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CAYMAN ISLANDS
PUBLIC SERVICE
PENSIONS BOARD

Actuarial Valuation of
Public Service Pensions
as of January 1, 2002

June 20, 2002

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Watson Wyatt Worldwide ("Watson Wyatt") has been requested by the Cayman Islands Public Service Pensions Board ("the Board") to carry out an actuarial valuation of the Public Service pensions as of January 1, 2002. We are pleased to provide the results of the valuation in this report. The last actuarial valuation to be carried out was as of January 1, 1999.

The Pensions (Amendment) Law, 1991 established the Public Service Pension Fund (the "Fund"), the purpose of which is to accumulate contributions, investment income and other payments accepted by the Public Service Pensions Board for the eventual payment of pensions and related benefits being paid out of the general revenue of the Islands. The Fund was established with effect from January 1, 1990 but no benefits could be paid out of it since the Fund was not capable of meeting the projected liabilities, after taking into account the contributions and earnings of the Fund.

The Public Service Pensions Law (1999), "the 1999 Law", amended and restated the prior pension law. The 1999 Law resulted in several changes to the pension provisions. A major change brought out by the 1999 Law is that the retirement benefits for new entrants are based on defined contribution principles, with both the Government and participants contributing at a rate of 6% of pensionable earnings for the accumulation of defined contribution account balances. The Public Service Pensions Law (2000) has made various amendments and revisions to the 1999 Law.

The valuation is to serve the following purposes, as specified in Section 13 of the 1999 Law:

1. to determine whether it remains capable of meeting its liabilities for the following period of at least 40 years at the rate or rates of contribution then in force;

2. if it is not so capable, to ascertain what rate or rates of contribution would be required to reinstate that capability; and

3. to determine the amount to be reflected on the balance sheet.

The current rates of contribution to the fund are 6% of pensionable emoluments from active participants and 16% of pensionable emoluments of the combined defined benefit and defined contribution groups from the Government.

All monetary amounts in this report have been expressed in Cayman Islands Dollars. Throughout this report "the Plan" means the pension provisions arising under the 1999 Law, as amended by the 2000 Law.

It should be noted that the Parliamentarians (both active and inactive members) and the Judiciary, are not included in this Report, but are covered by respective separate Reports.

1. Actuarial Position of the Fund as of January 1, 2002

The past service liability measurement, with no allowance for future pay projections, is equal to CI$201.1 million, based on the assumptions outlined in Exhibit 5 of this report.

This compares with Fund assets of CI$82.2 million, which produces a 41% coverage (ratio of assets to liabilities), as opposed to 30% at the prior valuation.

The past service liability measurement, with allowance for future pay projections, is equal to CI$246.9 million. The resulting actuarial deficiency is CI$164.6 million. The coverage is 33% as opposed to 23% at the prior valuation.

The total annual cost under the projected unit credit cost method, including amortization of the actuarial deficiency over a period of 20 years is CI$ 29.7 million (or 28.5% of pay). The required contribution rates are high largely because of the magnitude of unfunded past service liabilities, and the generous plan provisions. This would be the contribution requirement if the defined benefit segment of the Plan were a stand-alone plan, with no new future entrants.

2. Ability of the Fund to Meet the Projected Liabilities

The results of the valuation show that the Fund will be able to meet the projected benefit payments at the current rate of contributions, which is 22% of the pay of the combined defined benefit and defined contribution groups.

The increase in the number of defined contribution members is helping support this situation, but given the current uncertainties in the economic situation, and the fact that the plan is still underfunded to the extent of CI$118.1 million, without any allowance for future pay increases, we strongly recommend continuing with the current rate of contributions.

1. Census Data

Information was provided by the Board for each individual covered by the Plan as of January 1, 2002. The valuation was based on data submitted with respect to 1,896 active defined benefit (DB) participants receiving total annual pensionable emoluments of CI$68.6 million, 1,224 active defined contribution (DC) participants receiving total pensionable emoluments of CI$35.5 million, 401 participants (all DB) currently receiving annual benefits of CI$3,940,079, and 241 terminated DB participants and 165 terminated DC participants entitled to deferred vested benefits.

A number of adjustments were needed to the data provided. In particular, it was assumed that current retired participants with a missing date of birth commenced benefit payments at age 60. If both dates of birth and benefit commencement were missing, it was assumed that the participants were age 60 at the valuation date. The liabilities of the Plan are overstated to the extent that the ages of retired participants are understated.

Exhibit 3 shows details of the census data used, as well as a breakdown between the different groups of participants. There has been a substantial increase of over 1,100 active participants since the prior valuation. Part of this increase is attributable to an expected additional 500 participants that were likely to enter the defined contribution segment shortly after the last valuation. (Allowance was made for these participants in the last valuation.)

2. Benefit Provisions

As of January 1, 2002, the legal document concerning the pension provisions is the Pension Law, which came into force on December 31, 1963, and subsequent amendments to it, in particular the 1999 Law and 2000 Law. Exhibit 6 shows an outline of the principal provisions as it affects the actuarial valuation of the liabilities. Only the provisions that have the most important impact on the valuation are detailed in the outline. There are no substantial differences from the prior valuation, with the exception that the benefits for the Police now reflect the fact that Police can retire on full benefits on completion of 21 years of service.

3. Available Assets

Statements of accounts for each of the three years ending on 31st December 2001 were made available. The financial statements contained therein showed that the total value of the Fund as of December 31, 2001 was CI$84,551,000. These assets were reduced for amounts related to contributions and interest for parliamentarian and judiciary participants. We have used the adjusted amount of CI$82,219,238 as the value of assets as of January 1, 2002. Exhibit 4 shows a summary of these statements of accounts. The above amounts are subject to change pending the final audit of the 2001 accounts.

4. Actuarial Assumptions Used for Valuing the Plan

4.1 Economic Assumptions

It is important to take a consistent view on all of the economic assumptions used in an actuarial valuation since they are inter-related. The following are the most important of the economic assumptions, which have remained unchanged from the prior valuation:

Inflation - It is usual to commence with an assumption on the underlying long-term rate of inflation, as inflation impacts such things as future salary increases, future asset earnings, and future pension increases. Based on discussions with the Board, a long-term rate of 3% per year has been used for purposes of this valuation.

Interest Rate - The valuation interest rate is used to discount future benefit payments and represents the expected long-term rate of return of the Fund's invested assets. This valuation has been carried out using an 8% per year rate, based on the current balanced portfolio of equities and fixed-interest securities.

Salary Increases - We suggested, and the Board concurred, that we should make an allowance of 2% over and above inflation for merit and promotion. The rate of salary increases used in this valuation is therefore 5%.

Pension increases - We have assumed in the future that pensions will increase at the rate of 3% per year, the same as the rate of inflation.

4.2 Demographic Assumptions

The most important of the demographic assumptions are as follows, which have remained unchanged from the prior valuation:

Retirement Age - The plan provides unreduced benefits from age 55 after completing 10 years of service. Therefore, age 55 has been selected as the assumed retirement age. Note that at this valuation the Police are assumed to retire on completion of 21 years of service, if earlier.

Turnover - From the material provided by the Board, it is apparent that the employment turnover experience has been very modest. Relatively low rates of turnover have therefore been used in this valuation. The age-related turnover rates used in this valuation are shown in Exhibit 5. Generally, lower turnover rates translate into higher pension liabilities as this means that an increased number of participants will collect their retirement pensions.

4. Actuarial Assumptions Used for Valuing the Plan (Continued)

4.2 Demographic Assumptions (Continued)

New Entrants - One of the purposes for which this valuation is being carried out calls for projecting cash flows and the Fund assets and this requires making some assumptions about future participants. We have assumed that a sufficient number of new entrants will enter the plan to replace the employees who retire, die or leave service to keep the number of active participants constant. We have assumed that new entrants will have the same age and earnings profile as recent new participants to the plan. All new entrants are included under the defined contribution portion of the plan.

5. Actuarial Cost Method Used for Valuing the Benefits

5.1 Assessing the Actuarial Position of the Fund as of January 1, 2002

We have determined the current actuarial position of the Fund as of January 1, 2002 using the **projected unit credit actuarial cost method** in conjunction with the assumptions outlined in the preceding section. This method is commonly used both for measuring the funded status of the plan as of the valuation date and for determining the amount of contribution required. Under this approach, we develop two past service liabilities, each of which is based on pensionable service up to the valuation date.

The first past service liability is based on pensionable emoluments as of the valuation date and reflects the liability in respect of benefits actually earned up to December 31, 2001.

The second past service liability allows for the impact of future pay increases at the assumed annual rate of pay increase. This past service liability reflects the eventual liability of benefits related to past service at the valuation date. A surplus/ (deficiency) arises when the assets of the Fund are more/(less) than this projected past service liability under the projected unit credit actuarial cost method.

Either of these past service liabilities is commonly used as an amount to be reflected in the balance sheet.

The projected unit credit actuarial cost method also develops a normal cost of the Plan. The normal cost represents the cost of the accrual of one year's worth of benefit, based on projected pay.

Under the projected unit credit actuarial cost method, a common approach to developing the current required annual contribution is to amortize the (surplus)/ deficiency arising. The total annual cost is the normal cost (representing the current year's accrual of benefit) plus this amortization payment (representing past accruals). We have used 20 years as the basis of amortization, but some other period could have been used.

5. Actuarial Cost Method Used for Valuing the Benefits (Continued)

5.1 Assessing the Actuarial Position of the Fund as of January 1, 2002 (Continued)

The annual cost under this basis represents the cost of the plan if the defined benefit segment were to operate as a stand-alone plan with no future new entrants.

5.2 Assessing the Ability of the Fund to Meet the Projected Liabilities

The main purpose of this valuation is to determine whether the current level of contributions will enable the Fund to continue to meet future benefit payments.

In order to investigate this, it is necessary to do a long-term cash flow projection to determine the development of the Fund assets and investigate its sensitivity to the rate of investment return. This has been accomplished by projecting benefits using the actuarial assumptions outlined above, including assumptions pertaining to future participants, and projecting future asset growth.

6. Valuation Results

6.1 The Actuarial Position of the Fund as of January 1, 2002

Exhibit 1 sets out the results of the actuarial valuation on the basis outlined in Section 5.1 above, as well as the results from the previous valuation, for comparison purposes.

Past Service Liability (No Projection) - The first past service liability measurement, with no future pay projections, is shown in Item C of Exhibit 1, and is equal to CI$201.1 million. This compares with Fund assets of CI$82.2 million. It should be noted that the past service liability for inactive members is CI$56.6, which is more than covered by the assets. This was not the case at the prior valuation.

Past Service Liability (With Projection) - The second past service liability measurement, with future pay projections, is shown in Item D of Exhibit 1, and is equal to CI$246.9 million. The resulting actuarial deficiency (shown as Item E) is CI$164.6 million.

Normal Cost - As mentioned above, the normal cost is the cost with respect to benefits being earned during the current year, with allowance for future pay projection. This is shown in Item F of Exhibit 1 and is CI$12.9 million (or 12.4% of current pay).

Total Annual Cost - The total annual cost of the benefits provided under the projected unit credit actuarial cost method used is the sum of the normal cost and the amortization of the actuarial deficiency as of January 1, 2002. The amortization period has been taken as 20 years but a different period can be used. The total annual cost is CI$16.8 million (or 16.1% of pay).

6. Valuation Results (Continued)

The deficiency has increased by CI$29.4 million since the prior valuation due to a number of factors, the main ones being as follows:

Time element	5.2
Asset experience	8.5
Police liability	7.3
Pension increases	1.4
Salary increases	7.3
Removal of parliamentarians	(9.9)
Other experience/New entrants	9.6
Total	29.4

6.2 Projection of Fund Assets

The size of the Fund assets is determined by:

(a) the level of benefits being paid out of the Fund,
(b) the level of inflow of contributions (participants and Government) to the Fund, and
(c) the investment returns on the assets of the Fund.

Exhibit 2B shows a graphic representation of the annual benefits to be paid in 2002 and the next forty years, based on the actuarial assumptions used. The graph shows that the annual benefit payments are likely to grow to some CI$56 million in twenty years, and close to CI$137 million in forty years. The graph also shows that the benefit payments, expressed as a percentage of payroll, are also expected to rise very steeply. Currently, benefit payments are some 9% of payroll, but are expected to grow to 16% in 10 years, 25% in 20 years, and peaking at 36% of payroll in 33 years.

Exhibit 2C shows the projection of the Fund assets at the current 22% contribution rate at the assumed investment return rate of 8%, along with three other lines showing the sensitivity to lower investment returns of 7.75%, 7.5% and 7.0%.

These results show clearly that the Fund is able to meet the benefit payments for the next 40 years at the current rate of contributions of 22% of pay, provided investment returns at 8% are achieved over this period. However, if this level of return is not achieved, there is still support for the 22% rate provided returns do not fall below 7.0%

7. Conclusions and Recommendations

1. The Fund continues to be severely underfunded with respect to the benefit obligations in respect of service to date and without allowance for future pay increases, but allowing for future cost-of-living increases in pensions. However, the liability for inactive members (existing pensioners and beneficiaries and those with deferred pensions), is now covered by available assets.

2. We recommend continuing with expressing the contribution rate as a single percentage of the total pensionable pay of all active members.

3. Given the uncertain economic outlook at the present time, combined with the severe unfunded position, we recommend that the current 22% total contribution rate should be continued as a minimum.

We are at the disposal of the Board to discuss this report and to answer any questions that may arise, or to provide any further information that may be required.

Respectfully Submitted
WATSON WYATT WORLDWIDE

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June 20, 2002

Actuarial Position as of January 1, 2002

	January 1, 2002
A. Summary of Valuation Data	
1. Number of participants currently receiving benefits	401
2. Number of participants with deferred vested benefits	406
3. Number of active participants	3,120
4. Total annual pensionable emoluments	104,109,552
B. Value of Pension fund Assets	82,219,000
C. Past Service Liability (No Projection of Pays)	
1. Inactive participants	56,584,000
2. Active participants	144,508,000
3. Total	201,092,000
D. Past Service Liability (Projection of Pays)	
1. Inactive participants	56,584,000
2. Active participants	190,284,000
3. Total	246,868,000
E. Surplus/(Deficiency) (Item B less D3)	(164,649,000)
F. Normal Cost for Year	12,909,000
G. Item F as % of Emoluments	12.40%
H. Amortization of Deficiency (over 20 years)	16,770,000
I. Item H as % of Emoluments	16.11%
J. Total Annual Cost of Benefits (Item F plus Item H)	29,679,000
H. Item J as % of Emoluments	28.51%

Assumptions
Age 55 Retirement
8% Discount Rate
5% Salary Increase
3% Pension Increase

Cash Flow Projections

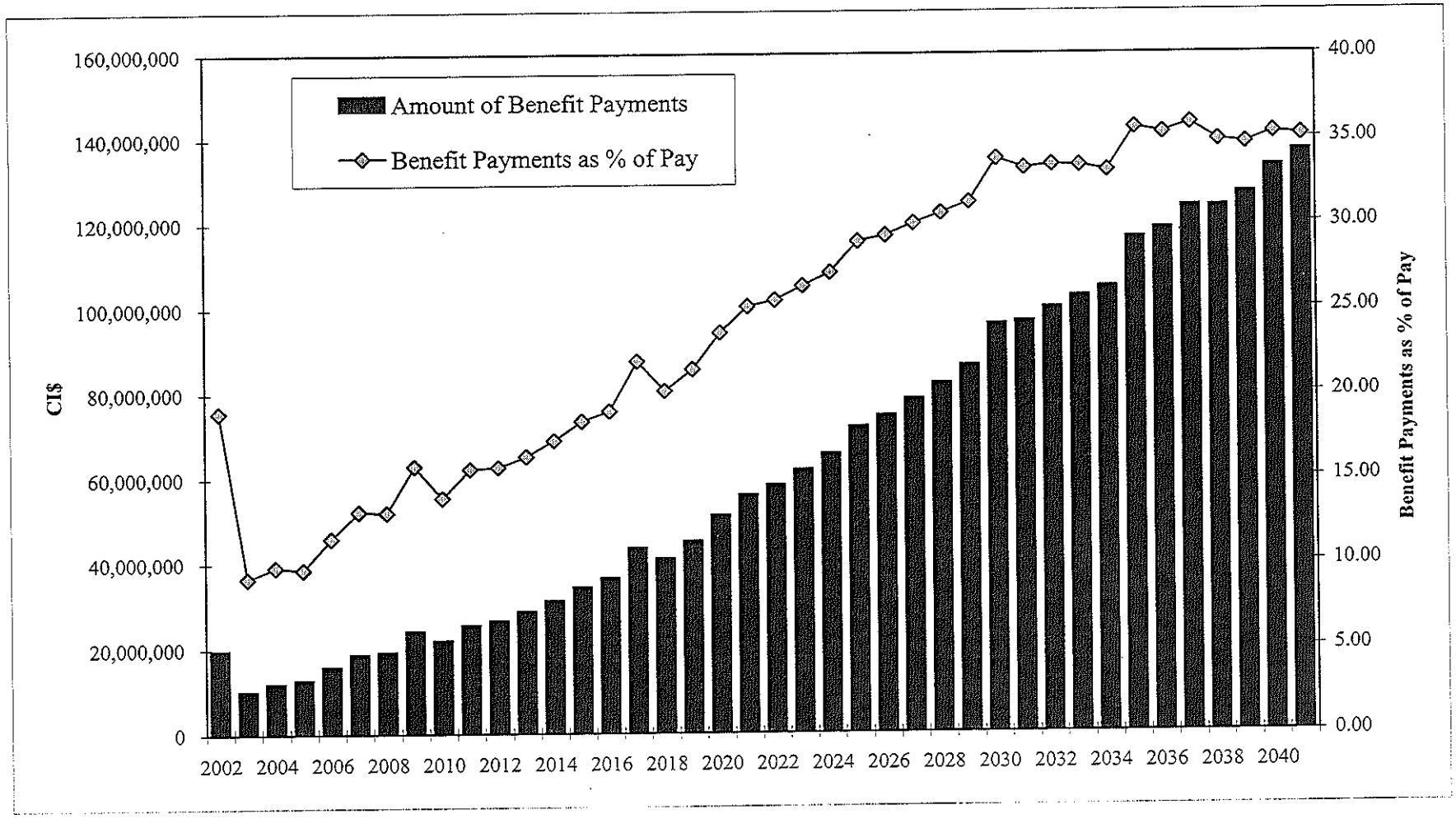
A. BENEFIT PROJECTIONS

The attached Exhibit 2B shows the projected benefit payments, based on the actuarial assumptions used in the valuation. The projected benefit payments are shown graphically, both as amounts, and as a percentage of pensionable emoluments.

B. PROJECTION OF FUND ASSETS

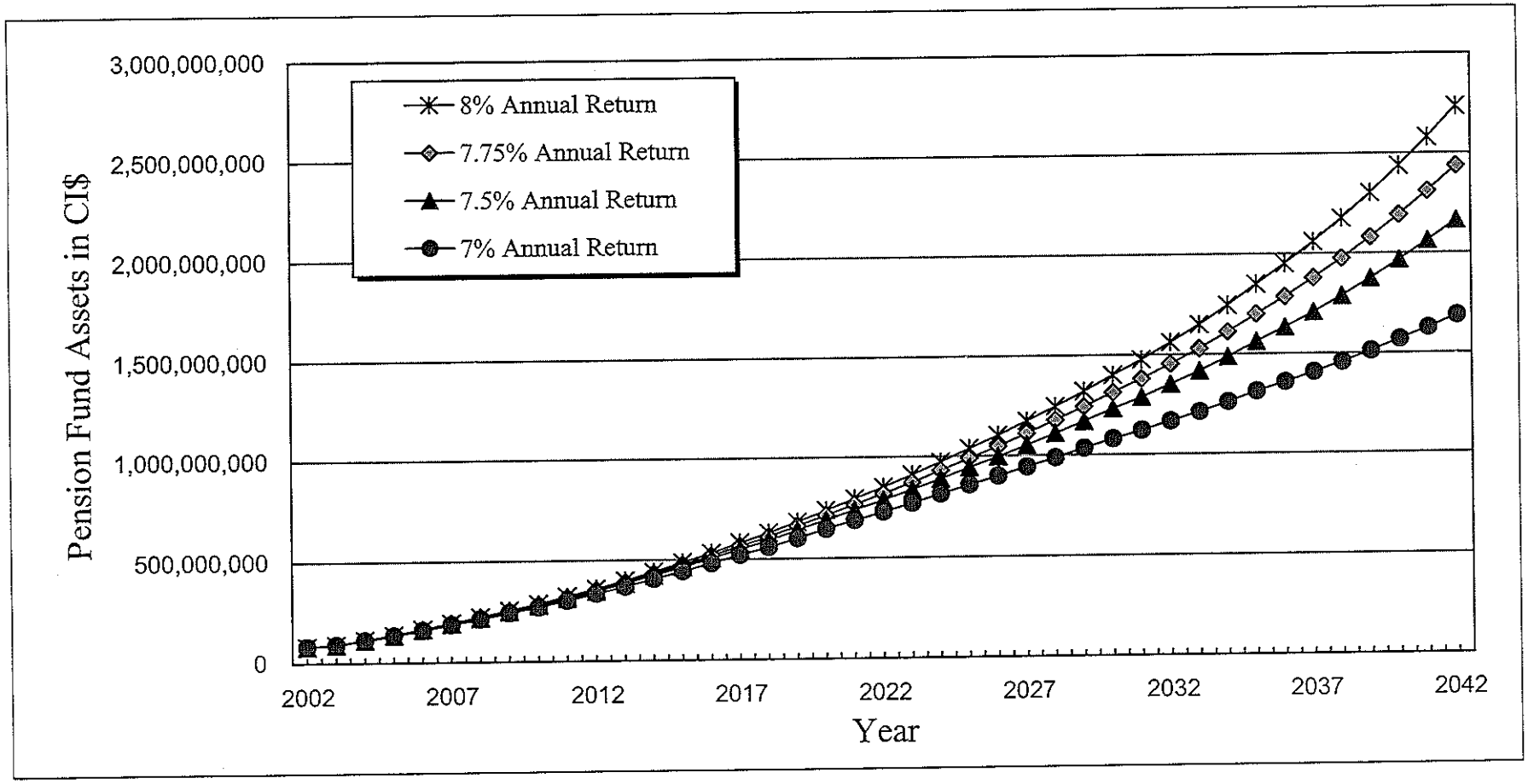
The fund assets have been projected and the results are shown graphically at various assumed levels of investment return with the current 22% contribution level.

Projection of Benefit Payments



Projection Size of Fund

Annual Return on Fund Assets:	8.00%
Annual Contributions as % of Pay:	22.00%



Scenario
Age 55 Retirement

Summary of Valuation Data

ACTIVE PARTICIPANTS	Headcount	Average Age	Average Service	Total Annual Emoluments
Central Government				
Defined Benefit	1,619	40.3	11.8	58,023,660
Defined Contribution	1,073	37.8	4.7	30,504,288
Total	2,692	39.3	9.0	88,527,948
Royal Caymanian Police				
Defined Benefit	133	38.3	16.0	4,953,540
Defined Contribution	115	34.2	5.6	3,609,648
Total	248	36.4	11.1	8,563,188
Statutory Bodies				
Defined Benefit	144	38.9	10.6	5,653,176
Defined Contribution	36	31.2	1.2	1,365,240
Totals	180	37.3	8.7	7,018,416
All Groups				
Defined Benefit	1,896	40.1	12.0	68,630,376
Defined Contribution	1,224	37.3	4.7	35,479,176
Total	3,120	39.0	9.2	104,109,552

INACTIVE PARTICIPANTS	Headcount	Average Age	Total Annual Benefit
Participants Currently Receiving Benefits			
Defined Benefit	401	63.4	3,940,079
Defined Contribution	-	-	-
Total	401	63.4	3,940,079
Deferred Vested Participants			
Defined Benefit	241	34.4	938,744
Defined Contribution	165	31.9	260,857
Total	406	33.3	1,199,601

Income and Expenditure During the Period January 1, 1999 to December 31, 2001

All amounts are in CI$	1999	2000	2001	Consolidated 1999-2001
Net Assets Available for Benefits at Beginning of Year	40,053,636	58,223,127	67,226,782	40,053,636
Investment Income				
Interest	7,650,723	(424,395)	(914,101)	6,312,227
Contributions				55,864,424
Employees	3,615,619	4,511,828	6,903,296	15,030,743
Employers	10,822,002	11,602,889	18,408,790	40,833,681
(Benefits Paid)	(3,918,853)	(6,686,667)	(7,073,499)	(17,679,019)
(Expenses of Administration)	-	-	-	-
Net Increase in Assets	18,169,491	9,003,655	17,324,487	44,497,633
Net Assets Available for Benefits at End of Year[1,2]	58,223,127	67,226,782	84,551,269	84,551,269
Actual Investment Return	16.72%	-64.00%	-1.18%	9.84%
Exptected Investment Return	8.00%	8.0%	8.0%	26.0%

Note 1: Estimated DC account balance at December 31, 2001 is CI$6,587,490

Note 2: Valuation assets were reduced by CI$2,332,031 for contributions and interest for parliamentarians and judiciary participants who are not included in this valuation.

Actuarial Assumptions Employed

A. Economic Assumptions

1. Underlying Inflation Rate: Long-term inflation rate of 3% per year.

2. Interest: 8% per year.

3. Salary Increases: 5% per year, consisting of an allowance of 3% per inflation and 2% for merit and promotion.

4. Pension Increases: 3% per year, the same as the rate of inflation.

5. Commutation of Pensions: It has been assumed that all employees will exercise to the maximum amount, their right to commute part of their pension for a lump sum payment.

B. Demographic Assumptions:

1. Mortality: It is not anticipated that the mortality rates of the Public Service employees will be significantly different to that of employees of U.S. corporations. Standard U.S. mortality rates have been used for the valuation. The rates used are based on the UP-1984 Table and sample rates are shown below:

Age	Male	Female
20	.001351	.001453
30	.001083	.001149
40	.001948	.001297
50	.005103	.003095
60	.012952	.008278
70	.032073	.020517
80	.074648	.048504
90	.168208	.112816

Actuarial Assumptions Employed (Continued)

B. Demographic Assumptions (Cont'd.):

2. Turnover: The rates at the following illustrative ages indicate the turnover assumptions, excluding mortality and disability:

	Annual Rates of Turnover	
Age	Male	Female
20	.075	.125
25	.050	.125
30	.035	.075
35	.025	.045
40	.015	.025
45	.005	.005
50	---	---

3. Disability: No disability incident rates have been used.

4. Retirement Age: Completion of age 55 and 10 years of service. Police are assumed to retire upon eligibility for full benefits.

5. Family Assumptions:

a. Percentage of Employees with Spouse - 80%.

b. Age of Wife - 3 years younger than husband.

c. Percentage Employees with Dependent Children -

Males:	65% pre-retirement
	5% post-retirement
Females:	20% pre-retirement
	0% post-retirement

Actuarial Assumptions Employed (Continued)

B. Demographic Assumptions (Cont'd.):

6. New Entrants:	A sufficient number of new entrants has been assumed to enter the defined contribution segment of the plan to replace the employees who retire, die or leave service to keep the total number of active employees constant. We have assumed that new entrants will have the same age and earnings profile as recent new participants to the plan. All new entrants are included under the defined contribution portion of the plan.

Principal Benefit Provisions

1.	Eligibility:	Public service employees are immediately eligible for participation in the Plan.
2.	Pensionable Service:	Continuous service from age 20 (or from age 18 if the first appointment was in the service of Jamaica).
3.	Pensionable Emoluments:	Pensionable emoluments include salary, personal allowance, and house allowance. The retirement pension computation is generally based on the annual pensionable emoluments at the time of retirement, unless there are transfers from one office to another, in which case the computation may be based on one-third of the aggregate pensionable emoluments during the final three years. *Defined Benefit Section only.*
4.	Employee Contributions:	Employee contributions are currently pitched at a rate of 6% of pensionable emoluments.
5.	Eligibility for Retirement Pension:	Generally, on or after attaining age 55 (or age 50 in special cases) and completing 10 years of service. There are special cases under which these conditions may be relaxed.

6A. Retirement Benefits – Defined Benefit Section:

a.	Pension at retirement -	An annual pension equal to 1/720 times the number of completed months of pensionable service times the final annual Pensionable Emoluments. For officers first appointed to a pensionable office prior to July 10, 1980, the annual pension is computed as 1/600 times the number of completed months of pensionable service times the final annual Pensionable Emoluments. The pension cannot exceed two-thirds of the highest annual pensionable emoluments received during the officer's service.

Principal Benefit Provisions (Continued)

6A. Retirement Benefits – Defined Benefit Section (continued):

b. Commutation -	Up to ¼ of the retirement pension can be commuted for a lump sum. The pension to lump sum conversions will be determined by the plan's actuarial factors. At age 55, these factors call for a lump sum conversion rate equal to 15.07 times the annual pension surrendered.
c. Pension Increases -	Pensions in payment may be increased, once a year. The Pensions Law (1999) call for these pensions increases to match annual cost-of-living increases up to 5% and on a sliding scale thereafter.

6B. Retirement Benefits – Defined Contribution Section:

a. Pension at retirement -	An annual pension based on the accumulated account balance representing the accumulation of employee contributions, matching Government contributions and investment returns.
b. Commutation -	Part of the accumulated account balance may be taken in cash, while the remainder must be taken as a pension.
c. Pension Increases -	Pensions in payment may be increased, once a year. The Pensions Law (1999) call for these pensions increases to match annual cost-of-living increases up to 5% and on a sliding scale thereafter.
7. Benefits on Death After Retirement or While Eligible to Retire:	A spouse's pension equal to 50% of the pensioner's benefit, payable until remarriage. A dependent children's pension, payable up to age 18, equal to 1/6th of the pension received by a male officer per each dependent child, up to a maximum of 50%. These amounts are doubled if there is no spouse

Principal Benefit Provisions (Continued)

8. Benefits on Disablement:	A pension is payable to an officer who is permanently injured in discharge of duty and who is not entitled to compensation under any Workmen's Compensation Law. The amount of the pension depends on the extent of disablement.
9. Benefits on Death in Service:	Either: (a) Lump sum equal to 12 months of Pensionable Emolument, or (b) A spouse's pension equal to 50% of the member's pension accrued as of the date of death, based on pay and service completed at the date of death. *Defined Benefit Section only.*
10. Termination Benefits:	An employee who terminates his employment can expect to receive a pension commencing at age 60, based on benefits accrued at the time of termination or alternatively to receive the participant contribution account balance. The pension has the same features of commutation, post-retirement death benefit, and post-retirement pension increases as for active employees eligible for retirement benefits.
11. Other Benefits (Not Valued):	Supplementary pensions on abolition of office and re-organization.