



**Mining Industry Pension Fund**  
*"Cares for your future"*

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## **THE MINING INDUSTRY PENSION FUND**

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Actuarial Valuation as at 30 June 2021

Prepared by  
Tigere Mutare, FIA  
December 2021

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# 1. EXECUTIVE SUMMARY

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To the Trustees,

- 1.1 In accordance with your instructions, we have carried out an actuarial valuation of the Mining Industry Pension Fund (“the Fund”) as at 30 June 2021.

## Purpose of the current valuation

- 1.2 The objectives of the current actuarial valuation of the Fund are to;
- Investigate and report on the financial position of the Fund on an ongoing basis in respect of the liabilities accrued prior to the Valuation Date.
  - Determine and allocate currency Revaluation Gains in accordance with the IPEC Revaluation Guideline.
  - Make recommendations as to the level of bonus and pension increases, if any, that can be afforded by the Fund, based on the financial position of the Fund as at 30 June 2021.

## Previous Statutory Valuation

- 1.3 The previous statutory Actuarial Valuation was carried out as at 31 December 2020 by Mr. Tigere Mutare. The valuation revealed the following;
- The value of the Sub-account 1 accrued liabilities as at 31 December 2020 was ZWL\$7.8 billion compared with an asset value of ZWL\$11.2 billion. This is equivalent to a surplus of ZWL\$3.4 billion.
  - The value of the Sub-account 2 accrued liabilities as at 31 December 2020 was ZWL\$460 million compared with an asset value of ZWL\$890 million. This is equivalent to a surplus of ZWL\$430 million.

The recommendations adopted following the previous valuation are set out in section 2.12 of this report.

## Membership as at 30 June 2021

- 1.4 The valuation of the Fund is based on the following membership numbers;

| Category             | 31-Dec-20     | 30-Jun-21     | Change       |
|----------------------|---------------|---------------|--------------|
| Active Members       | 22,495        | 23,297        | 802          |
| Deferred Pensioners  | 42,139        | 42,647        | 508          |
| Preserved Pensioners | 8,030         | 8,088         | 58           |
| Current Pensioners   | 8,775         | 9,132         | 357          |
| Suspended Pensioners | 3,007         | 2,785         | -222         |
| <b>Total</b>         | <b>84,446</b> | <b>85,949</b> | <b>1,503</b> |

## Contributions and expenses

- 1.5 Total contributions invoiced were ZWL\$1,078 million for the 6-month period to 30 June 2021. Cumulatively since 2009, total unpaid contributions amount to ZWL\$518 million excluding interest (ZWL\$733 million including interest).
- 1.6 An aggregate of ZWL\$550 million has been provisioned as bad and doubtful debts in respect of outstanding contributions with interest in the financial statements. However, the unpaid contributions and interest have been considered as part of the Fund’s assets for the actuarial valuation as required by the IPEC Revaluation Guideline.
- 1.7 The redrafted Rules of the Fund require that administration expenses should not exceed 15% of received contributions.

- The Fund incurred administration expenses amounting to ZWL\$145 million over the 6-month period to 30 June 2021.
- This is equivalent to 19.7% of received contributions (13.5% of contribution income due) over the 6-month period to 30 June 2021.

### Assets

1.8 The macroeconomic environment has remained volatile and highly uncertain. Inflationary pressures have continued to reduce real disposable income levels and economic productivity. Furthermore, the steps taken in response to the spread of COVID-19 have resulted in disruption to business operations and an increase in economic uncertainty.

1.9 We have noted the following market indicators;

- Inflation as measured by the CPI was 20.7% over the 6-month period to 30 June 2021 (71.2% over the half-year to 31 December 2020).
- The ZSE all share index increased by 134% over the 6-month period to 30 June 2021.
- The Zimbabwe Dollar depreciated against the United States Dollar from USD\$ 1: ZWL\$81.8 as at 31 December 2020 to USD\$ 1: ZWL\$85.4 as at 30 June 2021.

1.10 A summary of the Fund's assets is shown below.

| Valuation Date<br>Asset Class<br>(amounts in ZWL\$ millions)          | 31 December 2020 |                |      |                 | 30 June 2021    |                |              |                 |
|---|------------------|----------------|------|-----------------|-----------------|----------------|--------------|-----------------|
|   | SA 1             | SA 2           | SA 3 | Total           | SA 1            | SA 2           | SA 3         | Total           |
| Prescribed assets   | 13.8             | 254.5          | -    | <b>268.3</b>    | 4.4             | 304.2          | -            | <b>308.6</b>    |
| Old Mutual Guaranteed Fund  | 93.5             | -              | -    | <b>93.5</b>     | 118.0           | -              | -            | <b>118.0</b>    |
| Quoted Shares   | 3,121.5          | 1,288.4        | -    | <b>4,409.9</b>  | 6,894.1         | 3,296.7        | -            | <b>10,190.8</b> |
| Unquoted Shares   | 235.2            | -              | -    | <b>235.2</b>    | 244.6           | -              | -            | <b>244.6</b>    |
| Fixed Property  | 6,596.6          | 40.6           | -    | <b>6,637.2</b>  | 6,893.3         | 129.6          | -            | <b>7,022.9</b>  |
| Fixed Income Investments  | 31.5             | 46.1           | -    | <b>77.6</b>     | 70.1            | 80.4           | -            | <b>150.5</b>    |
| Money Market/Deposits   | 0.8              | 0.3            | -    | <b>1.1</b>      | 0.1             | 46.4           | 84.6         | <b>131.1</b>    |
| Net Current assets  | (105.9)          | 331.0          | -    | <b>225.1</b>    | (128.2)         | 703.0          | 98.7         | <b>673.5</b>    |
| <b>Assets as per Financial Statements</b>                             | <b>9,986.9</b>   | <b>1,960.9</b> | -    | <b>11,947.8</b> | <b>14,096.4</b> | <b>4,560.3</b> | <b>183.3</b> | <b>18,840.0</b> |
| Add back provision for contributions bad debts                        | 121.0            | 175.9          | -    | <b>296.9</b>    | 197.3           | 352.3          | -            | <b>549.6</b>    |
| Provision for interest on contribution arrears at Fund rate of return | 2,784.1          | 15.3           | -    | <b>2,799.3</b>  | -               | -              | -            | -               |
| Provision for return i.r.o liquidity to SA1                           |                  |                | -    |                 | (589.4)         | 589.4          | -            | -               |
| <b>Adjusted Assets</b>  | <b>12,891.9</b>  | <b>2,152.1</b> | -    | <b>15,044.0</b> | <b>13,704.3</b> | <b>5,502.0</b> | <b>183.3</b> | <b>19,389.6</b> |

1.11 The market value of the Fund's assets as per the financial statements has increased from ZWL\$11.9 billion as at 31 December 2020 to ZWL\$18.8 billion as at 30 June 2021. The increase in the asset values was primarily driven by listed equity gains.

1.12 The Fund earned an aggregate investment return of approximately 52% over the 6-month period to 30 June 2021. We have also estimated the return achieved on the assets of each sub-account;

- For sub-account 1 – 44.1% for the 6-month period to 30 June 2021
- For sub-account 2 – 90.2% for the 6-month period to 30 June 2021
- For sub-account 3 – 1.8% for the 6-month period to 30 June 2021

### Property revaluation Smoothing Reserve

1.13 Properties market values have increased from ZWL\$6.6 billion as at 31 December 2020 to ZWL\$7.0 billion as at 30 June 2021.

- Property market values are initially determined in United States dollars by the property valuers and then converted to Zimbabwe dollars at the prevailing exchange rate.
- This has resulted in property revaluation gains from the depreciation of the Zimbabwe dollar against the United States dollar

1.14 At the previous valuation it was noted that the increase in the property market values had not been matched by the increase in net rental income and the property market values have been volatile. We therefore established a property revaluation smoothing reserve equivalent to 20% of the property market values as at 31 December 2020

- We note that net rental income for the 3-months to 30 June 2021 was higher than net rental income for the 3-months to 31 December 2020 by 15%. This compares to a 6% increase in property market values between 31 December 2020 and 30 June 2021.
- For the current valuation, we have reduced the smoothing reserve from 20% to 0% of the property market values as at 30 June 2021.

### Past Service Valuation results

1.15 The table below shows the balance sheet as at 30 June 2021. The liability values allow for the bonus and pension increases adopted as at 31 December 2020.

| (amounts in ZWL\$ millions)<br>Membership categories       | 31 December 2020 |                |          |                 | 30 June 2021    |                |               |                 |
|--|------------------|----------------|----------|-----------------|-----------------|----------------|---------------|-----------------|
|  | SA 1             | SA 2           | SA 3     | Total           | SA 1            | SA 2           | SA 3          | Total           |
| Active   | 3,288.0          | 1,647.3        | -        | <b>4,935.3</b>  | 3,722.2         | 2,326.0        | 109.3         | <b>6,157.5</b>  |
| Deferred   | 1,228.0          | 68.4           | -        | <b>1,296.4</b>  | 1,394.0         | 130.3          | 5.8           | <b>1,530.0</b>  |
| Preserved  | 313.1            | 4.3            | -        | <b>317.4</b>    | 284.0           | 9.3            | -             | <b>293.3</b>    |
| Current Pensioners   | 1,188.2          | 4.5            | -        | <b>1,192.7</b>  | 1,215.0         | 8.1            | -             | <b>1,223.1</b>  |
| Suspended Pensioners                                       | 198.8            | 0.0            | -        | <b>198.8</b>    | 168.4           | 0.0            | -             | <b>168.4</b>    |
| Suspended Pensioners' arrears                              | 226.4            | 0.0            | -        | <b>226.4</b>    | 249.1           | -              | -             | <b>249.1</b>    |
| Additional Death Benefit Reserve                           | 69.7             | 2.1            | -        | <b>71.8</b>     | 68.8            | 2.0            | -             | <b>70.9</b>     |
| Provision for liability in respect of contribution arrears | 1,607.5          | 295.0          | -        | <b>1,902.5</b>  | 544.1           | 514.7          | 66.8          | <b>1,125.6</b>  |
| Data Reserve   | 81.2             | 0.0            | -        | <b>81.2</b>     | 113.5           | 15.0           | -             | <b>128.4</b>    |
| Provision for Revaluation Gains for exited members         | 82.2             | 0.3            | -        | <b>82.5</b>     | 106.0           | 5.1            | -             | <b>111.1</b>    |
| Provision for fund return on contribution arrears          | 2,784.1          | 15.3           | -        | <b>2,799.4</b>  | -               | -              | -             | <b>-</b>        |
| Contingency Reserve  | 505.4            | 106.8          | -        | <b>612.2</b>    | 505.4           | 106.8          | -             | <b>612.2</b>    |
| Property Revaluation Smoothing Reserve                     | 1,319.3          | 8.1            | -        | <b>1,327.4</b>  | -               | -              | -             | <b>-</b>        |
| <b>Total Liability</b>                                     | <b>12,891.9</b>  | <b>2,152.1</b> | <b>-</b> | <b>15,044.0</b> | <b>8,370.4</b>  | <b>3,117.2</b> | <b>181.9</b>  | <b>11,669.5</b> |
| <b>Adjusted Assets</b>                                     | <b>12,891.9</b>  | <b>2,152.1</b> | <b>-</b> | <b>15,044.0</b> | <b>13,704.2</b> | <b>5,502.1</b> | <b>183.4</b>  | <b>19,389.7</b> |
| <b>Surplus/ (Deficit)</b>                                  | <b>0.0</b>       | <b>0.0</b>     | <b>-</b> | <b>0.0</b>      | <b>5,333.8</b>  | <b>2,384.9</b> | <b>1.5</b>    | <b>7,720.1</b>  |
| <b>Funding Level</b>                                       | <b>100.00%</b>   | <b>100.00%</b> | <b>-</b> | <b>100.00%</b>  | <b>163.7%</b>   | <b>176.5%</b>  | <b>100.8%</b> | <b>166.2%</b>   |

1.16 The value of the aggregate Fund liabilities as at 30 June 2021 was ZWL\$11.7 billion compared with an asset value of ZWL\$19.4 billion. This is equivalent to a surplus of ZWL\$7.7 billion.

- The value of the Sub-account 1 accrued liabilities as at 30 June 2021 was ZWL\$8.4 billion compared with an asset value of ZWL\$13.7 billion. This is equivalent to a surplus of ZWL\$5.3 billion.
- The value of the Sub-account 2 accrued liabilities as at 30 June 2021 was ZWL\$3.1 billion compared with an asset value of ZWL\$5.5 billion. This is equivalent to a surplus of ZWL\$2.4 billion.
- The value of the Sub-account 3 accrued liabilities as at 30 June 2021 was USD 2.13 million (ZWL\$181.9 million) compared with an asset value of USD 2.15 million (ZWL\$183.4 million). This is equivalent to a surplus of USD 17,700 (ZWL\$1.5 million).

### Analysis of Surplus

1.17 The principal factors that gave rise to the current financial position are summarised in the table below. Further details are provided from Section 8.10.

| Analysis of surplus (amounts in ZWL\$ millions)              | SA 1           | SA 2           | SA 3       | Total          |
|--|----------------|----------------|------------|----------------|
| <b>Surplus/ (Deficit) as at 1 January 2021</b>               | -              | -              | -          | -              |
| Investment return (excl. prop revaluation)                   | 4,068.1        | 1,994.7        | 1.7        | <b>6,064.5</b> |
| Provision for return on SA2 notional assets                  | (589.4)        | 589.4          | -          | -              |
| Property Revaluation Gains                                   | 284.9          | 1.8            | -          | <b>286.7</b>   |
| Release of Property Revaluation Smoothing Reserve            | 1,319.3        | 8.1            | -          | <b>1,327.4</b> |
| Increase in provisions for rent & operational costs debtors  | (50.0)         | -              | -          | <b>(50.0)</b>  |
| Pensioners' cost of guarantee                                | (46.4)         | (0.5)          | -          | <b>(46.8)</b>  |
| Liability for contribution arrears overstated/ (understated) | 394.6          | (87.3)         | -          | <b>307.3</b>   |
| Administration expenditure                                   | (118.0)        | (27.1)         | (0.2)      | <b>(145.3)</b> |
| Miscellaneous gains/ (strains)                               | 70.6           | (94.2)         | (0.0)      | <b>(23.5)</b>  |
| <b>Surplus/ (Deficit) as at 30 June 2021</b>                 | <b>5,333.8</b> | <b>2,384.9</b> | <b>1.5</b> | <b>7,720.2</b> |

### Allocation of Surplus

1.18 We have determined the allocation of the surplus as at 30 June 2021 in accordance with the requirements of the IPEC Revaluation Guideline.

1.19 We recommend the following bonus and pension increase rates;

| Issue                                    | Membership Categories                           | SA 1  | SA 2  | SA 3 | Comments  |
|--|---|-------|-------|------|---|
| <b>Bonus</b>                             | Active, Deferred, Preserved                     |       |       |      | For the 6-months to 30 June 2021 (pro-rated for exits before 30 June 2021)            |
|  | Outstanding benefits, Suspended pension arrears | 65.9% | 91.2% | 1.7% |   |
| <b>Pension Increase</b>                  | Current and Suspended Pensioners                | 62.3% | 82.8% | n/a  | with effect from 1 July 2021 (pro-rated for pensions commencing after 1 January 2021) |
| <b>Additional Death Benefit increase</b> | Active & Pensioners                             | 65.9% | 91.2% | n/a  | For the 6-months to 30 June 2021 (pro-rated for exits before 30 June 2021)            |
| <b>Interim Bonus</b>                     | Active, Deferred, Preserved                     |       |       |      | 0% for exits after 30 June 2021   |
|  | Outstanding benefits, Suspended pension arrears | 0%    | 0%    | 0%   |   |

## 2. INTRODUCTION

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2.1 We have pleasure in presenting to the Board of Trustees of the Mining Industry Pension Fund ("the Fund") this report on the results of the actuarial valuation as at 30 June 2021 (the "Valuation Date") of the Fund. This valuation is required in terms of Sections 11.3 and 11.4 of the IPEC Revaluation Guideline.

2.2 Details of the Fund benefits are outlined in Section 3 while a summary of the benefits considered for valuation purposes is set out in Appendix I. A summary of the Fund membership data is given in Section 5. The valuation method and valuation basis are discussed and described in Section 7.

### **The IPEC Revaluation Guideline**

2.3 The Government of Zimbabwe initiated currency reforms during October 2018 which continued during 2019. The Government discontinued the use of multicurrency system which had been in force and introduced the Zimbabwe dollar as the sole legal tender.

2.4 The currency reforms triggered a rise in the inflation rate and instability in the exchange rate that produced extraordinary gains in asset values, referred to as "Revaluation Gains," for most insurance companies and pension funds.

2.5 In response to the currency reforms, the Insurance and Pensions Commission (IPEC) issued a guideline framework in March 2020 on the determination and treatment of the Revaluation Gains. This "*Guideline for the Insurance and Pensions Industry on Adjusting Insurance and Pension Values in Response to Currency Reforms*" was issued in terms of Section 3 (1) (a) of Statutory Instrument 69 of 2020 which empowers the Insurance and Pensions Commission to issue guidelines and standards following currency conversions. IPEC issued a revised IPEC Revaluation Guideline in May 2021, which is effective from 1 January 2021.

2.6 The IPEC Revaluation Guideline provides the key principles to be adhered to by all insurance companies and pension funds when determining and allocating Revaluation Gains that arose as a result of the currency reforms.

2.7 The IPEC Revaluation Guideline also requires that;

- all assets and liabilities accrued to 31 December 2018 should be ring-fenced from assets and liabilities accrued from 1 January 2019. This is intended to ensure a separation of assets and liabilities that were previously denominated in USD\$ from assets and liabilities denominated in ZWL\$.
- the assets and liabilities considered for Revaluation Gains should include contribution arrears.

2.8 Sections 11.3 and 11.4 of the IPEC Revaluation Guideline require;

- Revaluation Gains to be calculated and allocated at each Measurement Date, and
- Measurement dates to remain bi-annually until IPEC issues a Guideline allowing for a return to annual Measurement Dates.

### **Purpose of the current valuation**

2.9 The objectives of the current actuarial valuation of the Fund are to;

- Investigate and report on the financial position of the Fund on an ongoing basis in respect of the liabilities accrued prior to the Valuation Date.
- Determine and allocate currency Revaluation Gains in accordance with the IPEC Revaluation Guideline.

- Make recommendations as to the level of bonus and pension increases, if any, that can be afforded by the Fund, based on the financial position of the Fund as at 30 June 2021.

### Previous Statutory Valuation

2.10 The previous statutory Actuarial Valuation was carried out as at 31 December 2020 by Mr. Tigere Mutare. The valuation revealed the following;

- The value of the Sub-account 1 accrued liabilities as at 31 December 2020 was ZWL\$7.8 billion compared with an asset value of ZWL\$11.2 billion. This is equivalent to a surplus of ZWL\$3.4 billion.
- The value of the Sub-account 2 accrued liabilities as at 31 December 2020 was ZWL\$460 million compared with an asset value of ZWL\$890 million. This is equivalent to a surplus of ZWL\$430 million.

2.11 The following recommendations were adopted by the Fund;

| Issue                                    | Membership Category                  | Sub-Account   | Recommendation  |
|--|--------------------------------------|---------------|---|
| <b>Bonus</b>                             | Active, Deferred & Preserved Members | Sub-account 1 | 59.2% for the 6-months to 31 December 2020<br>(pro-rated for exits before 1 January 2021)       |
| <b>Pension Increase</b>                  | Current and Suspended Pensioners     | Sub-account 1 | 59.2% with effect from 1 January 2021<br>(pro-rated for pensions commencing after 30 June 2020) |
| <b>Additional Death Benefit increase</b> | Active Pensioners &                  | Sub-account 1 | 59.2% for the 6-months to 31 December 2020<br>(pro-rated for exits before 1 January 2021)       |
| <b>Interim Bonus</b>                     | Active, Deferred & Preserved Members | Sub-account 1 | 0% for exits after 31 December 2020   |
| <b>Bonus</b>                             | Active, Deferred & Preserved Members | Sub-account 2 | 24.5% for the 6-months to 31 December 2020<br>(pro-rated for exits before 1 January 2021)       |
| <b>Pension Increase</b>                  | Current and Suspended Pensioners     | Sub-account 2 | 24.5% with effect from 1 January 2021<br>(pro-rated for pensions commencing after 30 June 2020) |
| <b>Additional Death Benefit increase</b> | Active Pensioners &                  | Sub-account 2 | 24.5% for the 6-months to 31 December 2020<br>(pro-rated for exits before 1 January 2021)       |
| <b>Interim Bonus</b>                     | Active, Deferred & Preserved Members | Sub-account 2 | 0% for exits after 31 December 2020   |

### Inter-valuation events

2.12 The Insurance and Pensions Commission (IPEC) requested the Fund to submit redrafted Fund Rules in compliance with Circular 5 of 2017 which required all pension funds to redraft their rules to align with prescribed requirements and changes in the operating environment.

2.13 In November 2020, the Fund submitted redrafted Rules to IPEC. The redrafted Rules allow for the following prescribed requirements and directives, and take into account changes in the operating environment:



- a) Onsite Inspection Report for the Mining Industry Pension Fund (11 June 2018 to 13 July 2018);

The redrafted Rules have been amended to remove the existing pension purchase factors that apply at the date of contribution to adopt actuarial factors that purchase pensions only upon retirement.

- b) Insurance and Pensions Commission (Issuance of General Guidelines and Standards) Regulations, 2020 Statutory Instrument 69 of 2020
- c) Pension and Provident Funds (Amendment) Regulations, 2020 (No. 25) Statutory Instrument 91 of 2020.
- d) Guideline on Minimum Disclosure Requirements for Pension Funds and Fund Administrators;
- e) Guideline for the Insurance and Pensions Industry on Adjusting Insurance and Pension Values in Response to Currency Reforms;
- f) Risk Management Guidelines for the Pensions Industry; and
- g) Guideline for the Resolution of Troubled Entities Within the Pensions Industry.

2.14 The redrafted Rules were approved and registered by IPEC in April 2021. This valuation has been undertaken in accordance with the redrafted rules.

#### **COVID-19 Pandemic**

2.15 The World Health Organisation declared the COVID-19 coronavirus outbreak to be a pandemic in March 2020. The Government took steps to control the spread of the virus and announced measures which restricted movement of people and introduced curfews. The steps taken in response to the spread of COVID-19 resulted in disruption to business operations and an increase in economic uncertainty.

2.16 The long-term impact of COVID-19 on the demographics and financial performance of the Fund is unclear. We have made no allowance for the impact of COVID-19 in this valuation.

#### **Professional Issues**

2.17 The requirements of Technical Actuarial Standards, TAS 100 - Principles for technical actuarial work and TAS 300 - Pensions, have been considered in relation to this report and have been complied with where material and relevant.

2.18 The Technical Actuarial Standards are issued by the Financial Reporting Council (FRC) which sets technical standards for actuarial work in the UK. As the Fund does not fall under the geographic scope of the FRC, certain aspects have no relevance in this case.

2.19 The report was peer reviewed by an external independent actuary as required by section 27.3 of the IPEC Revaluation Guideline.

#### **Reporting Currency**

2.20 Please note that all monetary amounts in this report are denominated in Zimbabwe dollars unless specified otherwise.

#### **Reliance and Limitations**

2.21 This report, its opinions and conclusions are for the use of the Trustees of the Fund. The report should not be regarded as suitable for use by any other persons or for any other purpose not specified. It may be submitted to the relevant stakeholders of the Fund with the approval of the Trustees. No reliance should be placed on this report by any third party, and we accept no responsibility or liability to any third party in respect of this report.

### 3. KEY FEATURES OF THE FUND

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- 3.1 The Mining Industry Pension Fund (“the Fund”) commenced on 1 July 1952. The Fund was established through a memorandum of an agreement between the Chamber of Mines of Zimbabwe (“the Employers’ organization”), and the Associated Mine Workers Union of Zimbabwe and the Mine Officials and Salaried Staff Association (“the trade unions”).
- 3.2 Prior to 1 January 2021, aggregate employee and employee contributions were used to purchase deferred annuities, payable from Normal Retirement Date.
- The amounts of the deferred annuities purchased were determined by reference to a set of age and gender dependent factors which were set out in the Rules of the Fund.
  - Once contributions had been applied to purchase deferred pensions the pensions so purchased became part of the accrued liabilities of the Fund.
  - At each valuation of the Fund bonuses were added to the existing accrued pensions and to pensions in payment, depending on the level of surplus available.
- 3.3 With effect from 1 January 2021, the Board of Trustees resolved to;
- cease the accrual of future service benefits under the current benefit structure and pension purchase factors and;
  - introduce a Defined Contribution (“DC”) structure for future service pensions.
  - convert accrued Defined Benefit (“DB”) pensions for non-pensions from DB to DC
  - retain existing benefit structure for all pensions in payment (including suspended pensioners)

#### **Contributions to the Fund**

- 3.4 Members contribute 7.5% and the Employers contribute a minimum of 7.5% of pensionable emoluments to the Fund so that the total contribution rate is a minimum of 15% of pensionable emoluments.
- 3.5 The member may contribute at a higher rate up to a maximum contribution rate of 15% if he/she so wishes. The Employer has no limit on his contribution rate.

#### **Benefits purchased by contributions**

- 3.6 The normal retirement age is 60 years.
- 3.7 The accrued benefits of a Defined Contributions (DC) nature in respect of active, deferred, and preserved members of the Fund will be the aggregate of;
- The opening liability in the DC fund as at 1 January 2021 (set equal to the actuarial value of the benefits accrued under the previous benefits structure up to 31 December 2020, including all bonuses declared to 31 December 2020) plus;
  - Member contributions paid from 1 January 2021 to the valuation date plus;
  - Employer contributions paid from 1 January 2021 to the valuation date less;
  - Benefits paid from 1 January 2021 to the valuation date plus;
  - any Fund interest declared from 1 January 2021 up to the valuation date

#### **Risk Benefits**

- 3.8 The Fund has retained some benefits of a Defined Benefit nature. In particular, the Fund provides the following benefits:
- Pension payments, once set, are guaranteed by default, and met directly from the Fund.
  - The Rules of the Fund provide for the payment, on death of an Active member or a Pensioner, of an Additional Death Benefit to cover funeral costs. The amount of the benefit shall be determined by the Board of Trustees.

## 4. RISKS OF THE FUND

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### **Nature of benefits – before retirement**

4.1 The Fund is a defined contribution pension fund. In a pure defined contribution fund, the members are expected to bear the investment and experience risks of the Fund.

4.2 Members of the Fund are therefore exposed to the following risks

### **Investment risk**

4.3 Accumulated Credits will fluctuate with investment market conditions and there is risk that the Fund could suffer significant falls in value under adverse investment market conditions.

4.4 This risk is mitigated through holding a diversified investment portfolio which aims to reduce the risk of loss from a single asset or asset class.

### **Inflation risk**

4.5 There is risk of reduced purchasing power due to investment returns failing to keep up with inflation.

4.6 This risk is mitigated by investing in real assets such as equities and property which are expected to provide real returns over the long term.

### **Expense risk**

4.7 The Rules of the Fund do not provide for contributions to meet the cost of administration expenses and risk benefits. The cost of administration is met from the assets of the Fund. There is a risk that the level of expenses becomes too high, leading to high charges on members' accounts.

4.8 The administration expenses are regularly monitored to ensure that aggregate expenses do not exceed 15% of aggregate contributions received in accordance with the Rules of the Fund.

### **Nature of benefits – after retirement**

4.9 The Fund also pays pensions directly from the Fund. Therefore the benefit at retirement switches to defined benefit with all the associated risks.

4.10 In a defined benefit scheme, the benefits are normally guaranteed by the sponsor who bears the investment and experience risks of the Fund.

4.11 It is however noted that there is no provision within the Rules of the Fund to demand additional contributions from the sponsoring employers in the event of an actuarial deficit emerging in the Fund.

4.12 In the absence of additional contributions by the sponsors of the Fund, pensioners of the Fund are therefore exposed to the following risks.

### **Investment risk and negative bonuses**

4.13 The amount of pension which can be purchased will depend on the cost of purchasing a pension.

4.14 Pension payments, once set, are guaranteed by default in terms of the Rules of the Fund and met directly from the Fund.

- 4.15 There is a risk of deficits emerging if actual experience (e.g. mortality and investments) is worse than assumed in pension purchase factors.
- 4.16 Pensioners face the risk of reduction in pensions if the deficits are not reduced either through additional Employer funding or improved investment returns.
- 4.17 Investment risk is mitigated through holding a diversified investment portfolio which aims reduces the risk of loss from a single asset or asset class.
- 4.18 Pensioner mortality experience is analysed every five years. The valuation mortality basis and the cost of purchasing pensions will be adjusted, if required, to reflect the observed mortality experience.

## 5. MEMBERSHIP DATA

- 5.1 The data required for the valuation has been obtained from records which are maintained by the Fund. The data was subjected to various checks for reasonability and consistency; we are satisfied with the accuracy and completeness of the data for the purposes of this Valuation. In cases where data was not available but was of no material consequence to the financial position of the Fund, we have made necessary assumptions.
- 5.2 While data checks are performed for the valuation, the final accountability for the accuracy of the Fund's data, however, resides with the Trustees and their appointed Administrators.
- 5.3 A summary of the active membership data on which the valuation has been based, together with statistics derived from this data, is set out below. Additional membership data statistics are in Appendix III of the report.

### Key membership statistics

- 5.4 The following summarizes the membership data provided as at the current valuation date and the previous valuation date:

| <b>Active members</b>              | <b>31-Dec-20</b> | <b>30-Jun-21</b> | <b>Change</b>   |
|------------------------------------|------------------|------------------|-----------------|
| Number                             | 22,495           | 23,297           | 802             |
| Pension Weighted Average Age       | 44.6             | 44.2             | (0.4)           |
| Total Accrued Pension              | \$5,609,764,171  | \$10,428,640,588 | \$4,818,876,417 |
|                                    |                  |                  |                 |
| <b>Deferred Pensioners</b>         | <b>31-Dec-20</b> | <b>30-Jun-21</b> | <b>Change</b>   |
| Number                             | 42,139           | 42,647           | 508             |
| Pension Weighted Average Age       | 47.6             | 47.4             | (0.2)           |
| Total Deferred Pension             | \$1,492,936,832  | \$2,567,888,540  | \$1,074,951,708 |
|                                    |                  |                  |                 |
| <b>Preserved Pensioners</b>        | <b>31-Dec-20</b> | <b>30-Jun-21</b> | <b>Change</b>   |
| Number                             | 8,030            | 8,088            | 58              |
| Pension Weighted Average Age       | 44.1             | 43.9             | (0.2)           |
| Total Deferred Pension             | \$279,234,359    | \$482,870,869    | \$203,636,510   |
|                                    |                  |                  |                 |
| <b>Current Pensioners</b>          | <b>31-Dec-20</b> | <b>30-Jun-21</b> | <b>Change</b>   |
|                                    |                  |                  |                 |
| <b>Former Members</b>              |                  |                  |                 |
| Number                             | 7,759            | 8,057            | 298.0           |
| Pension Weighted Average Age       | 66.8             | 67.2             | 0.4             |
| <b>Total Annual Pension</b>        | \$68,360,191     | \$112,551,585    | \$44,191,394    |
|                                    |                  |                  |                 |
| <b>Spouses &amp; Beneficiaries</b> |                  |                  |                 |
| Number                             | 1,016            | 1,075            | 59              |
| Pension Weighted Average Age       | 62.5             | 62.7             | 0.2             |
| Total Annual Pension               | \$8,800,282      | \$14,938,875     | \$6,138,593     |
|                                    |                  |                  |                 |
| <b>Suspended Pensioners</b>        | <b>31-Dec-20</b> | <b>30-Jun-21</b> | <b>Change</b>   |
|                                    |                  |                  |                 |
| <b>Former Members</b>              |                  |                  |                 |
| Number                             | 2,586            | 2,402            | (184)           |
| Pension Weighted Average Age       | 80.0             | 81.3             | 1.29            |
| Total Annual Pension               | \$22,437,480     | \$33,243,074     | \$10,805,594    |
|                                    |                  |                  |                 |
| <b>Spouses &amp; Beneficiaries</b> |                  |                  |                 |
| Number                             | 421              | 383              | -38             |
| Pension Weighted Average Age       | 77.8             | 79.2             | 1.40            |
| Total Annual Pension               | \$3,851,987      | \$5,671,212      | \$1,819,225     |

## 6. ASSETS

- 6.1 The objective of the valuation of a pension scheme's assets for comparison with the Fund's accrued liabilities is to place a value on the assets which represents an assessment of the underlying long-term value of assets that is consistent with the principles used in placing a value on the Fund's liabilities.
- 6.2 The current macroeconomic environment is volatile and highly uncertain. Inflationary pressures have continued to reduce real disposable income levels and economic productivity. Furthermore, the steps taken in response to the spread of COVID-19 have resulted in disruption to business operations and an increase in economic uncertainty.
- 6.3 We have noted the following market indicators;
- Inflation as measured by the CPI was 20.7% over the 6-month period to 30 June 2021 (71.2% over the half-year to 31 December 2020).
  - The ZSE all share index increased by 134% over the 6-month period to 30 June 2021.
  - The Zimbabwe Dollar depreciated against the United States Dollar from USD\$ 1: ZWL\$81.8 as at 31 December 2020 to USD\$ 1: ZWL\$85.4 as at 30 June 2021.
- 6.4 We have taken the assets at their stated market values for purposes of this exercise. The assets of the Fund, based on financial statements, were as follows:

| Valuation Date<br>Asset Class<br>(amounts in ZWL\$ millions)          | 31 December 2020 |                |      |                 | 30 June 2021    |                |              |                 |
|---|------------------|----------------|------|-----------------|-----------------|----------------|--------------|-----------------|
|   | SA 1             | SA 2           | SA 3 | Total           | SA 1            | SA 2           | SA 3         | Total           |
| Prescribed assets   | 13.8             | 254.5          | -    | <b>268.3</b>    | 4.4             | 304.2          | -            | <b>308.6</b>    |
| Old Mutual Guaranteed Fund  | 93.5             | -              | -    | <b>93.5</b>     | 118.0           | -              | -            | <b>118.0</b>    |
| Quoted Shares   | 3,121.5          | 1,288.4        | -    | <b>4,409.9</b>  | 6,894.1         | 3,296.7        | -            | <b>10,190.8</b> |
| Unquoted Shares   | 235.2            | -              | -    | <b>235.2</b>    | 244.6           | -              | -            | <b>244.6</b>    |
| Fixed Property  | 6,596.6          | 40.6           | -    | <b>6,637.2</b>  | 6,893.3         | 129.6          | -            | <b>7,022.9</b>  |
| Fixed Income Investments  | 31.5             | 46.1           | -    | <b>77.6</b>     | 70.1            | 80.4           | -            | <b>150.5</b>    |
| Money Market/Deposits   | 0.8              | 0.3            | -    | <b>1.1</b>      | 0.1             | 46.4           | 84.6         | <b>131.1</b>    |
| Net Current assets  | (105.9)          | 331.0          | -    | <b>225.1</b>    | (128.2)         | 703.0          | 98.7         | <b>673.5</b>    |
| <b>Assets as per Financial Statements</b>                             | <b>9,986.9</b>   | <b>1,960.9</b> | -    | <b>11,947.8</b> | <b>14,096.4</b> | <b>4,560.3</b> | <b>183.3</b> | <b>18,840.0</b> |
| Add back provision for contributions bad debts                        | 121.0            | 175.9          | -    | <b>296.9</b>    | 197.3           | 352.3          | -            | <b>549.6</b>    |
| Provision for interest on contribution arrears at Fund rate of return | 2,784.1          | 15.3           | -    | <b>2,799.3</b>  | -               | -              | -            | <b>-</b>        |
| Provision for return i.r.o liquidity to SA1                           | -                | -              | -    | -               | (589.4)         | 589.4          | -            | <b>-</b>        |
| <b>Adjusted Assets</b>  | <b>12,891.9</b>  | <b>2,152.1</b> | -    | <b>15,044.0</b> | <b>13,704.3</b> | <b>5,502.0</b> | <b>183.3</b> | <b>19,389.6</b> |

- 6.5 Appendix I of this report shows a summary of revenue statement of the Fund over the inter-valuation period.
- 6.6 The market value of the Fund's assets as per the financial statements has increased from ZWL\$11.9 billion as at 31 December 2020 to ZWL\$18.8 billion as at 30 June 2021. The increase in the asset values was primarily driven by listed equity gains.
- 6.7 The Fund earned an aggregate investment return of approximately 52% over the 6-month period to 30 June 2021. We have also estimated the return achieved on the assets of each sub-account;

- For sub-account 1 – 44.1% for the 6-month period to 30 June 2021
- For sub-account 2 – 90.2% for the 6-month period to 30 June 2021
- For sub-account 3 – 1.8% for the 6-month period to 30 June 2021

### **Property Market values**

- 6.8 The IPEC Revaluation Guideline requires that the assets on the balance sheet are held at fair value. The property market values used in this valuation are the fair values as determined by professional property valuers for the purposes of financial reporting.
- 6.9 Properties market values have increased from ZWL\$6.6 billion as at 31 December 2020 to ZWL\$7.0 billion as at 30 June 2021.
- Property market values are initially determined in United States dollars by the property valuers and then converted to Zimbabwe dollars at the prevailing exchange rate.
  - This has resulted in property revaluation gains from the depreciation of the Zimbabwe dollar against the United States dollar
- 6.10 It should be noted that the real value of property to a long-term institutional investor is the value derived from net rental income which would be used to meet benefit obligations. In a stable environment, the value of long-term rental income should converge to the market value of property.
- 6.11 Section 12.8 of the IPEC Revaluation Guideline recognises the difficulty in determining objective fair values under the current economic environment and permits the allocation of Revaluation Gains to smoothing funds.
- 6.12 At the previous valuation it was noted that the increase in the property market values had not been matched by the increase in net rental income and the property market values have been volatile. We therefore established a property revaluation smoothing reserve equivalent to 20% of the property market values as at 31 December 2020.
- 6.13 We note that net rental income for the 3-months to 30 June 2021 was higher than net rental income for the 3-months to 31 December 2020 by 15%. This compares to a 6% increase in property market values between 31 December 2020 and 30 June 2021. We also note that the Zimbabwe dollar depreciated further since the valuation, which will lead to a further rise in property market value and rental income in Zimbabwean dollar terms.
- 6.14 For the current valuation, we have reduced the smoothing reserve from 20% to 0% of the property market values as at 30 June 2021.

### **Outstanding contributions**

- 6.15 Total contributions invoiced were ZWL\$1,078 million for the 6-month period to 30 June 2021. Cumulatively since 2009, total unpaid contributions amount to ZWL\$518 million excluding interest (ZWL\$733 million including interest).
- 6.16 An aggregate of ZWL\$550 million has been provisioned as bad and doubtful debts in respect of outstanding contributions with interest in the financial statements.
- 6.17 Section 27 of the revised IPEC Revaluation Guideline requires contribution arrears to be included as part of the assets of the Fund. We have therefore added back to the net assets the amounts in respect of contribution arrears and interest provisioned as doubtful debts in the Fund's financial statements.

- 6.18 The initial IPEC Revaluation Guideline also required that the interest rate to be applied on outstanding contributions should be the greatest of:
- I. the actual rate of return on funds' assets from the due date to the date of payment;
  - II. the rate of return on risk free assets; and
  - III. the unsecured overdraft lending rate applied by the affected pension fund's bank.
- 6.19 We understand that the interest rate applied to outstanding contributions by the Fund and allowed for in the financial statements is based on the lending rate of the Fund's bank. The actual rate of return earned on the Funds' assets is significantly higher than the bank lending rate.
- 6.20 We therefore also estimated, in previous valuations, the interest due on outstanding contributions based on the actual rate of return earned by the Fund and increased the Fund's assets accordingly.
- 6.21 However, we believe that there is a low likelihood of recovering outstanding contributions together with high interest. Therefore, in previous valuations, we increased the actuarial liability by an amount equivalent to the allowance for interest on contributions arrears at the Fund rate of return. This ensured that the asset values were not allocated before the amounts due have been recovered from Employers.
- 6.22 The revised IPEC Revaluation Guideline now requires that the interest rate to be applied on outstanding contributions effective 1 January 2020 shall be the unsecured overdraft lending rate applied by the affected pension fund's bank.
- 6.23 Therefore at the current valuation, we have made no allowance to assets and liabilities for the interest due on outstanding contributions based on the actual rate of return earned by the Fund. This does not impact the solvency position of the Fund as the assets and liabilities at the current valuation are decreased by the same amount.

#### **Administration expenses**

- 6.24 The redrafted Rules of the Fund require that administration expenses should not exceed 15% of received contributions.
- the redrafted Rules now express administration expenses as percentage of received contribution rather than as a percentage contributions income due in the previous Rules.
  - This reduces the administration expenses threshold to a lower amount based on received contributions. There is a greater risk of breaching this lower threshold, particularly if a high proportion of contributions are not paid.
  - The Fund incurred administration expenses amounting to ZWL\$145 million over the 6-month period to 30 June 2021.
  - This is equivalent to 19.7% of received contributions (13.5% of contribution income due) over the 6-month period to 30 June 2021.

#### **Comment on investment strategy**

- 6.25 In analysing the Fund's investment strategy, it is important to consider the current economic environment.
- 6.26 The vested liabilities should normally be matched by long-term bonds, while deferred liabilities can be matched by real assets (i.e. assets with returns that can be expected to be positively correlated with inflation in the long term) to provide some protection against the effects of inflation, provided that a sufficient reserve is maintained to ensure the Fund remains able to provide the guaranteed level of accrued pensions.



6.27 The Fund is heavily invested in real assets with 37% of the market value of the assets invested in property and 55% in equities. These assets may exhibit short term volatility but can be expected to be positively correlated to inflation in the medium to long term.

6.28 We are satisfied that the current investments of the Fund are appropriate having regard to the form and incidence of the liabilities of the Fund and the current economic environment.

6.29 However, we note that;

- the Fund's assets allocation does meet the requirements of Circular 1 of 2013 issued by IPEC. This is mainly a result of the extraordinary gains on equity values relative to gains from other asset classes.
- The Fund's prescribed asset ratio is lower than the minimum of 20% required.

## 7. VALUATION METHOD AND ASSUMPTIONS

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### Valuation Method

#### Liability prior to retirement

- 7.1 The accrued liabilities in respect of active, deferred, and preserved members of the Fund were calculated as the aggregate of;
- The opening liability in the DC fund as at 1 January 2021 (set equal to the actuarial value of the benefits accrued under the previous benefits structure up to 31 December 2020, including all bonuses declared to 31 December 2020) plus;
  - Member contributions paid from 1 January 2021 to the valuation date plus;
  - Employer contributions paid from 1 January 2021 to the valuation date less;
  - Benefits paid from 1 January 2021 to the valuation date plus;
  - any Fund interest declared from 1 January 2021 up to the valuation date

#### Provision for liability in respect of contribution arrears

- 7.2 The membership data provides members' accrued benefits based on contributions received by the Fund only. i.e. the membership data provided does not include members' accrued deferred pensions based on contributions invoiced but not received by the Fund.
- 7.3 The IPEC Revaluation Guideline requires contribution arrears to be included as part of the assets of the Fund. To ensure consistency between assets and liabilities we have therefore estimated the actuarial liability in respect of contribution arrears from the contribution debtors' age analysis provided by the administrators of the Fund.

#### Pensioners' liability

- 7.4 The liability for pensions in payment is determined, using actuarial assumptions, by projecting pensions in payments over the expected future life-times of the pensioners and contingent beneficiaries, and discounting the projected payments back to the present.

#### Pensioners' post-retirement valuation assumptions

- 7.5 The most significant elements of the pensioners' valuation basis are the rate of return earned on the assets, the assumed rate of growth in accrued pensions and the mortality assumption.
- 7.6 The relative level of these assumptions with regard to each other is more important than the absolute levels. The absolute levels are chosen with regard to the long-term nature of the Fund. The valuation results are particularly sensitive to the difference between the valuation rate of interest and the assumed rate of pension and deferred pension inflation.

#### Interest rate

- 7.7 The net rate of return assumptions reflects the time value of money and the estimated timing of benefit payments - normally determined by reference to the expected long-term investment return from the Fund's assets. However, the current adverse and volatile investment climate and lack of long-term bonds makes it difficult to determine an objective long-term expected return.
- 7.8 For current valuation, we have retained the following financial assumptions adopted at the previous valuation;
- The assets of the Fund will earn a return of 5.69% per annum;
  - No explicit allowance has been made for pension increases;

## **Mortality**

- 7.9 The post retirement mortality rates will provide an estimate of the expected future lifetimes of the pensioners and contingent beneficiaries.
- 7.10 It should also be noted that significant mortality improvements have been observed internationally – increasing the cost of funding defined benefits. These improvements are largely a result of the advances of science and medicine. Whilst there is little evidence to predict when these changes will apply to Zimbabwe, it may soon be appropriate to include an explicit allowance for mortality improvement in future valuations.
- 7.11 We have assumed that the post-retirement mortality experience of the Fund will be in line with the 85% of the a(55) Ultimate mortality tables.
- 7.12 This is informed by a pensioner mortality experience of the Fund, over the 5-year period from 2013 to 2017. This analysis showed that the actual number of pensioners deaths reported for the pensioner lives under investigation was approximately 90% of the expected deaths in accordance with 100% of the a(55) Ultimate mortality tables.
- 7.13 Future life expectancy in accordance with 85% of the a(55) mortality table is as follows;
- A male pensioner aged 60 years will live to age 78.6
  - A female pensioner aged 60 years will live to age 82.5

## **Other Demographic assumptions**

- 7.14 We have further assumed that all members reaching Normal Retirement Age will retire at that age and that members over Normal Retirement Age retire immediately;
- 7.15 For the purpose of valuing Spouse's benefits after retirement, we have assumed that all males are married with wives 5 years younger than themselves at retirement and all females are married with husbands 5 years older than themselves at retirement. This assumption is unchanged from the previous valuation.

## **Expenses assumptions**

- 7.16 It was assumed that administrative expenses would be paid from the Fund. This assumption is unchanged from the previous valuation.

## **Suspended pensioners' valuation**

- 7.17 The liability for suspended pensioners allows for the probability that suspended pensioners may have died since the date of suspension.
- The Fund had 2,785 suspended pensioners as at the valuation date. This included 1,511 pensioners who have had their pension payments suspended for over 5 years.
  - If all these suspended pensioners were still alive as at the valuation date their current liability would be ZWL\$226 million at the valuation date. However, we believe that this value would overstate the liability as it includes a large number of unreported deaths.
  - The liability in respect of future pension payments to suspended pensioners is therefore calculated as the projected future pension payments multiplied by the probability that each suspended pensioner has survived between the suspension date and the valuation date.
  - This gives a liability in respect of suspended pensioners of ZWL\$168 million (75% of the unadjusted liability).
- 7.18 The liability for suspended pension arrears has been taken at 100% of pension arrears. We have also allowed for bonuses on suspended pension arrears equivalent to the bonus declared for active members.

### **Reserve for Additional Death Benefits**

- 7.19 The Rules of the Fund provide for the payment, on death of an Active member or a Pensioner, of an Additional Death Benefit to cover funeral costs. The amount of the benefit shall be determined by the Board of Trustees.
- 7.20 Prior to conversion of benefits from Defined Benefit to Defined Contribution, separate actuarial reserves were established for Sub-account 1 and Sub-account 2 to meet the cost of the additional death benefits. These reserves have been retained under the new defined contribution structure.
- The Additional Death Benefit reserve for Sub-account 1 will be in respect of all active members and pensioners who contributed to the Fund during the period to 31 December 2018.
  - The Additional Death Benefit reserve for Sub-account 2 will be in respect of all active members and pensioners who contributed to the Fund from 1 January 2019 to 31 December 2020.
  - Therefore, Active members and pensioners who have accrued benefits in both sub-accounts will be eligible for a Sub-account 2 Additional Death Benefit in addition to the Sub-account 1 Additional Death Benefit.
- 7.21 The DC rules do not provide for any additional funding of the ADB reserves. Therefore these reserves will only accrue investment returns. Without any additional funding, there is a risk that these reserves will be depleted.
- 7.22 There is no Additional Death Benefit reserve for Sub-account 3, as this has not yet been funded for from the Sub-account 3 contributions.

## 8. VALUATION RESULTS PAST SERVICE

### Ongoing Valuation

- 8.1 The valuation balance sheet as at the previous and the current valuation is set out below. The funding level is determined by expressing the assets as a percentage of the past service liabilities

### Past Service Valuation results

- 8.2 The table below shows the balance sheet as at 30 June 2021. The values are based on benefit which include the bonuses and pension declared as at 31 December 2020.

| (amounts in ZWL\$ millions)<br>Membership categories       | 31 December 2020 |                |          |                 | 30 June 2021    |                |               |                 |
|--|------------------|----------------|----------|-----------------|-----------------|----------------|---------------|-----------------|
|  | SA 1             | SA 2           | SA 3     | Total           | SA 1            | SA 2           | SA 3          | Total           |
| Active   | 3,288.0          | 1,647.3        | -        | <b>4,935.3</b>  | 3,722.2         | 2,326.0        | 109.3         | <b>6,157.5</b>  |
| Deferred   | 1,228.0          | 68.4           | -        | <b>1,296.4</b>  | 1,394.0         | 130.3          | 5.8           | <b>1,530.0</b>  |
| Preserved  | 313.1            | 4.3            | -        | <b>317.4</b>    | 284.0           | 9.3            | -             | <b>293.3</b>    |
| Current Pensioners   | 1,188.2          | 4.5            | -        | <b>1,192.7</b>  | 1,215.0         | 8.1            | -             | <b>1,223.1</b>  |
| Suspended Pensioners                                       | 198.8            | 0.0            | -        | <b>198.8</b>    | 168.4           | 0.0            | -             | <b>168.4</b>    |
| Suspended Pensioners' arrears                              | 226.4            | 0.0            | -        | <b>226.4</b>    | 249.1           | -              | -             | <b>249.1</b>    |
| Additional Death Benefit Reserve                           | 69.7             | 2.1            | -        | <b>71.8</b>     | 68.8            | 2.0            | -             | <b>70.9</b>     |
| Provision for liability in respect of contribution arrears | 1,607.5          | 295.0          | -        | <b>1,902.5</b>  | 544.1           | 514.7          | 66.8          | <b>1,125.6</b>  |
| Data Reserve   | 81.2             | 0.0            | -        | <b>81.2</b>     | 113.5           | 15.0           | -             | <b>128.4</b>    |
| Provision for Revaluation Gains for exited members         | 82.2             | 0.3            | -        | <b>82.5</b>     | 106.0           | 5.1            | -             | <b>111.1</b>    |
| Provision for fund return on contribution arrears          | 2,784.1          | 15.3           | -        | <b>2,799.4</b>  | -               | -              | -             | <b>-</b>        |
| Contingency Reserve  | 505.4            | 106.8          | -        | <b>612.2</b>    | 505.4           | 106.8          | -             | <b>612.2</b>    |
| Property Revaluation Smoothing Reserve                     | 1,319.3          | 8.1            | -        | <b>1,327.4</b>  | -               | -              | -             | <b>-</b>        |
| <b>Total Liability</b>                                     | <b>12,891.9</b>  | <b>2,152.1</b> | <b>-</b> | <b>15,044.0</b> | <b>8,370.4</b>  | <b>3,117.2</b> | <b>181.9</b>  | <b>11,669.5</b> |
| <b>Adjusted Assets</b>                                     | <b>12,891.9</b>  | <b>2,152.1</b> | <b>-</b> | <b>15,044.0</b> | <b>13,704.2</b> | <b>5,502.1</b> | <b>183.4</b>  | <b>19,389.7</b> |
| <b>Surplus/ (Deficit)</b>                                  | <b>0.0</b>       | <b>0.0</b>     | <b>-</b> | <b>0.0</b>      | <b>5,333.8</b>  | <b>2,384.9</b> | <b>1.5</b>    | <b>7,720.1</b>  |
| <b>Funding Level</b>                                       | <b>100.00%</b>   | <b>100.00%</b> | <b>-</b> | <b>100.00%</b>  | <b>163.7%</b>   | <b>176.5%</b>  | <b>100.8%</b> | <b>166.2%</b>   |

- 8.3 The value of the aggregate Fund liabilities as at 30 June 2021 was ZWL\$11.7 billion compared with an asset value of ZWL\$19.4 billion. This is equivalent to a surplus of ZWL\$7.7 billion.
- The value of the Sub-account 1 accrued liabilities as at 30 June 2021 was ZWL\$8.4 billion compared with an asset value of ZWL\$13.7 billion. This is equivalent to a surplus of ZWL\$5.3 billion.
  - The value of the Sub-account 2 accrued liabilities as at 30 June 2021 was ZWL\$3.1 billion compared with an asset value of ZWL\$5.5 billion. This is equivalent to a surplus of ZWL\$2.4 billion.
  - The value of the Sub-account 3 accrued liabilities as at 30 June 2021 was USD 2.13 million (ZWL\$181.9 million) compared with an asset value of USD 2.15 million (ZWL\$183.4 million). This is equivalent to a surplus of USD 17,700 (ZWL\$1.5 million).

### Data reserve

- 8.4 At the previous valuation, we established a data reserve of 1% of liabilities in Sub-account 1 to allow for the data issues. We have retained this reserve for the current valuation adjusted for data corrections and adjustments. This reserve will be increased with any bonuses declared as appropriate.
- 8.5 We have also established a data reserve of 0.5% of liabilities in Sub-account 2 to allow for the data issues as we noticed data correction in data submissions. This reserve will be increased with any bonuses declared as appropriate.
- 8.6 The sources of data issues we have identified include;
- Unknown dates of birth (including 1,084 Deferred members with unknown dates of birth)
  - the ongoing exercise to reconcile pension system contribution balances to accounting system balances.
  - Corrections to preserved contributions and accrued pension balances

### Reserve fund

- 8.7 The Rules of the Fund grant the Board of Trustees the discretion to create from surpluses a reserve fund, not exceeding 5% of the total value of the assets, to safeguard the solvency of the Fund against poor investment returns.
- 8.8 We have therefore setup a contingency reserve equivalent to 5% of the net assets of the Fund in the financial statements of the assets.

### Analysis of Surplus

- 8.9 The principal factors that gave rise to the current financial position are as follows:

| Analysis of surplus (amounts in ZWL\$ millions)              | SA 1           | SA 2           | SA 3       | Total          |
|--|----------------|----------------|------------|----------------|
| <b>Surplus/ (Deficit) as at 1 January 2021</b>               | -              | -              | -          | -              |
| Investment return (excl. prop revaluation)                   | 4,068.1        | 1,994.7        | 1.7        | <b>6,064.5</b> |
| Provision for return on SA2 notional assets                  | (589.4)        | 589.4          | -          | -              |
| Property Revaluation Gains                                   | 284.9          | 1.8            | -          | <b>286.7</b>   |
| Release of Property Revaluation Smoothing Reserve            | 1,319.3        | 8.1            | -          | <b>1,327.4</b> |
| Increase in provisions for rent & operational costs debtors  | (50.0)         | -              | -          | <b>(50.0)</b>  |
| Pensioners' cost of guarantee                                | (46.4)         | (0.5)          | -          | <b>(46.8)</b>  |
| Liability for contribution arrears overstated/ (understated) | 394.6          | (87.3)         | -          | <b>307.3</b>   |
| Administration expenditure                                   | (118.0)        | (27.1)         | (0.2)      | <b>(145.3)</b> |
| Miscellaneous gains/ (strains)                               | 70.6           | (94.2)         | (0.0)      | <b>(23.5)</b>  |
| <b>Surplus/ (Deficit) as at 30 June 2021</b>                 | <b>5,333.8</b> | <b>2,384.9</b> | <b>1.5</b> | <b>7,720.2</b> |

### Investment return above valuation assumption (excl. property revaluation)

- 8.10 The Fund earned investment returns (excluding property revaluation) primarily driven by gains on listed equities. This led to gains of ZWL\$6.0 billion.

### Provision for return on SA2 notional assets

- 8.11 As required by the IPEC Revaluation Guideline, sub-account 1 is ring-fenced from sub-account 2. However, all contribution income is credited to sub-account 2, whilst most of the pension and benefit payments from the Fund are in respect of sub-account 1 benefits.
- Therefore cash resources from Sub-account 2 have been used to meet the Sub-account 1 liquidity requirements.
  - As at 30 June 2021, sub-account 1 has accrued a liability of ZWL\$185.6 million due to sub-account 2. This amount, or assets of equivalent value, will need to be transferred to sub-account 2 together with an appropriate allowance for interest to ensure no prejudice to sub-account 2 benefits.

- MIPF management performed an analysis which determined that the value due to sub-account 2, which reflects return that would have been earned if the money had been invested in equities, to be to ZWL\$775.1 million. The value of lost value is ZWL\$589.4 million (i.e. the excess of ZWL\$775.1 over ZWL\$185.6 million.)

#### Property Revaluation Gains

- 8.12 Property values are determined by the property valuers in United States Dollars then converted to Zimbabwe Dollars at the prevailing exchange rate. Property revaluation led to gains as a result of the depreciation of the Zimbabwe Dollar.

#### Release of Property Revaluation Smoothing Reserve

- 8.13 The reduction in property smoothing reserve from 20% to 0% has increased the surplus available for allocation to members' benefits.

#### Pensioners' cost of guarantee

- 8.14 Pensions in payment are guaranteed to be paid at current amounts for life. The cost of guarantee represents the aggregate of;
- the change in the liability that arises from the passage of time. This represents the unwinding of the discounting on the value placed on the benefits over the period, as they become closer to being paid. This cost is dependent of the valuation interest rate.
  - The impact of actual mortality experience compared to the valuation assumption. The cost increases if the Fund experiences few pensioner deaths than assumed in the valuation basis

#### Liability for contribution arrears overstated/ (understated)

- 8.15 The administrators of the Fund have advised that they are carrying out an exercise to reconcile pension system contribution balances to accounting system balances. We have been provided with updated contribution arrears balances which have led to a reduction to the liability in respect of contribution arrears.

#### Administration expenditure

- 8.16 Administration expenses are not funded in advance and are paid from the Funds' assets. The Fund incurred administration expenditure of ZWL\$145 million.

#### Miscellaneous gains / (strains)

- 8.17 Miscellaneous gains/ (strains) include;
- Allowances for rounding and approximations in the analysis.
  - Differences in values in membership data compared to the financial statements
  - Changes in members demographic data from data corrections.

#### Sensitivity of results to market conditions

- 8.18 As the assets of the Fund are taken at their market value, volatility in investment performance can have an immediate effect on the funding level and surplus.
- 8.19 This is particularly relevant because the Fund is invested predominantly in riskier assets such as equities and property. A rise or fall in the level of equity and property markets has a direct impact on the financial position of the Fund.
- 8.20 The table below shows how the funding level and deficit would vary if investment conditions at 30 June 2021 had been different.

| Asset class            | Change       | Change in surplus<br>\$'millions | Change in funding level<br>% |
|------------------------|--------------|----------------------------------|------------------------------|
| <b>Listed equities</b> | Lower by 25% | (2,547.7)                        | (21.8%)                      |
| <b>Fixed Property</b>  | Lower by 10% | (702.3)                          | (6.0%)                       |

### Sensitivity of results to pensioners' valuation assumptions

- 8.21 It is important to understand that the pensioner' valuation results indicate the expected cost of providing the benefits using the chosen method and assumptions. The actual cost of providing the benefits will depend on the actual experience.
- 8.22 In order to illustrate this, a number of calculations have been carried out to highlight the sensitivity of the funding position to the assumptions adopted, focusing on the assumptions to which the funding position is most sensitive, as shown below:

| Assumption             | Change             | Change in liability<br>\$'millions | Change in liability % |
|------------------------|--------------------|------------------------------------|-----------------------|
| <b>Discount rate</b>   | Increase by 1%     | (95.4)                             | (6.9%)                |
|                        | Decrease by 1%     | 109.5                              | 7.9%                  |
| <b>Life expectancy</b> | Increase by 1 year | 81.0                               | 5.8%                  |
|                        | Decrease by 1 year | (85.6)                             | (6.2%)                |



## 9. RECOMMENDATIONS AND CONCLUSIONS

9.1 We have carried out an investigation of the financial condition of the Fund on an ongoing basis as at 30 June 2021. The ongoing valuation revealed that the value of the aggregate Fund liabilities as at 30 June 2021 was ZWL\$11.7 billion compared with an asset value of ZWL\$19.4 billion. This is equivalent to a surplus of ZWL\$7.7 billion.

- The value of the Sub-account 1 accrued liabilities as at 30 June 2021 was ZWL\$8.4 billion compared with an asset value of ZWL\$13.7 billion. This is equivalent to a surplus of ZWL\$5.3 billion.
- The value of the Sub-account 2 accrued liabilities as at 30 June 2021 was ZWL\$3.1 billion compared with an asset value of ZWL\$5.5 billion. This is equivalent to a surplus of ZWL\$2.4 billion.
- The value of the Sub-account 3 accrued liabilities as at 30 June 2021 was USD 2.13 million (ZWL\$181.9 million) compared with an asset value of USD 2.15 million (ZWL\$183.4 million). This is equivalent to a surplus of USD 17,700 (ZWL\$1.5 million).

9.2 We have determined the allocation of the surplus as at 30 June 2021 in accordance with the requirements of the IPEC Revaluation Guideline.

9.3 We recommend the following bonus and pension increase rates;

| Issue                                    | Membership Categories                           | SA 1  | SA 2  | SA 3 | Comments  |
|--|---|-------|-------|------|---|
| <b>Bonus</b>                             | Active, Deferred, Preserved                     |       |       |      | For the 6-months to 30 June 2021 (pro-rated for exits before 30 June 2021)            |
|  | Outstanding benefits, Suspended pension arrears | 65.9% | 91.2% | 1.7% |   |
| <b>Pension Increase</b>                  | Current and Suspended Pensioners                | 62.3% | 82.8% | n/a  | with effect from 1 July 2021 (pro-rated for pensions commencing after 1 January 2021) |
| <b>Additional Death Benefit increase</b> | Active & Pensioners                             | 65.9% | 91.2% | n/a  | For the 6-months to 30 June 2021 (pro-rated for exits before 30 June 2021)            |
| <b>Interim Bonus</b>                     | Active, Deferred, Preserved                     |       |       |      | 0% for exits after 30 June 2021   |
|  | Outstanding benefits, Suspended pension arrears | 0%    | 0%    | 0%   |   |

9.4 The table below illustrates the approximate funding position of the Fund if the recommended bonus rates above are adopted.

| (amounts in ZWL\$ millions)<br>Membership categories       | Before surplus apportionment |                |              |                 | After surplus apportionment |                |              |                 |
|--|------------------------------|----------------|--------------|-----------------|-----------------------------|----------------|--------------|-----------------|
|  | 30 June 2021                 |                |              |                 | 30 June 2021                |                |              |                 |
|  | SA 1                         | SA 2           | SA 3         | Total           | SA 1                        | SA 2           | SA 3         | Total           |
| Active   | 3,722.2                      | 2,326.0        | 109.3        | <b>6,157.5</b>  | 6,177.2                     | 4,142.1        | 110.2        | <b>10,429.5</b> |
| Deferred   | 1,394.0                      | 130.3          | 5.8          | <b>1,530.0</b>  | 2,315.6                     | 246.5          | 5.8          | <b>2,567.9</b>  |
| Preserved  | 284.0                        | 9.3            | -            | <b>293.3</b>    | 464.9                       | 18.0           | -            | <b>482.9</b>    |
| Current Pensioners   | 1,215.0                      | 8.1            | -            | <b>1,223.1</b>  | 1,972.3                     | 14.8           | -            | <b>1,987.1</b>  |
| Suspended Pensioners                                       | 168.4                        | 0.0            | -            | <b>168.4</b>    | 273.3                       | 0.1            | -            | <b>273.4</b>    |
| Suspended Pensioners' arrears                              | 249.1                        | -              | -            | <b>249.1</b>    | 405.3                       | -              | -            | <b>405.3</b>    |
| Additional Death Benefit Reserve                           | 68.8                         | 2.0            | -            | <b>70.9</b>     | 114.3                       | 3.9            | -            | <b>118.1</b>    |
| Provision for liability in respect of contribution arrears | 544.1                        | 514.7          | 66.8         | <b>1,125.6</b>  | 903.0                       | 807.2          | 67.4         | <b>1,777.5</b>  |
| Data Reserve   | 113.5                        | 15.0           | -            | <b>128.4</b>    | 188.3                       | 28.6           | -            | <b>216.9</b>    |
| Provision for Revaluation Gains for exited members         | 106.0                        | 5.1            | -            | <b>111.1</b>    | 185.2                       | 12.9           | -            | <b>198.2</b>    |
| Provision for fund return on contribution arrears          | -                            | -              | -            | -               | -                           | -              | -            | -               |
| Contingency Reserve  | 505.4                        | 106.8          | -            | <b>612.2</b>    | 704.8                       | 228.0          | 0.0          | <b>932.8</b>    |
| Property Revaluation Smoothing Reserve                     | -                            | -              | -            | -               | -                           | -              | -            | -               |
| <b>Total Liability</b>                                     | <b>8,370.4</b>               | <b>3,117.2</b> | <b>181.9</b> | <b>11,669.5</b> | <b>13,704.2</b>             | <b>5,502.1</b> | <b>183.4</b> | <b>19,389.7</b> |
| <b>Adjusted Assets</b>                                     | <b>13,704.2</b>              | <b>5,502.1</b> | <b>183.4</b> | <b>19,389.7</b> | <b>13,704.2</b>             | <b>5,502.1</b> | <b>183.4</b> | <b>19,389.7</b> |
| <b>Surplus/ (Deficit)</b>                                  | <b>5,333.8</b>               | <b>2,384.9</b> | <b>1.5</b>   | <b>7,720.1</b>  | <b>0.0</b>                  | <b>(0.0)</b>   | <b>0.0</b>   | <b>(0.0)</b>    |
| <b>Funding Level</b>                                       | <b>163%</b>                  | <b>176%</b>    | <b>100%</b>  | <b>166%</b>     | <b>100%</b>                 | <b>100%</b>    | <b>100%</b>  | <b>100%</b>     |



**Tigere Mutare, FIA, AMASSA.**

*(in my capacity as consulting actuary to)*

The Mining Industry Pension Fund

**29 December 2021**

*For the purposes of professional regulation, my professional principal regulator is the Institute and Faculty of Actuaries (UK)*

## APPENDIX I: REVENUE STATEMENT

|                                     | Half year to 31 December 2020 |                |               |                | Half year to 30 June 2021 |                |               |                |
|-------------------------------------|-------------------------------|----------------|---------------|----------------|---------------------------|----------------|---------------|----------------|
| (amounts in ZWL\$ 'millions)        | Sub-account 1                 | Sub-account 2  | Sub-account 3 | Total          | Sub-account 1             | Sub-account 2  | Sub-account 3 | Total          |
| Fund @ beginning of period          | 7,083.7                       | 797.6          | -             | 7,881.2        | 9,986.9                   | 1,960.9        | 0.0           | 11,947.8       |
| Prior year adjustment               |                               |                |               |                | 14.6                      | -              | -             | 14.6           |
| Income                              |                               |                |               |                |                           |                |               |                |
| Member contributions                | -                             | 392.5          | -             | 392.5          | -                         | 447.7          | 90.9          | 538.6          |
| Employer contributions              | -                             | 393.0          | -             | 393.0          | -                         | 448.8          | 90.9          | 539.7          |
| Other contributions and provisions  | -                             | 1.5            | -             | 1.5            | -                         | (1.5)          | -             | (1.5)          |
| Transfer from other Funds           | -                             | -              | -             | -              | -                         | -              | -             | -              |
| Investment income                   | 35.1                          | 23.3           | -             | 58.4           | 87.7                      | 61.3           | 1.7           | 150.7          |
| Net rental income                   | 105.9                         | -              | -             | 105.9          | 109.4                     | -              | -             | 109.4          |
| Property revaluation                | 1,931.3                       | 11.1           | -             | 1,942.4        | 284.9                     | 1.8            | -             | 286.7          |
| Unrealised gains                    | 982.6                         | 455.3          | -             | 1,438.0        | 3,826.2                   | 1,850.2        | -             | 5,676.4        |
| Other income                        | 37.5                          | 18.8           | -             | 56.3           | 44.8                      | 83.2           | -             | 128.0          |
| <b>Total Income</b>                 | <b>3,092.6</b>                | <b>1,295.5</b> | <b>-</b>      | <b>4,388.0</b> | <b>4,353.0</b>            | <b>2,891.5</b> | <b>183.6</b>  | <b>7,428.1</b> |
| Expenditure                         |                               |                |               |                |                           |                |               |                |
| Pension benefits                    | 50.0                          | 0.1            | -             | 50.1           | 71.9                      | 0.4            | -             | 72.3           |
| Other benefits                      | 7.3                           | 2.5            | -             | 9.7            | 20.5                      | 9.6            | -             | 30.0           |
| Administration Expenditure          | 84.2                          | 11.9           | -             | 96.1           | 118.0                     | 27.1           | 0.2           | 145.3          |
| Provision for bad debts             | 41.5                          | 117.7          | -             | 159.2          | 47.8                      | 254.9          | -             | 302.8          |
| Amounts written down on investments | 6.2                           | -              | -             | 6.2            | -                         | -              | -             | -              |
| <b>Total Expenditure</b>            | <b>189.3</b>                  | <b>132.1</b>   | <b>-</b>      | <b>321.5</b>   | <b>258.2</b>              | <b>292.0</b>   | <b>0.2</b>    | <b>550.4</b>   |
| Fund @ end of period                | 9,986.9                       | 1,960.9        | -             | 11,947.8       | 14,096.3                  | 4,560.4        | 183.4         | 18,840.0       |

## APPENDIX II: MEMBERSHIP DATA CHECKS AS AT 30 JUNE 2021

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The membership data checks that were performed as at the valuation date and material issues identified are reflected below.

### Checks carried out on Membership data

For each Member in the data received we checked for missing dates of birth, consistency of dates of birth, reference numbers and accrued pensions against the June 2020 data. We also performed the following reasonability checks:

- Check for the uniqueness of members' reference numbers.
- Dates are valid and within reasonable ranges;
- Ages fall within reasonable ranges.
- Pensions and contributions fall within reasonable ranges
- Consistency of pensions and contributions with previous valuation data and declared bonuses
- Reconciliation of membership numbers as at 30 June 2021 to the numbers as at 31 December 2020.

The following membership statistics were calculated and checked for reasonability:

- Pension-weighted average ages;
- Total, maximum, minimum, and average pensions

Where dates were invalid or missing the average date for the membership category was used.

### Details of Data Changes During the Inter-valuation Period

#### Gender and Date of Birth Changes

The corrections to gender and dates of birth across all membership categories were immaterial. This data is updated by the administrator as and when the correct information is received.

| Number of Corrections |        |               |
|-----------------------|--------|---------------|
| Membership Category   | Gender | Date of Birth |
| Active                | 9      | -             |
| Deferred              | 4      | -             |
| Preserved             | -      | -             |
| Pensioners            | -      | -             |

#### Contribution change

The table below shows the changes that occurred on the contribution amounts for Active, Deferred and Preserved members between the current and previous data submissions.

The changes are mainly a result of Employers with contribution arrears who have since have made part payments. Some notable examples are Hwange Colliery, RioZim, Vubachikwe and Trojan. However, there are a few instances where the changes were corrections to member specific issues.

| Membership categories<br>(Amounts in ZWL\$ millions) |                       | Valuation data<br>31-Dec-20 | Updated Data<br>30-Jun-21 | Change       |
|--|-----------------------|-----------------------------|---------------------------|--------------|
| <b>Active Members</b>                                | Sub1 Contributions    | 127.1                       | 146.6                     | 19.5         |
|  | Sub2 Contributions    | 869.2                       | 993.9                     | 124.7        |
|  | <b>Total</b>          | <b>996.3</b>                | <b>1,140.5</b>            | <b>144.2</b> |
| <b>Deferred Members</b>                              | Sub1 Contributions    | 48.1                        | 55.5                      | 7.4          |
|  | Sub2 Contributions    | 24.7                        | 29.8                      | 5.1          |
|  | <b>Total</b>          | <b>72.8</b>                 | <b>85.3</b>               | <b>12.5</b>  |
| <b>Total</b>   | Sub1 Er contributions | 175.2                       | 202.1                     | 26.9         |
|  | Sub2 Er contributions | 893.9                       | 1,023.7                   | 129.8        |
|  | <b>Total</b>          | <b>1,069.1</b>              | <b>1,225.8</b>            | <b>156.6</b> |

#### **Preserved Members Data**

We have also been provided with updated data in respect of 147 preserved members whose preserved pension purchased amounts had been previously overstated. This results in a decrease of ZWL\$ 37.6 million in preserved members' liability as at 31 December 2020.

#### **Duplicate Records**

During the inter-valuation period, a total of 26 records for both actives and deferred were identified as duplicate records and these were merged accordingly.

#### **Members with nil contributions and accrued pension**

Some 1,653 deferred members do not have contribution and pension values in the system. The administrator has advised that these members joined the Fund when the employers were in contribution arrerars. These members have since been moved from active to deferred because they left employment Their contributions remained owed to the Fund as no payments have made by their employers in respect of these members. The estimate liability for these members is included in the value described as "Provision for liability in respect of contribution arrears" in the solvency balance sheet

The tables below show the movement in members' liability from 1 January 2021 to 30 June 2021 for each sub account based on data provided.

| SUB ACCOUNT 1<br>(amounts in ZWL\$ millions) | Opening Balance | Data adjustments | Data reserve | Contributions | Benefits Paid | Transfer to Exits Reserve | Annuity Capital Value | Transfer to Surplus | Adjusted Closing Balance | Pensioners' Guarantee Cost | Liability before bonus | Surplus Allocation | Closing Balance |
|--|-----------------|------------------|--------------|---------------|---------------|---------------------------|-----------------------|---------------------|--------------------------|----------------------------|------------------------|--------------------|-----------------|
| Member Credits                               | 5,460.2         | 5.4              | -            | -             | (19.7)        | (45.7)                    | -                     | -                   | 5,400.2                  | -                          | 5,400.2                | 3,557.5            | 8,957.7         |
| Liability for contribution arrears           | 938.8           | (394.6)          | -            | -             | -             | -                         | -                     | -                   | 544.1                    | -                          | 544.1                  | 358.9              | 903.0           |
| Pensioners' Liability                        | 1,387.0         | -                | -            | -             | (71.9)        | -                         | 21.9                  | -                   | 1,337.0                  | 46.4                       | 1,383.4                | 908.6              | 2,245.6         |
| Suspended Pensioners' arrears                | 226.4           | -                | -            | -             | 22.7          | -                         | -                     | -                   | 249.1                    | -                          | 249.1                  | 156.3              | 405.3           |
| Additional Death Benefit Reserve             | 69.7            | -                | -            | -             | (0.9)         | -                         | -                     | -                   | 68.8                     | -                          | 68.8                   | 45.4               | 114.3           |
| Data Reserve                                 | 118.9           | (5.4)            | -            | -             | -             | -                         | -                     | -                   | 113.5                    | -                          | 113.5                  | 74.8               | 188.3           |
| Benefit Creditors Interest                   | 35.0            | -                | -            | -             | -             | -                         | -                     | -                   | 35.0                     | -                          | 35.0                   | 25.5               | 60.5            |
| Provision for exited members                 | 47.2            | -                | -            | -             | -             | 45.7                      | (21.9)                | -                   | 71.0                     | -                          | 71.0                   | 53.8               | 124.8           |
| Contingency Reserve                          | 505.4           | -                | -            | -             | -             | -                         | -                     | -                   | 505.4                    | -                          | 505.4                  | 199.4              | 704.8           |
| Property Revaluation Reserve                 | 1,319.3         | -                | -            | -             | -             | -                         | -                     | (1,319.3)           | -                        | -                          | -                      | -                  | -               |
| <b>Total Liability</b>                       | <b>10,107.8</b> | <b>(394.6)</b>   | <b>-</b>     | <b>-</b>      | <b>(69.8)</b> | <b>-</b>                  | <b>-</b>              | <b>(1,319.3)</b>    | <b>8,324.1</b>           | <b>46.4</b>                | <b>8,370.4</b>         | <b>5,380.1</b>     | <b>13,704.2</b> |

| SUB ACCOUNT 2<br>(amounts in ZWL\$ millions) | Opening Balance | Data adjustments | Data reserve | Contributions | Benefits Paid | Transfer to Exits Reserve | Annuity Capital Value | Transfer to Surplus | Adjusted Closing Balance | Pensioners' Guarantee Cost | Liability before bonus | Surplus Allocation | Closing Balance |
|--|-----------------|------------------|--------------|---------------|---------------|---------------------------|-----------------------|---------------------|--------------------------|----------------------------|------------------------|--------------------|-----------------|
| Member Credits                               | 1,922.3         | 2.8              | -            | 558.4         | (9.6)         | (8.4)                     | -                     | -                   | 2,465.5                  | (0.0)                      | 2,465.5                | 1,941.10           | 4,406.6         |
| Liability for contribution arrears           | 92.7            | 87.3             | -            | 334.6         | -             | -                         | -                     | -                   | 514.7                    | -                          | 514.7                  | 292.5              | 807.2           |
| Pensioners' Liability                        | 4.5             | -                | -            | -             | (0.4)         | -                         | 3.6                   | -                   | 7.7                      | 0.5                        | 8.1                    | 7.2                | 14.9            |
| Suspended Pensioners' arrears                | -               | -                | -            | -             | -             | -                         | -                     | -                   | -                        | 0.0                        | 0.0                    | 0.1                | 0.1             |
| Additional Death Benefit Reserve             | 2.1             | -                | -            | -             | (0.1)         | -                         | -                     | -                   | 2.0                      | -                          | 2.0                    | 1.8                | 3.9             |
| Data Reserve                                 | (0.1)           | (2.8)            | 17.8         | -             | -             | -                         | -                     | -                   | 15.0                     | -                          | 15.0                   | 13.6               | 28.6            |
| Provision for exited members                 | 0.3             | -                | -            | -             | -             | 8.4                       | (3.6)                 | -                   | 5.1                      | -                          | 5.1                    | 7.8                | 12.9            |
| Contingency Reserve                          | 106.8           | -                | -            | -             | -             | -                         | -                     | -                   | 106.8                    | -                          | 106.8                  | 121.2              | 228.0           |
| Property Revaluation Reserve                 | 8.1             | -                | -            | -             | -             | -                         | -                     | (8.1)               | -                        | -                          | -                      | -                  | -               |
| <b>Total Liability</b>                       | <b>2,136.8</b>  | <b>87.3</b>      | <b>17.8</b>  | <b>893.0</b>  | <b>(10.1)</b> | <b>-</b>                  | <b>-</b>              | <b>(8.1)</b>        | <b>3,116.8</b>           | <b>0.5</b>                 | <b>3,117.3</b>         | <b>2,385.4</b>     | <b>5,502.2</b>  |

| SUB ACCOUNT 3<br>(amounts in USD\$ 000's) | Opening Balance | Data adjustments | Data reserve | Contributions  | Benefits Paid | Transfer to Exits Reserve | Annuity Capital Value | Transfer to Surplus | Adjusted Closing Balance | Pensioners' Guarantee Cost | Liability before bonus | Surplus Allocation | Closing Balance |
|---|-----------------|------------------|--------------|----------------|---------------|---------------------------|-----------------------|---------------------|--------------------------|----------------------------|------------------------|--------------------|-----------------|
| Member Credits                            | -               | -                | -            | 1,347.1        | -             | -                         | -                     | -                   | 1,347.1                  | -                          | 1,347.1                | 10.9               | 1,358.0         |
| Liability for contribution arrears        | -               | -                | -            | 781.7          | -             | -                         | -                     | -                   | 781.7                    | -                          | 781.7                  | 6.8                | 788.5           |
| <b>Total Liability</b>                    | <b>-</b>        | <b>-</b>         | <b>-</b>     | <b>2,128.8</b> | <b>-</b>      | <b>-</b>                  | <b>-</b>              | <b>-</b>            | <b>2,128.8</b>           | <b>-</b>                   | <b>2,128.8</b>         | <b>17.7</b>        | <b>2,146.6</b>  |

Pensioners' membership data summaries and statistics extracted from data provided are shown below.

| ACTIVE PENSIONERS |                |             |             |             |             |               |
|-------------------|----------------|-------------|-------------|-------------|-------------|---------------|
|                   |                | Males       | Females     | Missing     | Total       |               |
|                   | Gender         | 7,711       | 1,421       | -           | 9,132       |               |
|                   |                | max         | Min         | Average     | Sum         | Missing/ Zero |
|                   | DOB            | 03-Jun-1996 | 01-Jun-1924 | 05-Nov-1954 |             | -             |
|                   | PSD            | 01-Dec-2019 | 01-Apr-1984 | 29-Mar-2011 |             | -             |
|                   | Date Suspended | n/a         | n/a         | n/a         |             | n/a           |
| SUB ACCOUNT 1     | Pension        | 211,149     | 804         | 13,885      | 126,793,605 | -             |
| SUB ACCOUNT 2     | Pension        | 72,738      | 1           | 3,083       | 696,855     | 8,906         |

| SUSPENDED PENSIONERS |                |             |             |             |            |               |
|----------------------|----------------|-------------|-------------|-------------|------------|---------------|
|                      |                | Males       | Females     | Missing     | Total      |               |
|                      | Gender         | 2,330       | 455         | -           | 2,785      |               |
|                      |                | max         | Min         | Average     | Sum        | Missing/ Zero |
|                      | DOB            | 31-Jul-1989 | 01-Jul-1908 | 12-Sep-1940 |            | -             |
|                      | PSD            | 01-Aug-2018 | 01-Mar-1970 | 13-Feb-1998 |            | -             |
|                      | Date Suspended | 01-Jun-2021 | 01-Feb-1988 | 29-Aug-2011 |            | -             |
| SUB ACCOUNT 1        | Pension        | 92,752      | 1,970       | 13,971      | 38,910,296 | -             |
| SUB ACCOUNT 2        | Pension        | 3,971       | 19          | 1,995       | 3,990      | 2,783         |

## Membership reconciliation

| ACTIVE MEMBERS               |       |        |
|------------------------------|-------|--------|
| Opening Balance (01/01/2021) |       | 22,495 |
| Reinstatements               |       |        |
| Deferred                     | 622   |        |
| Preserved                    | 0     |        |
| Exited                       | 0     | 622    |
| New Entrants                 |       |        |
|                              |       | 1,001  |
| Duplicate Records Merged     |       |        |
|                              |       | (9)    |
| Exits                        |       |        |
| Deferred                     | (713) |        |
| Death                        | (9)   |        |
| Ill-Health                   | (7)   |        |
| Withdrawal / Resignation     | (32)  |        |
| Retrenchment                 | (13)  |        |
| Retirement                   | (38)  | (812)  |
| Closing Balance (30/06/2021) |       |        |
|                              |       | 23,297 |

| PRESERVED MEMBERS            |     |       |
|------------------------------|-----|-------|
| Opening Balance (01/01/2021) |     | 8,030 |
| New Entrants                 |     |       |
| Active                       | 28  |       |
| Deferred                     | 30  |       |
| Exited                       | 8   | 66    |
| Duplicate Records Merged     |     |       |
|                              |     | 0     |
| Exits                        |     |       |
| Retrenchment                 | (1) |       |
| Retirement                   | (7) | -8    |
| Closing Balance (30/06/2021) |     |       |
|                              |     | 8,088 |

| DEFERRED MEMBERS         |       |        |
|--------------------------|-------|--------|
| Opening Balance          |       | 42,139 |
| Reinstatements           |       |        |
| Active                   | 713   |        |
| Preserved                | 0     | 713    |
| New Entrants             |       |        |
|                          |       | 674    |
| Duplicate Records Merged |       |        |
|                          |       | (17)   |
| Exits                    |       |        |
| Active                   | (622) |        |
| Death                    | (26)  |        |
| Ill-Health               | (7)   |        |
| Withdrawal / Resignation | (45)  |        |
| Retrenchment             | (27)  |        |
| Retirement               | (135) | (862)  |
| Closing Balance          |       |        |
|                          |       | 42,647 |

| PENSIONERS               |      |        |
|--------------------------|------|--------|
| Opening Balance          |      | 11,782 |
| New Entrants             |      |        |
| Active                   | 34   |        |
| Deferred                 | 121  |        |
| Preserved                | 6    |        |
| Exited                   | 19   | 180    |
| Exits                    |      |        |
| Death                    | (35) |        |
| End of guaranteed Period | (10) | (45)   |
| Closing Balance          |      |        |
|                          |      | 11,917 |



## APPENDIX III: IPEC REVALUATION CERTIFICATIONS

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### DATA CERTIFICATION BY THE REVALUATION ACTUARY

I, the undersigned, hereby certify that the data used for the purposes of determining and distributing Revaluation Gains which arose due to the 2019 currency reforms for the Mining Industry Pension Fund is sufficient, based upon information and belief formed after reasonable inquiry.

I also confirm that I have done the following before distribution of the Revaluation Gains;

- a. Checked and certified the adequacy/sufficiency of data as at 31 December 2020 and 30 June 2021.
- b. Reconciled the membership as at 31 December 2020 with that as at 30 June 2021.



**Tigere Mutare, FIA, AMASSA**

Revaluation Actuary

Date: 29 December 2021

*For the purposes of professional regulation, my professional principal regulator is the Institute and Faculty of Actuaries (UK)*

### CERTIFICATION OF THE ASSET AND LIABILITY CALCULATION METHODS AND ASSUMPTIONS BY THE REVALUATION ACTUARY

I, the undersigned, hereby certify that all the calculations for the purposes of determining and distributing Revaluation Gains for the Mining Industry Pension Fund as at 30 June 2021 were done in accordance with the "Guideline for the Insurance and Pensions Industry on Adjusting Insurance and Pension Values in Response to Currency Reforms".

I also confirm that I have done the following before distribution of the Revaluation Gains;

- a. Checked the assets and accuracy of liabilities as at 31 December 2020 and 30 June 2021.
- b. Reconciled the assets and liabilities by membership category and between sub-account 1 and sub-account 2 between 31 December 2020 with that as at 30 June 2021.
- c. Ensured equity in the distribution of revaluation gains between insurance and pension liabilities and between old and newer scheme members.



**Tigere Mutare, FIA, AMASSA**

Revaluation Actuary

Date: 29 December 2021

*For the purposes of professional regulation, my professional principal regulator is the Institute and Faculty of Actuaries (UK)*

**CERTIFICATION OF THE SOLVENCY POSITION BY THE REVALUATION ACTUARY:  
PENSION AND PROVIDENT FUNDS**

I, the undersigned, hereby certify that the Mining Industry Pension Fund is solvent on an ongoing basis as at 30 June 2021 as shown in the table below. This is after adjusting fund member values based on calculations in terms of the “Guideline for the Insurance and Pensions Industry on Adjusting Insurance and Pension Values in Response to Currency Reforms.”

| <b>Measurement Date:</b>                | <b>30 June 2021</b> |
|---|---------------------|
| Total Assets (ZWL\$ 'millions)          | 19,390              |
| Actuarial Liabilities (ZWL\$ 'millions) | 18,457              |
| Other Liabilities (ZWL\$ 'millions)     | 933                 |
| Surplus/ (Deficit) (ZWL\$ 'millions)    | 0                   |
| Funding Level                           | 100%                |



**Tigere Mutare, FIA, AMASSA**

Revaluation Actuary

Date: 29 December 2021

*For the purposes of professional regulation, my professional principal regulator is the Institute and Faculty of Actuaries (UK)*