



NAUMAN ASSOCIATES
CONSULTING ACTUARIES

Ref. No. L-2833/22

September 23, 2022

Mr. Khizar Hayat
General Manager (GA & HR)
Trading Corporation of Pakistan (Pvt) Limited
Block B, 4th Floor, FTC Building, Shara-e-Faisal,
KARACHI.

Subject: IAS-19 Reporting for Leave Encashment Scheme as at 30.06.2022

Dear Sir,

The accounting entries for Trading Corporation of Pakistan (Pvt) Limited Employees' Leave Encashment Scheme for its financial year 2022 have been determined according to the International Accounting Standard 19 (2011) ("IAS 19") and are presented in the following attached report.

The results obtained from this report are as follows:

Summary of Results	Amount in Rs.
Charge to P&L Account for the fiscal year 2022	51,913,670
Balance Sheet Liability/(Asset) as at 30.06.2022	91,588,318

If there are any questions regarding the calculations or any other aspect of the report, please feel free to contact the undersigned and we would be glad to be of assistance.

Yours faithfully,

Muhammad Hadi Qasim
Manager

Faisal Ghani
Vice - President

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NAUMAN ASSOCIATES
CONSULTING ACTUARIES

**IAS 19 REPORTING FOR
TRADING CORPORATION OF PAKISTAN (PVT)
LIMITED
EMPLOYEES' LEAVE ENCASHMENT SCHEME
AS AT 30.06.2022**

Date: September 23, 2022

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TABLE OF CONTENTS

MAIN REPORT	1
SECTION 1: INTRODUCTION	1
1.1. <i>Purpose of the Report</i>	1
1.2. <i>Date of Actuarial Valuation</i>	1
1.3. <i>Compliance with Actuarial Standards</i>	1
1.4. <i>Responsibility and Communication</i>	1
SECTION 2: INFORMATION RECEIVED.....	2
2.1. <i>Benefit Structure</i>	2
2.2. <i>Data Used for Valuation</i>	2
2.3. <i>Checks performed on Data</i>	3
2.4. <i>Final Comment on Data</i>	3
2.5. <i>Other Information</i>	4
SECTION 3: ASSUMPTIONS	5
3.1. <i>Actuarial Method Used</i>	5
3.2. <i>Assumptions</i>	5
3.3. <i>Change in Assumptions</i>	6
3.4. <i>Sensitivity of Assumptions</i>	6
SECTION 4: IAS 19 DISCLOSURES.....	7
4.1. <i>Accounting Entries for FY 2022 and FY 2021</i>	7
SECTION 5: ADDITIONAL IAS 19 DISCLOSURES.....	9
5.1. <i>Additional Disclosure Items</i>	9
APPENDIX I: SCHEME RULES.....	10
RISK ASSOCIATED WITH THE SCHEME	11
APPENDIX II: DEMOGRAPHIC ASSUMPTIONS	12



Main Report

Section 1: Introduction

1.1. Purpose of the Report

Nauman Associates has been engaged by the Company as consulting actuaries in order to assist the Company in preparing the financial statements for the financial year 2022. The report shall focus on the calculation of accounting entries related to Trading Corporation of Pakistan (Pvt) Limited Employees' Leave Encashment Scheme ("the Leave Encashment Scheme") required under IAS 19.

This Report and the disclosures provided therein are prepared for the use of the senior management, accounts department and auditors of the Company / Fund (if any), in respect of reflecting relevant liabilities in the financial statements.

This report is confidential. It should not be used for any other purpose and/or provided in whole or in part to any other party other than those mentioned above, without our prior written consent.

1.2. Date of Actuarial Valuation

The actuarial valuation was conducted as at June 30, 2022.

1.3. Compliance with Actuarial Standards

This report has been made in compliance with the Pakistan Society of Actuaries Guidance Note 6. The valuation also uses assumptions set according to the Pakistan Society of Actuaries Guidance Notes 3 and 4 for Post-Retirement Employee Benefits Schemes.

1.4. Responsibility and Communication:

For all communication relating to this report please contact Muhammad Hadi Qasim who was the primary person involved in this project or Faisal Ghani who peer – reviewed the work.

Mr. Nauman A. Cheema has peer-reviewed the exercise and is responsible for this report.



Section 2: Information Received

2.1. Benefit Structure

Details of benefit rules under the Leave Encashment Scheme are provided in Appendix I. To our knowledge, there have been no changes in the rules during the current financial year.

2.2. Data Used for Valuation

The data used for the actuarial valuation of the Leave Encashment Scheme was supplied by the Company. A summary of the data as at the valuation date is as follows:

I. Employee Data

We have received the following key information as at the valuation date:

1. Dates of Birth for all employees
2. Dates of Appointment for all employees
3. Eligible Salary for all employees

II. Key Statistics of Membership Data of the Leave Encashment Scheme as at 30.06.2022:

Key Statistics	Current Valuation
Total employees	377
Total eligible salary	30,804,296
Average age	44.4
Average service	12.5
Average entry age	32.0



2.3. Checks performed on Data

We have performed the following 2 types of checks:

– ***Completeness Checks:***

We have assumed the member information provided by the company includes all the members of the scheme. Hence we have not performed any checks in this regard.

Completeness check has been performed to check that there are no missing fields in the records of members of the scheme. For member information this includes checking that there are no missing Dates of Birth/Appointment and eligible salary for the employees provided.

– ***Reasonableness Checks:***

This involves checking that all values fall within reasonable bounds. This includes checking that all employees are younger than retirement age and all employees are older than 18 years of age.

2.4. Final Comment on Data

After completing the checks performed and reconciling any differences, we are of the opinion that the data is sufficient to perform the exercise and does not have any material deficiencies.

However, we have not conducted the audit of the data.



2.5. Other Information

We have received the following information pertaining to the Scheme for the year:

1. Benefit payments made during the year
2. Benefit payables to ex-employees as at the valuation date

Particulars	<i>Amount in Rs.</i>
Payments to employees retired/resigned during the year	50,985,315
Payables to ex-employees	-

We have not conducted any checking on the information provided and have assumed it to be complete and accurate.



Section 3: Assumptions

3.1. Actuarial Method Used

Projected Unit Credit (PUC) Actuarial Cost Method was used for calculating the accounting entries in this report. This method is mandated under IAS 19.

3.2. Assumptions

The principal and demographic assumptions used in the actuarial valuation are as per Pakistan Society of Actuaries Guidance Note 3. In our opinion, the actuarial assumptions in this report are unbiased and mutually compatible.

I. Demographic Assumptions

– ***Mortality:***

Mortality rates are based on State Life Corporation (SLIC) 2001 – 2005 ultimate mortality rates with 1 year setback as per recommendation of Pakistan Society of Actuaries (“PSOA”).

Mortality rates are given in Appendix II.

– ***Withdrawal:***

Age based withdrawal rates are used and are given in Appendix II. Withdrawals are assumed to occur at the middle of each year.

II. Financial Assumptions

– ***Discount Rate***

The duration of the liabilities is **11 Years**. Based on the weighted average duration of this plan and guidance from Pakistan Society of Actuaries (“PSOA”), the discount rate used for the calculations is **13.50%** per annum.

Discount rate is determined by reference to market yields (at the balance sheet date) on government bonds, since the long term private sector bond market is not deep enough in Pakistan. The term of the assumed yield of the government bonds is consistent with the estimated term of the post-employment benefit obligations. This is in compliance with Pakistan Society of Actuaries Guidance Note 4 and the subsequent Note on Discount Rate Assumptions issued by the Pakistan Society of Actuaries.



– ***Rate of Increase in Eligible Salary***

Rate of increase in eligible salary reflects the regular/special increments and any promotional increase. It has been assumed that the Eligible Salary will increase at a rate of 13.50% in next one year and 13.50% per annum in future.

It may be stated that the assumption regarding the discount rate and the inflation rate are intimately connected. During periods of inflation, both tend to rise in conformity with each other. From an actuarial costing point of view, it is the difference between these two rates (i.e. discount rate and inflation rate) that matters, and not their individual values in isolation. Thus, a difference of Nil between the discount rate (i.e. 13.5%) and the rate of increase in Eligible Salary (i.e. 13.50%) has been considered appropriate. This Nil difference is within the locally and internationally recognised norms. This difference has been incorporated based on the company's historic salary increases and guidelines from the Pakistan Society of Actuaries Guidance Note 3.

3.3. Change in Assumptions

The discount rate used in the last actuarial valuation as on 30.06.2021 was 10.25%. However, in the current investment environment, where there is an upward trend in the interest rate structure, the discount rate has been increased to 13.5%, in line with the specifications of the IAS-19.

Correspondingly, due to increase in inflationary expectations, the rate of increase in eligible salary has been increased to 13.50% from 10.25%.

3.4. Sensitivity of Assumptions

Sensitivity analysis was carried out on significant actuarial assumptions, such as discount rate and salary increase rate. Impact of changing these assumptions are given in section 5 of the report.



Section 4: IAS 19 Disclosures

4.1. Accounting Entries for FY 2022 and FY 2021

		<i>Amount in Rs.</i>
A Statement of Financial Position		Jun 30, 2022
1	Present value of defined benefit obligation	91,588,318
2	plus payables	-
3	Balance sheet liability/(asset)	<u>91,588,318</u>
B Changes in Present Value of Defined Benefit Obligations		Jun 30, 2022
1	Present value of defined benefit obligation	90,659,963
2	Current service cost	61,197,417
3	Past service cost (credit)	-
4	Interest cost on defined benefit obligation	6,679,649
5	Benefits due but not paid (payables)	-
6	Benefits paid	(50,985,315)
7	Gains and losses arising on plan settlements	-
Remeasurements:		
8	Actuarial (gains)/losses from changes in demographic assumptions	-
9	Actuarial (gains)/losses from changes in financial assumptions	-
10	Experience adjustments	(15,963,396)
11	Present value of defined benefit obligation	<u>91,588,318</u>
C Expenses to be Charged to P&L		Jun 30, 2022
1	Current service cost	61,197,417
2	Past service cost (credit)	-
3	Gains and losses arising on PVDBO	(15,963,396)
4	Interest cost on defined benefit obligation	6,679,649
5	Expense chargeable to P&L	<u>51,913,670</u>



NAUMAN ASSOCIATES
CONSULTING ACTUARIES

Trading Corporation of Pakistan (Pvt) Limited
Employees' Leave Encashment Scheme
Section 4: IAS 19 Disclosures

D Changes in Net Liability		Jun 30, 2022
1	Balance Sheet Liability/(Asset)	90,659,963
2	Expense chargeable to P&L	51,913,670
3	Remeasurements chargeable in other comprehensive income	-
4	Benefits paid	(50,985,315)
5	Benefits payable transferred to short term liability	-
6	Balance Sheet Liability/(Asset)	91,588,318

E Significant Actuarial Assumptions		Jun 30, 2022
1	Discount rate used for Interest Cost in P&L Charge	10.25%
2	Discount rate used for year end obligation	13.50%
3	Salary increase used for year end obligation	
4	Salary Increase FY2022	N/A
5	Salary Increase FY2023	13.50%
6	Salary Increase FY2024	13.50%
7	Salary Increase FY2025	13.50%
8	Salary Increase FY2026	13.50%
9	Salary Increase FY2027	13.50%
10	Salary Increase FY2028 onward	13.50%
11	Next salary is increased at	01-Jul-22
12	Mortality Rates	SLIC 2001- 2005 Setback 1Year
13	Withdrawal Rates	Age-Based (per appendix)
14	Retirement Assumption	Age 60



Section 5: Additional IAS 19 Disclosures

5.1. Additional Disclosure Items

		<i>Amount in Rs.</i>
A. Year End Sensitivity Analysis on Defined Benefit Obligation		Jun 30, 2022
1	Discount Rate + 100 bps	82,328,375
2	Discount Rate - 100 bps	102,444,032
3	Salary Increase + 100 bps	102,273,536
4	Salary Increase -100 bps	82,312,428
12	The average duration of the defined benefit obligation is	11 Years

N.A. Cheema

NAUMAN A. CHEEMA
M.Sc., FSA, FPSA



Appendix I: Scheme Rules

Summary of Benefits Payable **Under** **Trading Corporation of Pakistan (Pvt) Limited** **Employees' Leave Encashment Scheme**

Employees of Trading Corporation of Pakistan (Pvt) Limited are entitled to 48 Earned Leaves per annum during their continuous service.

Encashment During Service:

Employees can encash the accumulated leaves once in every calendar year as per following schedule:

Employee Type	Maximum Encashment	Minimum number of leaves to be at credit
Officer	90 days	60 days
Staff	90 days	60 days

Encashment on Retirement and Death:

On retirement or in case of death during service employees can encash up to maximum of 360 days leave balance.

TCP Officers are also entitled to opt for LPR (Leave Preceding Retirement), up to maximum of 365 days, in lieu of leave encashment at retirement subject to management's approval.

The leave encashment at retirement and in case of death is based on last drawn Gross Salary.

We have used the following basis to determine the leave encashment liabilities:

Average Number of Leaves Accumulated per annum by Employees	10 days
Average Number of Leaves Utilised per annum by Employees	38 days



Risk Associated with the Scheme

- **Final Salary Risk** (linked to inflation risk) – the risk that the final salary at the time of cessation of service is greater than what we assumed. Since the benefit is calculated on the final salary (which will closely reflect inflation and other macroeconomic factors), the benefit amount increases as salary increases.

- **Demographic Risks**
 - **Mortality Risk** - The risk that the actual mortality experience is different than the assumed mortality. This effect is more pronounced in schemes where the age and service distribution is on the higher side.

 - **Withdrawal Risk** - The risk of actual withdrawals experience is different from assumed withdrawal probability. The significance of the withdrawal risk varies with the age, service and the entitled benefits of the beneficiary.



Appendix II: Demographic Assumptions

The following demographic assumptions have been used in the actuarial valuation.

Expected mortality for active Members	As per SLIC 2001 - 2005 Mortality Table with 1 year Setback
---------------------------------------	---

Age	Death Rate	Withdrawal Rate
18	0.00084	0.20000
19	0.00090	0.20000
20	0.00094	0.20000
21	0.00096	0.19000
22	0.00097	0.18000
23	0.00099	0.17000
24	0.00101	0.16000
25	0.00103	0.15000
26	0.00106	0.14000
27	0.00108	0.13000
28	0.00112	0.12000
29	0.00115	0.11000
30	0.00119	0.10000
31	0.00124	0.09000
32	0.00129	0.08000
33	0.00135	0.07000
34	0.00141	0.06000
35	0.00149	0.05000
36	0.00158	0.04000
37	0.00168	0.04000
38	0.00179	0.03000
39	0.00192	0.03000
40	0.00208	0.02000
41	0.00225	0.02000
42	0.00245	0.01000
43	0.00267	0.00500
44	0.00293	0.00500
45	0.00322	0.00500
46	0.00355	0.00500
47	0.00393	0.00500
48	0.00436	0.00500
49	0.00484	0.00500
50	0.00538	0.00300
51	0.00599	0.00300
52	0.00667	0.00300
53	0.00742	0.00300
54	0.00824	0.00300
55	0.00915	0.00100
56	0.01013	0.00100
57	0.01120	0.00100
58	0.01234	0.00100
59	0.01354	0.00100
60	0.00000	0.00000