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**COMPARATIVE STUDY OF THE OPCW PROVIDENT FUND
AND THE UNITED NATIONS JOINT STAFF PENSION FUND**

Note by the Executive Secretary

The attached study was commissioned by the Secretariat of the Organisation for the Prohibition of Chemical Weapons (OPCW). As the basic set-up of the Provident Fund of the OPCW is similar in nature and approach to that of the Provident Fund of the CTBTO Preparatory Commission, the study is being made available on the occasion of the Eighth Session of the Advisory Group (26-30 April 1999) for information purposes.

Prepared for

OPCW

***Comparative study of the OPCWPF
and the UNJSPF, and associated
ancillary benefits***

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APPENDIX 1. AFTER-SERVICE MEDICAL BENEFITS

1. Introduction

- 1.1.1 The OPCW is an international organisation established to perform two main tasks: to oversee the destruction of chemical weapons; once chemical weapons are destroyed, to provide ongoing monitoring of the chemical industry to prevent its use for subsequent chemical weapon manufacture. The organisation is funded by member states of the UN, and to a large extent follows UN principles regarding the salary and benefits of its employees. One of the key differences from the UN has been the adoption of a personnel policy in which the relationship with staff is governed by the use of limited-term employment contracts.
- 1.1.2 The adoption of this personnel policy has influenced the way in which the organisation has sought to provide retirement and social security benefits for its employees. The chosen route has been to provide a Provident Fund (*“OPCWPF”*), backed up by certain additional insurance schemes. This structure in some ways mirrors the United Nations Joint Staff Pension Fund (*“UNJSPF”*), for instance by adopting the same contribution rates and replicating death and disability benefits, however the manner in which it aims to provide retirement and social security benefits is fundamentally different.
- The aim of this report* 1.2.1 The aim of this report is to examine the two alternative systems, the OPCWPF and the UNJSPF. The two systems will be described in some detail and differences highlighted. Monetary comparisons will be made on the assumption of membership of both schemes through to retirement.
- 1.2.2 An examination will be made of the different ways in which early leavers are treated, and the appropriateness of this to differing employment conditions. The insured plans will be reviewed and studied for their integration with main scheme benefits.
- 1.2.3 Broad conclusions will be reached regarding the costs of benefit provision and the suitability of the alternative systems to the working culture and practises of the organisations.

	2. Summary of conclusions	
<i>Suitability to the organisation</i>	2.1.1	The UNJSPF and OPCWPF represent two very different methods of providing retirement and social security benefits. The final salary approach (<i>UNJSPF</i>) is most often found in organisations seeking to offer long-term job security, to attract and retain high quality staff, and who envisage a low rate of staff turnover. The employer and the scheme managers make most decisions on behalf of the staff members, removing from them exposure to investment risk and providing a “guaranteed” income based on salary and service. As such they expose themselves to potentially open-ended cost commitments.
<i>Staff member risk</i>	2.1.2	Money purchase schemes (<i>OPCWPF</i>) are more appropriate for employers who cannot offer the same level of job security, and who anticipate higher rates of staff turnover. They still wish to offer a quality pension scheme to aid staff recruitment, but do not want to expose themselves to the potentially open-ended costs of the final salary approach. They will commit themselves to a given level of contribution into the scheme, but will not take responsibility for investment risk and guaranteeing an income. This responsibility falls to the staff members. The link between the employer and employee is broken at separation, removing the requirement for the employer to maintain records and administration services for ex-employees and retirees.
<i>Security of tenure</i>	2.1.3	The fundamental difference between OPCW and UN common system organisations is the lack of long-term security of tenure. At present, therefore, this lack of long-term security means it is more appropriate for the OPCW to use the money purchase approach as a means of providing retirement and social security benefits. Staff members are allowed access to their funds on separation, and have it in their own control to use this money for long-term retirement planning or, if necessary, as a fund to cushion them from the effects of their lack of long-term security of tenure.
	2.1.4	In this way, the OPCWPF could be seen to be “better” than the UNJSPF because it suits the nature of the organisation in a way that a final salary plan probably does not. Some staff members might eventually benefit from a pension that would be higher than if they had been in the UNJSPF, others will certainly receive less. Overall, the current combined funding rate of 23.7% does not represent an over funding of the OPCWPF in comparison to the UNJSPF.
<i>Early leaver benefits</i>	2.2.1	It is important to consider the circumstances under which people might leave an organisation. The two most likely reasons are firstly, they find another job that they feel is better for them and they leave of their own volition, and secondly, their services are no longer required by the organisation and their contract is terminated by their employer. There are therefore two classes of early leaver: the voluntary and the involuntary.
<i>Full career employment</i>	2.2.2	In organisations offering long-term security of tenure, cases of involuntary early leavers are likely to be relatively infrequent. Provided an individual’s work performance is acceptable, and the organisation is not exposed to commercial pressures that can lead to large scale redundancies, they have a realistic prospect of being able to remain employed by that organisation through to their normal retirement date (“ <i>NRD</i> ”). This is probably the broad case with most organisations operating within the UN common system. These organisations will have early leavers, but it is likely that the bulk of them will be voluntary - people moving on of their own accord in order to further their careers
<i>Involuntary early leavers</i>	2.2.3	With no long-term security of tenure, the likelihood of involuntary early leavers increases. Satisfactory work performance may not guarantee reemployment at the end of a given contract period. In such an event, it may not be possible for the individual concerned to find suitable alternative employment, resulting in a period of unemployment..

<i>Loss of National benefits</i>	2.2.4	This is the situation pertaining to OPCW: staff are employed on short-term contracts, having received a clear message that they should not regard their employment with the organisation as a long-term career. Such a set of circumstances leads to concern about unemployment, made more acute by the loss of National benefits incurred during the period of employment by the organisation.										
<i>Recruitment and motivation</i>	2.2.5	In short-service organisations early leaver terms are an important aspect in the recruitment and motivation of staff. If potential recruits are offered membership of a pension scheme from which, because their contract term is shorter than the vesting period for the employer's contributions, they will fail to benefit from those employer's contributions, they will be unlikely to regard that pension scheme as a positive reason for joining the organisation. A scheme structured in such a way potentially then ceases to be a motivational tool, and could actually become a barrier to recruitment.										
	2.2.6	Because OPCW staff are employed on short-term contracts, they naturally tend to concentrate their attention on the short-term benefits of the OPCWPF. Being allowed to benefit from the employer's contribution after three months service is therefore a very positive recruitment and motivation tool.										
<i>Dual purpose</i>	2.2.7	Both the UNJSPF and the OPCWPF will have early leavers, however, as things currently stand, the probability is that the OPCWPF will have a proportionately higher number of involuntary departures. Because of this, the OPCWPF is trying to serve two functions. Firstly, it is there to provide a means whereby staff members can save towards their retirement. Secondly, access to the fund on separation allows the accrued value to be used to provide a replacement income in the event of unemployment. The nature of the employment relationship, and the likelihood of a greater number of involuntary early leavers, means that the OPCWPF has a far greater chance of being used in this way than the UNJSPF.										
<i>Reduced pension benefits</i>	2.2.8	Two other factors are worthy of consideration when assessing the value of the OPCWPF early leaver terms. Firstly, using the fund to provide unemployment benefits will reduce the ultimate value of any pension that can be taken - in effect, the fund cannot be spent twice. Those staff members with relatively little service, say three to five years, only need use their fund to provide unemployment income for a comparatively short period of time to see their ultimate pension benefits significantly reduced.										
	2.2.9	Secondly, those longer service staff members with higher early leaver benefits are more likely to be older individuals who will find it more difficult to find alternative employment. In the event of an involuntary separation, they are therefore likely to need an unemployment income for longer, with the prospect that they will have to ultimately treat it as an "early retirement" pension. This too will have a significant impact on the level of pension benefits available.										
	2.2.10	Viewed in the context of the dual functions served by the OPCWPF, necessary because of the lack of long-term tenure of employment, the early leaver terms provided by the scheme serves the purpose it was designed for.										
<i>Insurance benefits</i>	2.3.1	The provision of death and disability benefits to OPCW employees is complicated by the inability of the OPCWPF, because of its structure, to replicate benefits in this class that are available from the UNJSPF. This has necessitated these benefits being provided wholly through a separate insurance policy. The cost of providing these benefits, paid for by the organisation, is as follows: <table><tr><td>Single administration staff</td><td>3.354%</td></tr><tr><td>Married administration staff</td><td>3.254%</td></tr><tr><td>Single inspectorate</td><td>3.754%</td></tr><tr><td>Married inspectorate</td><td>3.654%</td></tr><tr><td>Average cost</td><td>3.504%</td></tr></table>	Single administration staff	3.354%	Married administration staff	3.254%	Single inspectorate	3.754%	Married inspectorate	3.654%	Average cost	3.504%
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<i>Group medical insurance</i>	2.3.2	Throughout the UN common system medical insurance is a separately insured item, generally funded 50% by the organisation and 50% by the employee. Benefits are given to employees whilst working for the organisation in question, and are extended beyond this period to cover										

		retirees in receipt of benefits from the UNJSPF. For someone who works for such an organisation for life and retires with benefits from the UNJSPF, medical insurance is therefore available throughout their working life, and through retirement up to the date of death.
"After-service medical benefits"	2.3.3	The method of providing these "after-service medical benefits" varies from organisation to organisation. However, it would appear that the majority have no advance funding mechanism in place, the liabilities being met from current expenditure as they occur. Many organisations are therefore accruing substantial future liabilities without having a clear idea of how to meet the costs. <i>Please see Appendix 1 for further details concerning this issue.</i>
Retirees	2.3.4	The OPCWPF will not have a class of retirees – staff members take their accrued investment fund on separation and are then personally responsible for their ongoing income or pension requirements. The duty of the OPCWPF to the staff member ceases at separation: there is therefore no requirement to provide medical benefits beyond the period for which people work for the organisation. All liabilities are current and fully funded.
OPCW costs	2.3.5	The costs of the OPCW group medical plan is as follows: Single staff member 2.72% of medical net salary Staff member + 1 dependent 4.12% of medical net salary Staff member + 2 dependents 5.53% of medical net salary The staff member meets 50% of these costs.
Comparison	2.3.6	Medical costs will vary based on an organisation's claims experience, the average age of its employees and the rigour and frequency with which insurance companies are negotiated for improved rates. In the context of employment conditions, an organisation offering security of tenure is likely to see the average age of its employees rise, compared with a short-service organisation, as a higher proportion of staff remain with it through to NRD. An example of the costs incurred by a common system member would be the following 1998 charges for group medical insurance for the UNIDO: Single staff member 5.71% of medical net salary Staff member + 1 dependent 8.56% of medical net salary Staff member + 2 dependents 11.42% of medical net salary These costs do not cover "after-service medical benefits" liabilities that this organisation is likely to be incurring.
Renegotiation and profit participation	2.3.7	OPCW's policy of annual renegotiation has seen the funding rate fall by an average of 31.40% since 1994. In addition to these savings, the OPCW group medical policy benefits from a 'profit participation' clause - if the claims history is good a partial refund of premiums is available to the organisation. In 1997 this amounted to f150,000, of which 50% was available for return to Member States.
Overall insurance costs	2.3.8	The lack of the ability to provide death and disability benefits through the OPCWPF, and the requirement to provide these benefits through separate insurance, introduces an additional cost to OPCW over and above common system organisations. That said, this cost and the price of group medical insurance has been rigorously controlled and has fallen throughout the life of the organisation so far. The overall costs of providing insured benefits are therefore well within the range of costs incurred by common system organisations.
	2.3.9	The structuring of the OPCWPF in such a way as to eliminate the retiree class removes the liability that other organisations are incurring for "after-service medical benefits". All liabilities are funded through the insurance policy and costs are known and can be controlled through careful management of the relationship with the insurance companies.
Alternatives	2.4.1	The current system provides a flexible means of funding both retirement planning and social security benefits. It reflects the nature of the employment relationship, and does so in a way that keeps the administration and record keeping requirements and costs of the organisation to a minimum. Are there alternatives?
UNJSPF	2.5.1	The most obvious candidate is to take full membership of the UNJSPF. This would place the staff members in a final salary scheme designed to reward long service. This is unlikely to sit well with the perceived

short-term nature of employment with OPCW. For instance, employees leaving within a five-year period would only benefit from the fund to the value of their own contributions plus interest. The entire value of the employer's contribution is lost to them, whether they leave of their own accord or not. One has to question the motivational impact of such an arrangement, particularly bearing in mind the rate of interest is only 3.25% - staff members would probably do better investing their contributions outside the scheme.

<i>Lack of cost control</i>	2.5.2	The UNJSPF benefits from the employer's contribution in the event that employees leave within the first five years. This money is retained within the fund to provide benefits for longer-term staff members. This approach has not, however, helped to restrain the costs of the UNJSPF. Since 1984 the employer's contribution to the scheme has risen from 14% to the current 15.8%, an almost 13% increase; the employees contributions from 7% to 7.9%. Actuarial factors will have determined the need for these rises in contributions, to ensure that the assets of the scheme meet its liabilities.
<i>Fixed contributions</i>	2.5.3	By contrast a money purchase scheme, such as the OPCWPF, does not have liabilities - it merely pays to the staff members the value of their individual investment fund. Consequently, the contribution rate is not unduly influenced by external factors and can be kept at the same level throughout the life of the scheme, if required.
<i>Unemployment</i>	2.5.4	The UNJSPF is also ill equipped to deal with the potential unemployment issue. Would this problem require the introduction of a separate insurance scheme to deal with it, and would such insurance be possible to obtain bearing in mind that short-term contracts present an insurance company with a high likelihood of facing a claim?
<i>"Pay-as-you-go"</i>	2.6.1	Another alternative might be described as a "Pay-as-you-go" plan. This is the way in which most State Benefit systems work, with no advance funding being made to meet future liabilities. Those liabilities, when they arise, have then to be met from current expenditure.
<i>Liabilities</i>	2.6.2	If such an alternative were considered for OPCW, the first task would be to establish what level of liability to the staff members the scheme would have upon their leaving. Would this liability take the form of a lump-sum payment, or an entitlement to pension, or options for both? Would the staff members still be required to contribute themselves, and if so into what type of investment? What guarantees would be put in place to reassure the staff members that the liabilities, which would have no matching assets, would in fact be paid at the promised rate?
<i>Short-term cost saving</i>	2.6.3	The attraction of such a system is short-term cost savings: there would be no requirement for the employer to make regular ongoing contributions. The employer builds-up a paper debt to the staff member that become due on leaving. It is then that the actual costs are incurred. The system is effectively deferring the costs to some stage in the future.
<i>More expensive</i>	2.6.4	Because the plan does not benefit from regular funding, no investment growth is obtained. This invariably means that such schemes, whilst saving money in the short-term, are more expensive in the full term. They also do not allow for the careful management of cash flow, subject as they can be to unpredictable rates of staff turnover which generate immediate liabilities that must be met from current expenditure.
	2.6.5	To provide a comparable level of benefits, a funded scheme will prove less expensive than a pay-as-you-go approach. This has become obvious to most Governments, who are trying to reduce their liability to such systems at the same time as encouraging their populations to invest in funded alternatives. The use of a pay-as-you-go scheme for OPCW could not therefore be recommended.
<i>Conclusions</i>	2.7.1	The current arrangements made for the provision of pension and social security benefits for OPCW staff, utilising a money purchase savings plan allied to relevant insurances, are the most appropriate given the employment conditions of the organisation. The system as it stands protects staff members and their families from death, illness and disability whilst allowing them to save for their retirement. At the same time, access to their investment fund provides them with a safety net in

the event of unemployment. All liabilities are fully funded, the removal of the retiree class meaning that the organisation has no hidden liabilities to meet "after-service medical benefits" costs. In addition, capping the contributions to the scheme, unlike the final salary approach, can control costs. The other alternatives examined here would be less appropriate for the organisation as it currently operates.

	3. Scheme Descriptions	
	3.1.1	Before looking in detail at the two specific schemes for comparison, it is appropriate to first give a generic overview of the types of benefit provision being considered: final salary (<i>or defined benefit</i>) and money purchase (<i>or defined contribution</i>).
Final salary schemes	3.2.1	Final salary schemes operate by providing their staff members with a fixed percentage or fraction of their salary as pension for each year of service with their employer. For instance, an employee might be entitled to 1.75% of salary for each year of service (<i>commonly known as the 'accrual rate'</i>): someone retiring with 20 years service would therefore be entitled to $20 \times 1.75\% = 35\%$ of their final salary as pension.
Inflation proofing	3.2.2	The value of this pension would normally be inflation-proofed to some degree: the employer might provide to increase the pension in payment each year in line with an agreed inflation index up to, say, a maximum of 3% or 5% each year.
Death in service	3.2.3	In addition to the pension benefit there would usually be an element of protection provided in the event of the death of the employee, either during service or after they have retired. During service, this would normally provide the surviving spouse and/or dependants with a pension calculated by reference to the staff member's salary on death and maximum potential service to normal retirement date ("NRD").
Death after retirement	3.2.4	In the case of the death of the staff member after retirement, the spouse would normally receive a proportion of the pension that was being paid to the staff member, say 50%. Both of the above mentioned pensions would also normally be inflation-proofed.
Leaving service benefits	3.2.5	In the event of an employee leaving the organisation before reaching NRD they would normally be entitled to what is known as a 'preserved' or 'deferred' pension. This is calculated by reference to their length of service and salary on leaving the organisation. Taking our earlier example, someone leaving service after five years in a scheme with an accrual rate of 1.75% per annum would be entitled to a preserved pension of $5 \times 1.75\% = 8.75\%$ of salary on leaving service. This preserved pension would again normally be inflation-proofed through until benefits were taken at retirement.
Investment performance	3.2.6	In a final salary scheme, the employee has a contractual right to receive benefits based on the actuarial assumptions laid down in the scheme rules. The investment performance of the pension fund therefore has little direct impact on the individual staff member: if the investments of the fund under-perform, and the fund is actuarially calculated to be unable to meet its liabilities, it is the duty of the employer to top-up the funding of the scheme in order to ensure that it can meet its contractual liabilities. This may or may not involve increased contributions from the staff members.
	3.2.7	Conversely, if the investment performance of the fund exceeds expectations, the employee would not generally profit from that by seeing an increase in the benefits provided by the scheme.
Annuities	3.2.8	Nor does the individual staff member have to worry about what annuity rates will be upon their retirement: the level of pension is contractually agreed and paid to the staff member regardless of annuity rates at the time of retirement.
Guarantees	3.2.9	Final salary plans can therefore be seen as a very secure means by which the individual staff members of such schemes can obtain pension benefits: they are "guaranteed" a certain level of benefits regardless of the level of investment return achieved by the investment fund, with the employer effectively bearing all the investment risk.
Money purchase schemes	3.3.1	These schemes are radically different from final salary plans. Here, the contractual relationship between the employer and employee relates purely to the level of contribution to be made into the scheme: there is no promise made of a final level of pension being paid from the scheme.
Investment choice	3.3.2	Contributions from the employer (<i>and usually the employee</i>) are paid into one or more investment funds, over which the employee may or may not be able to exercise some influence. The level of benefits ultimately payable to the staff member will depend upon the rate of

- growth of the investment fund.
- Annuities* 3.3.3 At retirement, the staff member will usually be required to buy a lifetime annuity with this fund, therefore annuity rates will also impact on the ultimate value of pension purchased. Factors governing the value of annuities are such as the age and sex of the staff member, the currency the annuity is to be paid in, prevailing investment conditions in the bond market of the currency, and the type of annuity required.
- Investment risk* 3.3.4 In these types of schemes it is the staff member who bears the investment risks and the employer none. If the investment fund fails to perform there is no obligation for the employer to increase their contribution rate; it is up to the individual staff member to monitor his fund and ensure there is sufficient to provide him with an adequate retirement. If there is not then he should consider increasing his personal contributions.
- Death in retirement* 3.3.5 Protection in the event of the death of the employee also usually takes a very different form. As no guaranteed pension is being offered at retirement it is impossible to pre-specify the level of pension that would be payable to the surviving spouse in the event of the death of the staff member. If the individual staff member wishes to provide this type of protection, it is up to him to purchase an annuity at retirement that reflects his wishes. Likewise if he wishes to protect his income against inflation.
- Death in service* 3.3.6 If the staff member dies during service again there is no promise of a pension benefit. Usually money purchase schemes will return to the surviving spouse the value of the staff member's investment fund: from this lump-sum the surviving spouse will have to provide an ongoing income.
- Guarantees* 3.3.7 Money purchase schemes do not provide the guarantees available from final salary plans: benefits are ultimately dependent upon investment returns and annuity rates. The employer has a known commitment to the scheme in the form of an agreed contribution rate; there is not the potentially open-ended commitment of a final salary plan where the employer would be contractually obliged to make up for any shortfall in the investment performance of the fund.
- 3.3.8 The UNJSPF is a final salary scheme; the OPCWPF is a money purchase scheme. There are therefore two very different ways of providing retirement/social security benefits being considered. Before making direct financial comparisons, the main features of the two schemes will be compared.

Table 1. - Comparison of features		
Feature	UNJSPF	OPCWPF
<i>Scheme basis</i>	Final Salary	Money Purchase
<i>Pension entitlement</i>	Based on length of service and average final remuneration.	Based on the value of the staff member's investment fund.
<i>Normal retirement date</i>	At age 62	At age 62
<i>Early leaver entitlement</i>	▲ before 5 years service - refund of staff member's contribution plus interest; ▲ after 5 years - a preserved pension based on length of service and average final remuneration at date of leaving, or commuted lump-sum value.	The value of the staff member's individual investment fund.
<i>Death in service benefit</i>	Spouse's pension provided based on average final remuneration at date of death and full prospective service to NRD. In certain circumstances a dependents pension is also provided.	Payment to designated beneficiaries of the value of the staff member's investment fund.
<i>Death after retirement benefits</i>	A spouse's pension of 50% of the value of the staff member's pension. In certain circumstances a dependents pension is also provided.	None specified - depends entirely on the way the staff member has structured the income in retirement i.e. has a joint life annuity been purchased, are investments structured in such a way as to continue to produce an income.
<i>Inflation proofing</i>	Pensions in payment index-linked to protect purchasing power. Preserved pensions also index-linked.	No built-in inflation proofing - retirement income dependent upon type of annuity purchased or the way investments structured. Value of any preserved benefit dependent upon investment performance of individual staff member's fund.
<i>Disability benefits</i>	An income payable in the event of long-term or permanent incapacity due to accident or illness.	None specifically provided - access to individual investment fund on separation.
<i>Currency risk</i>	Value of pension linked to US Dollar. If staff members opt for a pension in a 'local' currency this value is protected against fluctuations in the exchange rate.	Currency risk borne by staff members.
<i>Investment risk</i>	Investment risk borne by the employer.	Investment risk borne by the individual staff members.
<i>Guarantees</i>	Level of benefits guaranteed by the UNJSPF.	No guarantees - level of benefits solely dependent upon the investment return of the staff member's fund.
<i>Administration</i>	Required throughout the period of employment, preserved pension and payment of retirement and death after retirement benefits.	Staff members records maintained only until date of separation.

- 3.4.1 The UNJSPF and OPCWPF represent two very different methods of providing retirement and social security benefits. The final salary approach is most often found in organisations seeking to offer long-term job security, to attract and retain high quality staff, and who envisage a low rate of staff turnover. The employer and the scheme managers make most decisions on behalf of the staff members, removing from them exposure to investment risk and providing a “guaranteed” income based on salary and service. As such they expose themselves to potentially open-ended cost commitments.
- 3.4.2 Money purchase schemes are more appropriate for employers who cannot offer the same level of job security, and who anticipate higher rates of staff turnover. They still wish to offer a quality pension scheme to aid staff recruitment and retention, but do not want to expose themselves to the potentially open-ended costs of the final salary approach. They will commit themselves to a given level of contribution into the scheme, but will not take responsibility for investment risk and guaranteeing an income. This responsibility falls to the staff members. The link between the employer and employee is broken at separation, removing the requirement for the employer to maintain records and administration services for ex-employees and retirees.
- 3.4.3 The fundamental difference between OPCW and common system organisations is the lack of long-term security of tenure. At present, therefore, this lack of long-term security means it is more appropriate for the OPCW to use the money purchase approach as a means of providing retirement and social security benefits. Staff members are allowed access to their funds on separation, and have it in their own control to use this money for long-term retirement planning or, if necessary, as a fund to cushion them from the effects of unemployment.

4. Monetary Comparisons

Benefits assuming service through to UNJSPF NRD of 62.

UNJSPF	Target funding to NRD	4.1.1	Because of the radical differences between final salary and money purchase schemes, described in Section 3, making meaningful comparisons of these two methods of pension provision is difficult. However, one meaningful method of comparison is a method called "target funding" to NRD. This approach calculates the level of contributions that would be needed into a money purchase scheme to attempt to duplicate the long-term benefits available from a final salary plan.
		4.1.2	Before making monetary comparisons, the financial bases on which the two schemes are structured will be explained.
		4.2.1	For employees joining the fund after the 1 st January 1983 the rate of accrual is as follows:
	Accrual rate	4.2.2	the first five years at 1.5% of final average remuneration;
		4.2.3	the next five years at 1.75% of final average remuneration;
		4.2.4	the next 25 years at 2.0% of final average remuneration.
	Death benefits	4.2.5	Death after retirement benefits would provide the surviving spouse with a pension of 50% of the staff member's pension. Death in service benefits would provide the surviving spouse with a pension of 50% of the staff member's prospective pension based on the final average remuneration at the date of death and the prospective service to normal retirement date. In certain circumstances, a dependents pension may also be payable.
	Final average remuneration	4.2.6	Final average remuneration ("FAR") is calculated as the average annual pensionable remuneration of a participant during the 36 completed calendar months of highest pensionable remuneration within the last five years of contributory service.
	Normal retirement date (NRD)	4.2.7	The normal retirement age of the scheme is 62. Early retirement benefits can be taken from age 55, with penalty. A preserved pension, value based on the accrual rates and final average remuneration definitions above, is available after five years service. Staff members leaving before five years service are only entitled to a return of their own contributions, plus interest.
	Disability benefit	4.2.8	The scheme also provides a disability benefit in the event of the staff member being unable to work due to long term incapacity.
OPCWPF	Costs	4.2.9	Benefits are also inflation-proofed. All of the benefits listed above are provided through contributions to the scheme of 15.8% of pensionable salary from the employer and 7.9% from the employee. Some of the costs of administering the scheme are met from within the fund.
		4.3.1	The OPCWPF is a money purchase arrangement. Contributions are as per the UNJSPF, 15.8% from the employer and 7.9% from the employee. Contributions are invested solely to provide individualised funds for each employee: it is then the employee's responsibility to use this fund to provide appropriate retirement and social security benefits for themselves and their families.
	Benefits on leaving	4.3.2	After three months service, the employee is entitled to receive the full value of their accumulated investment fund at the date of leaving the organisation.
	Death benefits	4.3.3	Other than the payment of the fund to the nominated beneficiaries in the event of death in service, the scheme makes no provision for death or disability benefits.
	Costs	4.3.4	Costs of operating the scheme are met from within the fund. These are the costs of the administration of the scheme and the fund management function.

- Basis of comparison**
- 4.4.1 The pension payable from the UNJSPF is easy to calculate: if the final average remuneration and length of service are known it is a simple matter to arrive at the retirement benefit. Pension is a function of salary and service.
- 4.4.2 This is not the case with the OPCWPF. A lump sum is being built-up which can be used to provide an income. A far greater number of factors can have an influence on what this income might ultimately be, for instance: rate of investment growth; administration and investment costs; sex of the staff member; currency of income. These factors will vary throughout the employee's membership of the scheme, and will continue to affect their investment once they leave the organisation. They will not know how much their income will be until they try to generate one from their ultimate fund value.
- 4.4.3 This makes direct comparison between the two schemes difficult. It can only be done by making a large number of assumptions concerning the variables mentioned above and factoring them into a series of projected benefits.
- Target funding**
- 4.5.1 This approach attempts to calculate the cost of providing a money purchase pension that matches that of the 'target' final salary scheme. For instance, a person retiring at age 62 from the UNJSPF after 10 years service would be entitled to a pension of 16.25% of average final remuneration. If average final remuneration were \$100,000, that would give them a pension of \$16,500 in the first year, to be increased in line with an inflation index from then on. In the event of the death of the staff member, a pension of 50% the full value would continue to be paid to their spouse. Target funding calculates the cost of providing a similar benefit from a money purchase scheme, taking account of the variables mentioned in point 4.4.2.
- Assumptions used**
- 4.5.2 One of the key variables is the way in which the income is actually provided. In order to make the comparison meaningful it has been assumed that the OPCWPF member will purchase an annuity at retirement. Current annuity rates have therefore been obtained from a major, competitive international insurance company, Generali. An annuity will provide the staff member with the same class of income benefits as the UNJSPF with a comparative level of risk i.e. very little. The rates provided by Generali are as follows:

Table 2. - Generali current annuity rates								
Type of annuity		⇒ joint life - last survivor; payable monthly in arrears; reducing by 50% on death of the annuitant; payable throughout life; no guarantee period.						
Purchase price		⇒ 100,000 of the unit of currency of the payment.						
Age at payment	Male life - spouse assumed 3 years younger				Female life - spouse assumed 3 years older			
	US Dollar	% rate	Euro	% rate	US Dollar	% rate	Euro	% rate
62	Escalating at 2% per annum compound in payment							
	5,644.19	5.6442%	5,004.59	5.0046%	5,396.95	5.3970%	4,766.69	4.7667%
62	Escalating at 3% per annum compound in payment							
	4,976.37	4.9764%	4,375.41	4.3754%	4,757.45	4.7575%	4,167.44	4.1674%

- 4.5.3 Further assumptions have been made as follows:
- 4.5.4 assumed gross pensionable remuneration - *NLG 140,000*;
- 4.5.5 rate of salary increase - 2% & 3% *per annum compound*;
- 4.5.6 growth rate of the investment fund (*gross*) - 4%, 5%, 6%, 7%, 8% and 9%;
- 4.5.7 administration costs - 1.54% of each contribution paid into the plan;
- 4.5.8 fund management costs - 1% of the fund value *per annum*;
- 4.5.9 frequency of interest compounding - 12 *times per annum*.
- Target funding - results 4.6.1 Charts 1 to 12 following show the funding rate into the OPCWPF required to match the retirement benefits payable from the UNJSPF, using the annuity rates from Table 2 and assumptions regarding the rate of inflation (*salary escalation and pensions in payment*) and investment growth rates.

Chart 1. 2% salary & pension escalation plus 4% fund growth per annum

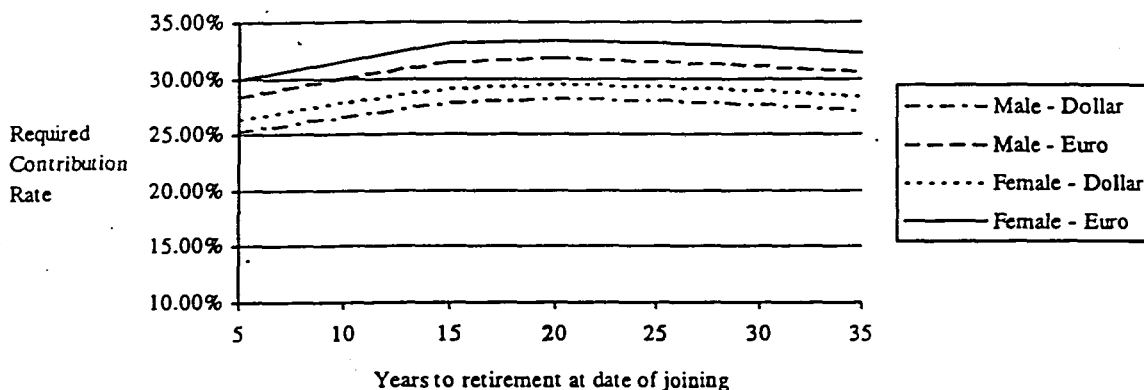


Chart 2. 2% salary & pension escalation plus 5% fund growth per annum

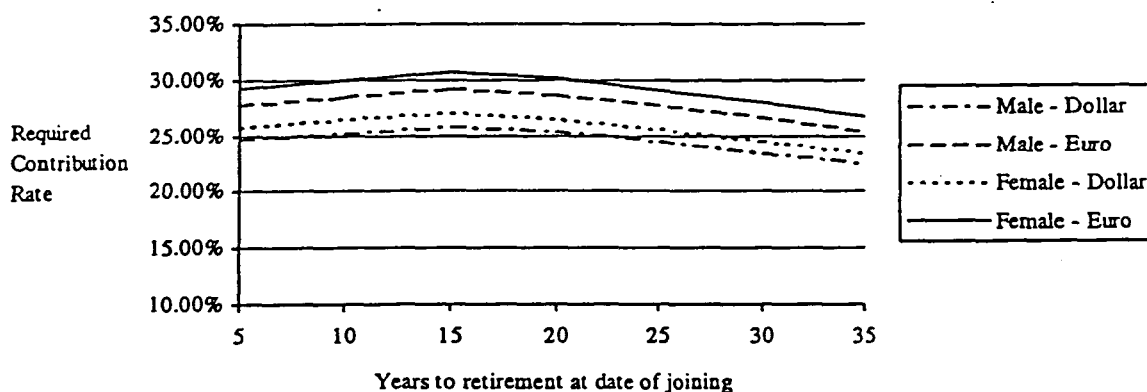


Chart 3. 2% salary & pension escalation plus 6% fund growth per annum

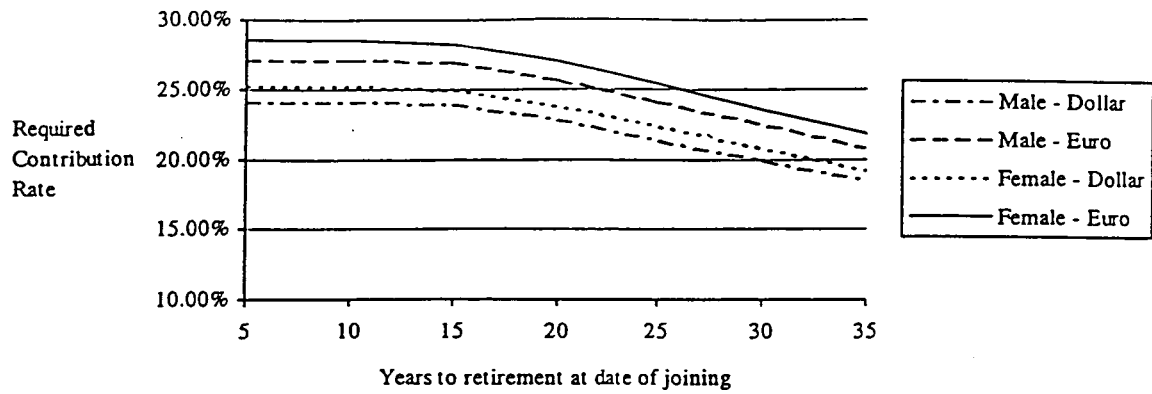


Chart 4. 2% salary & pension escalation plus 7% fund growth per annum

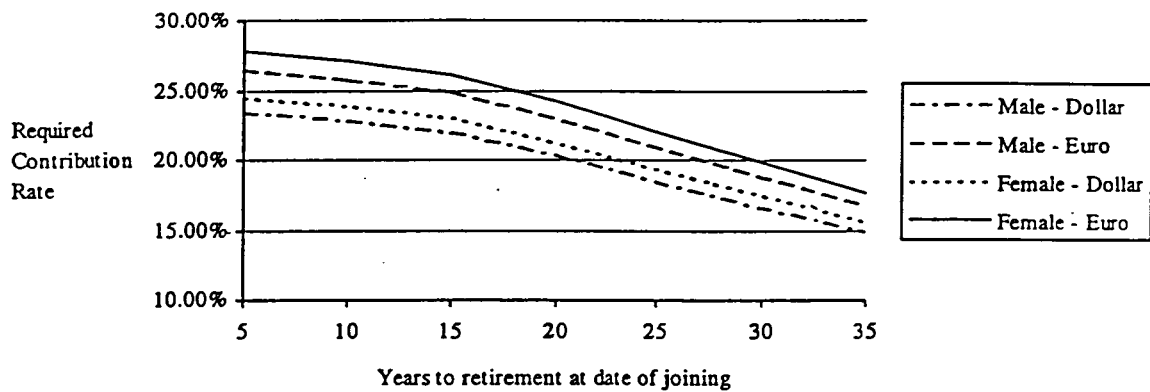


Chart 5. 2% salary & pension escalation plus 8% fund growth per annum

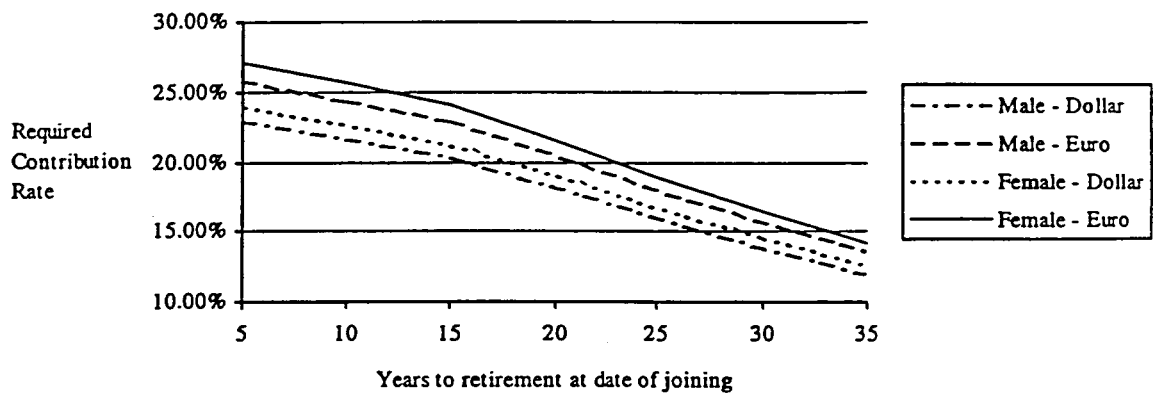


Chart 6. 2% salary & pension escalation plus 9% fund growth per annum

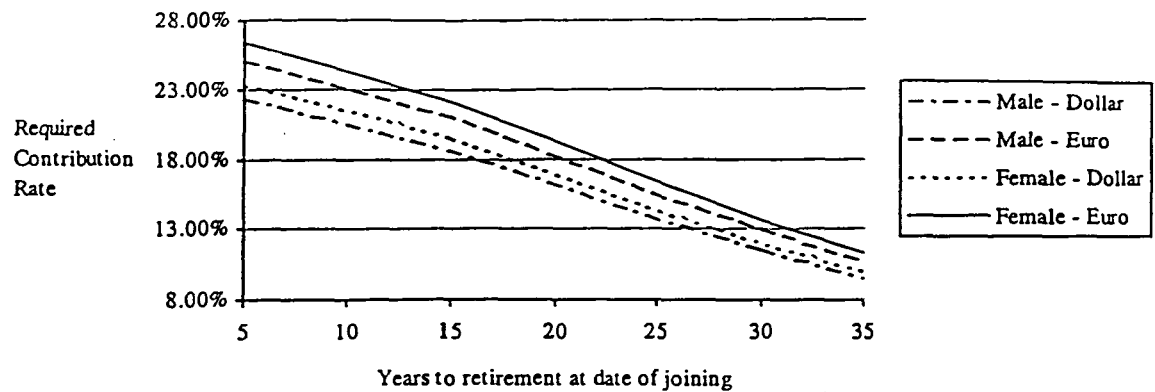


Chart 7. 3% salary & pension escalation plus 4% fund growth per annum

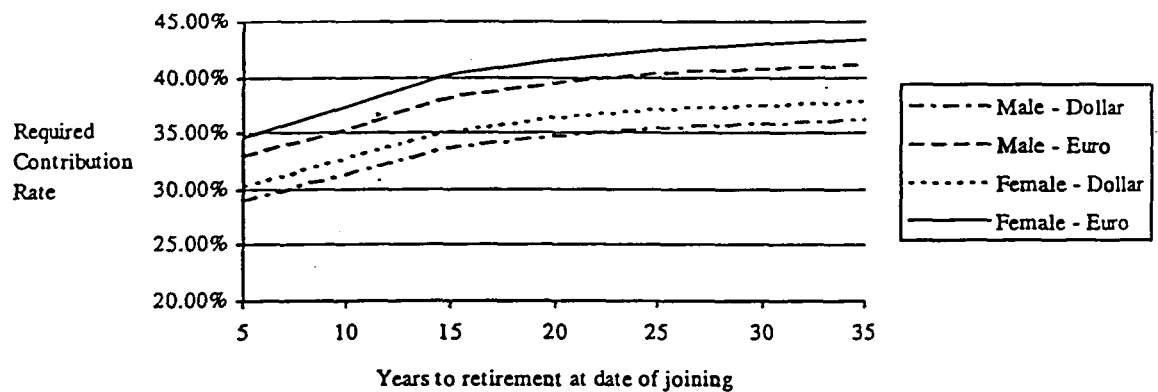


Chart 8. 3% salary & pension escalation plus 5% fund growth per annum

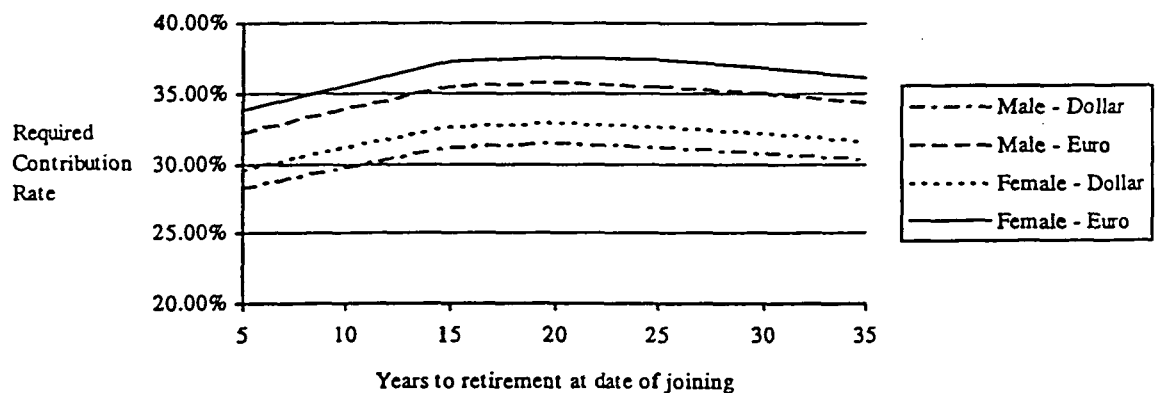


Chart 9. 3% salary & pension escalation plus 6% fund growth per annum

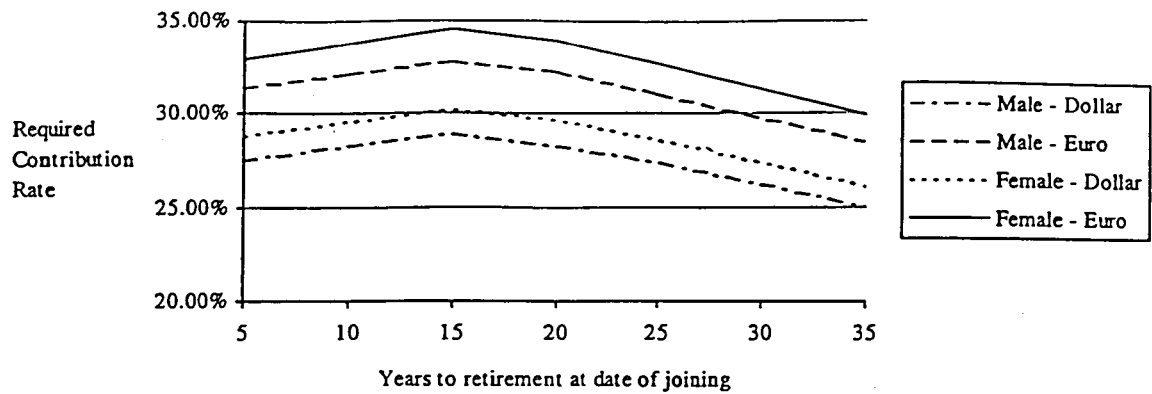


Chart 10. 3% salary & pension escalation plus 7% fund growth per annum

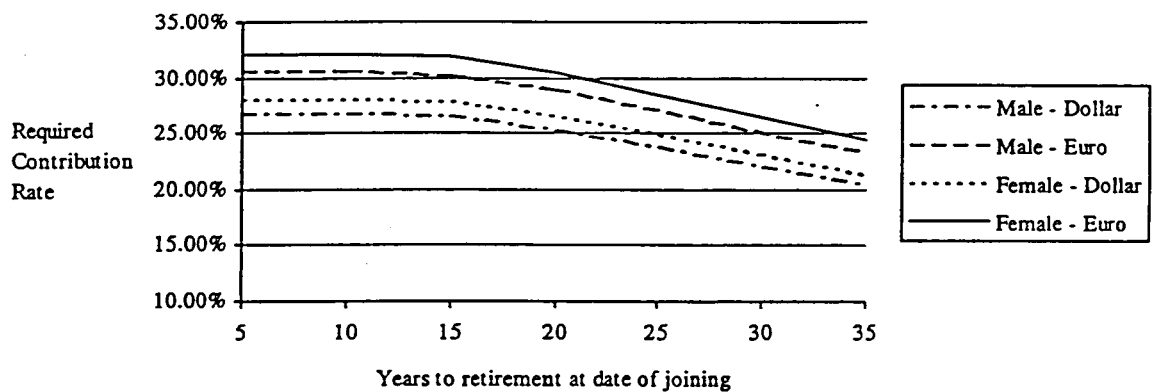


Chart 11. 3% salary & pension escalation plus 8% fund growth per annum

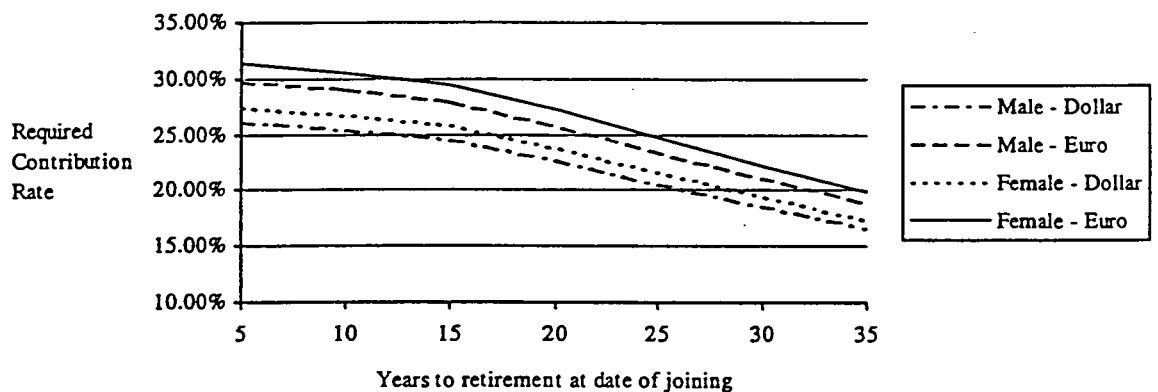
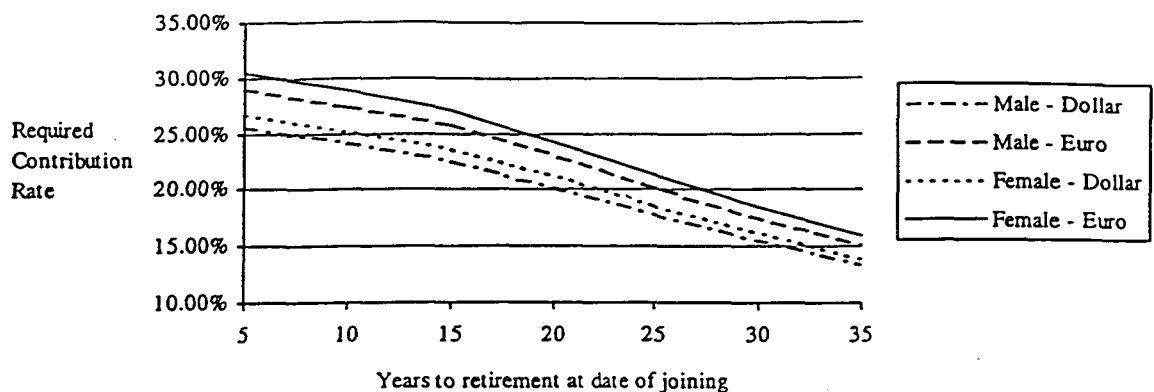


Chart 12. 3% salary & pension escalation plus 9% fund growth per annum



4.6.2 Tables 3. & 4. following produce an average funding rate arrived at by combining the individual elements of sex and currency

Table 3. - Required contributions assuming 2% escalation of salary to NRD and 2% escalation of pensions in payment

			Annual Growth Rates					
			4%	5%	6%	7%	8%	9%
Age at entry into scheme	Final average remuneration at NRD	Target pension	average % of salary required to provide target benefits for both males and females and in US Dollars and Euros					
57	f148,589	7.5% (f11,144)	27.57%	26.90%	26.23%	25.58%	24.94%	24.31%
52	f164,054	16.25% (f26,659)	29.07%	27.63%	26.24%	24.90%	23.61%	22.37%
47	f181,129	26.25% (f47,546)	30.49%	28.22%	26.07%	24.04%	22.13%	20.33%
42	f199,981	36.25% (f72,493)	30.76%	27.70%	24.87%	22.25%	19.85%	17.65%
37	f220,795	46.25% (f102,118)	30.57%	26.78%	23.34%	20.24%	17.46%	14.99%
32	f243,775	56.25% (f137,124)	30.16%	25.68%	21.70%	18.21%	15.18%	12.56%
27	f269,148	66.25% (f178,310)	29.64%	24.51%	20.07%	16.28%	13.08%	10.42%
Average % for each growth rate:			29.75%	26.78%	24.08%	21.64%	19.46%	17.52%
Average % for all assumptions:			23.21% of salary per annum					

Table 4. - Required contributions assuming 3% escalation of salary to NRD and 3% escalation of pensions in payment

			Annual Growth Rates					
			4%	5%	6%	7%	8%	9%
Age at entry into scheme	Final average remuneration at NRD	Target pension	average % of salary required to provide target benefits for both males and females and in US Dollars and Euros					
57	f153,026	7.5% (f11,477)	31.73%	30.96%	30.20%	29.46%	28.72%	28.00%
52	f177,399	16.25% (f28,827)	34.29%	32.62%	31.01%	29.45%	27.94%	26.49%
47	f205,655	26.25% (f53,984)	36.87%	34.19%	31.64%	29.23%	26.96%	24.81%
42	f238,410	36.25% (f86,424)	38.14%	34.46%	31.04%	27.86%	24.93%	22.24%
37	f276,383	46.25% (f127,827)	38.88%	34.23%	29.98%	26.13%	22.65%	19.54%
32	f320,403	56.25% (f180,227)	39.36%	33.76%	28.73%	24.28%	20.37%	16.97%
27	f371,435	66.25% (f246,076)	39.69%	33.15%	27.41%	22.44%	18.19%	14.61%
Average % for each growth rate:			37.00%	33.34%	30.00%	26.98%	24.25%	21.81%
Average % for all assumptions:			28.90% of salary per annum					

4.6.3 Charts 13 and 14 illustrate graphically the information in Tables 3. & 4.

Chart 13. 2% salary & pension escalation - variable growth rates

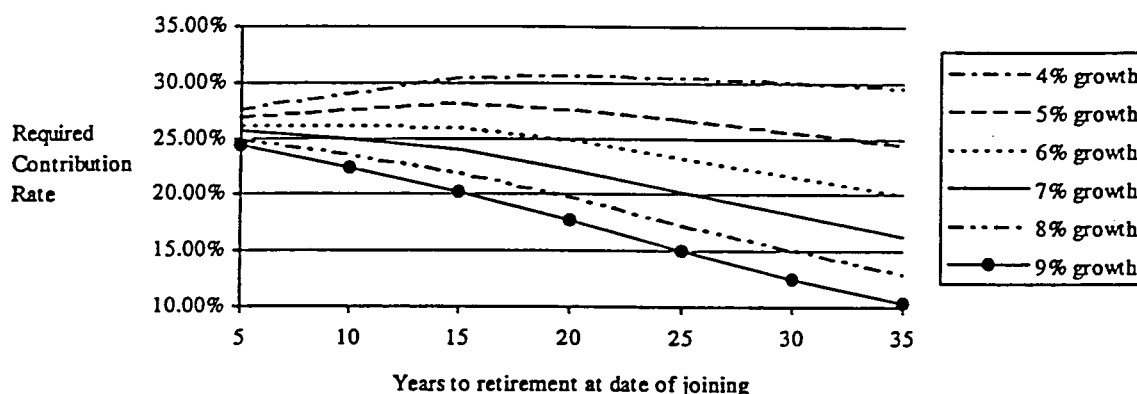
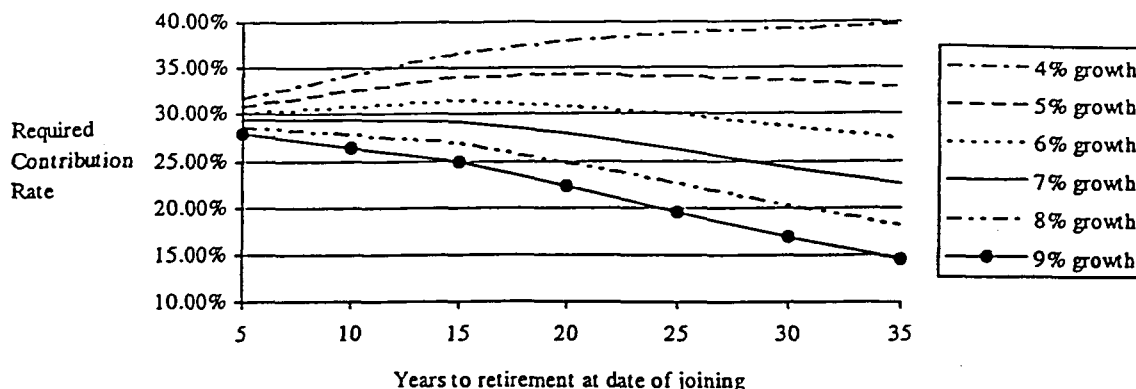
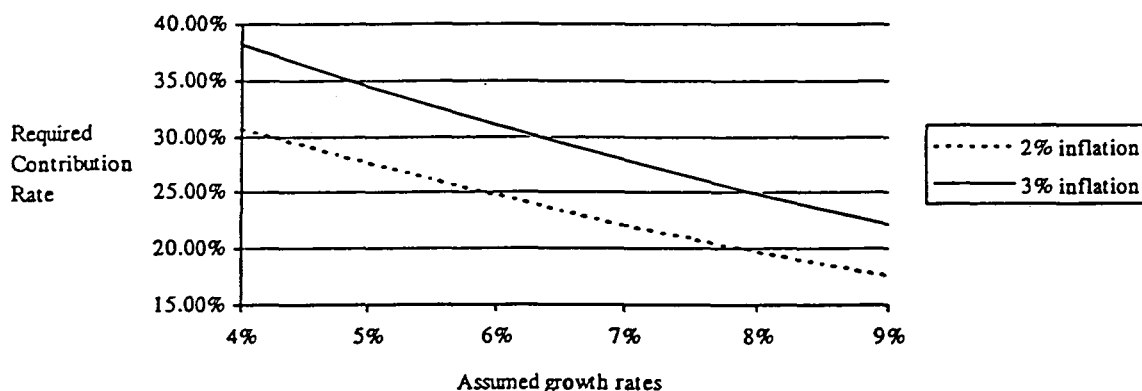


Chart 14. 3% salary & pension escalation - variable growth rates



4.6.4 The average age of employees who are members of the OPCWPF is 43 - they have 19 years to go before reaching the UNJSPF retirement age of 62. How is the funding for this age group affected by changes to the assumptions for inflation and growth rates (*figures used will take the 20 year term from the earlier tables*).

Chart 15. contributions and growth rates for average age OPCWPF members



Target funding to NRD - conclusions

- 4.7.1 The potential benefits available from the OPCWPF are dependent upon so many variables that it is very difficult to arrive at a like-for-like comparison, as the numerous possible outcomes examined earlier in this section demonstrate. For instance, a young person who remains with the organisation long-term, and who benefits from the greater investment returns likely from higher risk investment options, will probably do better than an equivalent member of the UNJSPF. Conversely, an older person who, because of their age, adopts a more conservative investment approach, will likely be worse off than their UNJSPF equivalent.
- 4.7.2 Direct comparison is made even more difficult when one considers that the same size of investment fund, available to two equivalent members of the OPCWPF, does not necessarily represent the same income. Table 2 shows a number of annuity rates for males and females, in US Dollars and Euros, with different levels of inflation proofing. The rates differ for a number of reasons:
- 4.7.3 females live longer than males, therefore the same amount of money must be used to provide an income for a longer period. This is done by paying a reduced income from the outset;
- 4.7.4 income is generally provided by investing in income producing assets such as government and corporate bonds. The returns available on these types of investments are closely linked to the prevailing interest rates of their country of origin. At present, it is therefore possible to

- generate a higher income in US Dollars than it is in Euros;
- 4.7.5 a higher rate of inflation proofing requires that the initial income will be lower, to avoid exhausting the fund too soon.
 - 4.7.6 Using the figures from Table 2, a 62 year old male with a US\$ 100,000 fund could buy a 2% escalating US Dollar annuity starting at US\$ 5,644.19. A female wanting an equivalent type of annuity would see her starting income fall by 4.7%. If the same man preferred the same style of Euro annuity, his starting income would be 11.3% less. If he wanted the Euro annuity but with 3% inflation proofing his starting income would fall by 22.5%. A female wanting a Euro annuity with 3% inflation proofing would receive a starting income 26.2% lower than our first example.
 - 4.7.7 The UNJSPF and OPCWPF represent two very different methods of providing retirement and social security benefits. The final salary approach is most often found in organisations seeking to offer long-term job security, to attract and retain high quality staff, and who envisage a low rate of staff turnover. The employer and the scheme managers make most decisions on behalf of the staff members, removing from them exposure to investment risk and providing a “guaranteed” income based on salary and service. As such they expose themselves to potentially open-ended cost commitments.
 - 4.7.8 Money purchase schemes are more appropriate for employers who cannot offer the same level of job security, and who anticipate higher rates of staff turnover. They still wish to offer a quality pension scheme to aid staff recruitment and retention, but do not want to expose themselves to the potentially open-ended costs of the final salary approach. They will commit themselves to a given level of contribution into the scheme, but will not take responsibility for investment risk and guaranteeing an income. This responsibility falls to the staff members. If the staff members wish to replicate the level of security provided by a final salary plan they will likely opt for very low risk investment alternatives. This will reduce the overall level of return available from their investments and will see them, in all likelihood receiving a income in retirement that is below that which would have been earned from equivalent contributions to a final salary plan.
 - 4.7.9 At present, the employment conditions of OPCW are more appropriate to the use of money purchase as a means of providing retirement and social security benefits. In this way, the OPCWPF could be seen to “better” than the UNJSPF because it suits the nature of the organisation in a way that a final salary plan probably does not. Some staff members might eventually benefit from a pension that would be higher than if they had been in the UNJSPF, others will certainly receive less. Overall, the current combined funding rate of 23.7% does not represent an over funding of the OPCWPF in comparison to the UNJSPF.

5. Early leaver benefits

- 5.1.1 Section 4. made monetary comparisons between the OPCWPF and the UNJSPF on the assumption of continued membership of the scheme through to age 62, the NRD of the UNJSPF. However, because of the lack of security of tenure within OPCW, it is likely that many people will leave the organisation well before reaching the age of 62. In any comparison of the two schemes it is therefore important to look at early leaver benefits.
- Classes of leaver* 5.1.2 It is also important to consider the circumstances under which people might leave an organisation. The two most likely reasons are firstly, they find another job that they feel is better for them and they leave of their own volition, and secondly, their services are no longer required by the organisation and their contract is terminated by their employer. There are therefore two classes of early leaver: the voluntary and the involuntary.
- Security* 5.1.3 In organisations offering long-term security of tenure, cases of involuntary early leavers are likely to be relatively infrequent. Provided an individual's work performance is acceptable, and the organisation is not exposed to commercial pressures that can lead to large scale redundancies, they have a realistic prospect of being able to remain employed by that organisation through to their NRD. This is probably the broad case with most organisations operating within the UN common system. These organisations will have early leavers, but it is likely the bulk of them will be voluntary - people moving on of their own accord in order to further their careers.
- Insecurity* 5.1.4 With no long-term security of tenure, the likelihood of involuntary early leavers increases. Satisfactory work performance may not guarantee reemployment at the end of a given contract period. In such an event, it may not be possible for the individual concerned to find suitable alternative employment, resulting in a period of unemployment.
- Unemployment* 5.1.5 This is the situation pertaining to OPCW: staff are employed on short-term contracts, having received a clear message that they should not regard their employment with the organisation as a long-term career. Such a set of circumstances leads to concern about unemployment, made more acute by the loss of National benefits incurred during the period of employment by the organisation.
- Social security* 5.1.6 Both the UNJSPF and the OPCWPF will have early leavers, however, as things currently stand, the probability is that the OPCWPF will have a proportionately higher number of involuntary departures. It is in this context, as an instrument of social security, that the early leaver benefits from the OPCWPF should be compared to those of the UNJSPF.
- Withdrawal benefits* 5.2.1 Staff members leaving the OPCWPF are entitled to receive the full value of their individual investment fund at the date of separation. The employer's contributions are fully 'vested' for the benefit of the staff member after three months service with the organisation. The precise value of their fund will depend upon their length of service, salary and investment growth.
- 5.2.2 Staff members leaving the UNJSPF with five years service are entitled to either a deferred pension, calculated by reference to their FAR at leaving and their length of service. Alternatively they can opt for a withdrawal benefit, equal to their own contributions plus 10% of this amount for every year of contributory service after the fifth year, to a maximum of double their own contributions, plus compound interest. Staff members leaving with less than five years service are entitled to receive a refund of their own contributions plus compound interest (*currently 3.25% per annum*).
- Deferred pension* 5.3.1 Staff members who leave after more than five years service in the UNJSPF are entitled to receive a deferred pension, the value of which will depend upon the length of service, the FAR at date of leaving and the rate of inflation through to NRD and beyond. Using the assumed pensionable remuneration of £140,000, inflation rate of 2%, service of 10 and 15 years and deferrals periods of 5 and 10 years to NRD, deferred UNJSPF pension would be worth as follows:

Table 5. Deferred pension after 10 & 15 years service with UNJSPF (NLG)

Years of service	FAR at separation	Pension entitlement at separation	Pension after 5 years deferral	Pension after 10 years deferral
10	167,313	26,659	29,433	32,497
15	184,727	47,546	52,495	57,959

- 5.3.2 The deferred pensions noted in Table 5 would become payable from NRD, age 62. Once in payment they would be increased in line with inflation, and would be payable for the lifetime of the staff member, with 50% becoming payable to their spouse if the staff member pre-deceased them. Assuming a lifespan to age 85 i.e. 23 years of life after NRD, and ignoring any spouses pension, the following table shows the total payments received from the UNJSPF and compares it with the withdrawal benefit that would have been available from the OPCWPF.

Table 6. Payments received from the UNJSPF

Deferred pension at NRD	Annual inflation in retirement	Total payment from the UNJSPF	OPCWPF withdrawal benefit
29,433	2%	848,993	476,964
32,497	2%	937,375	476,964
52,495	2%	1,514,216	868,515
57,959	2%	1,671,825	868,515

Lump sum withdrawal 5.4.1

Staff members leaving the UNJSPF with less than five years service are entitled to receive a refund of their own contributions plus compound interest (*currently 3.25% per annum*). For the purposes of comparison, this benefit will be compared with benefits from the OPCWPF based on a median of the investment growth rates used in the previous section i.e. 6.5% per annum, and assuming 2% escalation of the assumed pensionable remuneration of £140,000 as before. Regarded as an unemployment benefit, how far does the potential withdrawal benefit from the OPCWPF go towards providing a replacement income.

Table 7. Comparative early leaver benefits assuming 2% salary escalation and 6.5% investment fund growth (all figures in NLG)

Years	Pensionable remuneration	UNJSPF withdrawal benefit	OPCWPF withdrawal benefit	Number of months replacement income
1	140,000	11,226	33,505	2.87
2	142,800	23,047	70,019	5.88
3	145,656	35,488	109,285	9.00
4	148,569	48,572	151,472	12.24
5	151,541	60,723	196,779	15.58

Early leaver benefits - conclusions

5.5.1 Because of the nature of the employment relationship between OPCW and its staff i.e. based on short-term contracts, the OPCWPF is trying to serve two functions. Firstly, it is there to provide a means whereby staff members can save towards their retirement. This is done via fixed contributions with no guarantees provided by the OPCWPF as to the ultimate value of the retirement income.

5.5.2 Secondly, access to the fund on separation allows the accrued value to be used to provide a replacement income in the event of unemployment. The nature of the employment relationship, and the likelihood of a greater number of involuntary early leavers, means that the OPCWPF has a far greater chance of being used in this way than the UNJSPF.

Recruitment and motivation

5.5.3 In short-service organisations early leaver terms are also an important aspect in the recruitment and motivation of staff. If potential recruits are offered membership of a pension scheme from which, because their contract term is shorter than the vesting period for the employer's contributions, they will fail to benefit from those employer's contributions, they will be unlikely to regard that pension scheme as a positive reason for joining the organisation. A scheme structured in such a way potentially then ceases to be a motivational tool, and could actually become a barrier to recruitment.

5.5.4 Because OPCW staff are employed on short-term contracts, they naturally tend to concentrate their attention on the short-term benefits of the OPCWPF. Being allowed to benefit from the employer's contribution after three months service is therefore a very positive recruitment and motivation tool.

5.5.5 Two other factors are worthy of consideration when assessing the value of the OPCWPF early leaver terms. Firstly, using the fund to provide unemployment benefits will reduce the ultimate value of any pension that can be taken - in effect, the fund cannot be used twice. Those staff members with relatively little service, say three to five years, only need use their fund to provide unemployment income for a comparatively short period of time to see their ultimate pension benefits significantly reduced.

5.5.4 Secondly, those longer service staff members with higher early leaver benefits are more likely to be older individuals who will find it more difficult to find alternative employment. In the event of an involuntary separation, they are therefore likely to need an unemployment income for longer, with the prospect that they will have to ultimately treat it as an "early retirement" pension. This too will have a significant impact on the level of pension benefits available.

5.5.5 Viewed in the context of the dual functions served by the OPCWPF, necessary because of the lack of long-term tenure of employment, the early leaver terms provided by the scheme serves the purpose it was designed for.

	6. Insured benefits	
	6.1.1	The core part of the non-salary benefits available to staff of OPCW is represented by the OPCWPF. It is a vehicle for retirement planning, and it can also be used to protect staff members from their lack of security of tenure. It represents a significant cost to the organisation, 15.8% of pensionable remuneration, with a 7.9% contribution being received from the employees.
	6.1.2	In addition to the benefits provide by the OPCWPF are an insured death and disability scheme and the group medical insurance.
Death & disability insurance	6.2.1	In the UN common system these benefits are entwined with the UNJSPF. On the death of the staff member, from the pension scheme is payable a spouse's pension (<i>with an additional dependents pension in certain circumstances</i>). The value of this pension is calculated by reference to the FAR at date of death and achieved and prospective service through to NRD.
Disability	6.2.2	The UNJSPF also provides for a disability benefit to be paid in the event of the individual being found to be incapacitated for further service in a member organisation, due to illness or injury constituting an impairment to health that is liable to be permanent or of long duration. The value of the disability benefit is calculated by reference to the FAR at date of death and achieved and prospective service through to NRD.
	6.2.3	These benefits are funded from within the UNJSPF, and hence from the total cost of the scheme of 23.7% of pensionable remuneration.
Money purchase system	6.2.4	As described in Table 1. the OPCWPF does not provide any specific death or disability benefits. In the event of the death of a staff member, the value of the staff member's investment fund becomes payable to their designated beneficiaries. The beneficiaries would then have to use this fund to generate a long-term income. Similarly, in the event of long-term disability, once the staff member separates from the organisation his investment fund becomes available to him, for use to generate a replacement income.
	6.2.5	Clearly, the ability to provide a replacement income in the event of death or disability is dependent upon the size of the individual staff member's investment fund, which in turn is a function of salary, length of service and investment growth.
Annuity purchase	6.2.6	Taking as an example an individual of the average age of OPCW employees of 43, and entitled to the assumed pensionable remuneration of f140,000. If that individual was a member of the UNJSPF, and were to die, his spouse would be entitled to receive 50 % of his prospective UN pension for life. That prospective pension would be $34.25\% \times f140,000 = f47,950$, leaving his spouse entitled to f23,975 as a widow's pension. To purchase an annuity of that value, in US Dollars for a female aged 40 with 2% escalation, from the OPCWPF would require the staff member's investment fund to be worth f612,848. That would take some considerable time considering that contributions to the OPCWPF would be being made at the rate of f33,180 per annum. In view of the potential short service with the OPCW, it is probable that in many cases the investment fund would never be large enough to duplicate either the death or disability benefits payable from the UNJSPF.
Insured risks	6.2.7	Because of the inability of the OPCWPF to replicate UNJSPF death and disability benefits a separate insured scheme has been arranged. This provides the following benefits:

- 6.2.8 *Service Incurred Risk* ▲ Mirror UNJSPF + Appendix D benefits;
 ▲ Death;
 ▲ Disability;
 ▲ Dismemberment;
 ▲ Temporary incapacity up to 18 months (*the insurers paying 50% salary for 9 months only*);
 ▲ Medical expenses incurred as a result of injury/illness arising from employment.
- 6.2.9 Non service incurred risk ▲ Death - 5 x pensionable remuneration;
 ▲ Total disability - 5 x pensionable remuneration;
 ▲ Dismemberment;
 ▲ Total Incapacity.
- 6.2.10 The costs for these insurances are as follows:
- 6.2.11 NSI risk 2.254% Single staff members
 2.154% Married staff members
- 6.2.12 SI risk 1.1% Administration staff
 1.5% Inspectorate
- 6.2.13 Giving the following total costs:
 Single administration staff 3.354%
 Married administration staff 3.254%
 Single inspectorate 3.754%
 Married inspectorate 3.654%
 Average cost 3.504%
- 6.2.14 These benefits replace certain elements that are provided in the UN common system from the UNJSPF: they have to be insured separately because, as a money purchase scheme, the OPCWPF is incapable of providing benefits of this nature. The costs of these benefits are borne by the organisation in addition to the payments made into the OPCWPF.
- Duplication* 6.2.15 Whilst the OPCWPF cannot replicate the death and disability benefits available through the UNJSPF, it does contribute some benefits: the payment of the accrued value of the staff member's investment fund. How much this would be is impossible to forecast, dependent as it is on salary, length of service and investment growth. The longer the staff member remains in service with the organisation the greater the value this benefit is likely to represent. It could therefore be argued that the combination of OPCWPF plus the insured death and disability benefits is greater than the matching class of benefits available through the UN common system.
- Group medical Insurance* 6.3.1 Throughout the UN common system medical insurance is a separately insured item, generally funded 50% by the organisation and 50% by the employee. Benefits are given to employees whilst working for the organisation in question, and are extended beyond this period to cover retirees in receipt of benefits from the UNJSPF. For someone who works for such an organisation for life and retires with benefits from the UNJSPF, medical insurance is therefore available throughout their working life, and through retirement up to the date of death.
- 6.3.2 The method of providing these "after-service medical benefits" varies from organisation to organisation. However, it would appear that the majority have no advance funding mechanism in place, the liabilities being met from current expenditure as they occur. Many organisations are therefore accruing substantial future liabilities without having a clear idea of how to meet the costs. ***Please see Appendix 1 for further details concerning this issue.***
- Retirees* 6.3.3 The OPCWPF does not have a class of retirees – staff members take their accrued investment fund on separation and are then personally responsible for their ongoing income or pension requirements. The duty of the OPCWPF to the staff member ceases at separation: there is therefore no requirement to provide medical benefits beyond the period for which people work for the organisation. All liabilities are current and fully funded.
- 6.3.4 1999 costs of the OPCW group medical plan are as follows:
 Single staff member 2.72% of medical net salary

		Staff member + 1 dependent	4.12% of medical net salary			
		Staff member + 2 dependents	5.53% of medical net salary			
		The staff member meets 50% of these costs.				
<i>Renegotiation</i>	6.3.4	The group medical insurance is subject to annual renegotiation with OPCW's insurers. This approach has led to a progressive reduction in the costs of providing medical benefits in the period since the Preparatory Commission was established. The history of contribution rates has been as follows:				
	6.3.5		94	95	96	97
		Single staff member	4%	3.8%	3.46%	3.12%
		Staff member + 1 dependent	6%	5.7%	5.2%	4.86%
		Staff member + 2 dependents	8%	7.6%	6.93%	6.24%
<i>Comparison</i>	6.3.6	Medical costs will vary based on an organisation's claims experience, the average age of its employees and the rigour and frequency with which insurance companies are negotiated for improved rates. In the context of employment conditions, an organisation offering security of tenure is likely to see the average age of its employees rise, compared with a short-service organisation, as a higher proportion of staff remain with it through to NRD. An example of the costs incurred by a common system member would be the following 1998 charges for group medical insurance for the UNIDO:				
		Single staff member	5.71% of medical net salary			
		Staff member + 1 dependent	8.56% of medical net salary			
		Staff member + 2 dependents	11.42% of medical net salary			
		These costs do not cover "after-service medical benefits" liabilities that this organisation is likely to be incurring.				
<i>Profit participation</i>	6.3.7	OPCW's policy of annual renegotiation has seen the funding rate fall by an average of 31.40% since 1994. In addition to these savings, the OPCW group medical policy benefits from a 'profit participation' clause - if the claims history is good a partial refund of premiums is available to the organisation. In 1997 this amounted to f150,000, of which 50% was available for return to Member States.				
<i>Insured benefits - conclusions</i>	6.4.1	The provision of death and disability benefits to OPCW employees is complicated by the inability of the OPCWPF, because of its structure, to replicate benefits in this class that are available from the UNJSPF. This has necessitated these benefits being provided wholly through a separate insurance policy. The style of benefits is also complicated, with a lump sum benefit payable in the event of non-service incurred risk and an income payable in the event of service incurred risk.				
	6.4.2	This later style of benefit is somewhat anomalous with the way in which the rest of the benefit provision is structured. When a staff member separates from the organisation his link with the OPCWPF is broken with the payment to him of a lump-sum benefit in the form of his accrued investment fund. Similarly, separation brings about a termination of the medical insurance linked to his employment. Only in the case of a service incurred death or disability claim are benefits payable beyond the date of separation. This anomaly has come about through the desire to try to match common system style benefits wherever possible.				
	6.4.3	The fundamental difference between OPCW and common system organisations is the lack of long-term security of tenure. This has entailed the design of a benefits system that addresses this fact, primarily through the provision of a money purchase pension system that allows access to funds on separation. This break at separation also removes the retiree class, therefore logically the medical benefits also cease at this time. If this system of provision is deemed appropriate for the longer-term, it might be advisable to bring the service incurred risk death and disability in line with the rest of the system, providing a lump-sum benefit upon separation sufficient to provide the staff member/spouse with a long-term replacement income.				
<i>Costs</i>	6.4.4	The lack of the ability to provide death and disability benefits through the OPCWPF, and the requirement to provide these benefits through				

separate insurance, introduces an additional cost to OPCW over and above common system organisations. That said, this cost and the price of group medical insurance has been rigorously controlled and has fallen throughout the life of the organisation so far. The overall costs of providing insured benefits are therefore well within the range of costs incurred by common system organisations.

- 6.4.5 The structuring of the OPCWPF in such a way as to remove the retiree class removes the liability that other organisations are incurring for “after-service medical benefits”. All liabilities are funded through the insurance policy and costs are known and can be controlled through careful management of the relationship with the insurance companies.



Administrative Committee
on Co-ordination

ACC/1998/FB/88/CRP.9
20 August 1998

Consultative Committee on
Administrative Questions
(Financial and Budgetary Questions)

Eighty-eighth session
New York, 31 August - 4 September 1998

Item 3.1 of the provisional agenda

ACCOUNTING AND FINANCIAL REPORTING

Accounting Standards: After-service medical benefits

Note by the secretariat

1. The Committee considered this subject at its eighty-seventh session in New York in August 1997. The following is an extract (para. 40) from the session report (ACC/1997/14):

"At the request of FAO, the Committee discussed organizations' experience with after-service medical benefit schemes, including any actuarial studies undertaken, the existence of any funding mechanisms, the present level of any unfunded liabilities, and the accounting treatment followed with regard to expenses and other disclosures. It was noted that there was a wide range of practices followed by organizations in this area and that there might well be substantial liabilities which were either totally unfunded or only partially funded. The Committee encouraged organizations to disclose information on this in their financial statements in line with revised UNAS paragraph 57 and in consultation, as appropriate, with their External Auditors. The Committee welcomed the initiative by FAO to host an informal meeting on cost of after-service medical benefits and will consider the report of the informal meeting at its 1998 session. As part of the work programme until the next session, the secretariat was requested to collect information on organizations' experiences with regard to accounting treatment and any proposals to deal with unfunded liabilities."

2. The United Nations Accounting Standards (Revision II) include the following:

Paragraph 57:

"Liabilities for end-of-service benefits, post-retirement benefits and annual leave should be provided for in the financial statements to the extent required by the financial policies of the organization. In so far as such liabilities are not fully provided for, appropriate disclosure should be made in the notes to the financial statements and estimated liabilities quantified where possible, showing the basis of valuation."

3. Annex I summarizes organizations' replies to the secretariat's request for information on accounting treatment contained in ACC/1997/FB/QU/4 of 13 November 1997. Annex II contains the report of the informal meeting hosted by FAO in Rome in September 1997. The report includes the following suggestions made by the informal meeting as to possible further review and amendments to the existing UNAS:

"It was suggested that CCAQ(FB) might wish to consider further review and amendments to the existing UNAS on disclosure of the liability for after-service benefits to include that the disclosure of a liability should be based on an actuarial valuation using generally recognized actuarial methodology in line with Generally Accepted Accounting Principles (GAAP).

In the light of the extensive data maintained by the secretariat of UNJSPF, and the availability of a regularly monitored and updated decremental model, it was suggested that CCAQ(FB) might wish to encourage organizations that are members of UNJSPF to consider basing any valuation on such a model as regards the demographic assumptions concerned. This would in no way preclude any consulting actuary from using his or her own judgement in making assumptions that reflect the specific circumstances of the organization for which such work is undertaken. Moreover, the economic and health care cost assumptions would be based on each organization's particular situation.

With respect to an accounting standard the CCAQ might consider the FAO model which draws on the UNJSPF model, GAAP and IAS, yet takes account of the special problem of a specialized agency. The meeting noted that the existing UNAS do not mention any appropriate transition period from zero recognition of any liability to full reflection of a liability on the balance sheet. While IAS 19 generally requires that the unfunded liability be amortized over the future working lifetime of existing participants, the consensus of the meeting was that such a rate of amortization was not necessary for an international organization where profit measurement and insolvency were not major issues. FAO is considering amortizing its unfunded liabilities associated with its after-service medical benefits plan over a 30-year period."

Annex I

ACCOUNTING TREATMENT

General Note: UNFPA adheres to rules and procedures effected by UN/UNDP and all arrangements and transactions pertaining to medical coverage are administered directly by the Insurance Unit of the United Nations Headquarters. Therefore no specific reference is made to UNFPA in the text below. ITC is covered by references to the United Nations.

1. Contributions to retiree benefits

All organizations reported that contributions to retiree benefits are made on a "pay as you go" basis, i.e. as a current financial period expense. In many cases these expenses are not necessarily separately identified from general staff costs. In other cases the expense is specifically identified:

United Nations - resources are appropriated by the General Assembly under a specific line item in the biennial programme budget. Section 30, Table 30.3 of A/52/6/Rev.1 includes an amount of \$ 47.8 million with respect to 1998-1999 estimates.

ILO contributions are charged to a separate budget line (C.I.290 - contributions for the insurance of retired officials - \$9 million)

UNESCO provides resources in a specific budget line "organizations's contribution for retirees' health insurance" which is included under the budget of the Bureau that administers the Medical Benefits Fund.

WHO reports that one quarter of current contributions (from both active staff and WHO) are set aside as a reserve. In addition WHO is funding part of the actuarial deficit by a special annual contribution over a ten-year period ending in 1998.

2. Liability for future benefits

The United Nations reflects this liability in a note.

UNICEF reflects liabilities only for the MIP plan.

WFP includes a note that the liability is estimated on the basis of an actuarial review carried out by FAO. This amount, as communicated by FAO, is disclosed in Schedule/Note 19.

FAO disclosed its latest estimate in Note 20 to the 1996-97 statements (see quantification in section 3 below).

ILO provides in Schedule 2.2.2 data on assets and liabilities of the Staff Health Insurance Fund. At 31 December 1997 the "guarantee fund" (operating reserve) of \$29 million exceeded the mandated minimum amount of \$7.3 million based on one-ninth of the expenditure of the Fund during the last three financial years.

WHO is considering reflecting the liability for future benefits and will also show the funded portion of the projected shortfall (i.e. the funded portion of the difference between estimated benefits payable and contributions receivable from staff and WHO).

UNIDO has for the 1996-1997 financial statements added a note stating UNIDO's contribution to the scheme amounting to \$2.7 million, including an obligation of \$1 million for amounts due to the United Nations for former UNIDO staff members insured by the United Nations insurance plan during 1986-1994.

In the financial statements **no liability** for future benefits was reflected by: UNDP, UNRWA, ILO, ICAO, UPU, ITU, WMO, IMO, WIPO, IFAD, UNIDO, IAEA

UNESCO discloses in its statement of accounting policies that this unrecorded liability is an exception to its accrual basis of accounting.

3. Method of calculating liability and current estimate of amounts involved

~~The United Nations has engaged a consulting actuary to carry out an actuarial valuation of post-retirement health benefits. On the basis of the study it was estimated that the liability at 1 January 1995 covering all participants regardless of future service was~~

~~Present value of future benefits after offset from retiree contributions~~
~~1996-1997~~

- accrued liability after offset from retiree contributions \$786,839,000.

An updated actuarial evaluation as at 1 January 1997 is currently being carried out.

FAO's liability as calculated by an actuary was \$162.8 million as at 1/1/96 and \$195.1 million as at 12/31/97. FAO communicates to WFP and IFAD their "share" of the gross liability as calculated by the actuary.

WHO 's latest (30 May 1997) actuarial evaluation calculates a liability of \$111 million with respect to the difference between estimated future benefits payable and contributions receivable from staff and WHO.

In the financial statements **no quantification of liability** was made by: UNDP, UNRWA, UNESCO, ICAO, UPU, ITU, WMO, IMO, WIPO, IFAD, UNIDO, IAEA

4. Comments by External Auditors on accounting treatment used

UNICEF's statements for 1994-1995 reflect that "full compliance is yet to be achieved in the area of disclosure of termination benefits".

FAO's auditors commented in the 1994-95 statements on the lack of quantification of liabilities but indicated that a consulting actuary was being retained.

The following organizations reported no comment:

UNDP, UNRWA, UNESCO, ICAO, WHO, UPU, WMO, IMO, WIPO, IFAD, UNIDO, IAEA.

5. Plans for changes to disclosure or for funding liabilities

The United Nations has not at this stage formulated any mechanism for funding the liability.

UNDP has issued a RFA to determine the funding liability for the MIP plan for local staff and a RFA will be sent out to determine funding liability for all other staff.

FAO plans to change from a "pay as you go" to an accrual basis as from 1/1/98 for current contributions and to amortize arrears over a 30 year period.

IFAD plans disclosure of liability in the Notes, compliance with IAS as it becomes mandatory, including recognition of "full service cost" from 1998 onwards. Funding for current cost would be through the admin. budget. Funding for the unfunded accrued liability is currently under discussion.

IAEA plans, beginning in 1998, to disclose the current year's expense in notes to the financial statement.

Annex II

Informal Meeting - After-Service Medical Benefits and Cost (FAO/Rome, 29 September 1997, Pakistan Room, A-372)

At the invitation of FAO an informal meeting was held in Rome 29 September 1997.

Introducing the subject, Mr. Ruddy, the Consultant/Interim Finance Director of FAO, gave the participants the background that motivated the scheduling of the Informal Meeting on After-Service Medical Benefits. He noted that:

at the end of 1995 FAO had commissioned an actuarial study to determine its liability for after-service medical costs and that this study showed FAO's accrued liability at some US\$212 million of which about US\$60 million was attributable to other agencies' participation in its medical benefit programme;

- this liability was unrecorded, unfunded and disclosed in part on FAO Financial Statements, and that this represented a major problem with respect to the financial integrity of the financial statements;
- in all probability, most United Nations Agencies had similar obligations which were undisclosed since United Nations accounting does not follow GAAP or IAS Accounting Standards with respect to calculating liabilities for after service medical benefits; and
- for the United Nations system as a whole, the liability was probably close to US\$3 billion which made this issue a major accounting and financial problem across the United Nations system.

He said that the purpose of this meeting was to see if the time had not come to, at a minimum, see if the United Nations system should not address this issue in a way that would give greater consistency to the calculation and disclosure of the liability across the system.

Mr. Sharp of Buck Consultants briefed the meeting about the work undertaken on behalf of FAO in connection with an actuarial valuation of the FAO after-service medical benefits scheme. This work involved the preparation of three reports, the last of which was the summary report of 12 March 1997. In undertaking this work, Mr. Sharp used extensive data made available by the UNJSPF secretariat, together with the decremental model used by him as Consulting Actuary to the United Nations Pension Fund. This model and the assumptions used in it were reviewed annually and thus provided an appropriate starting point for any other member organization of the UNJSPF wishing to undertake similar actuarial valuation of after-service benefits. The UNJSPF decremental model incorporated a detailed set of assumptions which was continuously refined and monitored by the Committee of Actuaries. Key assumptions for the work undertaken on behalf of FAO included interest rate, long term inflation rate and a medical cost inflation rate derived from the assumption as to inflation rate and growth of GDP. Liabilities were then

calculated on a CLOSED GROUP basis using the PROJECTED UNIT CREDIT COST method, which are in line with FAS 106 and with the recommended approach set out in the exposure draft E54 on Employee Benefits issued for comment in January 1997 by the International Accounting Standards Committee.

The total liability calculated using the UNJSPF actuarial model was US\$212.5 million of which approximately half was attributable to retired participants and half to the accrued entitlements of active staff members.

FAO shared with the meeting their plans for dealing with this liability going forward. More specifically, that they would:

- starting in 1998, fully fund from the administrative budget the actuarial current cost of the medical plan for all staff on duty. This would cap the growth in the liability with respect to staff on duty;
- start to amortize the accumulated "overhang" of US\$212 million over a 30-year period. This would record on the books the unfunded liability plus the actuarial growth in this overhang. The offsetting entry to the unfunded liability would be to the General Fund.
- disclose on their Financial Statements at the end of 1997 the method of calculating the liability (the UNJSPF model which is in substantial agreement with FAS 106 and IAS 19) and the amount of the unrecorded liability;
- try to fund the unfunded liability over time through budget surplus and/or through the use of arrears payments.

The meeting noted that the specific accounting entries might be different in other organizations, particularly voluntarily-funded organizations. It was also recognized that funding solutions with respect to the accumulated liability would be specific to individual organizations in view of their different financial conditions and financial regulations, but there was a strong case for using an actuarial method in line with IAS to measure this liability across the System.

WHO briefed the meeting on the steps it had taken starting in 1989 to address the funding requirement arising from a projected shortfall between expected future benefit payments and premium income (from combined employee/retiree and organization contributions). The shortfall was funded by setting aside 25 per cent of combined employee plus organization contributions together with a special contribution by the organization over a ten year period. It was noted that this approach differed from that of FAO and GAAP requirements in that it was essentially a funding of an expected partial shortfall whereas the FAO approach involved the recognition of the full actuarial liability.

IFAD expressed the view that the IAS exposure draft (E54) offered useful guidance both as to actuarial evaluation methodology and as to the accounting treatment of liabilities and suggested that it might be appropriate for CCAQ(FB) to undertake some work on further development of the existing UNAS.

After extensive discussion, the informal meeting concluded that it wished to make some suggestions for possible consideration of CCAQ(FB).

It was suggested that CCAQ(FB) might wish to consider further review and amendments to the existing UNAS on disclosure of the liability for after-service benefits to include that the disclosure of a liability should be based on an actuarial valuation using generally recognized actuarial methodology in line with Generally Accepted Accounting Principles (GAAP).

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