



Mining Industry Pension Fund
"Cares for your future"

THE MINING INDUSTRY PENSION FUND

Actuarial Valuation as at 31 December 2022

Prepared by
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June 2023

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1. EXECUTIVE SUMMARY

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 31 December 2022.

Purpose of the current valuation

- 1.2 The objectives of the current actuarial valuation of the Fund are to;
- Determine and allocate surplus and currency Revaluation Gains over the period from 1 July 2022 to 31 December 2022 in accordance with the IPEC Revaluation Guideline.
 - 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.
 - 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 31 December 2022.

Previous Statutory Valuation

- 1.3 The previous statutory Actuarial Valuation was carried out as at 31 December 2021. The valuation revealed that the value of the aggregate Fund liabilities as at 31 December 2021 was ZWL\$21.3 billion compared with an asset value of ZWL\$39.0 billion. This is equivalent to a surplus of ZWL\$17.6 billion.
- 1.4 Interim actuarial valuations were carried out as at 31 March 2022 and 30 June 2022 by Mr. Tigere Mutare. The purpose of these interim valuation was to determine and allocate surplus and currency Revaluation Gains over the valuation period to members and pensioners.
- 1.5 The table below summarises the pension increases and bonuses awarded since the last statutory valuation as at 31 December 2021.

Effective date	Membership Categories	SA 1	SA 2	SA 3
1 January 2022	Current and Suspended Pensioners	104.0%	85.7%	n/a
1 April 2022	Current and Suspended Pensioners	40.0%	60.0%	n/a
1 July 2022	Current and Suspended Pensioners	97.2%	44.2%	n/a
1 July 2022	Active, Deferred, Preserved Members	176.6%	60.5%	3.8%

Membership as at 31 December 2022

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

Category	31-Dec-21	30-Jun-22	31-Dec-22
Active Members	23,022	22,334	23,268
Deferred Members	44,240	37,580	37,664
Preserved Members	8,065	7,468	7,363
Unclaimed Benefits (over age 65)	n/a	3,138	3,113
Current Pensioners	9,343	9,474	8,560
Suspended Pensioners	2,661	2,547	3,554
Total	87,331	82,541	83,522

Contributions and expenses

- 1.7 Total contributions invoiced were ZWL\$8.9 billion for the 6-month period to 31 December 2022. Cumulatively since 2009, total unpaid contributions amount to ZWL\$4.1 billion excluding interest (ZWL\$5.0 billion including interest).
- 1.8 An aggregate of ZWL\$4.0 billion has been provisioned as bad and doubtful debts in respect of outstanding contributions with interest in the financial statements. 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. We have also provided for a liability in respect of contribution arrears.
- 1.9 In accordance with the provisions of the current Rules of the Fund, the administration expenses are not funded in advance nor directly from contribution income and are paid from the Funds' assets. The Rules of the Fund however require that administration expenses should not exceed 15% of received contributions.
- 1.10 The Fund incurred administration expenses, excluding investment and property expenses, amounting to ZWL\$1.1 billion (18% of received contributions) over the 6-month period to 31 December 2022 and ZWL\$1.5 billion (23% of received contributions) over the year to 31 December 2022.
- 1.11 We understand that rule amendments have been drafted which will now provide for the direct funding of administration expenses from 15% of contribution receipts.

Assets

- 1.12 The macroeconomic environment has remained volatile and highly uncertain. Inflationary pressures have continued to reduce real disposable income levels and economic productivity. The further depreciation of the Zimbabwe dollar exerts inflationary pressures as prices of goods and services in large sectors of the economy are indexed to the United State dollar.
- 1.13 We have noted the following market indicators;
- Inflation as measured by the CPI was 57% over the 6-month period to 31 December 2022 (119% over the half-year to 30 June 2022).
 - The ZSE all share index decreased by 2% over the 6-month period to 31 December 2022 (following an 82% increase over the half-year to 30 June 2022).
 - The Zimbabwe Dollar, as determined by the RBZ "Auction rate", depreciated against the United States Dollar from USD1: ZWL\$366 as at 30 June 2022 to USD1: ZWL\$671 as at 31 December 2022. This is equivalent to an increase of approximately 83% in Zimbabwe dollar prices that are indexed to the US dollar.
- 1.14 A summary of the Fund's assets is shown below.

Summary of assets since the previous statutory valuation

Valuation Date (amounts in ZWL\$ millions)	31-Dec-21 Total	30-Jun-22 Total	31-Dec-22 Total
Prescribed Assets	405	1,367	6,434
Old Mutual Guaranteed Fund	245	591	864
Quoted Shares	20,700	42,262	47,725
Unquoted Shares	734	2,205	2,890
Fixed Property	14,681	46,761	83,520
Fixed Income Investments	177	354	919
Money Market/Deposits	259	1,408	1,613
Net Current Assets	695	1,905	1,943
Net Assets as Financial Statements	37,896	96,853	145,908

Actuarial adjustments	1,138	2,211	4,807
Adjusted Assets	39,034	99,063	150,715

Summary of assets since the previous interim valuation (with sub account splits)

Valuation Date (amounts in ZWL\$ millions)	30-Jun-22				31-Dec-22			
	SA1	SA2	SA3	Total	SA1	SA2	SA3	Total
Prescribed Assets	-	1,367	-	1,367	1,295	2,990	2,149	6,434
Old Mutual Guaranteed Fund	591	-	-	591	864	-	-	864
Quoted Shares	23,194	18,809	259	42,262	26,336	20,910	479	47,725
Unquoted Shares	2,205	-	-	2,205	2,890	-	-	2,890
Fixed Property	45,106	1,656	-	46,761	75,345	7,961	214	83,520
Fixed Income Investments	161	193	-	354	286	633	-	919
Money Market/Deposits	255	4	1,149	1,408	239	4	1,370	1,613
Net Current Assets	(61)	1,393	572	1,905	(994)	2,235	702	1,943
Net Assets per Financial Statements	71,451	23,422	1,981	96,853	106,261	34,733	4,914	145,908
Actuarial adjustments	99	1,372	740	2,211	190	2,440	2,177	4,807
Adjusted Assets	71,549	24,794	2,720	99,063	106,451	37,173	7,091	150,715

1.15 The market value of the Fund's assets as per the financial statements has increased from ZWL\$96.9 billion as at 30 June 2022 to ZWL\$145.9 billion as at 31 December 2022. The increase in the asset values was primarily driven by property revaluation gains. Properties market values have increased from ZWL\$46.8 billion as at 30 June 2022 to ZWL\$83.5 billion as at 31 December 2022.

1.16 The Fund earned an aggregate investment return of approximately 45% over the 6-month period to 31 December 2022 (255% for the year to 31 December 2022). We have also estimated the return achieved on the assets of each sub-account as follows;

- For sub-account 1 – 51% for the 6-month period to 31 December 2022 (312% for the year to 31 December 2022)
- For sub-account 2 – 24% for the 6-month period to 31 December 2022 (129% for the year to 31 December 2022)
- For sub-account 3 – 5.2% for the 6-month period to 31 December 2022 (8.5% for the year to 31 December 2022)

Past Service Valuation results

1.17 The table below shows the balance sheet as at 31 December 2022. The liability values allow for the bonus and pension increases adopted as at 30 June 2022.

Summary of balance sheet since the previous statutory valuation

Valuation Date (amounts in ZWL\$ millions)	31-Dec-21	30-Jun-22	31-Dec-22
	Total	Total	Total
Member Fund Credits	28,238	68,620	74,215
Liability for contribution arrears	1,941	3,303	7,513
Pensioners' Liability	4,690	12,736	12,748
Suspended Pensioners' arrears	875	2,063	2,595
Additional Death Benefit Reserve	242	657	651
Data Reserve	515	1,383	1,197
Provision for exited members	609	1,047	626
Contingency Reserve	1,926	4,817	7,182
2009 Compensation Reserve	-	-	5,323
Total Liability	39,034	94,625	112,050
Adjusted Assets	39,034	99,063	150,715
Surplus/ (Deficit)	-	4,438	38,665
Funding Level	100%	105%	135%

Summary of balance sheet since the previous interim valuation (with sub account splits)

Valuation Date (amounts in ZWL\$ millions)	30-Jun-22				31-Dec-22			
	SA1	SA2	SA3	Total	SA1	SA2	SA3	Total
Member Fund Credits	49,892	16,896	1,832	68,620	48,634	21,605	3,976	74,215
Liability for contribution arrears	815	1,616	872	3,303	424	4,127	2,962	7,513
Pensioners' Liability	12,565	171	-	12,736	12,500	248	-	12,748
Suspended Pensioners' arrears	2,063	-	-	2,063	2,595	-	-	2,595
Additional Death Benefit Reserve	646	11	-	657	640	11	-	651
Data Reserve	1,069	314	-	1,383	1,069	128	-	1,197
Provision for exited members	922	108	17	1,047	538	68	20	626
Contingency Reserve	3,578	1,240	-	4,817	5,323	1,859	-	7,182
2009 Compensation Reserve	-	-	-	-	5,323	-	-	5,323
Total Liability	71,549	20,356	2,721	94,625	77,046	28,046	6,958	112,050
Adjusted Assets	71,549	24,794	2,721	99,063	106,451	37,173	7,091	150,715
Surplus/ (Deficit)	-	4,438	-	4,438	29,405	9,127	133	38,665
Funding Level	100%	122%	100%	105%	138%	133%	102%	135%

1.18 The value of the aggregate Fund liabilities as at 31 December 2022 was ZWL\$112.1 billion compared with an asset value of ZWL\$150.7 billion. This is equivalent to a surplus of ZWL\$38.7 billion.

- The value of the Sub-account 1 accrued liabilities as at 31 December 2022 was ZWL\$77.0 billion compared with an asset value of ZWL\$106.5 billion. This is equivalent to a surplus of ZWL\$29.4 billion.
- The value of the Sub-account 2 accrued liabilities as at 31 December 2022 was ZWL\$28.0 billion compared with an asset value of ZWL\$37.2 billion. This is equivalent to a surplus of ZWL\$9.1 billion.
- The value of the Sub-account 3 accrued liabilities as at 31 December 2022 was USD 10.4 million (ZWL\$6.9 billion) compared with an asset value of USD 10.6 million (ZWL\$7.1 billion). This is equivalent to a surplus of USD 197,000 (ZWL\$133 million).

Analysis of Surplus

1.19 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)	SA1	SA2	SA3	Total
Surplus/ (Deficit) as at 30 June 2022	-	4,438	-	4,438
Investment return (exc prop revaluation)	5,983	3,555	191	9,729
Property Revaluation Gains	30,373	2,699	(13)	33,059
Changes in provision for contribution arrears	4	(250)	-	(246)
Increase in contingency reserve	(1,745)	(619)	-	(2,364)
Increase in provisions for rent & operational costs debtors	(17)	-	-	(17)
Pensioners' cost of guarantee	(492)	(7)	-	(499)
Cost of pension increase	-	-	-	0
Administration expenditure	(446)	(525)	(91)	(1,062)
Increase in data reserve	748	-	-	748
2009 Compensation Reserve	(5,323)	-	-	(5,323)
Miscellaneous gains/ (strains)	320	(164)	46	202
Surplus/ (Deficit) as at 31 December 2022	29,405	9,127	133	38,665

Allocation of Surplus

1.20 We have determined the allocation of the surplus as at 31 December 2022 in accordance with the requirements of the IPEC Revaluation Guideline.

1.21 We recommend the following bonus and pension increase rates;

Issue	Membership Categories	SA 1	SA 2	SA 3	Comments
Bonus	Active, Deferred, Preserved Members Outstanding benefits, Suspended pension arrears	44.8%	46.6%	3.6%	For the 6-months to 31 December 2022 (pro-rated for exits before 31 December 2022)
Pension Increase	Current and Suspended Pensioners	42.2%	44.1%	0%	with effect from 1 January 2023 (pro-rated for pensions commencing after 1 July 2022)
Additional Death Benefit	Active & Pensioners	44.8%	46.6%	n/a%	For the 6-months to 31 December 2022 (pro-rated for exits before 31 December 2022)
Interim Bonus	Active, Deferred, Preserved Members Outstanding benefits, Suspended pension arrears	0%	0%	0%	0% for exits after 31 December 2022

2. INTRODUCTION

- 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 31 December 2022 (the "Valuation Date") of the Fund. This valuation is required in terms of Sections 11.3 and 11.4 of the IPEC Revaluation Guideline and in terms of Rule 38 of the Rules of the Fund.
- 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 effective 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.
 - Revaluation Gains to be calculated and allocated at each Measurement Date, and

Purpose of the current valuation

- 2.8 The objectives of the current actuarial valuation of the Fund are to;
- Determine and allocate surplus and currency Revaluation Gains over the period from 1 July 2022 to 31 December 2022 in accordance with the IPEC Revaluation Guideline.
 - 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.
 - 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 31 December 2022.

Previous Valuation

- 2.9 The previous statutory Actuarial Valuation was carried out as at 31 December 2021. The valuation revealed that the value of the aggregate Fund liabilities as at 31 December 2021 was ZWL\$21.3 billion compared with an asset value of ZWL\$39.0 billion. This was equivalent to a surplus of ZWL\$17.6 billion.
- 2.10 Interim actuarial valuations were carried out as at 31 March 2022 and 30 June 2022 by Mr. Tigere Mutare. The purpose of these interim valuation was to determine and allocate surplus and currency Revaluation Gains over the valuation period to members and pensioners.
- 2.11 The table below summarises the pension increases and bonuses awarded since the statutory valuation as at 31 December 2021.

Effective date	Membership Categories	SA 1	SA 2	SA 3
1 January 2022	Current and Suspended Pensioners	104.0%	85.7%	n/a
1 April 2022	Current and Suspended Pensioners	40.0%	60.0%	n/a
1 July 2022	Current and Suspended Pensioners	97.2%	44.2%	n/a
1 July 2022	Active, Deferred, Preserved Members	176.6%	60.5%	3.8%

- 2.12 In performing the current valuation, it was noted that the recommended interim pension increase at 30 June 2022 of 44.2% in respect of sub account 2 was overstated. The value of this overstatement is approximately ZWL\$ 70 million as at 31 December 2022 which is equivalent to 0.2% of the value of Sub Account 2 assets. This cost can be smoothed out over future valuations as the amount is not material to the solvency position of sub account 2 .
- The allocation of surplus for sub account 2 did not correctly reflect the cost of the previously awarded interim pension increases of 60% at 31 March 2022.
 - This did not introduce a deficit to aggregate solvency position of the Sub-account – but resulted in Sub Account 2 pensions receiving a higher allocation of surplus than other categories during 2022.
 - To ensure equity between the different classes of membership the cost will be offset against future pension increases due to the cohort of affected sub account 2 pensioners.

Inter-valuation events

- 2.13 We have not been advised of any changes to the benefit structure during the period since the last valuation.

[The new Pension and Provident Funds Act \[24:32\]](#)

- 2.14 The new Pension and Provident Funds Act [24:32] was gazetted in September 2022. Key requirements under the Act include;
- The Fund Rules are required to specify;
 - the proportion of the total contributions attributable to any purpose, including but not limited to the following—
 - the members' accumulated credit; or
 - administration expenses; or
 - group life assurance premium; or
 - funeral assurance premium;
 - the policy with regard to increases for pensioners and deferred pensioners;

- the indexation of pension fund benefits in line with changing values of assets;
- the procedures for independent performance assessment of members of the Board.
- Constitution of the Board of Trustees
 - It is now required that a board should be made up of a minimum of five Trustees, and a maximum of nine.
 - Inclusion of an independent expert Trustee.
- Limits of the terms for Trustees and the Principal Officer
- Communication with stakeholders
 - Audited Fund financial statements are now to be published in a national newspaper within three months after year-end.
 - The Board shall convene a meeting by giving all members and beneficiaries reasonable notice
 - In addition to any other meetings it is required to convene, the Board of the Fund shall be obliged to convene a meeting prior to—
 - (a) changing an administrator;
 - (b) conversion from one currency to the other;
 - (c) conversion from defined benefit to defined contribution or such other conversion;
 - d) any other change that significantly affects the rights of members.
 - Unless otherwise provided in the rules of the Fund, at any meeting of members and beneficiaries of the Fund, to constitute a quorum, there shall be present in person or by proxy, in writing, members or beneficiaries exceeding fifty per centum of the total members;
- A Pension Protection Fund has now been introduced. Every Fund, unless exempted, is expected to contribute to a pension protection scheme established by the Commission.

2.15 We note that the current Rules of the Fund do not meet all the requirements of the new Pension Act. The Fund will need to amend the Rules to ensure compliance with the new Pensions Act.

[Draft Pension and Provident Funds \(2009 Compensation\) Regulations, 2022](#)

2.16 IPEC issued circular 5 of 2023 with the draft Pension and Provident Funds (2009 Compensation) Regulations, 2022. The primary objects of these Regulations are —

- a) to recognise and ensure that Fund members are compensated in the best possible and practical manner for the loss of value suffered during the period between the 1st of January 2000 to the 28th of February 2009 (“investigative period”);
- b) to provide the criteria for assessing and quantifying prejudice in relation to the pension contracts during the investigative period; and
- c) to provide the criteria to be adhered to by all Funds when compensating prejudiced members.

2.17 The draft Regulations will require the Fund to determine whether there was any prejudice to Fund members over the investigative period.

2.18 Funds are required to compensate from their appropriate 2009 reserves or any other such available reserve. Where such reserve is not adequate, compensation shall be funded through a compulsory 1 per centum annual levy on its ring-fenced assets that survived the 2008 hyper-inflation.

2.19 Whilst the final regulations have not yet been gazetted, the task to investigate the compensation due will be quite onerous and complex – and will require retrieving membership data from as far back as 2000 to 2008. The Fund should commence this exercise once it is feasible to do so.

2.20 We do not have sufficient data at this stage to quantify the expected cost of any compensation that is due. We recommend that a portion of the surplus emerging in sub account 1 is retained as a reserve until the cost of compensation has been quantified.

COVID-19 Pandemic

- 2.21 The World Health Organisation declared the COVID-19 coronavirus outbreak to be a pandemic in March 2020. 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

- 2.22 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.
- 2.23 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.
- 2.24 The report was reviewed internally by Stalwart Actuaries and Consultants.

Reporting Currency

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

Reliance and Limitations

- 2.26 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

- 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 employer 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. 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

- 3.5 The normal retirement age is 60 years. 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

- 3.6 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

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 a 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. 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.
- 4.11 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

- 4.12 The amount of pension which can be purchased will depend on the cost of purchasing a pension. Pension payments, once set, are payable for life in terms of the Rules of the Fund and met directly from the Fund.
- 4.13 There is a risk of deficits emerging if actual experience (e.g. mortality and investments) is worse than assumed in pension purchase factors.

- 4.14 Pensioners face the risk of reduction in pensions if the deficits are not reduced either through additional Employer funding or improved investment returns.
- 4.15 Investment risk is mitigated through holding a diversified investment portfolio which aims to reduce the risk of loss from a single asset or asset class.
- 4.16 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

The following summarizes the membership data provided as at the current valuation date and the previous valuation date. Further data summaries split by sub-account are provided in Appendix II.

Active Members	31-Dec-21	30-Jun-22	31-Dec-22
Number	23,022	22,334	23,268
Pension Weighted Average Age	45.0	42.9	48.1
Total Fund Credit (ZWL\$ m')	21,376.3	51,086.3	54,546.5
Deferred Members	31-Dec-21	30-Jun-22	31-Dec-22
Number	44,240	37,580	37,664
Pension Weighted Average Age	48.1	47.1	48.1
Total Fund Credit (ZWL\$ m')	5,755.2	15,164.6	15,993.3
Preserved Members	31-Dec-21	30-Jun-22	31-Dec-22
Number	8,065	7,468	7,363
Pension Weighted Average Age	44.5	44.5	45.1
Total Fund Credit (ZWL\$ m')	1,105.9	3,028.9	3,208.3
Unclaimed (over age 65)	31-Dec-21	30-Jun-22	31-Dec-22
Number	n/a	3,138	3,113
Pension Weighted Average Age	n/a	66.8	67.8
Total Fund Credit (ZWL\$ m')	n/a	483.5	467.1
Current Pensioners	31-Dec-21	30-Jun-22	31-Dec-22
Former Members			
Number	8,210	8,325	7,543
Pension Weighted Average Age	67.4	67.7	67.7
Total Annual Pension (ZWL\$ m')	189.6	548.4	983.6
Spouses			
Number	1,133	1,149	1,017
Pension Weighted Average Age	62.3	62.9	63.2
Total Annual Pension (ZWL\$ m')	27.43	78.5	139.3
Suspended Pensioners	31-Dec-21	30-Jun-22	31-Dec-22
Former Members			
Number	2,291	2,201	3,085
Pension Weighted Average Age	82.3	83.4	80.3
Total Annual Pension (ZWL\$ m')	51.7	141.4	386.7
Spouses			
Number	370	346	469
Pension Weighted Average Age	79.9	83.1	78.8
Total Annual Pension (ZWL\$ m')	8.8	164.9	62.1

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 macroeconomic environment has remained volatile and highly uncertain. Inflationary pressures have continued to reduce real disposable income levels and economic productivity. The further depreciation of the Zimbabwe dollar exerts inflationary pressures as prices of goods and services in large sectors of the economy are indexed to the United State dollar.
- 6.3 We have noted the following market indicators;
- Inflation as measured by the CPI was 57% over the 6-month period to 31 December 2022 (119% over the half-year to 30 June 2022).
 - The ZSE all share index decreased by 2% over the 6-month period to 31 December 2022 (following a 82% increase over the half-year to 30 June 2022).
 - The Zimbabwe Dollar, as determined by the RBZ "Auction rate", depreciated against the United States Dollar from USD1: ZWL\$366 as at 30 June 2022 to USD1: ZWL\$671 as at 31 December 2022. This is equivalent to an increase of approximately 83% in Zimbabwe dollar prices that are indexed to the US dollar.
- 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:.

Summary of assets since the previous statutory valuation

Valuation Date (amounts in ZWL\$ millions)	31-Dec-21 Total	30-Jun-22 Total	31-Dec-22 Total
Prescribed Assets	405	1,367	6,434
Old Mutual Guaranteed Fund	245	591	864
Quoted Shares	20,700	42,262	47,725
Unquoted Shares	734	2,205	2,890
Fixed Property	14,681	46,761	83,520
Fixed Income Investments	177	354	919
Money Market/Deposits	259	1,408	1,613
Net Current Assets	695	1,905	1,943
Net Assets as Financial Statements	37,896	96,853	145,908
Actuarial adjustments	1,138	2,211	4,807
Adjusted Assets	39,034	99,063	150,715

Summary of assets since the previous interim valuation (with sub account splits)

Valuation Date (amounts in ZWL\$ millions)	30-Jun-22				31-Dec-22			
	SA1	SA2	SA3	Total	SA1	SA2	SA3	Total
Prescribed Assets	-	1,367	-	1,367	1,295	2,990	2,149	6,434
Old Mutual Guaranteed Fund	591	-	-	591	864	-	-	864
Quoted Shares	23,194	18,809	259	42,262	26,336	20,910	479	47,725
Unquoted Shares	2,205	-	-	2,205	2,890	-	-	2,890
Fixed Property	45,106	1,656	-	46,761	75,345	7,961	214	83,520
Fixed Income Investments	161	193	-	354	286	633	-	919
Money Market/Deposits	255	4	1,149	1,408	239	4	1,370	1,613
Net Current Assets	(61)	1,393	572	1,905	(994)	2,235	702	1,943
Net Assets per Financial Statements	71,451	23,422	1,981	96,853	106,261	34,733	4,914	145,908
Provision for contribution arrears and interest	99	1,372	-	1,471	70	2,406	1,499	3,975
Paid Exits allowed for in Actuarial Reserves	-	-	-	-	120	34	15	169
Exchange rate adjustment	-	-	740	740	-	-	663	663
Adjusted Assets	71,549	24,794	2,720	99,063	106,451	37,173	7,091	150,715

6.5 Appendix I of this report shows a summary of the 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\$96.9 billion as at 30 June 2022 to ZWL\$145.9 billion as at 31 December 2022. The increase in the asset values was primarily driven by property revaluation gains. Properties market values have increased from ZWL\$46.8 billion as at 30 June 2022 to ZWL\$83.5 billion as at 30 June 2022.

6.7 The Fund earned an aggregate investment return of approximately 45% over the 6-month period to 31 December 2022 (255% for the year to 31 December 2022). We have also estimated the return achieved on the assets of each sub-account as follows;

- For sub-account 1 – 51% for the 6-month period to 31 December 2022 (312% for the year to 31 December 2022)
- For sub-account 2 – 24% for the 6-month period to 31 December 2022 (129% for the year to 31 December 2022)
- For sub-account 3 – 5.2% for the 6-month period to 31 December 2022 (8.5% for the year to 31 December 2022)

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, as determined by professional property valuers, have increased from ZWL\$46.8 billion as at 30 June 2022 to ZWL\$83.5 billion as at 30 June 2022.

6.10 Whilst property market values have been determined in Zimbabwe dollars by the property valuator with no reference to a direct property valuation in US Dollars, there is a strong correlation between the depreciation of the Zimbabwe dollar official market rate and the increase in property market values.

- 6.11 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.
- 6.12 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.
- 6.13 At the previous valuations 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 had been volatile. We therefore established a property revaluation smoothing reserve equivalent as appropriate.
- 6.14 For the current valuation, we have not allowed for a property smoothing reserve following the further significant depreciation of the official market rates and parallel market rates after the valuation date.
- The Zimbabwe Dollar, as determined by the RBZ “official market rate, depreciated against the United States Dollar from USD1: ZWL\$671 as at 31 December 2022 to USD1: ZWL\$929 as at 31 March 2023.
 - This is equivalent to an increase of approximately 40% in the Zimbabwe dollar value of prices that are indexed to the US dollar.
 - We expect that Zimbabwe dollar property values will increase broadly in line with the observed depreciation of the Zimbabwe dollar, negating the need for a property smoothing reserve at the valuation date.

Outstanding contributions

- 6.15 Total contributions invoiced were ZWL\$8.9 billion for the 6-month period to 31 December 2022. Cumulatively since 2009, total unpaid contributions amount to ZWL\$4.1 billion excluding interest (ZWL\$5.0 billion including interest).
- 6.16 An aggregate of ZWL\$4.0 billion 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. We have also provided for a liability in respect of contribution arrears.
- 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 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.
- 6.19 We have allowed for the liability in respect of such outstanding contributions with interest to ensure that the asset values from contribution arrears were not allocated before the amounts due have been recovered from Employers.

Administration expenses

- 6.20 In accordance with the provisions of the current Rules of the Fund, the administration expenses are not funded in advance nor directly from contribution income and are paid from the Funds’ assets. The Rules of the Fund however require that administration expenses should not exceed 15% of received contributions.

- 6.21 The Fund incurred administration expenses, excluding investment and property expenses, amounting to ZWL\$1.1 billion (18% of received contributions) over the 6-month period to 31 December 2022 and ZWL\$1.5 billion (23% of received contributions) over the year to 31 December 2022.
- 6.22 We understand that rule amendments have been drafted which will now provide for the direct funding of administration expenses from 15% of contribution receipts.

Comment on investment strategy

- 6.23 In analysing the Fund's investment strategy, it is important to consider the current economic environment.
- 6.24 The pensioners' liabilities should normally be matched by long-term bonds, while non-pensioner 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.
- 6.25 The Fund is heavily invested in real assets with 57% of the market value of the assets invested in property and 35% 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.
- 6.26 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.
- 6.27 However, we note that as at the valuation date, the Fund's prescribed asset ratio was lower than the minimum of 20% required.

Sub-account 1 liquidity requirements

- 6.28 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. This results in a negative cashflow position in sub-account 1.
- 6.29 Therefore cash resources from Sub-account 2 have been used to meet the Sub-account 1 liquidity requirements. As at 31 December 2020, sub-account 1 has a liability of ZWL1.5 billion 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.

Sub-account 3 contributions debtors

- 6.30 We note that contributions debtors for sub account 3 amount to USD 4.1 million which is approximately 40% of the value of sub account assets. The outstanding amounts will not earn Fund bonuses and hence the members affected stand to be disadvantaged. The Fund should engage the relevant Employers to recover the outstanding amount together with late payment interest which should then be credited to member accounts.

7. VALUATION METHOD AND ASSUMPTIONS

Valuation Method

Liability prior to retirement

- 7.1 The accrued liabilities in respect of active, deferred, unclaimed 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 net discount rate assumption of 5.69% per annum adopted at the previous valuation with no explicit allowance for pension increases.

- 7.9 In the absence of reliable long term market indicators, a prudent assumption relative to actual returns will reduce the risk of underfunding whilst allowing for pensioners to benefit from pension increases in line with actual returns achieved by the Fund

Mortality

- 7.10 The post retirement mortality rates will provide an estimate of the expected future lifetimes of the pensioners and contingent beneficiaries.
- 7.11 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.
- 7.12 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.
- 7.13 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.
- 7.14 Future life expectancy in accordance with 85% of the a(55) mortality table is as follows;
- A male pensioner aged 60 years will be expected live to age 78.6
 - A female pensioner aged 60 years will be expected live to age 82.5

Other Demographic assumptions

- 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 3,554 suspended pensioners as at the valuation date. This included 1,539 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\$2.7 billion 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\$2.1 billion (78% 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 interest 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 31 December 2022. The values are based on benefits which include the bonuses and pension increases declared since 31 December 2021.

Summary of balance sheet since the previous statutory valuation

Valuation Date (amounts in ZWL\$ millions)	31-Dec-21 Total	30-Jun-22 Total	31-Dec-22 Total
Member Fund Credits	28,238	68,620	74,215
Liability for contribution arrears	1,941	3,303	7,513
Pensioners' Liability	4,690	12,736	12,748
Suspended Pensioners' arrears	875	2,063	2,595
Additional Death Benefit Reserve	242	657	651
Data Reserve	515	1,383	1,197
Provision for exited members	609	1,047	626
Contingency Reserve	1,926	4,817	7,182
2009 Compensation Reserve	-	-	5,323
Total Liability	39,034	94,625	112,050
Adjusted Assets	39,034	99,063	150,715
Surplus/ (Deficit)	-	4,438	38,665
Funding Level	100%	105%	135%

Summary of balance sheet since the previous interim valuation (with sub account splits)

Valuation Date (amounts in ZWL\$ millions)	30-Jun-22				31-Dec-22			
	SA1	SA2	SA3	Total	SA1	SA2	SA3	Total
Member Fund Credits	49,892	16,896	1,832	68,620	48,634	21,605	3,976	74,215
Liability for contribution arrears	815	1,616	872	3,303	424	4,127	2,962	7,513
Pensioners' Liability	12,565	171	-	12,736	12,500	248	-	12,748
Suspended Pensioners' arrears	2,063	-	-	2,063	2,595	-	-	2,595
Additional Death Benefit Reserve	646	11	-	657	640	11	-	651
Data Reserve	1,069	314	-	1,383	1,069	128	-	1,197
Provision for exited members	922	108	17	1,047	538	68	20	626
Contingency Reserve	3,578	1,240	-	4,817	5,323	1,859	-	7,182
2009 Compensation Reserve	-	-	-	-	5,323	-	-	5,323
Total Liability	71,549	20,356	2,721	94,625	77,046	28,046	6,958	112,050
Adjusted Assets	71,549	24,794	2,721	99,063	106,451	37,173	7,091	150,715
Surplus/ (Deficit)	-	4,438	-	4,438	29,405	9,127	133	38,665
Funding Level	100%	122%	100%	105%	138%	133%	102%	135%

8.3 The value of the aggregate Fund liabilities as at 31 December 2022 was ZWL\$112.1 billion compared with an asset value of ZWL\$150.7 billion. This is equivalent to a surplus of ZWL\$38.7 billion.

- The value of the Sub-account 1 accrued liabilities as at 31 December 2022 was ZWL\$77.0 billion compared with an asset value of ZWL\$106.5 billion. This is equivalent to a surplus of ZWL\$29.4 billion.

- The value of the Sub-account 2 accrued liabilities as at 31 December 2022 was ZWL\$28.0 billion compared with an asset value of ZWL\$37.2 billion. This is equivalent to a surplus of ZWL\$9.1 billion.
- The value of the Sub-account 3 accrued liabilities as at 31 December 2022 was USD 10.4 million (ZWL\$6.9 billion) compared with an asset value of USD 10.6 million (ZWL\$7.1 billion). This is equivalent to a surplus of USD 197,000 (ZWL\$133 million).

Provision for liability in respect of contribution arrears

- 8.4 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.
- 8.5 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.
- 8.6 The provision also includes an allowance for contributions that have been received by the Fund but not yet credited to members' accounts. The breakdown of the amounts provided are summarized below;

	ZWL\$ Equivalent (amounts in ZWL\$ millions)				USD '000
	SA1	SA2	SA3	Total	SA3
Contribution Debtors	7.2	2,527.2	2,727.4	5,261.8	4,061.9
Interest on contribution arrears	63.2	658.2	122.6	844.0	182.6
Subtotal	70.4	3,185.4	2,850.0	6,105.8	4,244.5
Contributions Received not yet credited to member accounts					
Contributions prior to 1 November 2021 ¹	1.2	13.9	-	15.1	
Contributions received from 1 November 2021	60.8	348.6	-	409.4	
Interest received from 1 November 2021	-	252.5	104.4	357.0	155.5
Residual Balance from debtors reconciliation		441.6	5.7	447.3	8.5
Subtotal	62.0	1,056.6	110.1	1,228.7	164.0
Value of bonuses due	291.6	215.3	2.1	509.0	3.1
Subtotal	353.7	1,271.9	112.2	1,737.7	167.1
Total Provision	424.1	4,126.5	2,962.2	7,512.7	4,411.6

Data reserve

- 8.7 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.
- 8.8 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. We have increased the Sub-account-2 data reserve to 1%. This reserve will be increased with any bonuses declared as appropriate.
- 8.9 The sources of data issues we have identified include;

¹ Contribution received prior to 1 November 2021 will be applied to purchased deferred pensions in accordance with the previous hybrid structure and converted to DC as at 1 January 2021

- Unknown dates of birth. This includes over 1,000 members with unknown dates of birth at conversion from DB to DC for whom the conversion values are subject to recalculation.
- The ongoing exercise to reconcile pension system contribution balances to accounting system balances. We noted a variance of ZWL\$ 0.4 billion in reconciling the debtors balances and invoiced contributions to contributions credited to members' accounts.
- Contributions paid in respect of periods prior to 1 January 2021, for which the conversion values from DB to DC are yet to be determined. (Approximate allowances are included in the "*Provision for liability in respect of contribution arrears*").

Reserve fund

- 8.10 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.
- 8.11 We have therefore setup a contingency reserve equivalent to 5% of the net assets of the Fund in the financial statements of the assets.

2009 Compensation Reserve

- 8.12 IPEC issued circular 5 of 2023 with the draft Pension and Provident Funds (2009 Compensation) Regulations, 2022. The primary objects of these Regulations are —
- a) to recognise and ensure that fund members are compensated in the best possible and practical manner for the loss of value suffered during the period between the 1st of January 2000 to the 28th of February 2009 ("investigative period");
 - b) to provide the criteria for assessing and quantifying prejudice in relation to the pension contracts during the investigative period; and
 - c) to provide the criteria to be adhered to by all funds when compensating prejudiced members.
- 8.13 The draft Regulations will require the Fund to determine whether there was any prejudice to fund members over the investigative period.
- 8.14 Funds are required to compensate from their appropriate 2009 reserves or any other such available reserve. Where such reserve is not adequate, compensation shall be funded through a compulsory 1 per centum annual levy on its ring-fenced assets that survived the 2008 hyper-inflation.
- 8.15 Whilst the final regulations have not yet been gazetted, the task to investigate the compensation due will be quite onerous and complex – and will require retrieving membership data from as far back as 2000 to 2008. The Fund should commence this exercise once it is feasible to do so.
- 8.16 We do not have sufficient data at this stage to quantify the expected cost of any compensation that is due. We recommend that a portion of the surplus emerging in sub account 1 is retained as a reserve until the cost of compensation has been quantified.
- 8.17 We recommend establishing a reserve of 5% of the net assets from Sub account 1 at the valuation date.

Analysis of Surplus

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

Analysis of surplus (amounts in ZWL\$ millions)	SA1	SA2	SA3	Total
Surplus/ (Deficit) as at 30 June 2022	-	4,438	-	4,438
Investment return (exc prop revaluation)	5,983	3,555	191	9,729
Property Revaluation Gains	30,373	2,699	(13)	33,059
Changes in provision for contribution arrears	4	(250)	-	(246)
Increase in contingency reserve	(1,745)	(619)	-	(2,364)
Increase in provisions for rent & operational costs debtors	(17)	-	-	(17)
Pensioners' cost of guarantee	(492)	(7)	-	(499)
Cost of pension increase	-	-	-	0
Administration expenditure	(446)	(525)	(91)	(1,062)
Increase in data reserve	748	-	-	748
2009 Compensation Reserve	(5,323)	-	-	(5,323)
Miscellaneous gains/ (strains)	320	(164)	46	202
Surplus/ (Deficit) as at 31 December 2022	29,405	9,127	133	38,665

Investment return above valuation assumption (excl. property revaluation)

8.19 The Fund earned investment returns (excluding property revaluation) primarily driven by gains on listed equities. This led to gains of ZWL\$9.7 billion.

Property Revaluation Gains

8.20 Property values determined by the property valuers in Zimbabwe Dollars are correlated to the USD and the prevailing exchange rate. Property revaluation gains, primarily due to the depreciation of the Zimbabwe Dollar led to gains of ZWL\$33.1 billion.

Pensioners' cost of guarantee

8.21 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

Changes in provision for contribution arrears

8.22 We have increased the provision for contribution arrears to allow for amounts paid in respect of interest on contribution arrears which have not been credited to member accounts.

Administration expenditure

8.23 Administration expenses are not funded in advance and are paid from the Funds' assets. The Fund incurred administration expenditure of ZWL\$1.1 billion.

Miscellaneous gains / (strains)

8.24 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

- 8.25 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.
- 8.26 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.
- 8.27 The table below shows how the funding level and deficit would vary if investment conditions at 31 December 2022 had been different.

Asset class	Change	Change in surplus \$'millions	Change in funding level %
Listed equities	Lower by 25%	(11,931)	(11.1)%
Fixed Property	Lower by 10%	(8,295)	(7.7)%

Sensitivity of results to pensioners' valuation assumptions

- 8.28 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.
- 8.29 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 \$'millions	Change in liability %
Discount rate	Increase by 1%	(860)	(6.7)%
	Decrease by 1%	985	7.7%
Life expectancy	Increase by 1 year	780	6.1%
	Decrease by 1 year	(825)	(6.5)%

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 31 December 2022. The value of the aggregate Fund liabilities as at 31 December 2022 was ZWL\$112.1 billion compared with an asset value of ZWL\$150.7 billion. This is equivalent to a surplus of ZWL\$38.7 billion.

- The value of the Sub-account 1 accrued liabilities as at 31 December 2022 was ZWL\$77.0 billion compared with an asset value of ZWL\$106.5 billion. This is equivalent to a surplus of ZWL\$29.4 billion.
- The value of the Sub-account 2 accrued liabilities as at 31 December 2022 was ZWL\$28.0 billion compared with an asset value of ZWL\$37.2 billion. This is equivalent to a surplus of ZWL\$9.1 billion.
- The value of the Sub-account 3 accrued liabilities as at 31 December 2022 was USD 10.4 million (ZWL\$6.9 billion) compared with an asset value of USD 10.6 million (ZWL\$7.1 billion). This is equivalent to a surplus of USD 197,000 (ZWL\$133 million).

9.2 We have determined the allocation of the surplus as at 31 December 2022 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
Bonus	Active, Deferred, Preserved Members Outstanding benefits, Suspended pension arrears	44.8%	46.6%	3.6%	For the 6-months to 31 December 2022 (pro-rated for exits before 31 December 2022)
Pension Increase	Current and Suspended Pensioners	42.2%	44.1%	0%	with effect from 1 January 2023 (pro-rated for pensions commencing after 1 July 2022)
Additional Death Benefit	Active & Pensioners	44.8%	46.6%	n/a	For the 6-months to 31 December 2022 (pro-rated for exits before 31 December 2022)
Interim Bonus	Active, Deferred, Preserved Members Outstanding benefits, Suspended pension arrears	0%	0%	0%	0% for exits after 31 December 2022

9.4 If the recommended bonus rates are adopted, the aggregate bonus and pension increase rate for the year to 31 December 2022 will be as follows;

Rate	Membership Category	Sub-Account	6 Months to 30 -Jun-22	6 Months to 31-Dec-22	Year to 31-Dec-22
Bonus	Active, Deferred & Preserved Members	Sub-account 1	176.6%	44.8%	300.5%
		Sub-account 2	60.5%	46.6%	135.3%
		Sub-account 3	3.8%	3.6%	7.5%
Pension Increase	Current and Suspended Pensioners	Sub-account 1	176.1%	42.2%	292.6%
		Sub-account 2	130.7%	44.1%	232.5%
		Sub-account 3	0.0%	0.0%	0.0%
Additional Death Benefit increase	Active & Pensioners	Sub-account 1	176.6%	44.8%	300.5%
		Sub-account 2	60.5%	46.6%	135.3%
		Sub-account 3	n/a	n/a	n/a

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

Valuation Date (amounts in ZWL\$ millions)	<i>Before surplus apportionment</i> 31-Dec-22				<i>After surplus apportionment</i> 31-Dec-22			
	SA1	SA2	SA3	Total	SA1	SA2	SA3	Total
Active Members' Fund Credits	31,057	19,723	3,767	54,547	44,980	27,370	3,888	76,238
Deferred Members' Fund Credits	14,172	1,646	175	15,993	20,527	2,398	181	23,106
Preserved Members' Fund Credits	2,963	214	31	3,208	4,304	325	33	4,662
Unclaimed (over age 65)Members' Fund Credits	442	22	3	467	641	31	3	675
Liability for contribution arrears	424	4,127	2,962	7,513	570	4,500	2,964	8,034
Current Pensioners' Liability	10,372	239	-	10,611	14,757	344	-	15,101
Suspended Pensioners' Liability	2,128	9	-	2,137	3,028	13	-	3,041
Suspended Pensioners' arrears	2,595	-	-	2,595	3,703	-	-	3,703
Additional Death Benefit Reserve	640	11	-	651	928	16	-	944
Data Reserve	1,069	128	-	1,197	1,548	188	-	1,736
Provision for exited members	538	68	20	626	819	129	22	970
Contingency Reserve	5,323	1,859	-	7,182	5,323	1,859	-	7,182
2009 Compensation Reserve	5,323	-	-	5,323	5,323	-	-	5,323
Total Liability	77,046	28,046	6,958	112,050	106,451	37,173	7,091	150,715
Adjusted Assets	106,451	37,173	7,091	150,715	106,451	37,173	7,091	150,715
Surplus/ (Deficit)	29,405	9,127	133	38,665	-	-	-	-
Funding Level	138%	133%	102%	135%	100%	100%	100%	100%



Tigere Mutare, FIA, AMASSA.

(in my capacity as consulting actuary to The Mining Industry Pension Fund and on behalf of Stalwart Actuaries and Consultants)

15 June 2023

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

APPENDIX I: REVENUE STATEMENT

(amounts in ZWL\$ millions)	Half year to 30 June 2022				Half year to 31 December 2022			
	SA 1	SA 2	SA 3	Total	SA 1	SA 2	SA 3	Total
Fund @ beginning of period	26,882	10,630	384	37,896	71,450	23,422	1,981	96,853
Prior year adjustment	(47)	20	-	(27)	-	-	-	-
INCOME				-				-
Member contributions	-	1,083	249	1,332	-	3,380	1,022	4,402
Employer contributions	-	1,086	249	1,335	-	3,390	1,022	4,412
Other contributions and provisions	-	(10)	-	(10)	-	83	-	83
Interest on contribution arrears	21	230	-	251	29	510	110	649
Investment income	160	309	42	511	341	481	171	993
Net rental income	308	(0)	-	308	794	(28)	(4)	762
Property revaluation	30,100	542	-	30,643	30,372	2,699	41	33,113
Unrealised gains	14,584	10,210	738	25,531	4,665	3,084	1,642	9,391
Other income	109	6	329	444	183	18	249	450
Total Income	45,283	13,457	1,606	60,345	36,384	13,618	4,253	54,256
EXPENDITURE								
Pension benefits	302	2	-	305	733	14	1	747
Other Benefits	11	32	4	48	346	255	72	674
Administration Expenditure	304	125	5	433	446	525	99	1,069
Provision for bad debts	50	526	-	576	49	1,512	1,148	2,709
Amounts written down on investments	-	-	-	-	-	-	-	-
Total Expenditure	667	685	9	1,362	1,574	2,306	1,320	5,200
Fund @ end of period	71,451	23,422	1,981	96,853	106,261	34,734	4,914	145,909

APPENDIX II: MEMBERSHIP DATA CHECKS AS AT 31 DECEMBER 2022

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 31 December 2022 to the numbers as at 30 June 2022.

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.

We noted a variance of ZWL\$ 0.4 billion in reconciling the debtors balances and invoiced contributions to the contributions credited to members' accounts. We have allowed for this variance by increasing the provision for the liability in respect of contributions arrears.

Membership data summaries and statistics extracted from data provided split by sub account are shown below.

Active Members	SA1	SA2
Number with Fund Credit >0	17,428	21,139
Pension Weighted Average Age	47.1	43.8
Total Fund Credit (ZWL\$ m')	31,056.7	19,722.5

Active Members	SA3
Number with Fund Credit >0	3,316
Pension Weighted Average Age	44.9
Total Fund Credit (USD' 000)	5,610.7

Deferred Members	SA1	SA2
Number with Fund Credit >0	32,869	5,489
Pension Weighted Average Age	48.6	43.4
Total Fund Credit (ZWL\$ m')	14,171.9	1,646.5

Deferred Members	SA3
Number with Fund Credit >0	1,157
Pension Weighted Average Age	45.2
Total Fund Credit (USD' 000)	260.5

Preserved Members	SA1	SA2
Number with Fund Credit >0	7,343	570
Pension Weighted Average Age	45.5	40.9
Total Fund Credit (ZWL\$ m')	2,963.1	213.8

Preserved Members	SA3
Number with Fund Credit >0	316
Pension Weighted Average Age	40.2
Total Fund Credit (USD' 000)	46.8

Unclaimed (over age 65)	SA1	SA2
Number	3,008	57
Pension Weighted Average Age	68.0	65.8
Total Fund Credit (ZWL\$ m')	442.4	21.7

Unclaimed (over age 65)	SA3
Number	21
Pension Weighted Average Age	66.9
Total Fund Credit (USD' 000)	4.6

ACTIVE PENSIONERS					
	Males	Females	Missing	Total	
Gender	7,221	1,339	-	8,560	
	Max	Min	Average	Sum	Missing/Zero
DOB	11-Nov-2022	01-Aug-1925	10-Oct-1955		-
PSD	01-Oct-2022	00-Jan-1900	01-Oct-2012		-
SA1 Annual Pension	3,660,972	754	128,839	1,102,089,892	-
SA2 Annual Pension	1,175,804	23	41,573	20,828,140	8,059

SUSPENDED PENSIONERS					
	Males	Females	Missing	Total	
Gender	2,988	566	-	3,554	
	Max	Min	Average	Sum	Missing/Zero
DOB	22-Nov-1984	01-Jul-1908	03-Apr-1943		-
PSD	01-May-2022	01-Mar-1970	03-Nov-2000		-
Date Suspended	01-Feb-2023	01-Feb-1988	14-May-2014		-
SA1 Annual Pension	979,010	4,482	126,042	447,954,796	-
SA2 Annual Pension	124,485	108	20,771	768,545	3,517

Membership reconciliation

ACTIVE MEMBERS		DEFERRED MEMBERS		PRESERVED MEMBERS		UNCLAIMED		PENSIONERS	
30 June 2022	22,334	30 June 2022	37,580	30 June 2022	7,468	30 June 2022	3,138	30 June 2022	12,045
Reinstatements		Reinstatements		New Entrants		New Entrants		New Entrants	
Deferred	729	Active	829	Active	102	Active	0	Active	57
Preserved	38	Preserved	1	Deferred	78	Deferred	0	Deferred	96
Unclaimed	0	Unclaimed	0	Unclaimed	0	Preserved	0	Unclaimed	14
Exited	0		830	Exited	0	Exited	0	Preserved	12
	767				180			Exited	54
									233
New Entrants	1,339	New Entrants	333				0		
Duplicate Records	(29)	Duplicate Records	(49)	Duplicate Records	0	Duplicate Records	(5)	Duplicate Records	0
Exits		Exits		Exits		Exits		Exits	
Trf out - Deferreds	(829)	Trf out – Actives	(729)	Trf out - Actives	(38)	Trf out - Actives	0	Death	(91)
Trf out - Preserved	(102)	Trf out – Preserved	(78)	Trf out -Deferred	(1)	Trf out -Deferred	0	End of guaranteed Period	(73)
Trf out - Pensioners	(57)	Trf out – Pensioners	(96)	Trf out - Pensioners	(12)	Trf out - Pensioners	(14)		(164)
Death	(10)	Death	(18)	Death	(1)	Death	0		
Ill-Health	(12)	Ill-Health	(3)	Ill-Health	0	Ill-Health	0		
Withdrawal / Resignation	(4)	Withdrawal / Resignation	(15)	Withdrawal / Resignation	(217)	Withdrawal / Resignation	(1)		
Retrenchment	(115)	Retrenchment	(57)	Retrenchment	(5)	Retrenchment	0		
Retirement	(15)	Retirement	(26)	Retirement	0	Retirement	(4)		
	(1,144)	Other	(8)	Other	(10)	Other	(1)		
			(1,030)		(284)		(20)		
31 December 2022	23,267	31 December 2022	37,664	31 December 2022	7,364	31 December 2022	3,113	31 December 2022	12,114

The tables below show the movement in members' liability from 1 July 2022 to 31 December 2022 for each sub account based on data provided.

SUB ACCOUNT 1 (amounts in ZWL\$ millions)	Opening Balance	Data adjustments	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	49,892	(332)	-	(213)	(536)	(177)	-	48,634	0	48,634	21,819	70,453
Liability for contribution arrears	815	(416)	-	-	-	-	25	424	-	424	146	570
Pensioners' Liability	12,565	-	-	(733)	-	177	-	12,009	492	12,501	5,285	17,785
Suspended Pensioners' arrears	2,063	-	-	532	-	-	-	2,595	-	2,595	1,108	3,703
Additional Death Benefit Reserve	646	-	-	(6)	-	-	-	640	-	640	288	928
Data Reserve	1,069	748	-	-	-	-	(748)	1,069	-	1,069	479	1,548
Provision for exited members	922	-	-	(919)	536	-	-	538	-	538	281	819
Contingency Reserve	3,578	-	-	-	-	-	1,745	5,323	-	5,323	-	5,323
2009 Compensation Reserve	-	-	-	-	-	-	5,323	5,323	-	5,323	-	5,323
Total Liability	71,549	-	-	(1,339)	-	-	6,344	76,554	492	77,046	29,405	106,451

SUB ACCOUNT 2 (amounts in ZWL\$ millions)	Opening Balance	Data adjustments	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	16,896	(37)	5,074	(191)	(68)	(69)	-	21,604	-	21,604	8,521	30,126
Liability for contribution arrears	1,616	209	1,794	-	-	-	508	4,127	-	4,127	373	4,500
Pensioners' Liability	171	14	-	(14)	-	69	-	241	7	248	109	357
Suspended Pensioners' arrears	-	-	-	-	-	-	-	-	-	-	-	-
Additional Death Benefit Reserve	11	-	-	(1)	-	-	-	11	-	11	5	16
Data Reserve	314	(185)	-	-	-	-	-	128	-	128	60	188
Provision for exited members	108	-	-	(107)	68	-	-	68	-	68	60	129
Contingency Reserve	1,240	-	-	-	-	-	-	1,240	-	1,859	-	1,859
Property Revaluation Reserve	-	-	-	-	-	-	-	-	-	-	-	-
Total Liability	20,356	-	6,868	(313)	-	-	508	27,419	7	28,044	9,129	37,173

SUB ACCOUNT 3 (amounts in USD 000's)	Opening Balance	Data adjustments	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	5,001	(2)	1,098	(144)	(30)	-	-	5,923	-	5,923	191	6,114
Liability for contribution arrears	2,380	-	1,846	-	-	-	186	4,412	-	4,412	3	4,415
Provision for exited members	47	-	-	(47)	30	-	-	30	-	30	3	32
Total Liability	7,428	(2)	2,944	(191)	-	-	186	10,364	-	10,364	197	10,561

APPENDIX III: IPEC REVALUATION CERTIFICATIONS

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 2021 and 31 December 2022.
- b. Reconciled the membership as at 31 December 2021 with that as at 31 December 2022.



Tigere Mutare, FIA, AMASSA

Revaluation Actuary

Date: 15 June 2023

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 31 December 2022 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 2021 and 31 December 2022.
- b. Reconciled the assets and liabilities by membership category sub-account between 31 December 2021 with that as at 31 December 2022.
- 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: 15 June 2023

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 31 December 2022 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."

Measurement Date:	31 December 2022
Total Assets (ZWL\$ 'millions)	150,715
Actuarial Liabilities (ZWL\$ 'millions)	138,210
Other Liabilities (ZWL\$ 'millions)	12,505
Surplus/ (Deficit) (ZWL\$ 'millions)	(0)
Funding Level	100%



Tigere Mutare, FIA, AMASSA

Revaluation Actuary

Date: 15 June 2023

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