Anwar Associates

Consulting Actuaries

Trading Corporation of Pakistan Pvt. Limited (TCP)

Karachi

Employees' Leave Encashment Plan

Actuarial Valuation Report as at 30.06.2021

IAS 19 (Rev. 2011)

Monday, October 11, 2021

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Table of Contents

1 Overview

This Actuarial Valuation Report (herein referred to as a 'Report') has been prepared at the request of Trading Corporation of Pakistan Pvt. Limited (TCP) to present the Actuarial liabilities for TCP's, Employees Leave Encashment Benefit Plan, as at June 30, 2021, to be incorporated in its Financial Statements, as required under International Accounting Standards.

TCP provides Benefits to the employees as per the Benefit Rules, shown in Plan Provision section of this Report.

All our Actuarial calculations are based on the data provided by TCP's management in the written form and through oral communication.

This Report is solely for the use of the Management and the Auditors of TCP. It may not be modified, incorporated into or used in other material, sold or otherwise provided, in whole or in part, to any other person or entity, without our permission.

It is requested that TCP Management may kindly notify us promptly after receipt of this Report, if it is aware of any additional information that may affect the results of this Report.

2 Compliance with Professional Actuarial Standard

This Report complies with the Professional Actuarial Standards, prescribed by The Pakistan Society of Actuaries (PSoA), as in the Guidance Notes mentioned below:

- PSoA Guidance Note 6 (GN6): General Actuarial Practice
- PSoA Guidance Note 3 (GN3) and Guidance Note (GN4): Assumptions

3 Scope of Work

Brief description of the Scope of Work is as follow:

- Determination of Leave Encashment P&L Charge for the year ending 30.06.2021 based on future Economic and Demographic assumptions.
- Determination of the amounts to be incorporated in the Balance Sheet, Income Statement and Other Comprehensive Income (OCI).
- Determination of actuarial gain/loss during the year in accordance with IAS19 (Rev.) 2011.
- Preparation of Statement showing the movement in Present value of Defined Leave Encashment Obligation (Actuarial Liability)
- Determination of estimated P&L charge as at June 30, 2022

4 Data and Information

4.1 Employees Data

The information contained the following key fields in respect of each active employee as on the Valuation Date:

- Employee Code
- Employee Name
- Date of Birth
- Date of Appointment
- Eligible Salary for Leave Benefit
- Opening Leave Balance
- Entitled Leave Balance
- Utilized Leave Balance
- Closing Leave Balance

4.2 Verification of Data

Verification of each aspect of each individual employee's data was not undertaken, however, the total data was reviewed for overall reasonability and consistency. All our queries, in this respect, were clarified by the Management, to our satisfaction.

4.3 Key Statistics

This section provides a summary of the Data received for the Actuarial Valuation:

Valuation Date	Total Number of Employees	Total Monthly Eligible Salary in PKR	Average Age in Years	Average Past Service in Years	Average Monthly Eligible Salary in PKR
30 June 2021	394	29,868,166	44	11.9	75,808

5 Valuation Assumptions

For the purpose of calculating the Actuarial liabilities, certain financial and demographic assumptions are used, as per the Guidance Notes issued by the Pakistan Society of Actuaries (PSoA), from time to time. The Financial assumptions, relate to the discount rate and the future rate of salary increases, whereas the Demographic assumptions, relate to expected Mortality rates and Employee turnover rates

These assumptions may differ from one Actuarial Valuation to the next because of changes in mandated requirements, economic conditions and Plan experience. However, a change in assumptions is not an indication that prior assumptions, whenever made, were unreasonable.

Risks associated with Defined Benefit Plans are shown in Annexure D.

5.1 Discount Rate

The Discount Rate used to calculate the Actuarial Liabilities of the Projected Benefits is as recommended in the Circular issued by PSoA Discount Rate Committee on July 1, 2021, which varies according to the weighted average duration of the Plan. Discount Rates used for carrying out the Actuarial Valuations are shown in the table below:

Discount Rate assumption based on the Weighted Average Duration of the Plan		FY ending June 30, 2021
1	Discount rate	10.25%

5.2 Expected Salary Increase

The experience shows, that usually the future rate of Salary increases and Discount rates are inter-related, since during periods of inflation or otherwise, both tend to rise somewhat in conformity with each other, but generally salaries at a lessor pace.

Thus, taking into consideration the Discount rate being used, it has been assumed that the Salaries would increase at an average rate of **10.25%** per annum compound, on long term basis.

For general information, it may be submitted, that as regards the Actuarial liabilities, it is the difference between these two rates that matter, and not their individual values in isolation.

5.3 Mortality Rates

The Mortality Table SLIC (2001-05) with 2 years setback, based on the experience of the lives insured with State Life Insurance Corporation of Pakistan, has been used in determining the Liability in respect of the Benefits payable under the Plan.

Specimen Mortality rates are given in Annexure C attached.

5.4 Withdrawal Rates

Based on our provisional analysis of the experience of different domestic Organizations, we have used the Age wise Withdrawal rates as given in Annexure C attached.

6 Actuarial Calculation Method

International Accounting Standard (IAS 19), prescribe the Projected Unit Credit (PUC) method to value such employee benefits, by reference to their projected amount at the date of payment.

This involves **projecting** each **unit** of benefit earned over a period plus earlier periods, to leaving service, retirement, death or other future exit states, allowing for probabilities of reaching those states, also allowing for salary escalation over time, and then discounting those benefits to the Valuation date.

The resultant estimated liability amount reflects full expected service cost, to each of leaving service, retirement or death, or other exit states.

The Current Service Cost is determined by dividing, for each employee, their total liability by total expected service and then aggregating the Current Service Cost for all members. The Current Service Cost can be viewed as the cost accruing over the next year, allowing for escalation and discounting to the different possible dates of payment.

To determine the Defined Benefit Obligation ("DBO"), we subtract from the total estimated liability the Current Service Cost multiplied by expected future service. This is, in effect, the liability that should be held at the Date of the Valuation, for service and benefits accrued up to the date of the Valuation.

Differences between expectations and fact emerge as actuarial gains or losses and are amortized immediately the next year.

7 Summary of the Actuarial Results

Given below is the Summary of the Results in respect of TCP employees as at June 30, 2021. All amounts are expressed in Pakistani Rupees. Detailed IAS19 Disclosures for Financial Year ending June 30, 2021 are given in the Annexure A.

Summary of Results		FY ending June 30, 2021	FY ending June 30, 2020
1	P&L charge / (credit)	47,774,159	35,896,528
2	Other Comprehensive Income (OCI)	-	-
3	Total Defined Benefit Cost Recognized in P&L and OCI	47,774,159	35,896,528
4	Defined Benefit Obligation	90,659,963	94,307,969
5	Fair Value of Plan Assets	-	-
6	Net Liability / (Asset) at the end of the year	90,659,963	94,307,969
7	Effective Duration of the Plan	11 Years	10 Years
8	Assumed future Discount Rate	10.25%	9.25%

It will be a pleasure for us to provide explanation or further details, on any aspect of this Report. Please feel free to contact us, as and when considered necessary.

Thanks for all the cooperation provided in the preparation of this Report.

Ch. Mohammad Anwar, FIA, FLMI, FPSA
Chief Executive Officer and Chief Actuary

Annexure A – IAS 19 Rev. 2011 Disclosures

IAS19 Disclosures for Financial Year ending June 30, 2021 (PKR)

	Amounts Recognized in the Statement of Financial Position	FY ending June 30, 2021	FY ending June 30, 2020
1	Defined Benefit Obligation	90,659,963	94,307,969
2	Fair Value of Plan Assets	-	-
3	Payables	-	-
4	**Net Liability (Asset)**	**90,659,963**	**94,307,969**

	Change in Defined Benefit Obligation	FY ending June 30, 2021	FY ending June 30, 2020
1	**Leave Encashment Obligation at end of prior year**	94,307,969	98,704,955
2	**Service Cost**		
a	Current Service Cost	61,014,098	41,750,431
b	Past Service Cost	-	-
3	**Interest Expense**	6,345,212	11,194,543
4	**Cash flows**		
a	Benefit payments from Plan Fund		
b	Benefit payments from Employer	(51,422,165)	(40,293,514)
5	**Re-measurements**		
a	Effect of changes in Demographic assumptions	-	-
b	Effect of changes in Financial assumptions	-	-
c	Effect of Experience adjustments	(19,585,151)	(17,048,446)
6	**Leave Encashment Obligation at end of year**	**90,659,963**	**94,307,969**

	Components of Defined Benefit Cost	FY ending June 30, 2021	FY ending June 30, 2020
1	**Service Cost**		
a	Current Service Cost	61,014,098	41,750,431
b	Reimbursement Service Cost	-	-
c	Past Service Cost	-	-
d	(Gain) / loss on settlements	-	-
2	**Net Interest Cost**		
a	Interest Expense on DBO	6,345,212	11,194,543
b	Interest (Income) on Plan Assets	-	-
3	**Re-measurements of Other Long Term Benefits**	**(19,585,151)**	**(17,048,446)**
4	**Defined Benefit Cost included in P&L [sum of 1 to 3]**	**47,774,159**	**35,896,528**

	Net Defined Benefit Liability (Asset) reconciliation	FY ending June 30, 2021	FY ending June 30, 2020
1	Net Defined Benefit Liability (Asset) at end of prior year	94,307,969	98,704,955
2	Defined Benefit Cost included in P&L	47,774,159	35,896,528
3	Total Re-measurements included in OCI	-	-
a	Employer Contributions	-	-
b	Benefit payments from Employer	(51,422,165)	(40,293,514)
5	**Net Defined Benefit Liability (Asset) as of end of year**	**90,659,963**	**94,307,969**

Significant Actuarial Assumptions			
Assumptions used to determine Defined Benefit Obligation		**FY ending June 30, 2021**	**FY ending June 30, 2020**
1	Discount Rate	10.25%	9.25%
2	Rate of Salary Increase (Long Term)	10.25%	9.25%
Assumptions used to determine Defined Benefit Cost		**FY ending June 30, 2021**	**FY ending June 30, 2020**
1	Discount Rate	9.25%	14.25%
2	Rate of Salary Increase (Long Term)	9.25%	14.25%

Expected Defined Benefit Cost recognized in P&L		**FY ending June 30, 2022**
1	**Service Cost**	
a	Current Service Cost	**67,268,043**
c	Past Service Cost	-
d	(Gain) / loss on settlements	-
2	Net Interest Cost	
a	Interest Expense on Defined Benefit Obligation	9,292,646
b	Interest (income) on Plan Assets	-
3	**Total Defined Benefit Cost recognized in P&L as at 30.06.2022**	**76,560,689**

Sensitivity Analysis		**FY ending June 30, 2021**	**Percentage Change in DBO**
1	Defined Benefit Obligation (DBO)	90,659,963	
2	1% Increase in Discount rate	81,768,220	-9.81%
3	1% Decrease in Discount rate	101,191,548	11.62%
4	1% Increase in Salary Increase rate	101,016,528	11.42%
5	1% Decrease in Salary Increase rate	81,756,973	-9.82%

Annexure B – Plan Provisions

We have used and relied on the Leave Encashment benefit Plan provisions, supplied by TCP and are summarized below.

TCP is solely responsible for the validity, accuracy and comprehensiveness of this information. If any Plan provisions supplied are not accurate and complete, the Valuation results may differ significantly from the results that would be obtained with accurate and complete information.

Following is a summary of the benefits payable from the Employees Leave Encashment Scheme:

- The Normal Retirement Age is 60 years.
- The Employees of the Company are entitled to Earned Leaves of 48 days every year per annum during their continuous service.
- An employee can encash his accumulated earned leaves up to a maximum of 90 days once in every calendar year provided that he has minimum credit of 60 days leaves.
- In case of retirement or death during service, employee can encash upto maximum of 360 days leave balance based on their last drawn GROSS pay.
- Officers also entitled to opt for Leave Preceding Retirement, upto maximum of 365 days, in lieu of leave encashment at retirement subject to approval.
- For the purpose of Actuarial Valuation, we have assumed that average Number of Leaves Accumulated per annum by the Employees is 10 days and utilized per annum by the employees is 36 days.

Annexure C – Mortality & Withdrawal Rates

The Mortality and Withdrawal rates used in valuing the liabilities are as follow:

Mortality	SLIC (2001-05) Individual Life Ultimate Mortality Table with two years setback Table of Sample Rates (Both Rates are as per Thousand)	
Attained Age	MORTALITY	WITHDRAWAL
20	0.97	200
21	0.99	190
22	1.01	180
23	1.03	170
24	1.06	160
25	1.08	150
26	1.12	140
27	1.15	130
28	1.19	120
29	1.24	110
30	1.29	100
31	1.35	90
32	1.41	80
33	1.49	70
34	1.58	60
35	1.68	50
36	1.79	40
37	1.92	40
38	2.08	30
39	2.25	30
40	2.45	20
41	2.67	20
42	2.93	10
43	3.22	5
44	3.55	5
45	3.93	5
46	4.36	5
47	4.84	5
48	5.38	5
49	5.99	5
50	6.67	3
51	7.42	3
52	8.24	3
53	9.15	3
54	9.40	3
55	10.13	1
56	11.20	1
57	12.34	1
58	13.54	1
59	14.81	1
60	16.13	1000

Annexure D - Risks associated with Defined Benefit Plans

Through its Defined Leave Encashment Benefit Plan, TCP is exposed to a number of risks, the most significant of which are detailed below:

- Discount rate risk

The risk of changes in discount rate may have an impact on the Plan's Liability.

- Salary increase / inflation risk

The risk that the actual salary increase are higher than the expected salary increase, where benefits are linked with final salary at the time of cessation of service, is likely to have an impact on liability.

- Mortality risk

Actual mortality experience maybe different than that assumed in the calculation.

- Withdrawal risk

Actual withdrawals experience may different from that assumed in the calculation.