



Mining Industry Pension Fund
"Cares for your future"

THE MINING INDUSTRY PENSION FUND

Interim Actuarial Valuation as at 30 June 2022

Prepared by
Tigere Mutare, FIA
February 2023

9 February 2023

Ms. K Ndlovu,
Principal Officer & Chief Executive
Mining Industry Pension Fund,
MIPF House, 5 Central Ave
P.O. Box CY 1452, Causeway,
Harare,
Zimbabwe

Dear Ms. Ndlovu,

**MINING INDUSTRY PENSION FUND
INTERIM ACTUARIAL VALUATION AS AT 30 JUNE 2022**

1 Introduction

- 1.1 In accordance with your instructions, we have carried out an approximate actuarial valuation of the Mining Industry Pension Fund (“the Fund”) as at 30 June 2022.
- 1.2 The Purpose of this report is to make recommendations as to the level of interim 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 2022.
- 1.3 This report should be considered in conjunction with the report on the Actuarial Valuation of the Fund as at 31 December 2021 (dated July 2022). This report relies on the following matters, which are documented in the report on the Actuarial Valuation of the Fund as at 31 December 2021
 - The actuarial method and assumptions as documented in the report.
 - The benefits structure of the Fund
- 1.4 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.
- 1.5 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 Previous Statutory Valuation

- 2.1 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. An approximate valuation was also carried out as at 31 March 2021.
- 2.2 The table below summarises the pension increases awarded since the 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	55.0%	10.0%	n/a

3 Membership as at 31 December 2021

- 3.1 The data required for the valuation has been obtained from records which are maintained by the Fund.
- 3.2 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 interim 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.
- 3.3 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.
- 3.4 The valuation of the Fund is based on the following membership numbers;

Category	31-Dec-21	30-Jun-22	Change
Active Members	23,022	22,361	-661
Deferred Pensioners	44,240	40,175	-4,065
Preserved Pensioners	8,065	7,984	-81
Current Pensioners	9,343	9,474	131
Suspended Pensioners	2,661	2,547	-114
Total	87,331	82,541	-4,790

- 3.5 Additional membership data statistics are in Appendix II of this report.

4 Contributions and expenses

- 4.1 Total contributions invoiced were ZWL\$2,656.9 million for the 6-month period to 30 June 2022. Cumulatively since 2009, total unpaid contributions amount to ZWL\$1,413 million excluding interest (ZWL\$1,812 million including interest).
- 4.2 An aggregate of ZWL\$1,471 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. We have also provided for a liability in respect of contribution arrears.
- 4.3 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\$423 million over the 6-month period to 30 June 2022.
 - This is equivalent to 14.6% of received contributions (15.9% of contribution income due) over the 6-month period to 31 December 2021.

5 Assets as at 30 June 2022

- 5.1 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.

- 5.2 We have noted the following market indicators;
- Inflation as measured by the CPI was 119% over the 6-month period to 30 June 2022.
 - The ZSE all share index increased by 82% over the 6-month period to 30 June 2022.
 - The Zimbabwe Dollar, as determined by the RBZ “official market rate”, depreciated against the United States Dollar from USD\$ 1: ZWL\$108.7 as at 31 December 2021 to USD\$ 1: ZWL\$366.3 as at 30 June 2022.
 - This is equivalent to an increase of approximately 237% in Zimbabwe dollar prices that are indexed to the US dollar at the official market rate.
 - The premium of the parallel market rate over the official market rate, according to data published by the RBZ was around 100% in June 2022.
 - This is equivalent to an increase of approximately 237% in Zimbabwe dollar prices that are indexed to the US dollar parallel market rate.
- 5.3 There is therefore a need to cushion the pensioners against the high cost of living by way of pension increases. The cost of pension increases, in Zimbabwe dollars, will be mainly funded by the uplift in monetary values of the assets following the depreciation of the Zimbabwe dollar which will have contributed to the stock market and property value gains.
- 5.4 We have been provided with the Fund’s management accounts for the period to 30 June 2022. We have taken the assets at their stated market values for purposes of this exercise. The assets of the Fund, based on management accounts, were as follows:

Valuation Date Asset Class (amounts in ZWL\$ millions)	31 December 2021				30 June 2022			
	SA 1	SA 2	SA 3	Total	SA 1	SA 2	SA3	Total
Prescribed assets	4.4	400.1	-	404.5	-	1,367.0	-	1,367.0
Old Mutual Guaranteed Fund	244.8	-	-	244.8	591.4	-	-	591.4
Quoted Shares	11,415.8	9,208.6	76.0	20,700.4	23,193.5	18,808.7	259.4	42,261.6
Unquoted Shares	734.2	-	-	734.2	2,204.6	-	-	2,204.6
Fixed Property	14,459.3	221.3	-	14,680.6	45,105.7	1,655.7	-	46,761.4
Fixed Income Investments	66.8	110.6	-	177.4	161.1	192.9	-	354.0
Money Market/Deposits	58.9	3.8	196.1	258.8	254.8	3.8	1,149.1	1,407.7
Net Current assets	(101.9)	685.8	111.5	695.4	(60.6)	1,393.4	572.0	1,904.8
Assets as per Financial Statements	26,882.3	10,630.2	383.6	37,896.1	71,450.5	23,421.5	1,980.5	96,852.5
Actuarial adjustments	246.1	768.4	123.0	1,137.5	98.5	1,372.3	739.9	2,210.7
Adjusted Assets	27,128.4	11,398.6	506.6	39,033.6	71,549.0	24,793.8	2,720.4	99,063.2

- 5.5 The market value of the Fund's assets as per the financial statements has increased from ZWL37.9 billion as at 31 December 2021 to ZWL\$96.9 billion as at 30 June 2022. The increase in the asset values was primarily driven by property revaluation gains and listed equity gains. Properties market values have increased from ZWL\$14.7 billion as at 31 December 2021 to ZWL\$46.8 billion as at 30 June 2022.
- 5.6 The Fund earned an aggregate investment return of approximately 149% over the 6-month period to 30 June 2022. We have also estimated the return achieved on the assets of each sub-account;
- For sub-account 1 – 170% for the 6-month period to 30 June 2022
 - For sub-account 2 – 96% for the 6-month period to 30 June 2022
 - For sub-account 3 – 3.1% for the 6-month period to 30 June 2022

6 Past Service Valuation results

6.1 The table below shows the balance sheet as at 30 June 2022. The liability values allow for the April 2022 pension increases.

(amounts in ZWL\$ millions) Membership categories	31 December 2021				30 June 2022			
	SA 1	SA 2	SA 3	Total	SA 1	SA 2	SA 3	Total
Active	12,139.0	8,847.2	380.2	21,366.4	11,794.3	10,008.8	1,674.7	23,477.8
Deferred	5,134.8	608.0	6.1	5,748.9	5,135.9	837.4	89.4	6,062.7
Preserved	1,022.9	80.0	1.7	1,104.6	1,099.1	137.5	10.0	1,246.6
Current Pensioners	4,129.9	64.4	-	4,194.3	5,774.1	118.4	-	5,892.5
Suspended Pensioners	488.7	0.3	-	489.0	597.2	0.3	-	597.5
Suspended Pensioners' arrears	873.4	-	-	873.4	900.6	-	-	900.6
Additional Death Benefit Reserve	234.2	7.1	-	241.3	232.8	6.9	-	239.7
Provision for liability in respect of contribution arrears	835.6	991.1	114.1	1,940.8	814.9	1,616.0	871.7	3,302.6
Data Reserve	396.7	117.6	-	514.3	386.5	195.4	-	581.9
Provision for Revaluation Gains for exited members	482.6	124.6	0.7	607.9	296.4	58.6	-	355.0
Contingency Reserve	1,354.6	570.5	-	1,925.1	3,577.5	1,239.7	-	4,817.2
Property Revaluation Smoothing Reserve	-	-	-	-	-	-	-	-
Total Liability	27,092.4	11,410.8	502.8	39,006.0	30,609.3	14,219.0	2,645.8	47,474.1
Adjusted Assets	27,092.4	11,410.8	502.8	39,006.0	71,549.0	24,793.8	2,720.4	99,063.2
Surplus/ (Deficit)	-	-	0.0	0.0	40,939.7	10,574.8	74.6	51,589.1
Funding Level	100.0%	100.0%	100.0%	100.0%	233.7%	174.4%	102.8%	208.7%

6.2 The value of the aggregate Fund liabilities as at 30 June 2022 was ZWL\$47.5 billion compared with an asset value of ZWL\$99.1 billion. This is equivalent to a surplus of ZWL\$51.6 billion.

- The value of the Sub-account 1 accrued liabilities as at 30 June 2022 was ZWL\$30.6 billion compared with an asset value of ZWL\$71.5 billion. This is equivalent to a surplus of ZWL\$40.9 billion.
- The value of the Sub-account 2 accrued liabilities as at 30 June 2022 was ZWL\$14.2 billion compared with an asset value of ZWL\$24.8 billion. This is equivalent to a surplus of ZWL\$10.6 billion.
- The value of the Sub-account 3 accrued liabilities as at 30 June 2022 was USD 7.3 million (ZWL\$2.65 billion) compared with an asset value of USD 7.4 million (ZWL\$2.72 billion). This is equivalent to a surplus of USD 159,400 (ZWL\$74.6 million).

Analysis of Surplus

6.3 The principal factors that gave rise to the current financial position are summarised in the table below.

Analysis of surplus (amounts in ZWL\$ millions)	Sub-account 1	Sub-account 2	Sub-account 3	Total ZWL
Surplus/ (Deficit) as at 31 December 2021	-	-	-	-
Investment return (excl. prop revaluation)	15,161	10,525	67	25,753
Property Revaluation Gains	30,100	542	-	30,642
Increase in contingency reserve	(2,221)	(670)	-	(2,891)
Increase in provisions for rent & operational costs debtors	(17)	-	-	(17)
Pensioners' cost of guarantee	(156)	(4)	-	(160)
Cost of April 2022 pension increases	(1,830)	(39)	-	(1,869)
Administration expenditure	(304)	(124)	(7)	(435)
Increase in data reserve	11	(78)	-	(67)
Unexplained	-	-	-	-
Miscellaneous gains/ (strains)	195	423	15	633
Surplus/ (Deficit) as at 30 June 2022	40,939	10,575	75	51,589

Allocation of Surplus

- 6.4 In considering the level of bonuses and pension increases that can be afforded by the Fund as at 30 June 2022, we have;
- determined the allocation of the surplus in accordance with the requirements of the IPEC Revaluation Guideline. The surplus is apportioned to each membership category and sub-account in proportion to the liabilities. Appendix II provides details of the surplus allocated to membership categories and sub accounts,
 - considered the funding level of the Fund and ensure that the bonuses and pension increases do not result in a deficit at the valuation date,
 - maintained data reserves and contingency reserves to reduce the impact of data issues and market volatility.
 - Considered investment market movement after the valuation date;
 - The Zimbabwe Dollar, as determined by the RBZ "official market rate", depreciated against the United States Dollar from USD\$ 1: ZWL\$ 366.3 as at 30 June 2022 to USD\$ 1: ZWL\$ 632.1 as at 31 October 2022. This is equivalent to an increase of approximately 73% in Zimbabwe dollar prices that are indexed to the US dollar at the official market rate. This suggests that property market values may have increased further in Zimbabwe dollars since the valuation date. This will be more relevant for sub-account 1 which has 63% of assets invested in property.
 - The ZSE all share index has decreased by approximately 25% since 30 June 2022. This will result in negative returns for the Fund which will be more severe for sub-account 2 which has approximately 80% of assets invested in listed equities. Therefore 40% of the surplus in sub-account 2 will be retained as smoothing reserve to absorb the expected impact of negative returns after the valuation date.

6.5 We recommend the following bonus and pension increase rates;

Issue	Membership Categories	SA 1	SA 2	SA 3	Comments
Bonus	Active, Deferred, Preserved				For the 6-months to 30 June 2022 (pro-rated for exits before 30 June 2022)
	Outstanding benefits, Suspended pension arrears	176.6%	60.5%	3.8%	
Pension Increase	Current and Suspended Pensioners	97.2%	44.2%	n/a	with effect from 1 July 2022 (pro-rated for pensions commencing after 1 January 2021)
Additional Death Benefit increase	Active & Pensioners	176.6%	60.5%	n/a	For the 6-months to 30 June 2022 (pro-rated for exits before 30 June 2022)
Bonus for exiting members	Exiting members	181.6%	65.5%	3.8%	For the 6-months to 30 June 2022 (pro-rated for exits before 30 June 2022)

6.6 Please note that the pension increases recommended will supersede the following interim pension increases.

Effective date	Membership Categories	SA 1	SA 2	SA 3
1 July 2022	Current and Suspended Pensioners	55.0%	10.0%	n/a



Tigere Mutare, FIA, AMASSA.
(in my capacity as consulting actuary to)
 The Mining Industry Pension Fund
9 February 2023

APPENDIX I: REVENUE STATEMENT

	Sub-account 1	Sub-account 2	Sub-account 3	Total
Fund @ beginning of period	26,882.2	10,630.2	383.6	37,896.0
Prior year adjustment	(47.0)	19.8	(0.0)	(27.2)
INCOME				-
Member contributions	-	1,082.7	248.8	1,331.5
Employer contributions	-	1,086.1	248.8	1,334.9
Other contributions and provisions	-	(9.5)	-	(9.5)
Interest on contribution arrears	21.2	230.3	-	251.4
Investment income	160.2	308.7	41.7	510.7
Net rental income	308.1	(0.2)	-	307.8
Property revaluation	30,100.4	542.3	-	30,642.7
Unrealised gains	14,583.9	10,209.9	737.5	25,531.3
Other income	108.8	6.4	329.2	444.3
Total Income	45,282.5	13,456.7	1,606.0	60,345.3
EXPENDITURE				
Pension benefits	302.3	2.3	0.0	304.6
Other Benefits	11.1	32.2	4.3	47.5
Administration Expenditure	304.3	124.5	4.7	433
Provision for bad debts	49.6	526.3	-	575.9
Amounts written down on investments	-	-	-	-
Total Expenditure	667.2	685.2	9.0	1,361.5
Fund @ end of period	71,450.5	23,421.5	1,980.6	96,852.6

APPENDIX II: MEMBERSHIP DATA CHECKS AS AT 30 JUNE 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 2021 to the numbers as at 30 June 2021.

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.

The tables below show the movement in members' liability from 1 January 2022 to 30 June 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	18,321.8	10.8	-	(94.6)	(159.4)	(49.3)	-	18,029.3	0.0	18,029.3	31,863.2	49,892.4
Liability for contribution arrears	835.6	-	(3.6)	-	-	-	(17.0)	814.9	-	814.9	-	814.9
Pensioners' Liability	4,624.9	-	-	(302.3)	-	62.3	1,830.4	6,215.2	156.0	6,371.2	6,193.4	12,564.6
Suspended Pensioners' arrears	874.5	-	-	26.1	-	-	-	900.6	-	900.6	1,162.4	2,063.0
Additional Death Benefit Reserve	234.5	-	-	(1.7)	-	-	-	232.8	-	232.8	413.0	645.8
Data Reserve	397.2	(10.8)	-	-	-	-	-	386.5	-	386.5	682.4	1,068.9
Provision for exited members	483.3	-	-	(346.3)	159.4	-	-	296.4	-	296.4	625.6	922.0
Contingency Reserve	1,356.4	-	-	-	-	-	2,221.0	3,577.5	-	3,577.5	-	3,577.5
Property Revaluation Reserve	-	-	-	-	-	-	-	-	-	-	-	-
Total Liability	27,128.3	-	(3.6)	(718.9)	-	13.0	4,034.3	30,453.1	156.0	30,609.1	40,939.9	71,549.0

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	9,523.9	(78.0)	1,647.9	(46.1)	(53.4)	(10.7)	-	10,983.7	-	10,983.7	5,912.6	16,896.3
Liability for contribution arrears	991.1	-	450.1	-	-	-	174.7	1,616.0	-	1,616.0	-	1,616.0
Pensioners' Liability	64.7	-	-	(2.3)	-	13.4	38.5	114.3	4.4	118.7	52.5	171.2
Suspended Pensioners' arrears	-	-	-	-	-	-	-	-	-	-	-	-
Additional Death Benefit Reserve	7.1	-	-	(0.2)	-	-	-	6.9	-	6.9	4.2	11.2
Data Reserve	117.5	78.0	-	-	-	-	-	195.4	-	195.4	118.2	313.7
Provision for exited members	124.5	-	-	(119.2)	53.4	-	-	58.6	(0.0)	58.6	48.9	107.6
Contingency Reserve	569.9	-	-	-	-	-	-	569.9	-	569.9	1,239.7	1,239.7
Property Revaluation Reserve	-	-	-	-	-	-	-	-	-	-	-	-
Total Liability	11,398.6	-	2,098.1	(167.7)	-	2.6	213.3	13,544.9	4.4	14,219.0	6,136.6	20,355.6

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	3,605.0	53.1	1,244.2	(14.1)	(44.7)	-	-	4,843.5	-	4,843.5	157.4	5,000.9
Liability for contribution arrears	1,049.9	-	1,355.7	-	-	-	-	2,405.6	(25.6)	2,380.0	-	2,380.0
Provision for exited members	-	-	-	-	44.7	-	-	44.7	-	44.7	2.1	46.8
Total Liability	4,654.9	53.1	2,599.9	(14.1)	-	-	-	7,293.8	(25.6)	7,268.2	159.4	7,427.7

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

ACTIVE PENSIONERS					
	Males	Females	Missing	Total	
Gender	7,980	1,518	-	9,498	
	max	Min	Average	Sum	Missing/ Zero
DOB	22-Nov-2051	01-Jun-1924	13-Apr-1955		-
PSD	01-Jun-2022	01-Apr-1979	18-Mar-2012		-
SA1 Annual Pension	1,856,477	1,731	65,475	618,279,920	-
SA2 Annual Pension	815,398	16	26,496	10,306,822	9,109

SUSPENDED PENSIONERS					
	Males	Females	Missing	Total	
Gender	2,131	416	-	2,547	
	max	Min	Average	Sum	Missing/Zero
DOB	22-Nov-1984	01-Jul-1908	03-Aug-1939		-
PSD	01-Sep-2021	01-Mar-1970	10-Apr-1997		-
Date Suspended	01-Jun-2022	01-Feb-1988	14-Dec-2010		-
SA1 Annual Pension	429,933	-	64,720	164,842,252	8
SA2 Annual Pension	27,749	982	9,927	29,780	2,544

Membership reconciliation

ACTIVE MEMBERS			DEFERRED MEMBERS			PRESERVED			PENSIONERS - 30 JUNE 2022		
Opening Balance		23,022	Opening Balance		44,240	Opening Balance		8,065	Opening Balance		12,004
Reinstatements			Reinstatements			New Entrants			New Entrants		
Deferred	526		Active	1,588		Active	92		Active	49	
Preserved	31		Preserved	1	1,589	Deferred	75		Deferred	52	
Exited	13	570				Exited		167	Preserved	4	
									Exited	34	139
New Entrants		583	New Entrants		215						
						Duplicate Records Merged					
Duplicate Records Merged		-23	Duplicate Records Merged		-21				Duplicate Records Merged		
Exits			Exits			Exits			Exits		
Trf out - Deferreds	-1,588		Trf out - Actives	-526		Trf out - Actives	-31		Death	-84	
Trf out - Preserved	-92		Trf out - Preserved	-75		Trf out -Deferred	-1				
Trf out - Pensioners	-49		Trf out - Pensioners	-52		Trf out - Pensioners	-4				
Death	-1		Death	-27		Death	0				
Ill-Health	-11		Ill-Health	-6		Ill-Health	0		End of guaranteed Period	-14	-98
Withdrawal / Resignation	-15		Withdrawal / Resignation	-40		Withdrawal / Resignation	0				
Retrenchment	-15		Retrenchment	-41		Retrenchment	0				
Retirement	-20	-1,791	Retirement	-83		Retirement	-2				
			Other	-4,997	-5,847	Other	-210	-248			
Closing Balance		22,361	Closing Balance		40,176	Closing Balance		7,984	Closing Balance		12,045