RP10/95-96

An Analysis on Two Proposals to Change the Funding Requirements for Superannuation Schemes of UGC-funded Institutions

Research and Library Services Division
Legislative Council Secretariat
February 1996

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Background

This paper, prepared at the request of the LegCo Panel on Education, examines two proposals to change the funding requirements for the superannuation schemes of the institutions funded by the University Grants Committee (UGC). One proposal is put forward by the Joint University Staff Associations (JUSA) and the other by Hon CHEUNG Man-kwong.

Occupational Retirement Schemes Ordinance

2. The Occupational Retirement Schemes Ordinance (ORSO) was introduced to regulate the operation of retirement schemes in Hong Kong. The Ordinance became effective in 1993, requiring all local retirement schemes to be registered by 15 October 1995. Thereafter, all schemes must apply for registration within three months of establishment.

3. All schemes registering under ORSO have to be pre-funded, i.e. assets of a scheme have to be accumulated in advance of the time when benefits are due to be paid. For a defined benefit scheme such as those of UGC-funded institutions, the employer should provide sufficient resources to enable the scheme to meet both its aggregate vested liability (also known as the leaving service liability) and its aggregate past service liability.

<u>Funding requirements under ORSO</u>

4. Under ORSO, a defined benefit scheme is required to be solvent all the time, i.e. with a solvency ratio at 100 per cent or above. A scheme is solvent when it has sufficient assets to cover all the benefits due immediately. In other words, the market value of the scheme's assets should be equal to or greater than the scheme's aggregate vested liabilities as at the valuation date. The relevant employer of a scheme must make up any shortfall in solvency within three years.

5. In addition, a defined benefit scheme is also required to be adequate, i.e. it has sufficient assets to cover the aggregate past service liabilities. Aggregate past service liabilities are benefits payable in the future when members eventually leave employment in respect of service completed up to the valuation date. Any shortfall in adequacy should be funded over a period as specified by the actuary.

6. Since retirement benefit of a defined benefit scheme is based on the length of service and leaving salary of staff and not related to investment return, proper funding and management of the scheme is essential. The Registrar of the Occupational Retirement Schemes has powers of intervention where the schemes are improperly administered or financed.

<u>Superannuation schemes of UGC-funded institutions</u>

7. All seven UGC-funded institutions - the University of Hong Kong (HKU), Chinese University of Hong Kong (CUHK), Hong Kong Polytechnic University (PolyU), Hong Kong Baptist University (HKBU), City University of Hong Kong (CityU), Hong Kong University of Science and Technology (HKUST) and Lingnan College (LC) - have operated defined benefit schemes with the exceptions described in paragraph 10.

8. The solvency ratios[1] of the schemes of HKU, CUHK and PolyU are on a decreasing trend and have fallen below the 100 per cent solvency requirement of ORSO (Appendix I).

9. While it is the responsibility of an employer of a defined benefit scheme to make up any shortfall in the scheme, the three institutions have encountered problems. The institutions depend on government subventions for their contribution to the superannuation schemes. The Government has restricted the contributions to the schemes at 15 per cent of the average staff salaries. The institutions do not have much resources other than government subventions to inject additional assets or increase the funding level.

10. To comply with the funding requirements of ORSO, CUHK changed its scheme to a defined contribution scheme with effect from 1 April 1995 and PolyU and HKU changed theirs to a variable benefits scheme[2] with effect from 1 April 1995 and 1 October 1995 respectively. Some staff have strong objections to the amendments since their potential retirement benefits would be reduced.

Brief description of the proposals

11. A proposal was put forward by the Joint University Staff Associations (JUSA). Its main purpose is to lower the funding requirements for the superannuation schemes of UGC-funded institutions and to measure a scheme's solvency by a 10-year average ratio instead of a ratio as at a single valuation date. Major points are given below.

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[1] For an analysis of the solvency ratios of the schemes of UGC-funded institutions, please refer to research papers RP06/94-95 and RP09/94-95 available from the Legislative Council Library.

[2] A variable benefit scheme is one which would provide for negative adjustments when times are unfavourable and positive supplements when times are favourable.

- University retirement schemes shall be required to maintain an average of 90 per cent solvency over a 10-year period to allow for natural fluctuations in the solvency ratio
- If at any time, the 10-year average solvency ratio is below 90 per cent, ORSO shall apply[3]

12. Hon CHEUNG Man-kwong put forward another proposal on 26 July 1995. The major points are as follows.

- The schemes should be allowed to operate within a "safety net" - a 10-year[4] average solvency ratio between 90 to 100 per cent
- If the average solvency ratio is 90 per cent or above, staff leaving would have full retirement payment
- If the average solvency ratio is below 90 per cent, staff leaving would get a percentage payment according to the current solvency ratio
- Staff left with percentage payment could have the rest of their entitlement when the solvency ratio exceeds 100 per cent
- Set up a committee comprising representatives from UGC, the Councils of the institutions, the Office of the Registrar of Occupational Retirement Schemes and university staff associations to monitor the operation of the schemes

Comments on the proposals

Current financial situation not reflected

13. When a scheme's assets are valued on a particular date, the value of assets and thus the solvency ratio may fluctuate with the market situation. To calculate solvency by averaging the ratios of different dates over a period of time for the same actuarial review would help smooth out market fluctuations.

14. However, the average ratio proposed by JUSA and Hon CHEUNG Man-kwong is an average of ratios calculated on one particular valuation date in each of the past ten years. As such, it does not smooth out short-term market fluctuations. Also, as the solvency ratio is an average over such a long period of time as 10 years, the current financial health of the scheme would be overshadowed by historical data.

15. Anomalous situations can happen under the two proposals where retirement payment are calculated on the basis of the 10-year average solvency ratio instead of

[3] Page 6, notes of meeting, 7 June 1995, LegCo Panel on Financial Affairs and LegCo Panel on Education. JUSA representatives elaborated on how ORSO should be applied. They said “any long-term financial problem would be reflected by a lower than 90 per cent 10-year average solvency ratio, in which case, the ORSO would apply. If it was then ordered by the Registrar that the scheme should be wound up, all staff members concerned would be able to obtain their benefits on a pro rata basis.”
[4] Hon CHEUNG Man-kwong subsequently revised his proposal and replaced “10-year” with “a specified period” in calculating the average solvency ratio.

the actual ratio. A staff leaving can have full payment although the solvency ratio of the particular year is below 90 per cent as long as the 10-year average solvency ratio is over 90 per cent. Another staff could only have pro rata payment because the average solvency ratio is below 90 per cent even though the scheme is doing extraordinarily well in that particular year and has a current solvency ratio well above 100 per cent.

Too late and difficult to restore to solvency

16. In the case of UGC-funded institutions, the solvency of some schemes is on a decreasing trend. While the 10-year average ratios of some schemes are above 90 per cent, the current ratios have fallen below 90 per cent, which is much lower than the statutory 100 per cent solvency requirement. This can be illustrated by the solvency ratios of CUHK in the past ten years.

1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	Average
110	120	100	100	96	85	88	87	88	81	95.5

17. In the extreme case, a scheme may have current solvency ratio as low as 50 per cent or even zero per cent while the average ratio is still above 90 per cent. The financial position of the scheme would have deteriorated to such an extent that it would be too late, if not impossible, to restore the scheme to solvency.

18. When a fund's solvency has deteriorated to well below 90 per cent and the employer is not able to inject funds into the scheme (such as the case of UGC-funded institutions), the ability of a scheme to be restored to 100 per cent solvency would hinge solely on investment performance. To achieve extraordinarily good return, there is a temptation to resort to high risk investment. Obviously, any failure in such investment would further aggravate the financial situation of the schemes.

Mass departure may be triggered

19. According to proposals of JUSA and Hon CHEUNG Man-kwong, retirement payment, depending on whether the average solvency ratio is above or below 90 per cent, would differ substantially as illustrated below.

	Situation I	Situation II
Average solvency ratio	90 %	89%
Current solvency ratio	79%	79%
Retirement Payment	100% (full payment)	79% (i.e. proportional to current solvency ratio)

20. In the above situation, retirement payment differs markedly (100 per cent vs 79 per cent) when the solvency ratio decreases by only one percentage point, from 90 per cent to 89 per cent.

21. Since most employees would want to have full retirement payment, mass departure may be triggered when the average ratio is at or slightly above 90 per cent. This would damage the financial viability of the scheme very quickly.

Implications on other insolvent defined benefit schemes

22. If the proposals to change the funding requirements for superannuation schemes of UGC-funded institutions are endorsed, there may be implications on other insolvent defined benefit schemes.

23. Among the 449 defined benefit schemes registered with the Office of the Registrar of Occupational Retirement Schemes, 15 per cent or 69 of them covering 19,236 members (Appendix II) did not have assets sufficient to meet their aggregate vested liabilities at the dates of their latest actuarial reviews. All employers of such schemes have given an undertaking to contribute in accordance with the actuary's recommendations to restore solvency of the schemes. However the promised benefits under such schemes would be affected if their employers ask for the same kind of funding requirements as the schemes of UGC-funded institutions.

Shifting of responsibilities to employees

24. The rules of a defined benefit scheme specify the benefits are to be paid in terms of the member's leaving salary and length of service. In such a scheme, the employer bears all the risk and has to increase contributions or to inject funds into the scheme in case of any shortfall. In the event of winding up, staff would have full benefit payment even if there is a shortfall in the scheme. A defined benefit scheme gives security to staff's retirement benefits.

25. Under the proposals by JUSA and Hon CHEUNG Man-kwong, risks such as poor investment returns would be shifted from employers to employees. The security on retirement benefit under a defined benefit scheme would disappear since the amount of entitlement would hinge on the 10-year average solvency ratio.

26. The two proposals would in effect change the schemes of UGC-funded institutions from defined benefit ones to variable benefit ones by adjusting retirement benefits to the financial health of the schemes. However, the proposals have not included any mechanism to protect the retirement benefits staff have earned up till now.

27. In addition to shifting the risk to employees, an employer of a scheme formed under the two proposals would have less responsibility in restoring the solvency of the scheme. So long as the average solvency ratio of the scheme is above 90 per cent, the relevant employer does not need to do anything.

28. Under JUSA's proposal, ORSO would apply when the average solvency ratio of a scheme is below 90 per cent. This would mean the employer would have to restore solvency according to the actuary's recommendations. However, when the solvency ratio has fallen below 90 per cent, the current solvency ratio and thus the value of scheme assets may have fallen to a very low level. It would be very difficult for the employer to restore the scheme to health without injection of resources or raising the funding level.

29. In addition, the Registrar of Occupational Retirement Schemes would not be able to cause an insolvent scheme to be wound up until the 10-year average solvency ratio falls below 90 per cent. Staff staying behind would be particularly worse off if the scheme reaches a stage that it has to be wound up.

Conclusion

30. Averaging solvency ratios over a certain period of time instead of using the ratio based on valuation of assets and liabilities on a particular date can smooth out market fluctuations. However, 10 years would be too long for the average ratio to be useful in reflecting current financial health of a scheme. Besides, the proposed average is only an average of ratios calculated on a particular date in each of the 10 years and could not smooth out short-term market fluctuations.

31. For schemes that have decreasing solvency ratios such as some schemes of UGC-funded institutions, the current solvency ratios would have become very low when the 10-year average ratio fall below 90 per cent. It would be too late and difficult for their employers to restore the financial situation of the schemes by then.

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Reference:

The Wyatt Guide to Retirement Schemes in Hong Kong, The Wyatt Company

Appendix I

Solvency Ratios of HKU, CUHK and PolyU

Valuation year	Solvency ratio (%) of CUHK	Solvency ratio (%) of HKU	Solvency ratio (%) of PolyU
1986	110	N.A.	134
1987	120	N.A.	158
1988	100	134	125
1989	100	117	124
1990	96	111	107
1991	85	97	93
1992	88	102	94
1993	87	99	92
1994	88	100	93
1995	81	94	92
Average ratio for 1986 to 1995	95.5	106.8*	111.2

* Average for 1988 to 1995

Source: Actuarial valuation reports of the HKU, CUHK and PolyU superannuation schemes

Appendix II

Registered Defined Benefit Schemes in Different Membership Groupings

Membership size	Number of registered schemes	Total number of members covered
0-9	38	204
10-19	47	673
20-29	26	626
30-49	48	1,887
50-99	66	4,685
100-199	62	8,567
200-499	74	23,117
500-999	35	25,240
1,000-5,000	44	91,023
5,001-10,000	5	36,420
Above 10,000	4	70,496
Total	449	262,938
Number and percentage of insolvent schemes	69 (15%)	19,236

Source: Office of the Registrar of Occupational Retirement Schemes
(as at 31 December 1995)