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# **ACTUARIAL SOCIETY OF ZIMBABWE**

## **GUIDANCE NOTE FOR SI 162 OF 2023**

### **Pensions and Provident Funds (Compensation for Loss of Pre-2009 Value of Pension Benefits) Regulations, 2023**

**January 2024**

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## **1. Introduction**

- 1.1. In October 2023, Statutory Instrument 162 of 2023 (“SI162,2023”) was published. This focuses on Pensions and Provident Funds’ Compensation for Loss of Pre-2009 Value of Pension Benefits. The implementation of this Statutory Instrument proposed that Actuaries, who are mostly, members of the Actuarial Society of Zimbabwe assist in its implementation.
- 1.2. As ASZ, we have developed a brief guideline to assist in this exercise.

### ***Aim of the Guideline***

- 1.3. To assist in implementation of SI162 of 2023 for Pensions and Provident Funds.

### ***Who is affected by this guideline?***

- 1.4. All members of ASZ participating in SI162 of 2023 work.

### ***Effective date***

- 1.5. 01 October 2023

### ***Supporting Documents***

- 1.6. Pensions and Provident Funds (Compensation for Loss of Pre-2009 Value of Pension Benefits) Regulations, 2023
- 1.7. 2009 Compensation Pensions Regulations-Responses to Queries Raised by ASZ
- 1.8. Professional Actuarial Standards on carrying out actuarial assignments as guided by primary regulatory bodies. In the absence of such specific guidelines, it is recommended that reference be made to the following vital documents;
  - 1.8.1. International Standard of Actuarial Practice 1(ISAP1) issued by IAA
  - 1.8.2. The Actuaries Code of IFoA (UK) or equivalent where your primary regulator is not IFoA (UK).
- 1.9. Provisions of Cyber and Data Protection Act [Chapter 12:07]

### ***Structure of the guideline***

- 1.10. This guideline looks at key disclosures (reporting), data, assumptions, methodology and reporting aspects of key results, key sensitivity analyses, other disclosures and model governance aspects. Supporting appendices contain technical interpretations for different scheme types as outlined in SI162 of 2023.

### ***Review and updating***

- 1.11. This guideline remains effective for the foreseeable future and will be updated in line with any supplementary updates to SI162 of 2023.

## **2. Disclosure Report Structure**

- 2.1. The Actuary is expected to prepare a comprehensive report on the results of the compensation framework for the Trustees and other key stakeholders to have a full appreciation of the process. As per the standard actuarial reporting, the following key sections are expected in the report:
  - 2.1.1. Executive Summary
  - 2.1.2. Objectives of the Report
  - 2.1.3. Data
  - 2.1.4. Assumptions
  - 2.1.5. Methodology
  - 2.1.6. Results
  - 2.1.7. Conclusions and recommendations
- 2.2. Each of these areas is described throughout this standard.
- 2.3. The Actuary is expected to disclose in detail any deviations from the SI162 of 2023 approach and outline reasons for the deviation and potential impact on results.
- 2.4. In cases where the Actuary considered more than one approach, the Actuary is expected to summarise the alternative approaches and the potential impact they might have had on the Prejudice amount. Reasons for choosing the approach eventually taken also enhance the understanding of the Trustees.

### **3. Data**

- 3.1. The Actuary is required to clearly outline the data requirements for the exercise. The data requirements are expected to be shared with the Administrator of the Pension Fund. It is recommended that the Principal Officer of the Fund be in copy in all communications for the data requests.
- 3.2. The Actuary is recommended to request the following data artefacts for the exercise:
  - 3.1.1. Actuarial Valuation reports (2000 to 2014)
  - 3.1.2. Audited financial statements (2000 to 2014)
  - 3.1.3. Rules and amendments covering the whole investigation period
  - 3.1.4. Member contributions data (2000 to 2014)
  - 3.1.5. Exits and payments data (2000 to 2014)
  - 3.1.6. Pensioners data (2000 to 2014)
  - 3.1.7. History of pension increases from 2000 to 2014
  - 3.1.8. Details of any pension compensations independently carried out by the Fund including copies of the supporting reports.
  - 3.1.9. Exchange rates (official or market implied portfolio rates) relevant to the Pension Fund.
  - 3.1.10. 28 February 2009 conversion report and member schedules for the conversion
  - 3.1.11. For DB to DC conversions: the conversion report, conversion data used and member schedules pre and post conversions.
  - 3.1.12. Initial sets of data transferred between administrators for schemes that were transferred including the member schedules with balances as at date of transfer.
  - 3.1.13. For life companies, all documents needed for the purposes of asset separation between policyholders and shareholders—include profit sharing reports, investment reports, asset valuation reports among other documentation.

### **Handling of Data**

- 3.3. The ASZ recommends superior handling of the data for the Compensation Framework. It is recognized that the data may be provided by the administrators in batches. The Actuary is required to maintain a “data receipts” tracker showing which data has been received and when it was received. Data queries sent is expected to be equally recorded. The data receipts tracker is expected to at least show the following fields:
  - 3.3.1. Date received;
  - 3.3.2. The data sets received (e.g. 2010 actuarial valuation report, 2001 audited financial statements);
  - 3.3.3. Date receipt of data was acknowledged;
  - 3.3.4. Summary of data queries sent; and
  - 3.3.5. Date follow up data queries were provided.

- 3.4. The Actuary is expected to maintain a repository/folder where the raw data is kept so as to ensure that there is original set of data in the future that can be referred to in need.
- 3.5. The Actuary is required to carry out extensive data checks and reconciliations. The Actuary is recommended to consider the following data checks, among other standard data checks, as they carry out the exercise.
  - 3.5.1. Check for presence of members in payments who are not in contributions data. This might mean contributions data is missing some members or payments data has members who belong to other schemes.
  - 3.5.2. Particularly for 2000 to 2009, total contributions are expected to be reconciled against financial statements and actuarial valuation reports.
  - 3.5.3. For the year 2006 and 2008, check whether zeroes had been already removed in the data provided and check for reasonability against adjacent years. For example, absolute 2005 contributions are likely to be larger than the absolute 2006 contributions that have zeros removed.
  - 3.5.4. Assess whether there are members whose balances after the first-year contribution are materially higher than the contributions made in the first year. This might mean they joined with a prior balance and if not declared already, consultations and clarifications with the administrator may be required.
  - 3.5.5. For schemes that transferred between administrators during the investigative period, assess whether the balances transferred per member reconcile with the total amounts transferred for the whole scheme.
  - 3.5.6. For some administrators, unique identifiers for members may not be available or are inconsistent. This may be more pronounced for schemes that moved across administrators. Hence, it is important to reconcile unique identifiers for members and other artefacts including name, date of birth, date of joining. Change of any artefact may lead to change of unique identifier and creation of two identifiers for one person and lead to understatement of contributions or payments for the affected individuals.
  - 3.5.7. Check for unreasonable changes in USD contributions from year to year.

## **Data Disclosures**

- 3.6. In the compensation framework report, the following disclosures are required in relation to data:
  - 3.6.1. The reconciliation of data that was provided against the data that was requested.
  - 3.6.2. Data checks that were carried out.
  - 3.6.3. Summary of major data queries communicated to the administrator and the responses provided.
  - 3.6.4. Outstanding data gaps and how the Actuary treated the gaps through assumptions or adjustments to methodology.
  - 3.6.5. An assessment of the data gaps and potential impact on the results of the exercise.
  - 3.6.6. Recommendations for better data management by the Fund.

## **4. Assumptions**

4.1. The ASZ recognizes that SI 162 of 2023 prescribes the parameters to be used for the compensation framework exercise. However, due to data gaps and peculiar Fund circumstances, it is recognized that assumptions may still be required. Therefore, the Actuary is expected to outline the assumptions made for the exercise. The following disclosures are recommended:

- 4.1.1. The assumption(s) made;
- 4.1.2. Key aspect affected (does it affect data e.g. to solve a gap in data, does it affect methodology or resulted in adjustments to the prescribed methodology);
- 4.1.3. Reasons for the assumption(s);
- 4.1.4. Potential impact of the assumption(s); and
- 4.1.5. Sensitivity of results to the assumption(s)

## **5. Methodology**

- 5.1. SI 162 of 2023 provides the methodology to follow for both Defined Benefit (DB), Defined Contribution (DC) and Hybrid funds. However, ASZ has also summarized the methodology and key interpretations for the benefit of Actuaries as outlined in the *Appendix 1 to 4* of this guideline.
- 5.2. The Actuary may make modifications to the ASZ's recommended approach and outline the reasons for the modifications and potential impact on results.

## **6. Results**

- 6.1. In reporting the results, the Actuary is expected to adequately disclose the following aggregate information (not exhaustive):
  - 6.1.1. The USD equivalent contributions (without interest) made between 2000 and 2009;
  - 6.1.2. The USD equivalent benefit payments made between (without interest) 2000 and 2009;
  - 6.1.3. The USD equivalent contributions (with interest) made between 2000 and 2009;
  - 6.1.4. The USD equivalent benefit payments made between (with interest) 2000 and 2009;
  - 6.1.5. The net deemed fund credit for the fund as at 28 February 2009;
  - 6.1.6. Benefit payments made between 2009 and 2014 attributable to pre-2009 accumulations;
  - 6.1.7. Total market value of all assets as at 31 December 2009;
  - 6.1.8. Market value of pre-2009 assets as at 28 February 2009 and 31 December 2014;
  - 6.1.9. Market value of post-February 2009 assets as at 31 December 2014;
  - 6.1.10. Value of benefit enhancements (if any) implemented by the employer or the Fund to compensate for 2000-2009 loss of value;
  - 6.1.11. Prejudice as at 31 December 2014 in US\$;

- 6.1.12. Prejudice as at 31 December 2022 in US\$;
  - 6.1.13. Prejudice as at 31 December 2023 in ZWL;
  - 6.1.14. Number of members with a positive amount of prejudice;
  - 6.1.15. Average amount of prejudice as at 31 December 2022 in US\$;
  - 6.1.16. Distribution of prejudiced individuals between actives and already-exited individuals including total prejudice per each class;
  - 6.1.17. Age profile of the already-exited individuals including total prejudice in each age band.
  - 6.1.18. The 1% of assets as at 31 December 2022 and comparison against the prejudice amount.
- 6.2. The Actuary can determine the appropriate format and visualization to ensure the results are easily understood by the audience.
- 6.3. The report is expected to be accompanied by an appropriate final member schedule at least showing the following fields (not exhaustive);
    - 6.3.1. Unique Identifier
    - 6.3.2. Surname
    - 6.3.3. Given Names
    - 6.3.4. Sex
    - 6.3.5. Date Of Birth
    - 6.3.6. Date Joined Fund
    - 6.3.7. Contributions (2000-2009)- Without Interest
    - 6.3.8. Contributions (2000-2009)- With Interest
    - 6.3.9. Benefit Payments (2000-2009)- With Interest
    - 6.3.10. Net Accumulations 29 Feb 2009 (With interest)
    - 6.3.11. Benefit Payments (2009-2014)
    - 6.3.12. The 2014 Asset Share
    - 6.3.13. The 2014 Prejudice
    - 6.3.14. The 2022 Prejudice

## **7. Sensitivities**

- 7.1. The Actuary is expected to include detailed sensitivities where appropriate. The ASZ recommends the Actuary to provide sensitivities for *the interest rate* applied. Besides the average implied market portfolio rate, the interest rate is anticipated to be a key driver of prejudice. It is recognized that alternative exchange rates may be difficult to build hence the ASZ does not expect sensitivities for the *exchange rate*.
- 7.2. For the interest rate, it is recommended that the Actuary show how the Prejudice would change based on the interest rates variations as proposed below:
  - 7.2.1. 0% per annum
  - 7.2.2. 1% per annum
  - 7.2.3. 2 per annum.
- 7.3. Other sensitivity analyses around testing of key assumptions made are also expected to be carried out. This could be in line with areas where the Actuary has made significant judgements.

## **8. Other disclosures**

- 8.1. The Actuary is recommended to also include the following disclosures in the report:
  - 8.1.1. Recommended sequencing of payments e.g. already-exited members above a particular age.
  - 8.1.2. Potential sources of further financing the Prejudice that Trustees could consider e.g. impact of additional contributions if the Employer is willing to do as such and for schemes where it is appropriate.
  - 8.1.3. Potential improvements to data management that Trustees can consider for the future.

## **9. Model documentation and Records keeping**

- 9.1. The Actuary is expected to properly document and save all models. Reasonable documentation including proper audit trails for future reference are expected to be kept in place.
- 9.2. It is expected that data, models and any reports are securely stored in line with the requirements of the Cyber and Data Protection Act [Chapter 12:07].

## **Appendices: Technical Interpretations**

Below are the technical interpretation summaries to assist ASZ members in terms of SI162 of 2023 implementation. These are meant to provide complementary interpretations for your consideration but do not act as a substitute for SI162 of 2023.

### **Appendix 1: Defined Benefit Funds**

The Actuary shall carry out the following key steps in determining prejudice for the Fund.

- a) Confirmation of the correct payment of contributions per the Fund Rules applicable in the investigation period.
- b) Confirmation of the correct calculation of exited members' benefits per the Fund rules applicable in the investigation period.
- c) Recalculation of all exited member benefits in terms of 6(2)(a):
  - ✓ Exited members whose benefits were based on salary, recalculate using 31 December 2014 Salary.
  - ✓ Exited members whose benefits were based on refund of contributions, recalculate using defined contribution approach.
- d) Convert all exited members' ZW\$ benefits to US\$ using the official exchange rate (average market portfolio implied rates in the Statutory Instrument if the Actuary cannot access the official exchange rate) at the date of exit.
- e) Calculating prejudice as the difference of the capital values of the benefits in c and d.
- f) Accumulate the prejudice with a minimum of 3% interest to the compensation date.

The above approach will also apply to funds which converted, for the period they were DB in the investigation period (i.e. 1 January 2000 to Conversion date).

### **Appendix 2: Defined benefit to Defined contribution conversion in the investigation period**

The Actuary shall carry out the following key steps in determining prejudice for the Fund.

- a) Review Conversion valuation report to check financial position at conversion.
- b) Convert any ZW\$ shortfall at conversion to US\$ using the average market portfolio implied rates in the Statutory Instrument.
- c) Accumulate the US\$ shortfall with a minimum of 3% interest to the payment date. Subject to availability of data, the Actuary is expected to test returns between 2000 and 2009 against the USD exchange rate depreciation and determine whether real returns of the fund in US\$ between 2000 and 2009 were above 3% per annum. If the real return is below the 3% interest per annum, the Actuary is expected to apply the 3% per annum minimum return. If the real return is above 3%, the Actuary is expected to apply the Fund-specific real return. In absence of data, the minimum return of 3% per annum is expected to be applied.
- d) Determine the equivalent US\$ value in respect of any shortfall funding made and deduct from the accumulated shortfall in 9.

- e) Notify the employer of the net shortfall due for payment within 30 days from date of notification.
- f) Calculate each individual members US\$ conversion credit using an equivalent grade members' US\$ salary at 31 December 2011.
- g) Use the calculated US\$ Conversion credit as the Opening balance under the new defined contribution arrangement.
- h) Proceed to carry out the subsequent calculations as per calculation approach for defined contributions funds below.

### **Appendix 3: Defined Contributions Funds**

The Actuary shall carry out the following key steps in determining prejudice for the Fund.

- a) Confirmation of the correct payment of contributions per the Fund Rules applicable in the investigation period.
- b) Convert any ZW\$ contribution shortfalls to US\$ amounts using the average market portfolio implied rates in the Statutory Instrument.
- c) Accumulate the US\$ contribution shortfall with a minimum of 3% interest to the payment date. Subject to availability of data, the Actuary is expected to test returns between 2000 and 2009 against the USD exchange rate depreciation and determine whether real returns of the fund in US\$ between 2000 and 2009 were above 3% per annum. If the real return is below the 3% interest per annum, the Actuary is expected to apply the 3% per annum minimum return. If the real return is above 3%, the Actuary is expected to apply the Fund-specific real return. In absence of data, the minimum return of 3% per annum is expected to be applied.
- d) Notify the employer of any contribution shortfalls due for payment within 30 days from date of notification.
- e) Determine individual member's annual retirement contributions (net of expense contributions) from 2000 to 2014. 2000 to 28 Feb 2009 in ZW\$ while March 2009 to 31 Dec 2014 in US\$
- f) Convert 2000 to 2009 ZW\$ contributions (net of expense contributions) to US\$ amounts using the average market portfolio implied rates set out in the Statutory Instrument.
- g) Convert ZW\$ benefits paid to US\$ using the average market portfolio implied rates set out in the Statutory Instrument.
- h) Determine the annual 2000 to 2009 net contributions (contributions less benefit payments)
- i) Accumulate the annual 2000 to 2009 US\$ net Contributions with a minimum 3% interest to determine the Deemed Fund Credit at 28 February 2009.
- j) Determine subsequent benefit payments to members between 2009 and 2014 that were paid against pre-2009 member accumulations.
- k) Adjust the Deemed Fund Credit as at 28 February 2009 by deducting 2009 to 2014 benefit payments made to the individual to get the Net Deemed Fund Credit
- l) Determine the market value of assets acquired before 28 February 2009 (pre-2009 assets) as at 31 December 2014.
- m) Express the individual's net deemed fund credit as a percentage of the total net deemed fund credit.
- n) Determine the member's asset share by multiplying the individual's percentage of total net deemed fund credit and the market value of pre-2009 assets as at 31 December 2014.
- o) Determine prejudice as the difference between the net deemed fund credit and individual's asset share.

- p) Accumulate the US\$ prejudice at 31 December 2014 with a minimum of 3% interest to the payment date (31 December 2022). The Actuary is expected to test returns between 2014 and 2022 against the USD exchange rate depreciation and determine whether real returns of the fund in US\$ between 2014 and 2022 were above 3% per annum. If the real return is below the 3% interest per annum, the Actuary is expected to apply the 3% per annum minimum return. If the real return is above 3%, the Actuary is expected to apply the Fund-specific real return.
- q) Express the US\$ prejudice in ZWL by converting using the official interbank rate as at 31 December 2023.

The above process for DC funds will also apply to defined contributions in the investigation period and funds which converted for the period they were DC in the investigation period (i.e. Conversion date to 28 February 2009).

### **Appendix 3.1: Key Considerations for the Methodology (DC)**

The Actuary can consider the considerations (not exhaustive) below for the defined contributions fund calculations. The considerations, whilst not prescriptive, provide potential angles of interpretation that the Actuary may consider. The Actuary is encouraged to adjust the considerations to the specific circumstances of each fund they work on.

- In 2009, assets were significantly underpriced and underwent a re-pricing process or a recovery process from 2009 to 2014. 2014 was identified as the pick period when assets might have been fully recovered.
- Hence as at 2009, conversion member accumulations were significantly low before asset recovery.
- Using the standard financial review process, some of the recovery growth in asset prices would have benefited new members at the expense of members that were there prior to 28 February 2009.
- Therefore, it would be appropriate to track and ringfence pre-2009 assets through the recovery period and determine their value as at 31 December 2014.
- The 31 March 2014 market value of pre-2009 assets should then be shared between the members who were members during the investigative period. The sharing should be proportionate to their net member accumulations based on the compensation framework method.
- In essence, pre-2009 assets can actually be termed sub account 1(a) which is only accessible to members who were there prior to 28 February 2009. Such members may have joined between 1 January 2000 and 28 February 2009 or had a positive balance in the fund as at 1 January 2000.
- Determination of the 31 December 2014 market value of pre-2009 assets can take various methods. One method would follow the process below:
  - ✓ Determine the market value of all assets in the fund as at 31 December 2014.
  - ✓ For each year between 28 February 2009 and 31 December 2014, determine the net post-2009 cashflows by considering contributions less expenses and less benefit payments attributable to 2009-2014 contributions.

- ✓ Accrue the net post-2009 cashflows with the fund returns between 2009 and 2014 to determine the Market value of assets bought using 2009-2014 net contributions (post-February 2009 assets)
- ✓ Deduct the 31 December market value post-February 2009 assets from the market value of the total fund assets as at 31 December 2014. This would be the 31 December 2014 market value of the pre-2009 assets.
- The 2009 to 2014 net cashflows described above can also be approached from net movement in cost of assets acquired and proceed to estimate the net cost of assets between 2009 and 2014 and then accrue the returns earned to determine the market value of the assets acquired between 2009 and 2014.
- If there are readily available asset managers' valuation statements and transaction statements, explicit tracking of cash flows can also be done to trace the assets that were there as at 28 February 2009 and track them to 31 December 2014.
- The actuary can consider appropriate methodology based on available information to determine the market value of pre-2009 assets. It is recommended that the Actuary can also compare the results and disclose which method they then adopted and the reasons for adopting the approach accordingly.
- Depending on the approach, the member accumulations as at 28 February 2009 can be considered not to earn interest between 2009 and 2014 as accumulations will be in freeze mode whilst allowing assets to recover. Reliance was placed on paragraph 7(4)(e) of SI 162 of 2023 where prejudice is summarized as (d) less (b). The (b) is basically the deemed fund credit as at 28 February 2009 without further interest. However, consistency is the key consideration for any approach by ensuring that returns or interest don't result in double-recognition of returns and both the liability side and the asset side are subjected to a consistent approach.
- The final report of the Commission of Inquiry is also an appropriate reference for the purposes of deeper understanding of the principles underpinning the compensation framework. For DC schemes, Paragraph 964 reinforces the reason for use of 31 December 2014 market value and the determination of accumulations to 28 February 2009 in US\$ and using the same to determine proportional share of the ring-fenced pre-2009 assets.
- Another key consideration is that the prejudice as at 31 December 2014 is supposed to earn a minimum of 3% p.a to 31 December 2022. Over the period between 2014 and 2022, significant changes occurred including de-dollarisation and 1USD:1ZWL processes. One can argue that from 2014, the actuary can use actual fund returns in USD and in ZWL from 2019 onwards up to 31 December 2022. The actuary would then arrive at 31 December 2022 with a ZWL prejudice amount and then convert back to USD. The ASZ's interpretation is that from 31 December 2014 to 31 December 2022, the prejudice amount remains in USD. In SI 162 of 2023, conversion to ZWL is only mentioned in 2023 at the point of determining the ZWL equivalent of the prejudice as at payment date. The ASZ therefore recommends that the actuary maintains the prejudice in US\$ till 31 December 2022. Deviation from the recommendation is expected to be accompanied by appropriate justification for trustees to consider and for IPEC to also consider for their approval.