Present value of obligation
1% increase in discount rate	(493)	(322)
1% decrease in discount rate	579	376

Since all the benefits payable under the plan are salary related, the sensitivity of the liability to a change in the salary escalation assumption is not expected to be materially different.

### Effect on company cash flows

The arrangement is unfunded and the Company pays benefits from general revenues as and when they arise. The timing of the benefit payments from the plan will be influenced by the age at which employees retire from the Group.

### Maturity analysis of the liability

The average duration of the liability as at 31 March 2017 was approximately 17.92 years (2016:15.01 years).



**ZCCM Investments Holdings Plc** Annual report for the year ended 31 March 2017

### Notes to the financial statements (continued)

In thousands of Kwacha

### 32 Provisions for environmental rehabilitation

See accounting policy in Note 39 (j)

	Group		Com	pany
	2017	2016	2017	2016
Balance at 1 April	263,491	108,228	218,754	96,676
Charge for the year	(87,509)	73,282	(87,509)	73,282
Additions	7,047	22,859	2,074	-
Decrease in environmental provision (note 15)				
	(20,065)	-	-	-
Exchange movement	(18,352)	62,193	(18,352)	51,867
Unwinding of discount	998	-	-	-
Amount paid	-	(3,071)	-	(3,071)
Balance at 31 March	-	263,491	-	218,754
Non-current liability	-	263,491	-	218,754
	145,610	263,491	114,967	218,754

The year-end provision represents restoration, rehabilitation and environmental provisions for the Company and its subsidiary Ndola Lime Company Limited. The Company's provision is as a result of inherited environmental obligations from the old ZCCM Limited. At privatisation of ZCCM Limited, the new investors, taking up the relevant mining licenses, were not willing to assume certain environmental liabilities. There has been no additional provisions - The decrease is attributable to change in the scope of works and specifications due to changes in site conditions over time. Additionally the regular maintenance works which are carried out on a monthly basis have significantly contributed to the reduction in closure costs.

The decrease in provision largely relates to reduction in closure cost of TD8, TD10, Demolition and Site Clean-up of No. 1 Nkana Cobalt Plant and Installation of bund walls around Overburdens in Chingola. The change in scope of works required to restore the sites supplemented by regular maintenance works are the major factors in the downward movement of the provision during the year.

The provision represents the best estimate of the expenditure required to settle the obligations to rehabilitate environmental disturbances caused by mining operations. Ndola Lime is expected to make contributions to the Environmental Protection Fund, controlled by the Department of Mines and Mineral Development. Contributions made towards the fund reduces the environmental provision obligation. No payment has been made into the Environmental Protection Fund for the years ended 31 March 2017 and 31 March 2016 respectively. At the end of useful life of mine, Ndola Lime is obligated to rehabilitate the damage to the environment and all payments made to the Environmental Protection Fund will be reimbursed towards this rehabilitation.

The valuation for the environmental restoration provision at 31 March 2017 was performed by Misenge Environmental and Technical Services Limited and was independently reviewed by Glory Consultancy an independent environmental expert.



In thousands of Kwacha

### 32 Provisions for environmental rehabilitation (continued)

### See accounting policy in Note 39 (j)

The provision recognized as a liability is the best estimate of the consideration required to settle the obligation at the reporting date, assuming a discount rate of 1.93 % (2016:2.61%) and an inflation rate of 2.4% (2016:-0.9%) being the US Dollar inflation rate. The liability for restoration, rehabilitation and environmental obligations for Group and Company on undiscounted basis before inflation is estimated to be US\$16.6 million (approximately K159.7 million) (2016:US\$26.0 million (approximately K291.1 million) and US\$11.96 million(approximately K114.96 million) (2016:US\$19.9 million approximately K222.1 million) respectively. Because of the long term nature of the liability the greatest uncertainty in estimating the provision is the cost that will be incurred. In particular, the Group has assumed that the site will be restored using technology and materials available currently.

### 33 Related party transactions

### a) Parent and ultimate controlling party

The Group is controlled by the Government of the Republic of Zambia through the Industrial Development Corporation (60.3%) and Ministry of Finance (17.4%) which owns a total of 77.7% of the Company's shares. There were no transaction with the parent company during the year under review. No material sales or purchases of goods or services occurred with related parties during the year under review.

### b) Related party transactions

### (i) Key management personnel compensation

	2017	2016
Salaries and other short-term employment benefits	18,519	18,145
Directors' fees	4,209	5,867
	24,730	24,012
Post-employment benefit	1,643	843

Key management compensation relates to directors and the management committee.

### (ii) Dividend income from related parties

### Company

Relationship	2017	2016
Kansanshi Mines – Associate	-	11,869
Copperbelt Energy Corporation – Associate	41,330	36,913
Total dividends (note 6)	41,330	48,782



In thousands of Kwacha

### 33 Related party transactions (Continued)

### (iii) Amounts due from related parties

Group 2017

	Relationship	Gross	Impairment	Carrying amount
Maamba Collieries Limited (i)	Associate	279,708	-	279,708
Lubambe Copper Mine Limited (ii)	Associate	704,570	(704,570)	-
Kariba Minerals Limited (iv)	Associate	12,419	(12,419)	-
Sub total		996,697	(716,989)	279,708
Price participation receivable	Associate	575,344	(9,044)	566,300
Total amounts due from related party		1,572,041	(726,033)	846,008

Group 2016

0				
	Relationship	Gross	Impairment	Carrying amount
a Collieries Limited (i)	Associate	313,642	-	313,642
Copper Mine Limited (ii)	Associate	704,570	(704,570)	-
nerals Limited (iv)	Associate	12,419	(12,419)	-
		1,030,631	(716,989)	313,642
cipation receivable	Associate	729,575	(729,575)	-
nounts due from related party		1,760,206	(1,446,564)	313,642

Company 2017

	Relationship	Gross	Impairment	Carrying amount
Maamba Collieries Limited (i)	Associate	279,708	-	279,708
Lubambe Copper Mine Limited (ii)	Associate	704,570	(704,570)	-
Ndola Lime Company Limited (iii)	Subsidiary	138,859	(138,859)	-
Kariba Minerals Limited (iv)	Associate	12,419	(12,419)	-
Nkandabwe Coal Mine (v)	Subsidiary	32,934	(32,934)	-
Misenge Environmental and Technical Services Limited (vi)	Subsidiary	4,059	-	4,059
Mawe Exploration and Technical Services Limited (vii)	Subsidiary	34,405	(34,405)	-
Sub total		1,206,954	(923,187)	283,767
Price participation receivable	Associate	575,344	(9,044)	566,300
Total amounts due from related party	_	1,782,298	(932,231)	850,067



**ZCCM Investments Holdings Plc** Annual report for the year ended 31 March 2017

### Notes to the financial statements (continued)

In thousands of Kwacha

### 33 Related party transactions (continued)

Company 2016

Relationship	Gross	Impairment	Carrying amount
Associate	313,642	-	313,642
Associate	704,570	(704,570)	-
Subsidiary	28,733	(28,733)	-
Associate	12,419	(12,419)	-
Subsidiary	32,907	(32,907)	-
Subsidiary	4,063	-	4,063
Subsidiary	33,521	(33,521)	-
	1,129,855	(812,150)	317,705
Associate	729,575	(729,575)	-
	1,859,430	(1,541,725)	317,705
	Associate Associate Subsidiary Associate Subsidiary Subsidiary	Associate 313,642 Associate 704,570 Subsidiary 28,733 Associate 12,419 Subsidiary 32,907 Subsidiary 4,063 Subsidiary 33,521 1,129,855 Associate 729,575	Associate         313,642         -           Associate         704,570         (704,570)           Subsidiary         28,733         (28,733)           Associate         12,419         (12,419)           Subsidiary         32,907         (32,907)           Subsidiary         4,063         -           Subsidiary         1,129,855         (812,150)           Associate         729,575         (729,575)

### Shareholder loans

(i) Maamba Collieries Limited

On 17 June 2015, ZCCM –IH entered into an intercompany loan agreement for a cash advance of K226.13 million (US\$23.53 million) as part of its contribution towards the implementation of the Integrated Mining Project and the establishment of the 300 megawatts (MW) Thermal Power plant project. During the year, an additional K13million (US\$1.230million) was contributed increasing the total contribution net of interest to K254.45million (US\$26.345). The loan attracts an interest rate of 6 % per annum. The principal and interest accrued is repayable in 5 annual instalments commencing in November 2016.

### (ii) Lubambe Copper Mines Limited

On 15 September 2012, ZCCM – IH entered into an intercompany loan agreement with Lubambe Copper Mines Limited, for cash call loan amounting to K730 million (US\$76 million). The loans attracts an interest rate of Libor plus 5% and is not secured. The loan was to be repaid in twelve equal quarterly instalments, none of which were made. This loan is fully impaired.

### (iii) Ndola Lime Company Limited

The total loans and advances due from Ndola Lime Company Limited, including interest amounts was K139 million (2016: K29 million) which is fully impaired. The advances are not secured over any Ndola Lime Company Limited's assets and ZCCM-IH has indicated that it will not demand immediate repayment of these advances.



In thousands of Kwacha

### **33 Related party transactions** (Continued)

(iv) Kariba Minerals Limited

On 10 December 2012, ZCCM-IH and Kariba Minerals Limited entered into an intercompany loan agreement for a cash advance of K14.12 million (US\$1.47 million). Repayment was to commence at the end of the 12 months from the date of disbursement and payable annually. The loan attracts an interest rate of 6 % per annum. As at 31 March 2017, no repayments had commenced. This loan is fully impaired.

- (v) Nkandabwe Coal Mine Limited
   ZCCM IH advanced a loan to Nkandabwe Coal Mine of K32 million. There are no repayment terms and it is interest free and is not secured. This loan is fully impaired.
- (vi) Misenge Environmental and Technical Services Limited The loans totalling K3 million have no repayment terms and are interest free and are not secured. The loan is not impaired.
- (vii) Mawe Exploration and Technical Services Limited The loan totalling K34 million have no repayment terms and are interest free and are not secured. The loan is fully impaired.

### 34. Contingent liabilities

- (i) The National Pension Scheme Authority (NAPSA) made an assessment of penalties from the year 2000 to 2008 for underpayment of contributions as a result of an error by Ndola Lime Company in the mode of calculation used to arrive at the contribution. The total claim by NAPSA is K27 million and K17 million has been included as a liability. A remaining amount of K10 million has not been included as a liability because Ndola Lime Company Limited obtained a legal opinion from its lawyers who advised that it was unlikely that NAPSA would enforce the liability given the facts of the case. NAPSA has not made any subsequent claims for the assessment from 31 March 2014 to the date of the financial statements.
- (*ii*) A Value Added Tax (VAT) amount per the subsidiary Ndola Lime Company Limited was less by K8 million, compared to the VAT amount per the Zambia Revenue Authority (ZRA) statement. The differences noted have not been agreed or reconciled with the Zambia Revenue Authority.



In thousands of Kwacha

### 34. Contingent liabilities (Continued)

(iii) Chambishi Metals rights issue

In May 2005, the Board of Directors of Chambishi Metals PIc resolved to undertake a rights issue of 25,000,000 new shares at par value of US\$1 per share. ZCCM-IH was offered 2,500,000 ordinary shares at a par value of US\$1 representing 10% of the shareholding of the new shares to be issued. The ZCCM-IH subscription was converted into a deferred loan for 10 years to be serviced by dividend payments when due from Chambishi Metals PIc. The loan carries interest at LIBOR + 3%.

During the 10 years period to May 2015 no dividends were paid by Chambishi Metals Plc in order to enable ZCCM-IH service the loan in accordance with the resolution. ZCCM-IH has determined that in the absence of dividends from the Company it has no present obligation to settle the loan. Further, based on profit and cash flow forecasts made available to the directors of ZCCM-IH, it is unlikely that Chambishi Metals will have sufficient distributable profits from which to pay dividends for the foreseeable future. Therefore the total amount of US\$ 3.7 million made up of principal US\$2.5million plus interest of US\$1.2million has not been recognised in these financial statements.

(iv) ZCCM-IH, being a co-owner of Maamba Collieries Limited (Maamba) with Nava Bharat (Singapore) PTE Ltd (NBS), was, during the year, required to contribute US\$9.75 million in form of a shareholder loan towards Maamba's Base Project Equity according to its shareholding ratio of 35%. However, NBS contributed the whole amount including the US\$9.75million share for ZCCM-IH.

As a result, it was resolved that ZCCM-IH refunds NBS, interest free, the excess contribution of US\$9.75 million paid by NBS in the following manner:

- *i*) \$1.23 million by way of interest payment due to ZCCM-IH from Maamba on the initial outstanding shareholder loan as at 31 May 2015, which should instead be paid by Maamba to NBS towards part repayment of the excess contribution of US\$9.75 million.
- *ii)* The balance of US\$8.52 million should be paid by Maamba to NBS from future dividends of Maamba, payable to ZCCM-IH.

The US\$1.23 million was paid. However, no dividends were received from Maamba during the year and hence US\$8.52 million was still outstanding as at 31 March 2017.

### (v) Guarantees

i) Ndola Lime SBSA Loans

The loan of USD19, 751,677 (K190 million) due to Standard Bank of South Africa (SBSA) by the subsidiary Ndola Lime is guaranteed by ZCCM-IH. The loan has a carrying interest of 4.76% per annum and is repayable in 42 months with interest and principal payable quarterly. In case of loan recall by SBSA or failure by Ndola Lime to meet the obligation, ZCCM-IH will be obligated to settle the loan.



In thousands of Kwacha

### 34. Contingent liabilities (Continued)

*ii)* Maamba Letter of Credit

ZCCH-IH has US\$8.5 million letter of credit placed with Standard Chartered Bank on behalf of Maamba Collieries Limited (MCL) as collateral for the obligations of ZCCM-IH under the Sponsor Support Agreement (SSA) in case of MCL Project Cost overrun or MCL is unable to meet operational costs prior to the Financial Completion Date, then ZCCM-IH will be obligated to meet these costs subject to the cap of US\$ 25 million in the ratio of the shareholding.

### 35. Commitments

Capital expenditure authorised by the board of directors at the reporting date but not yet contracted for is as follows:

	2017	2016
Group		
Property, plant and equipment	6,577	40,501
Company		
Property, plant and equipment	6,577	3,971



In thousands of Kwacha

### 36 Financial risk management

The Group has exposure to the following risks arising from financial instruments:

- Market risk (see (ii))
- Credit risk (see (iii))
- Liquidity risk (see (iv))

### (i) Risk management framework

The Company's board of directors has overall responsibility for the establishment and oversight of the Group's risk management framework. The board of directors has established the Audit and risk committee, which is responsible for developing and monitoring the Group's risk management policies. The committee reports quarterly to the board of directors on its activities. The Board provides written principles for overall risk management, as well as written policies covering specific areas such as foreign exchange risk, interest rate risk, credit risk and non-derivative financial instruments and investing excess liquidity.

Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the Group's activities

The group audit committee oversees how management monitors compliance with the Group's risk management policies and procedures, and reviews the adequacy of the risk management framework in relation to the risks faced by the Group. The group audit committee is assisted in its oversight role by internal audit. Internal audit undertakes both regular and ad hoc reviews of risk management controls and procedures, the results of which are reported to the audit committee.

### (ii) Market risk

Market risk is the risk that changes in market prices – such as foreign exchange rates, interest rates and equity prices – will affect the Group's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimising the return.

### Currency risk

The Group is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the US dollar. The group is affected by foreign exchange movements because it has assets and income which are denominated in currencies other than the Group's functional currency, which is the Zambian Kwacha.

Management's policy to manage foreign currency risk is to hold foreign currency fixed deposits with various banks which act as a natural hedge for foreign currency obligations. Hedging techniques such as currency swap are also used to manage currency risk.

### Exposure to currency risk

The summary quantitative data about the Group's exposure to currency risk as reported to the management of the Group is as follows:



### Notes to the financial statements (continued) In thousands of Kwacha

### 36 Financial instruments- fair values and risk management (continued)

(ii) Market risk (continued)

### Exposure to currency risk (continued)

Group		
2017	K equivalent of US\$	US\$ Amounts
Financial assets at fair value through profit or loss	489,242	50,908
Investments in associates	6,779,898	705,486
Cash and cash equivalents	162,714	16,931
Trade and other receivables	847,185	88,154
Held to maturity investment securities	328,672	34,200
Borrowings	(191,655)	(19,943)
Trade and other payables	(6,703)	(697)
Net exposure	8,409,353	875,039

2016	K equivalent of US\$	US\$ Amounts
Financial instruments at fair value through profit or loss	231,571	20,713
Investments in associates	6,852,955	612,966
Cash and cash equivalents	22,231	1,988
Trade and other receivables	313,642	28,054
Held to maturity investment securities	229,466	20,525
Borrowings	(292,252)	(26,141)
Trade and other payables	(125)	(11)
Net exposure	7,357,488	658,094

### Company

2017	K equivalent of US\$	US\$ Amounts
Financial assets at fair value through profit or loss	489,242	50,908
Cash and cash equivalents	162,388	16,897
Available for sale investment in associate	4,835,772	503,189
Trade and other receivables	846,008	88,032
Held to maturity investment securities	328,672	34,200
Trade and other payables	(1,325)	(138)
Net exposure	6,660,757	693,088



In thousands of Kwacha

### 36 Financial instruments- fair values and risk management (continued)

(ii) Market risk (continued)

Currency risk (continued)

2016	K equivalent of US\$	US\$ Amount
Financial instruments at fair value through profit or loss	231,571	20,713
Cash and cash equivalents	22,475	2,010
Available for sale investment, in associates	3,817,569	341,464
Trade and other receivables	313,642	28,054
Held to maturity investment securities	229,466	20,525
Net exposure	4,614,723	412,766

The following significant exchange rates have been applied during the year:

	Y	Average rate			Reporting date spot rate
		2017	2016	2017	2016
Kwacha					
US\$ 1		9.8610	9.8787	9.6103	11.1800

### Sensitivity analysis

A 10 percent strengthening of the Kwacha against the US Dollar at 31 March 2017 would have increased (decreased) equity and profit or loss by the amounts shown below. This analysis assumes that all other variables, in particular interest rates, remain constant and ignores any impact of forecast sales and purchases. The analysis is performed on the same basis for 31 March 2016.

	Equity and pro	ofit or loss
	Group	Company
31 March 2017		
K	840,935	666,076
31 March 2016		
K	735,749	461,472

A 10 percent weakening of the Kwacha against the US Dollar at 31 March 2017 would have had the equal but opposite effect on the above currencies to the amounts shown above, on the basis that all other variables remain constant.



**ZCCM Investments Holdings Plc** Annual report for the year ended 31 March 2017

## Notes to the financial statements (continued)

In thousands of Kwacha

- 36 Financial instruments- fair values and risk management (continued)
- (ii) Market risk (continued)

Group

### Exposure to interest rate risk

The interest rate profile of the Group's interest bearing financial instruments as reported by management of the Group is as follows:

### Interest rate risk

The Group's operations are subject cash flow variability due to the risk of interest rate fluctuations to the extent that interest-earning assets (including investments) and interest-bearing liabilities mature or reprice at different times and/or in differing amounts. In the case of floating rate assets and liabilities the Group is also exposed to basis risk, which is the difference in repricing characteristics of the various floating rate indices. Asset-liability risk management activities are conducted in the context of the Group's sensitivity to cash flow variability attributable to interest rate changes.

		й	2017			50	2016	
		Zero rate	Zero rate Floating rate	Fixed rate		Zero rate	Zero rate Floating rate	Floating rate
31 March	Total	instruments	instruments	instruments	Total	instruments	instruments	instruments
Assets								
Financial assets at fair value through								
profit or loss	489,242	ı	•	489,242	238,247	I	I	238,247
Cash and cash equivalents	178,931			178,931	35,850	I	I	35,850
Trade and other receivables	918,892	68,068	ı	850,824	449,660	73,817	ı	375,843
Held to maturity investment securities	497,172			497,172	355,172	I	I	355,172
Investments in associates	6,828,313	T	T	6,828,313	6,852,955	I	ı	6,852,955
Total assets	8,912,550	68,068	'	8,844,482	7,931,884	73,817	'	7,858,067
Liabilities								
Borrowings	(192,062)		(192,062)	T	(292,644)	I	(292,644)	I
Trade and other payables	(375,954)	(375,954)	•	•	(286,271)	(286,271)	ı	T
Total liabilities	(568,016)	(375,954)	(192,062)	I	(578,915)	(286,271)	T	T
Gap	8,344,534	(307,886)	(192,062)	8,844,482	7,352,969	(212,454)	(292,644)	7,858,067

**ZCCM Investments Holdings PIc** Annual report for the year ended 31 March 2017 ZCCM-IH 1

# Notes to the financial statements (continued) In thousands of Kwacha

- 36 Financial instruments- fair values and risk management (continued)
- Market risk (continued) (ii)

Company

Interest rate risk

		2017	7			20	2016	
31 March	Total	Zero rate instruments	Floating rate instruments	Fixed rate instruments	Total	Zero rate instruments	Floating rate instruments	Floating rate instruments
Assets								
Financial assets at fair value through profit or loss	489,242		,	489,242	238,247	ı		238,247
Cash and cash equivalents	178,271		•	178,271	34,982	ı	ı	34,982
Available for sale investments	4,905,468	•		4,905,468	3,831,768		'	3,831,768
Trade and other receivables	888,633	34,390		854,243	409,364	73,817		335,547
Held to maturity investment securities	497,172	1	,	497,172	355,172	ı		355,172
Total assets	6,958,786	34,390	•	6,924,396	4,869,533	73,817		4,795,716
Liabilities								
Borrowings	(164)	•	(164)	·	(392)		(392)	·
Trade and other payables	(43,359)	(43,359)	•		(77,466)	(77,466)	'	'
Total liabilities	(43,523)	43,359)	(164)	•	(77,858)	(77,466))	(392)	
Gap	6,915,263	(8,969)	(164)	6,924,396	4,791,675	(3,649)	(392)	4,795,716



In thousands of Kwacha

- 36 Financial instruments- fair values and risk management (continued)
  - (ii) Market risk (continued)

### Interest rate risk

The Group's interest rate risk arises primarily from the interest received on short term deposits and interest paid on floating rate borrowings. This exposes the Group to cash flow interest risk.

### Cash flow sensitivity analysis of variable rate instrument

A reasonable possible change of 100 basis points in interest rates at the reporting date would have increased /(decreased) equity and profit or loss by the amounts shown below. This analysis assumes that all other variables, in particular foreign currency exchange, remain constant.

### Group

Effect in thousands of Kwacha	Profit	or loss
	Increase	Decrease
2017		
Variable rate instruments	(192.06)	192.06
2016		
Variable rate instruments	(292.64)	292.64
Company		
2017		
Variable rate instruments	(0.16)	0.16
2016		
Variable rate instruments	(0.39)	0.39

The Group's investments in corporate term deposits, all of which are fixed rate and are measured at amortised cost exposes the Group to cash flow interest rate risk. The tenure of the investments is less than 1 year. At 31 March 2017, an increase/decrease of 100 basis points would have resulted in a decrease/ increase in the Consolidated and separate post tax profit and equity of K0.2 million (2016: K0.4 million).



In thousands of Kwacha

- 36 Financial instruments- fair values and risk management (continued)
  - (ii) Market risk (continued)

### Price risk

The Group is exposed to equity securities price risk because of investments in quoted and unquoted shares classified as financial assets at fair value through profit or loss. To manage its price risk arising from investments in equity and debt securities, the Group diversifies its portfolio, in accordance with limits set by the Group. All quoted shares held by the Group are traded on the Lusaka Securities Exchange.

At 31 March 2017, if the LuSE Index had increased/decreased by five percent with all other variables held constant and all the Group's equity instruments moved according to the historical correlation to the index, consolidated equity and profit or loss would have been K0 thousand (2016:K334 thousand) higher/lower.

### Other price risk

The Group is exposed to equity price risk, which arises from available-for-sale equity securities as well as investments measured at fair value through profit or loss. Management of the Group monitors the proportion of equity securities in its investment portfolio based on market indices. Material investments within the portfolio are managed on an individual basis and all buy and sell decisions are approved by the Investment Committee of the Board.

The primary goal of the Group's investment strategy is to maximise investment returns and to improve its returns in general. Management is assisted by external advisers in this regard. Certain investments are designated as at fair value through profit or loss because their performance is actively monitored and they are managed on a fair value basis.

### (iii) Credit risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations and arises principally from the Group's receivables from customers and investments in debt securities.

Credit risk is managed on a Group basis. Credit risk arises from cash and cash equivalents, corporate bonds and deposits with banks, as well as trade and other receivables. Neither the Group nor the Company has any significant concentrations of credit risk.



In thousands of Kwacha

### 36 Financial instruments- fair values and risk management (continued)

### (iii) Credit risk\_(continued)

The amount that best represents the Group's and Company's maximum exposure to credit risk at 31 March 2017 is made up as follows:

	G	roup		Company
	2017	2016	2017	2016
Cash and cash equivalents	178,931	35,850	178,271	34,982
Trade and other receivables	918,892	449,660	888,633	409,364
Held to maturity investment securities	497,172	355,172	497,172	355,172
Investments in associates	6,828,313	6,852,955	4,905,468	3,831,768
	8,423,308	7,693,637	6,469,544	4,631,286

K122 million (2016: K93 million) of the held-to-maturity investments securities, collateral is held in the form of treasury bills. All receivables that are neither past due nor impaired are within their approved credit limits, and no receivables have had their terms renegotiated.

Ageing of trade and other receivables at the reporting date.

Group

2017

	Gross	Impairment	Net
<b>.</b>			
Neither due or impaired	863,797	-	863,797
Past due 30 - 60 days	12,152	(327)	11,825
Past due 61 – 90 days	6,535	(150)	6,385
Past due 91 - 120 days	11,437	(174)	11,263
Over 121 days	899,998	(874,376)	25,622
	1,793,919	(875,027)	918,892

2016			
	Gross	Impair- ment	Net
Neither due or impaired	420,573	-	420,573
Past due 30 - 60 days	9,913	-	9,913
Past due 61 – 90 days	9,950	(518)	9,432
Past due 91 - 120 days	2,857	-	2,857
Over 121 days	1,572,562	(1,565,677)	6,885
	2,015,855	(1,566,195)	449,660

The amounts past due are still considered recoverable.



### Notes to the financial statements (continued) In thousands of Kwacha

### 36 Financial instruments- fair values and risk management (continued)

(iii) Credit risk (continued)

Past due but not impaired	2017	2016
Past due 61 – 90 days	6,385	9,432
Past due 91 - 120 days	11,211	2,857
Over 121 days	23,616	6,885
	41,212	19,174

### Company

Past due but not impaired

2017

	Gross	Impairment	Net
Neither due or impaired	055.040		055 040
Neither due or impaired	855,312	-	855,312
Past due 30 - 60 days	4,947	(2,594)	2,353
Past due 61 - 90 days	1,212	(1,024)	188
Past due 91 - 120 days	931	(822)	109
Over 121days	1,100,349	(1,069,678)	30,671
	1,962,751	(1,074,118)	888,633
2016			
	Gross	Impairment	Net
Neither due or impaired	401,289	- (؟	401,289
Past due 30 - 60 days	441		441
Past due 61 - 90 days	3,752	-	3,752
Past due 91 - 120 days	2,857	-	2,857
Over 121 days	1,660,758	(1,659,733)	1,025
	2,069,097	(1,659,733)	409,364

	2017	2016
Past 61 - 90 days	188	3,752
Past 91 - 120 days	109	2,857
Over 121 days	30,671	1,025
	30,968	7,634



In thousands of Kwacha

### **36** Financial risk management (continued)

### (iii) Credit risk (continued)

The Group believes that unimpaired amounts that are past due more than 60 days are still collectable in full, based on historical payment behaviour and extensive analysis of customer's credit risk. As at year-end total amount past due but not impaired arising from the Company was K30.9 million (2016: K7.6 million) The impairment allowance account in respect of trade and other receivables is used to record impairment losses unless the Group is satisfied that no recovery of the amount owing is possible, at that point the amount is written off against the financial assets.

The movement in the allowance for impairment in respect of trade and other receivables during the year was as follows:

### Group

	2017	2016
Balance at 1 April	1,566,195	1,566,425
Impairment recognised	22,295	1,454
Reversal/recovery of impairment loss	(713,463)	(1,684)
Balance at 31 March	875,027	1,566,195
Company	2017	2016
Balance at 1 April	1,659,733	1,624,540
Impairment recognised	133,333	36,877
Recovery	(718,948)	(1,684)
Balance at 31 March	1,074,118	1,659,733

As at 31 March 2017 an impairment loss of K133 million mainly relates to the receivables from Ndola Lime Company (K110.1 million), Tranter Resources (K11.7 million) and management fees receivable from Lubambe Copper Mines Limited of, (K10.5 million). These amounts have been impaired as no repayments have been made on the balances in the year and there is objective evidence of impairment.

The Group believes that the unimpaired amounts that are past due by more than 30 days are still collectible, based on historical payment behaviour and extensive analysis of customer credit risk.



In thousands of Kwacha

36 Financial instruments- fair values and risk management (continued)

### (iv) Liquidity risk

Liquidity risk is the risk that the Group will encounter difficultly in meeting the obligations associated with its financial liabilities that are settled by delivering cash or another financial asset.

The Group's approach to managing liquidity is to ensure, as far as possible, that it will have sufficient liquidity to meet its liabilities when they are due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the Group's reputation.

Management monitors rolling forecasts of the Group's liquidity reserve on the basis of expected cash flows. The Group maintains the level of its cash flow and cash equivalents and other highly marketable debt investments at an amount in excess of expected cash outflows on financial liabilities through cash flow forecasts.

### Exposure to liquidity risk

The following are the remaining contractual maturities of financial liabilities at the reporting date. The amounts are gross and undiscounted, and include estimated interest payments and exclude the impact of netting agreements.

### (a) Group

	Carrying amount	Contractual amount	Within 1 year	2 -5 years
At 31 March 2017:				
Financial liabilities				
Borrowings	192,062	220,013	62,409	157,604
Trade and other payables	375,954	379,553	350,116	29,437
	568,016	599,566	412,525	187,041
	Carrying	Contractual	Within 1	2 - 5
	amount	amount	year	Years
At 31 March 2016				
Financial liabilities	292,644	354,598	133,847	220,751
Borrowings	286,271	286,271	256,834	29,437
Trade and other payables	38,572	38,572	38,572	-
	617,487	679,441	429,253	250,188



In thousands of Kwacha

### 36 Financial instruments- fair values and risk management (continued)

- (iv) Liquidity risk (continued)
- (b) Company

	Carrying amount	Contractu- al amount	Within 1 year	2 - 5 years
At 31 March 2017:				
Financial liabilities				
Borrowings	164	179	179	-
Trade and other payables	43,359	43,359	43,359	-
	43,523	43,538	43,538	-

	Carrying amount	Contractual amount	Within 1 year	2 - 5 years
At 31 March 2016:				
Financial liabilities	392	497	301	196
Borrowings	38,894	38,894	38,894	-
Trade and other payables	38,572	38,572	38,572	-
	77,858	77,963	77,767	196

### **Capital management**

The scope of the Group management framework covers the Group's total equity reported in its financial statements

The Group's and Company objectives when managing capital are to safeguard their ability to continue as a going concern in order to provide returns for shareholders and to maintain an optimal capital structure to reduce the cost of capital. In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, issue new capital or sell assets to reduce debt.

The Board's policy is to implement a sound financial strategy that ensures financial independence and maintains adequate capital to sustain the long terms objectives of the Group and to meet its operational and capital budget.

The Group monitors capital on the basis of the average gearing ratio for the mining industry in Zambia which currently stands at 50% equity. This ratio is calculated as net debt divided by total capital. Net debt is calculated as total borrowings less cash and cash equivalents. Total capital is calculated as equity plus net debt. The gearing ratios at 31 March 2017 and 2016 were as follows:



In thousands of Kwacha

- 36 Financial instruments- fair values and risk management (continued)
  - (iv) Liquidity risk (continued)

Capital management (continued)

	G	roup	Co	mpany
	2017	2016	2017	2016
Borrowings	192,062	292,644	164	392
Less: cash and cash equivalents	(178,931)	(35,850)	(178,271)	(34,982)
Net debt	13,131	256,794	(178,107)	(34,950)
Total equity	8,013,913	8,326,228	5,491,126	4,178,822
Total capital	8,027,044	8,583,022	5,313,019	4,144,232
Gearing ratio	0.16%	2.99%	-3.35%	-0.83%

The interest rates used to discount estimated cash flows when applicable are based on the government yield curve at the reporting date plus an appropriate credit spread, and are as follows:

	2017	2016
	• • • • • • • • • • • • • • • • • • • •	0.00/
Loans and borrowings	9.25%	9.8%
There has been no change in management of capital during the year.		

### Fair value estimation

The table below analyses financial instruments measured at fair value at the end of the reporting period, by the level in the fair value hierarchy into which the fair value measurement is categorised:

2017	Level 2	Level 3	Total
A			
Assets			
Financial investments at fair value through profit or loss (note 20)	-	489,242	489,242
Available for sale investments in equity accounted investees (note 19)	384,794	4,520,674	4,905,468
	384,794	5,009,916	5,394,710
2016			
Assets			
Financial investments at fair value through profit or loss (note 20)	6,676	231,571	238,247
Available for sale investments in equity accounted investees	234,000	3,597,768	3,831,768
	240,676	3,829,339	4,070,015



In thousands of Kwacha

### 37 Financial instruments- fair values and risk management (continued)

### Fair value estimation (continued)

### Fair values versus carrying amounts

### Group

The fair values of financial assets and liabilities, together with the carrying amounts shown in the statement of financial position, are as follows:

	2	017	20	)16
	Carrying	Fair	Carrying	Fair
	amount	value	amount	value
Financial assets				
Financial assets at fair value through profit or loss	489,242	489,242	238,247	238,247
Cash and cash equivalents	178,271	178,931	35,850	35,850
Trade and other receivables	918,892	828,220	449,660	423,866
Held to maturity investment securities	497,172	497,172	321,966	321,966
Investment in associates	6,828,313	6,828,313	6,852,955	6,852,955
	8,912,550	8,821,878	7,898,678	7,872,884
Financial liabilities				
Borrowings	(192,062)	(192,062)	(292,644)	(292,644)
Trade and other payables	(375,954)	(375,954)	(286,271)	(286,271)
	(568,016)	(568,016)	(578,915)	(578,915)
Net position	8,344,534	8,253,862	7,319,763	7,293,969

### Company

	2	017	20	016
	Carrying	Fair	Carrying	Fair
	amount	value	amount	value
Financial assets				
Financial assets at fair value through profit or loss	489,242	489,242	238,247	238,247
Cash and cash equivalents	178,271	178,271	34,982	34,982
Available for sale investments in associates	4,905,468	4,905,468	3,831,768	3,831,768
Available for sale investments in subsidiaries	-	-	95,644	95,644
Trade and other receivables	888,633	797,961	409,364	383,570
Held to maturity investment securities	497,172	497,172	321,966	321,966
	6,958,786	6,868,114	4,931,971	4,906,117
Financial liabilities				
Borrowings	(164)	(164)	(392)	(392)
Trade and other payables	(43,359)	(43,359)	(77,466)	(77,466)
Total	(43,523)	(43,523)	(77,858)	(77,858)
Net position	6,915,263	6,824,591	4,854,113	4,828,319



In thousands of Kwacha

### 36 Financial instruments- fair values and risk management (continued)

Fair value estimation (continued)

### Fair values versus carrying amounts (continued)

The fair value of the financial assets and liabilities carried at amortised cost including cash and cash equivalents, trade and other receivable, held to maturity investment securities, borrowings and trade and other payables are considered to approximate their respective carrying values due to their short term nature and negligible credit losses. The exception is the loan receivable from Maamba Collieries Limited as this is long term and as such the fair value was determined using discounted cash flows method (a level 3 valuation technique).

Valuation technique	Significant unobservable inputs	Inter-relationships between key unobservable inputs and fair value measurement
The valuation technique used to determine the fair value of the loan receivable is the dis- counted cash flow method	<ul> <li>Unobservable input is the discount rate used to discount the expected cash flows of the loan.</li> <li>The discount rate used comprised the USD 5 year treasury bill rate of 1.93% as debt is denominated in USD; and</li> <li>The Zambian country risk rate</li> </ul>	<ul> <li>The estimated fair value would increase or (decrease) if:</li> <li>The discount rate (higher) or lower</li> </ul>

The basis for determining fair values is disclosed in the respective accounting policy notes for each financial instrument.

The fair value of financial instruments traded in active markets is based on quoted market prices at the reporting date. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service, or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. The quoted market price used for financial assets held by the Group is the current bid price. These instruments are included in level 1.



**ZCCM Investments Holdings Plc** Annual report for the year ended 31 March 2017

## Notes to the financial statements (continued) In thousands of Kwacha

36 Financial instruments- fair values and risk management (continued)

## Financial instrument by category

					Group				Company		
	Loans and receivables	Held to maturity investment securities	Financial assets at fair value through profit or loss	Other financial liabilities	Total	Loans and receivables	Held to maturity investment securities	Financial assets at fair value through profit or loss	Available Other for sale financial financial liabilities asset	Other financial liabilities	Total
31 March 2017											
Assets as per statement of financial position											
Financial investments at fair value through profit or loss	ľ	1	489,242		489,242	~		489,242	·	I	489,242
Available for sale investment in associates	·					h			4,905,468	1	4,905,468
Trade and other receivables	918,892	I	1	20 <b>1</b>	918,892	888,633	I	I	I	I	888,633
Held to maturity investment securities	I	497,172	I	I	497,172	1	497,172	1	I	•	497,172
Cash and cash equivalents	178,931	I	I	I	178,931	178,271	I	1	I		178,271
Borrowings		I	I	(192,062)	(192,062)	1	I	1	I	(164)	(164)
Trade and other payables	I	I	I	(375,954)	(375,954)	I	I	I	I	(43,359)	(43,359)
	1,097,823	497,172	489,242	(568,016)	1,516,221	1,066,904	497,172	489,242	4,905,468	(43,523)	6,915,263



Notes to the financial statements (continued) In thousands of Kwacha 36 Financial instruments- fair values and risk management (continued)

Financial instrument by category (continued)

				Group					Company		
	Loans and re- ceivables	Held to maturity investment securities	Held Financial assets turity at fair value ment through profit irities or loss	Other finan- cial liabilities	Total	Loans and receivables	Held to maturity investment securities	Financial Available for assets at fair sale financial value through asset profit or loss	Financial Available for ets at fair sale financial e through asset it or loss	Other financial liabilities	Total
31 March 2016											
Assets as per statement of finan- cial position				6							
Financial investments at fair value through profit or loss	I	I	238,247		238,247		I	238,247	I	1	238,247
Available for sale investment in associates	I	I					-	I	3,831,768	1	3,831,768
Available for sale investment in subsidiaries	I	I					-	ľ	95,644	I	95,644
Trade and other receivables	449,660	1		1	449,660	409,364	1	'	1	1	409,364
Held to maturity investment securities	I	355,172	1	I	355,172	I	355,172	ľ	I	I	355,172
Cash and cash equivalents	35,850	I	I	I	35,850	34,982	1	1	I	1	34,982
Borrowings	I	I	I	(292,644)	(292,644)	I	1	1	1	(392))	(392)
Trade and other payables	I	'	I	(286,271)	(286,271)	I	1	'	ı	(77,466)	(77,466)
	485,510	355,172	238,247	(578,915)	500,014	444,346	355,172	238,247	3,927,412	(77,858)	4,887,319



In thousands of Kwacha

### 37 Subsequent events

### (i) Investrust Bank Plc

During the year ended 31 March 2017, ZCCM-IH opted to apply to the Securities and Exchange Commission (SEC) for a waiver to proceed with a Mandatory Offer which was granted by the SEC on 21 October 2016 on condition that ZCCM-IH would sell-down its shareholding in the Bank to below 35% by 21 October 2017. ZCCM-IH managed to sell 3.2% of its shareholding and has a current shareholding of 45.4% in the Bank.

However on 18 May 2017, ZCCM-IH formally notified the Board of Investrust of its intentions to proceed with a mandatory offer to the minority shareholders of Investrust prior to the 21 October 2017 deadline. The mandatory offer would close on 30 April 2018 and results would be announced by 14 May 2018.

### (*ii*) The Proposed Joint Venture for the setting up of a Cement Manufacturing Company

The ground-breaking ceremony for a cement plant took place on 7 July 2017 in the Masaiti district located on the Copperbelt province. His Excellency, the President of the Republic of Zambia, Mr. Edgar C. Lungu, graced the occasion.

ZCCM-IH intends to hold 35% of the shares in the joint venture while its Chinese Partner will have 65%.

The planned production capacity of the Plant will be 5000 tonnes per day of Clinker with a two (2) by twentyfive (25) MW Thermal Power Plant. It is expected that the Plant will take 3 years to construct and employ over 1000 people during construction. Once completed, the plant is expected to employ about 400 people. Commencement of construction is conditional upon financial closure.

### (iii) Disposal of ARM & Vale's indirect interest in Lubambe Copper Mine Ltd (Lubambe)

African Rainbow Minerals (ARM) and Vale International SA (Vale) concluded an agreement to dispose of ARM and Vale's combined 80% beneficial interest in Lubambe to EMR Capital Limited (EMR). The 80% beneficial interest in Lubambe, which was held in equal shares by ARM and Vale, includes the equity holding in Lubambe as well as loans to Lubambe. ZCCM-IH has and will continue to maintain a 20% shareholding in Lubambe.

The purchase consideration for the disposal was US\$97.10 million and will be settled in cash. The final amount receivable is subject to, amongst others, the following adjustments which will be finalised on completion of the Disposal:

- Settlement of Lubambe general banking facility; and
- Additional funding provided to Lubambe by ARM and Vale between 1 May 2017 and the completion date.

Completion of the disposal is subject to the fulfilment of agreed conditions precedent. EMR is a specialist resources private equity management firm with a proven investment track record spanning over 20 years. It manages investments of more than US\$2 billion.

### 38 Basis of measurement

The consolidated and separate financial statements have been prepared on the historical cost basis except for the following items which are measured on an alternative basis on each reporting date.

Items	Measurement basis
Financial assets at fair value through profit or loss	Fair value
Investments in associates (Company)	Fair value
Retirement benefits property	Present value of the defined obligation revaluation
Investment property	Fair value
Investment in subsidiary	Fair value



In thousands of Kwacha

### 39 Significant accounting policies

The Group has consistently applied the following accounting policies to all policies to all periods presented in these financial statements.

Set out below is an index of the significant accounting policies, the details of which are available on the pages that follow:

- (a) Basis of consolidation
- (b) Foreign currency
- (c) Financial instruments
- (d) Property, plant and equipment
- (e) Investment property
- (f) Intangible assets
- (g) Inventory
- (h) Impairment
- (i) Employee benefits
- (j) Provisions
- (k) Revenue
- (I) Finance income and costs
- (m) Income tax
- (n) Earnings per share
- (o) Segment reporting
- (p) Leases
- (q) Share capital
- (a) Basis of consolidation

### (i) Business combinations

The Group accounts for business combinations using the acquisition method when control is transferred to the Group. The consideration transferred in the acquisition is generally measured at fair value, as are the identifiable net assets acquired. Any gain on a bargain purchase is recognised in profit or loss immediately. Transaction costs are expensed as incurred, except if they are related to the issue of debt or equity securities.

The consideration transferred does not include amounts related to the settlement of pre-existing relationships. Such amounts are generally recognised in profit or loss.

Any contingent consideration payable is measured at fair value at the acquisition date. If the contingent consideration is classified as equity, then it is not remeasured and settlement is accounted for within equity. Otherwise, subsequent changes in the fair value of the contingent consideration are recognised in profit or loss.



In thousands of Kwacha

### **39** Significant accounting policies (continued)

### (a) Basis of consolidation (continued)

### (i) **Business combinations** (continued)

If share-based payment awards (replacement awards) are required to be exchanged for awards held by the acquiree's employees (acquiree's awards) and relate to past services, then all or a portion of the amount of the acquirer's replacement awards is included in measuring the consideration transferred in the business combination. This determination is based on the market-based value of the replacement awards compared with the market-based value of the acquiree's awards and the extent to which the replacement awards relate to pre-combination service.

### (ii) Subsidiaries

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date when control ceases.

In the separate financial statements, investments in subsidiaries are classified as available for sale financial assets.

### (iii) Loss of control

When the Group loses control over a subsidiary, it derecognises the assets and liabilities of the subsidiary, and any related Non-controlling interests (NCI) and other components of equity. Any resulting gain or loss is recognised in profit or loss. Any interest retained in the former subsidiary is measured at fair value when control is lost.

### (iv) Interest in equity accounted investees

The Group interest in equity accounted investees comprise interests in associates.

Associates are those entities in which the Group has significant influence, but not control over the financial and operating policies.

In the separate financial statements investments in associated is subsequently measured at fair value. These are classified as available for sale financial assets.

The consolidated financial statements include the Group's share of the profit or loss and other comprehensive income, after adjustments to align the accounting policies with those of the Group, from the date that significant influence commences until the date that significant influence ceases.



In thousands of Kwacha

### **39** Significant accounting policies (continued)

### (a) Basis of consolidation (continued)

### (iv) Interest in equity accounted investees (continued)

When the Group's share of losses exceeds its interest in an equity-accounted investee, the carrying amount of the investment, including any long-term interests that form part thereof is reduced to zero, and the recognition of further losses is discontinued except to the extent that the Group has an obligation or has made payments on behalf of the investee.

### (v) Transactions eliminated on consolidation

Intra-group balances and transactions, fair value changes recognised in respect of its investment in subsidiaries and associates, and any unrealised income and expenses arising from intra group transactions, are eliminated. Unrealised gains arising from transactions with equity-accounted investees are eliminated against the investment to the extent of the Group's interest in the investee. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

### (b) Foreign currency

Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of Group entities at exchange rates at the dates of the transactions.

Monetary assets and liabilities denominated in foreign currencies are translated to the functional currency at the exchange rate at the reporting date. Non-monetary assets and liabilities that are measured at fair value in foreign currency are translated to the functional currency at the exchange rate when the fair value was determined. Non-monetary items that are measured based on historical cost in a foreign currency are translated at the exchange rate at the date of the transaction. Foreign currency differences are generally recognised in profit or loss.

However, foreign currency differences arising from the translation of the following items are recognised in other comprehensive income:

Available for sale equity investments. (except on impairment, in which case foreign currency differences that have been recognised in other comprehensive income are reclassified to profit or loss).

Foreign currency differences which arise on the translation of investee companies (which have a different functional currency) are recognised in other comprehensive income and accumulated in the foreign currency translation reserve.



In thousands of Kwacha

### **39** Significant accounting policies (continued)

### (c) Financial instruments

The Group classifies non-derivative financial assets into the following categories; financial assets at fair value through profit or loss; held to maturity financial assets; loans and receivables; and available for sale financial assets.

The Group classifies non-derivative financial liabilities into the other financial liabilities category.

### (i) Non-derivative financial assets and financial liabilities – recognition and derecognition

The Group initially recognises loans and receivables and debt securities issued on the date when they are originated. All other financial assets and financial liabilities are initially recognised on the trade date when the entity becomes a party to the contractual provisions of the instrument.

The Group derecognises a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred, or it neither transfers nor retains substantially all of the risks and rewards of ownership and does not retain control over the transferred asset. Any interest in such derecognised financial assets that is created or retained by the Group is recognised as a separate asset or liability.

The Group derecognises a financial liability when its contractual obligations are discharged or cancelled, or expire.

Financial assets and liabilities are offset and the net amount presented in the statement of financial position when, and only when, the Group has a legal right to offset the amounts and intends either to settle on a net basis or to realise the asset and settle the liability simultaneously.

### (ii) Non-derivative financial assets - measurement

### Financial assets at fair value through profit or loss

A financial asset is classified at fair value through profit or loss if it if it is classified as held for-trading or is designated as such on initial recognition. Directly attributable transaction costs are recognised in profit or loss as incurred. Financial assets at fair value through profit or loss are measured at fair value and changes therein, including any interest or dividend income, are recognised in profit or loss.



In thousands of Kwacha

### **39** Significant accounting policies (continued)

(c) Financial instruments (continued)

### (ii) Non-derivative financial assets - measurement

### Held-to-maturity financial assets

These assets are recognised initially at fair value plus any directly attributable transaction costs. Subsequent to initial recognition held-to-maturity financial assets are measured at amortised cost using the effective interest method.

### Loans and receivables

Loans and receivables are recognised initially at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, loans and receivables are measured at amortised cost using the effective interest method, less any impairment losses.

### Cash and cash equivalents

In the statement of cash flows cash and cash equivalents includes bank overdrafts that are repayable on demand and form an integral part of the Group's cash management.

### Available-for-sale financial assets

These assets are initially measured at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, they are measured at fair value and changes therein, other than impairment losses and foreign currency differences, are recognised in OCI and accumulated in the fair value reserve. When these assets are derecognised, the gain or loss accumulated in equity is reclassified to profit or loss.

The Company's investments in subsidiaries and associates are classified as available for sale financial assets.

### (iii) Non-derivative financial liabilities – measurement

Non-derivative financial liabilities are initially recognised at fair value less any directly attributable transaction costs. Subsequent to initial recognition, these liabilities are measured at amortised cost using the effective interest method.



In thousands of Kwacha

### **39** Significant accounting policies (continued)

### (d) Property, plant and equipment

### (i) Recognition and measurement

Items of property, plant and equipment are measured at cost, which includes capitalised borrowing costs, less accumulated depreciation and accumulated impairment losses.

If significant parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Any gain or loss on disposal of an item of property, plant and equipment is recognised in profit or loss.

Cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of selfconstructed assets includes the cost of materials and direct labour, any other costs directly attributable to bringing the assets to a working condition for their intended use, the costs of dismantling and removing the items and restoring the site on which they are located and capitalised borrowing costs.

Capital work in progress relates to items of property, plant and equipment that are under construction and are yet to be commissioned for use. Work in progress is measured at the costs incurred in relation to the construction up to the reporting date. Capital work in progress is not depreciated.

The Group's policy is to revalue regularly to ensure that the carrying amount does not differ materially from the fair value. The revaluation differences are recognised in other comprehensive income and accumulated in equity "revaluation reserve" unless the revaluation difference represents the reversal of a revaluation decrease previously recognised as an expense, in which case the revaluation difference is recognised in profit or loss. A decrease arising as a result of a revaluation surplus relating to the same asset. The revaluation surplus included in equity is transferred directly to retain earnings when the asset is used by the Group. The amount of the surplus transferred is the difference between depreciation charges based on the revaluated carrying amount of the assets and the depreciated based on the original cost.

The gain or loss on disposal of an item of property, plant and equipment is determined by comparing the proceeds from disposal with the carrying amount of the property, plant and equipment, and is recognised net within other income/other expenses in profit or loss. When revalued assets are sold, any related amount included in the revaluation reserve is transferred to retained earnings.



In thousands of Kwacha

### **39** Significant accounting policies (continued)

### (d) Property, plant and equipment (continued)

### (ii) Subsequent expenditure

Subsequent expenditure is capitalised only if it is probable that future economic benefits associated with the expenditure will flow to the Group and its cost can be measured reliably. The costs of the day-to-day servicing of property, plant and equipment are recognised in profit or loss as incurred.

### (iii) Depreciation

Depreciation is calculated to write off the cost of items of property, plant and equipment less their estimated residual values using the straight-line method over their estimated useful lives, and is generally recognised in profit or loss.

Leased assets are depreciated over the shorter of the lease term and their useful lives unless it is reasonably certain that the Group will obtain ownership by the end of the lease term. Land is not depreciated.

The estimated useful lives for the current and comparative years are as follows:

•	Property	20 years
•	Vehicles	4 years
•	Plant, equipment and furniture	5 years
•	Vertical kiln	15 years
	Doton / kiln	10

Rotary kiln
 12 years

Depreciation methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

### (iv) Reclassification to investment property

When the use of a property changes from owner-occupied to investment property, the property is remeasured to fair value and reclassified accordingly. Any gain arising on this remeasurement is recognised in profit or loss to the extent that it reverses a previous impairment loss on the specific property, with any remaining gain recognised in OCI and presented in the revaluation reserve. Any loss is recognised in profit or loss.



In thousands of Kwacha

### **39** Significant accounting policies (continued)

### (e) Investment property

Investment property is property held to earn rental income or capital appreciation or for both, but not for sale in the ordinary course of business, use for the production or supply of goods or services or for administrative purposes. Investment property is initially measured at cost and subsequently at fair value with any change therein recognised in the profit or loss.

Any gain or loss on the disposal of investment property (calculated as the difference between the net proceeds and the carrying amount of the item) is recognised in profit or loss. When investment property that was previously classified as property, plant and equipment is sold, any related amount that is included in the revaluation reserve is transferred to retained earnings.

### (f) Intangible assets

### (i) Recognition and measurement

Intangible assets that are acquired by the Group and have finite useful lives are measured at cost less accumulated amortisation and any accumulated impairment losses.

(ii) Subsequent expenditure

Subsequent expenditure is capitalised only when it increased the future economic benefits embodied in the specific asset to which it relates. All other expenditure, including expenditure on internally generated goodwill and brands, are recognised in profit or loss as incurred.

(iii) Amortisation

Amortisation is calculated to write off the cost of intangible assets less their estimated residual values using the straight-line method over their estimated useful lives and is recognised in profit or loss.

The estimated useful lives of the Group's computer software is three to five years.

Amortisation methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

(iv) Derecognition

Intangible assets are derecognised when an asset is sold, exchanged or abandoned and therefore, removed from the statement of financial position

(g) Inventories

nventories are measured at the lower of cost and net realisable value. The cost of inventories is based on the first-in, first-out principle. In the case of manufactured inventories, cost includes an appropriate share of production overheads based on normal operating capacity.



In thousands of Kwacha

### 39 Significant accounting policies (continued)

### (h) Impairment

### (i) Non-derivative financial assets

Financial asset not carried at fair value through profit or loss including an interest in an equity-accounted investee, are assessed at each reporting date to determine whether there is objective evidence of impairment.

Objective evidence that financial assets (including equity securities) are impaired include:

- default or delinquency by a debtor;
- · restructuring of an amount due to the Group on terms that the Group would not consider otherwise;
- indications that a debtor or issuer will enter bankruptcy;
- adverse changes in the payment status of borrowers or issuers in the Group, economic conditions that correlate with defaults; or
- the disappearance of an active market for a security; or
- observable data indicating that there is measureable decrease in expected cash flows from a group of financial assets.

For an investment in an equity security, objective evidence of impairment includes a significant or prolonged decline in its fair value below its cost. The Group considers a decline of 20% to be significant and a period of nine months to be prolonged.

### Financial assets measured at amortised cost

The Group considers evidence of impairment for these assets at both an individual asset and a collective level. All individually significant assets are individually assessed for impairment. Those found not to be impaired are then collectively assessed for any impairment that has been incurred but not yet individually identified. Assets that are not individually significant are collectively assessed for impairment. Collective assessment is carried out by grouping together assets with similar risk characteristics.

In assessing collective impairment, the Group uses historical information on the timing of recoveries and the amount of loss incurred, and makes an adjustment if current economic and credit conditions are such that the actual losses are likely to be greater or lesser than suggested by historical trends.

An impairment loss is calculated as the difference between an asset's carrying amount and the present value of the estimated future cash flows discounted at the asset's original effective interest rate. Losses are recognised in profit or loss and reflected in an allowance account. When the Group considers that there are no realistic prospects of recovery of the asset, the relevant amounts are written off. If the amount of impairment loss subsequently decreases and the decrease can be related objectively to an event occurring after the impairment was recognised, then the previously recognised impairment loss is reversed through profit or loss.



In thousands of Kwacha

### **39** Significant accounting policies (continued)

- (h) Impairment (continued)
- (i) Non-derivative financial assets(continued)

### Available-for-sale financial assets

Impairment losses on available-for-sale financial assets are recognised by reclassifying the losses accumulated in the fair value reserve to profit or loss. The amount reclassified is the difference between the acquisition cost (net of any principal repayment and amortisation) and the current fair value, less any impairment loss previously recognised in profit or loss. If the fair value of an impaired available-for-sale debt security subsequently increases and the increase can be related objectively to an event occurring after the impairment loss was recognised, then impairment loss is reversed through profit or loss, otherwise, it is reversed through OCI.

### Equity-accounted investees

An impairment loss in respect of an equity-accounted investee is measured by comparing the recoverable amount of the investment with its carrying amount. An impairment loss is recognised in profit or loss, and is reversed if there has been a favourable change in the estimates used to determine the recoverable amount.

### (ii) Non-financial assets

At each reporting date, the Group reviews the carrying amounts of its non-financial assets (other than, investment property, inventories and deferred tax assets) to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated.

For impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or CGUs.

The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. Value in use is based on the estimated future cash flows, discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU.

An impairment loss is recognised if the carrying amount of an asset or CGU exceeds its recoverable amount.

Impairment losses are recognised in profit or loss. They are allocated first to reduce the carrying amount of any goodwill allocated to the CGU, and then to reduce the carrying amounts of the other assets in the CGU on a pro rata basis.



In thousands of Kwacha

### **39** Significant accounting policies (continued)

(h) Impairment (continued)

### (ii) Non-financial assets (continued)

An impairment loss in respect of goodwill is not reversed. For other assets, an impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

### (i) Employee benefits

### (i) Short -term employee benefits

Short term-employee benefit are expensed as the related service is provided. A liability is recognised for the amount expected to be paid if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee, and the obligation can be estimated reliably.

### (ii) Defined contribution plans

Obligations for contribution to defined contribution plans are expensed in the profit or loss as the related service is provided. Prepaid contributions are recognised as an asset to the extent that a cash refund or reduction in future payments is available. The Group and all its employees also contribute to the National Pension Scheme Authority, which is a defined contribution scheme. Amounts recognised as an expense during the year were K3.4 million (2016:K 4.4 million)

### (iii) Defined benefit plans

The Group provides for retirement benefits (i.e. a defined benefit plan) for all permanent employees in accordance with established pension scheme rules as well as the provisions of Statutory Instrument No. 119 of the Laws of Zambia. A defined benefit plan is a post-employment benefit plan other than a defined contribution plan. The cost of providing the defined benefit plan is determined annually using the Projected Unit Credit Method, with actuarial valuations being carried out at the end of each reporting period.

The discount rate is required to be determined with reference to the corporate bond yield, however, due to the non-availability of an active developed market for corporate bonds the discount rate applicable is the yield at the reporting date on the Government of the Republic of Zambia's bonds that have maturity dates approximating the terms of the Group's obligations and that are denominated in the same currency in which the benefits are expected to be paid.



In thousands of Kwacha

### **39** Significant accounting policies (continued)

- (i) Employee benefits (continued)
  - (iii) Defined benefit plans (continued)

The defined benefit obligation recognised by the Group, in respect of its defined benefit pension plan, is calculated by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods and discounting that benefit to determine its present value, then deducting the fair value of any plan assets. When the calculations above result in a benefit to the Group, the recognised asset is limited to the net total of any cumulative unrecognised actuarial losses and past service costs and the present value of any economic benefits available in the form of any refunds from the plan or reductions in future contributions to the plan. An economic benefit is available to the Group if it is realisable during the life of the plan or on settlement of the plan liabilities.

Actuarial gains and losses arising from changes in actuarial assumptions are charged or credited to other comprehensive income when they arise. These gains or losses are recognised in full in the year they occur. Past service costs are recognised immediately in the profit or loss, unless the changes to the pension plan are conditional on the employees remaining in service for a specified period (the vesting period). In this case, the past-service costs are amortised on a straight line basis over the vesting period.

(iv) Other entitlements

Some employees are on fixed term contracts and are entitled to gratuity. These are recognised when they accrue to employees. An estimate is made for the liability for such entitlements as a result of services rendered by employees up to the reporting date.

The estimated monetary liability for employees' accrued annual leave entitlement at the reporting date is recognised as an expense accrual.

### (j) Provisions

Provisions are determined by discounting the expected future cash flows at a pre – tax rate that reflects current market assessment of the time value of money and the risks specific to the liability. The unwinding of the discount is recognised as finance cost.

### Environmental rehabilitation and restoration

In accordance with applicable legal requirements, a provision for site restoration in respect of contaminated land, and the related expense, is recognised when the land is contaminated.



In thousands of Kwacha

### 39 Significant accounting policies (continued)

### (k) Revenue

Revenue from the sale of goods in the course of ordinary activities is measured at the fair value of the consideration received or receivable, net of returns, trade discounts and volume rebates. Revenue is recognised when persuasive evidence exists, usually in the form of an executed sales agreement, that the significant risks and rewards of ownership have been transferred to the customer, recovery of the consideration is probable, the associated costs and possible return of goods can be estimated reliably, there is no continuing management involvement in the goods, and the amount of revenue can be measured reliably. Revenue is recognised as follows:

- Dividends are recognised as revenue in the period in which the right to receive payment is established, which in the case of quoted securities is usually the ex-dividend date.
- Lime sales are recognised in the period in which the Group has delivered products to the customer, the customer has full discretion over the channel and price to sell the products, and there is no unfulfilled obligations that could affect the customers' acceptance of the products. Delivery does not occur until the products have been accepted by the customers.
- Revenue from rendering of services is recognised in profit or loss in proportion to the stage of completion of transaction at reporting date. The stage of completion is assessed with reference to surveys of work performed. The Group is involved in provision of environmental consultancy services, analytical services, surveying services and radiation safety. When services under a single arrangement are rendered in different reporting periods, the consideration is allocated on a relative fair value basis between the services.

### (I) Finance income and finance costs

The Group's finance income and finance costs include:

- Interest income;
- Interest expense;
- Gain or loss on financial assets at fair value through profit or loss;
- The foreign currency gain or loss on financial assets and financial liabilities;
- Unwinding income or expense on price participation fees;
- Unwinding expense on environmental provision; and
- Borrowing costs.

Interest income or expense is recognised using the effective interest method. All borrowing costs are a recognised in profit or loss using the effective interest method.

Borrowing costs attributable to fixed assets during construction are capitalised.



In thousands of Kwacha

### 39 Significant accounting policies (continued)

### (m) Income tax

Income tax expense comprises current and deferred tax. It is recognised in profit or loss except to the extent that it relates to items recognised directly in equity or in OCI.

### (i) Current tax

Current tax comprises the expected tax payable or receivable on the taxable income or loss for the year and any adjustment to the tax payable or receivable in respect of previous years. The amount of current tax payable or receivable is the best estimate of the tax amount expected to be paid or received that reflects uncertainty related to income taxes It is measured using tax rates enacted or substantively enacted at the reporting date. Current tax also includes any tax arising from dividends.

Current tax assets and liabilities are offset only if certain criteria are met.

### (ii) Deferred tax

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes.

Deferred tax is not recognised for:

- temporary differences on the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss;
- temporary differences related to investments in subsidiaries and associates to the extent that the Group is able to control the timing of the reversal of the temporary differences and it is probable that they will not reverse in the foreseeable future; and
- taxable temporary differences arising on the initial recognition of goodwill.

Deferred tax assets are recognised for unused tax losses, unused tax credits and deductible temporary differences to the extent that it is probable that future taxable profits will be available against which they can be used. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realised; such reductions are reversed when probability of future taxable profit improves.

Unrecognised deferred tax assets are reassessed at each reporting date and recognised to the extent that it has become probable that future taxable profits will be available against which they can be used.

Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, using tax rates enacted or substantively enacted at the reporting date.



In thousands of Kwacha

### 39 Significant accounting policies (continued)

(m) Income tax (continued)

### (ii) Deferred tax(continued)

The measurement of deferred tax reflects the tax consequences that would follow the manner in which the Company expects, at the reporting date, to recover or settle the carrying amount of its assets and liabilities. For this purpose, the carrying amount of investment property measured at fair value is presumed to be recovered through sale, and the Company has not rebutted this presumption.

Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realised simultaneously.

### (i) Tax exposures

In determining the amount of current and deferred tax, the Company considers the impact of tax exposures, including whether additional taxes and interest may be due. This assessment relies on estimates and assumptions and may involve a series of judgements about future events. New information may become available that causes the Company to change its judgement regarding the adequacy of existing tax liabilities; such changes to tax liabilities would impact tax expense in the period in which such a determination is made.

### (n) Earnings per share

The Group presents basic and diluted earnings per share data for its ordinary shares. Basic earnings per share is calculated by dividing the profit or loss attributable to ordinary shareholders of the Company by the weighted average number of ordinary shares outstanding during the year, adjusted for own shares held. Diluted earnings per share is determined by adjusting the profit or loss attributable to ordinary shareholders and the weighted average number of ordinary shares outstanding, adjusted for own shares held, for the effects of all dilutive potential ordinary shares, which comprise convertible notes and share options.

### (o) Segment reporting

An operating segment is a component of the Group that engages in business activities from which it may earn revenues and incur expenses, including revenues and expenses that relate to transactions with any of the Group's other components and for which discrete financial information is available. All operating segments' operating results are reviewed regularly by the Group's Chief Executive Officer to make decisions about resources to be allocated to the segment and to assess its performance.



In thousands of Kwacha

### 39 Significant accounting policies (continued)

### (p) Leases

### (i) Leased assets

Assets held by the Group under leases that transfer to the Group substantially all of the risks and rewards of ownership are classified as finance leases. The leased assets are measured initially at an amount equal to the lower of their fair value and the present value of the minimum lease payments. Subsequent to initial recognition, the assets are accounted for in accordance with the accounting policy applicable to that asset.

Assets held under other leases are classified as operating leases and are not recognised in the Group's statements of financial position.

### (ii) Lease payments

Payment made under operating leases are recognised in profit or loss on a straight-line basis over the term of the lease. Lease incentives received are recognised as an integral part of the total lease expense, over the term of the lease.

Minimum lease payments made under finance leases are apportioned between the finance expense and the reduction of the outstanding liability. The finance expense is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

### (q) Share capital

Ordinary shares

Incremental costs directly attributable to the issue of ordinary shares, net of any tax effects, are recognised as a deduction from equity.



In thousands of Kwacha

### 40 New standards and interpretations issued but not yet effective

A number of new standards and amendments to standards are effective for annual periods beginning after 1 January 2018; however, the Company has not applied the following new or amended standards in preparing these financial statements.

### **IFRS 9 Financial Instruments**

IFRS 9 sets out requirements for recognising and measuring financial assets, financial liabilities and some contracts to buy or sell non-financial items. This standard replaces IAS 39 Financial Instruments. The company will adopt IFRS 9 effective 1 January 2018.

IFRS 9 contains a new classification and measurement approach for financial assets that reflects the business model in which the assets are managed and their cash flow characteristics. The three principal classification categories for financial assets are: measured at amortised cost, fair value through profit or loss (FVTPL) and fair value through other comprehensive income (FVOCI).

Based on the company's preliminary assessment, the company believes that the new classification, if applied at 31 March 2017, would not have a significant impact on its accounting for financial assets.

IFRS 9 replaces the "incurred loss" model in IAS 39 with a forward-looking "expected credit loss" (ECL) model. The company will apply the practical expedient within IFRS 9 to calculate the ECL on trade receivables using a provision matrix. The company is finalising their new impairment models that will be applied to financial assets measured at amortised cost (i.e. primarily trade receivables).

### IFRS 15 Revenue from Contracts with Customers

IFRS 15 introduces a new revenue recognition model for contracts with customers and establishes a comprehensive framework for determining whether, how much and when revenue is recognised. IFRS 15 also includes extensive new disclosure requirements. It replaces existing revenue recognition guidance, including IAS 8 Revenue, IAS 11 Construction Contracts and IFRIC 13 Customer Loyalty Programmes. IFRS 15 effective 1 January 2018.

The company is in the process of performing a gap analysis to determine the impact of adopting IFRS 15 as compared to its current accounting for revenue under IAS 18. The nature of the company's revenue includes listing fees, annual fees, trade commissions, depository income and information sales.

Contracts within each revenue stream will be analysed against the five step revenue recognition model in IFRS 15.

The company is still in the process of making a decision on the transition method to be applied, as well as the practical expedients to be used if elected, and is currently finalising the impact that the above findings will have on the company's financial statements.



In thousands of Kwacha

### 40 New standards and interpretations issued but not yet effective IFRS 16 Leases

IFRS 16 introduces a single, on-balance sheet lease accounting model for lessees. A lessee recognises a rightof-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. There are optional exceptions for short-term leases and leases of low-value items. Lessor accounting remains similar to current practice i.e. lessors continue to classify leases as finance or operating leases. IFRS 16 replaces IAS 17 Lease, IFRIC 4 Determining whether an Arrangement contains a Lease, SIC 15 Operating Leases - Incentives and SIC 27 Evaluating the Substance of Transactions Involving the Legal Form of a Lease. It includes more disclosures for both lessees and lessors.

The company has decided to adopt this standard when it becomes effective. Management is still assessing the potential impact of this new standard and still needs to make a decision on the transition method to be applied as well as the practical expedients to be used, if elected.





### **CORPORATE INFORMATION**

### **Registered and Corporate Office**

### ZCCM Investments Holdings Plc

ZCCM-IH Office Park | Stand No. 16806 Alick Nkhata Road, Mass Media Complex Area P.O. Box 30048 | Lusaka | Zambia Telephone: +260 211 388 000

### **UK Registrars**

Link Asset Services 6<sup>th</sup> Floor, 83 Princes Street, Edinburgh, EH2 2ER

### Brokers for Lusaka Stock Exchange Listing

Stockbrokers Zambia Limited 32 Lubu Road, Longacres Area P O Box 38956 Lusaka, Zambia

### Auditors

KPMG Chartered Accountants First Floor, Elunda 2 Addis Ababa Roundabout P O Box 31282 Lusaka, Zambia

### **Principal Bankers:**

Barclays Bank (Zambia) Plc Standard Chartered Bank (Zambia) Plc Zambia National Commercial Bank Plc

### **Transfer Secretaries**

Corpserve Transfer Agents Limited Mwaleshi Road, Olympia Park P O Box 37522 Lusaka 10101, Zambia

Phone: + 260 211 256969/70 Fax : +260 211 256975 Email: info@corpservezambia.com.zm

### **Shareholder Contact**

Chabby Chabala Company Secretary

Charles Mjumphi Corporate Services Manager

Loisa Mbatha Kakoma Public Relations Manager

Phone : +260 211 221023/228833/388000

E-mail : corporate@zccm-ih.com.zm Website: www.zccm-ih.com.zm