

COMMISSION OF THE EUROPEAN COMMUNITIES



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# **REPORT FROM THE COMMISSION TO THE COUNCIL**

on Annex XII to the Staff Regulations

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#### 1. LEGAL BASIS

The aim of this report is to present to the Council an assessment of the Pension Scheme of European Officials (PSEO), as provided for by Article 14 of Annex XII to the Staff Regulations.

Article 83 stipulates that benefits paid under this pension scheme shall be charged to the budget of the Communities, that Member States shall jointly guarantee payment of such benefits in accordance with the scale laid down for financing such expenditure and that officials shall contribute one third of the cost of financing this pension scheme.

Article 83a and Annex XII of the Staff Regulations set out the *actuarial rules* for computing the contribution rate in order to guarantee the balance of the pension scheme.

#### 2. BASIC CONCEPTS OF THE PSEO (PENSION SCHEME OF EUROPEAN OFFICIALS)

#### 2.1. Actuarial balance of the pension scheme

#### 2.1.1. The Staff Regulations: actuarial balance principle

The PSEO (Pension Scheme of European Officials) follows the actuarial balance principle. The annual contribution paid by the staff has to cover 1/3 of the rights the staff have acquired during the year. The rights acquired during the year are the future pensions the staff will obtain after retirement, as well as entitlement (under certain conditions) to an invalidity allowance, a survivor's pension, and an orphan's pension. In other words, the annual contribution is designed to finance one third of the service cost under the pension scheme, i.e. a string of payments arising in the future. In order to make this computation possible the string of payments for European civil servants has to be evaluated at its present value (using a discount rate). The computation is thus an actuarial evaluation.

In technical terms, the method used in the computation of the pension contribution rate is the one prescribed by international standard IAS19 and called "projected unit credit". The sum of the actuarial values of rights acquired by active members of staff, called "service cost" in actuarial practice, is compared to the annual total of their basic salaries in order to obtain the rate of contribution.

It is necessary to adopt various actuarial hypotheses to evaluate the service cost, such as real interest rate, mortality rates or salary progressions. The real values of these hypotheses may turn out to be slightly different from the predicted values estimated at the time of the computation. Such differences may produce slight annual imbalances (positive or negative). These small, theoretical annual imbalances tend to cancel each other out over the long term as the actuarial hypothesis values are adjusted periodically upwards or downwards to take account of corresponding observed values.

The contributions paid during the current year are not calculated so as to cover the pension payments for the current year: they could be higher or lower. The actuarial balance principle guarantees a balance in the long term, not a yearly balance: it is a different concept from a yearly cash-flow balance.

The PSEO is in balance if the annual contributions paid by the staff cover one third of the rights acquired during the year, i.e., according to the Staff Regulations, 1.9% or 2% of the final basic salary before retirement, as regards the retirement pension.

#### 2.2. Pension contribution and benefits

Chapter 3 of Title V of the Staff Regulations, developed further in Annex VIII and Annex XIII, sets out rules for entitlement to a pension or invalidity allowance. Article 83 specifies that officials are to contribute one third of the cost of financing the pension scheme. The current pension contribution for officials is 10.25% of the basic salary.

This contribution rate could increase to 10.9% from 1 July 2008 according to the result of the 2008 calculation and subject to Commission's proposal and Council's approval.

The calculation of the contribution rate and pension benefits is based on a certain number of parameters and actuarial assumptions. Some of these are detailed below.

#### 2.2.1. Pension rights

Pension rights are rights that the official acquires up to retirement age. Pension rights are expressed as a percentage of the basic salary used to calculate the pension. Pension rights are acquired each year by the staff as a counterpart to the pension contribution, according to the following rules of the Staff Regulations<sup>1</sup>.

According to Article 77 of the Staff Regulations, the maximum retirement pension shall be 70% of the final basic salary earned in the last grade in which the official was classified for at least one year. 1.9% of the basic salary at the retirement age shall be payable to an official for each year of service reckoned in accordance with Article 3 of Annex VIII.

Notwithstanding the second sentence of the second paragraph of Article 77, officials who entered the service before 1 May 2004 shall be entitled to 2% of the salary referred to therein for every year of pensionable service calculated in accordance with Article 3 of Annex VIII.

<sup>&</sup>lt;sup>1</sup> There are two other ways of acquiring pension rights: transferring pension rights from another scheme, or buying pension rights.

The maximum number of years of pensionable service which may be taken into account for the calculation of the retirement pension rights shall be the number necessary to achieve the maximum pension, within the meaning of the second paragraph of Article 77 of the Staff Regulations (Article 2 of Annex VIII to the Staff Regulations).

In summary, the pensionable service necessary to obtain the maximum retirement pension (70% of the basic salary) is 35 years ("old" officials) or 36.84 years ("new" officials).

#### 2.2.2. Pension benefits

Pension benefits are equal to the pension rights multiplied by the basic salary at the age of retirement. Beneficiaries of an invalidity allowance shall automatically be retired on the last day of the month in which the appointing authority recognises a permanent incapacity to perform their duties (Article 53 of the Staff Regulations). Reversionary and survivor's pensions are based on the retirement pension and they are calculated according to Chapter 4 of Annex VIII to the Staff Regulations.

#### 2.2.3. Retirement age

The Staff Regulations stipulate that the <u>normal retirement age</u> for officials is 63 years, but Annex XIII provides for a transitional period. However, in the computation of the contribution rate it is necessary to estimate the so-called <u>assumed</u> <u>retirement age</u>. In general, staff retire a little after the minimum retirement age. Different tables are used for the calculation, depending on the date when they became EU staff.

#### **3. PROCEDURE FOR THE REPORT ON THE PENSION SCHEME**

#### 3.1. Article 83 Working Group

Technical questions raised by the implementation of Annex XII are dealt with by Eurostat in cooperation with national experts from the relevant departments of the Member States participating in the Working Group on Article 83 of the Staff Regulations. The Article 83 Working Group met each year as required by the Staff Regulations. Meetings were held in Luxembourg on 7 June 2004, 8 June 2005, 19 June 2006, 26 June 2007, and 27 June 2008.

The group discussed the methodological documents drawn up by Eurostat. The Article 83 Working Group received all the documentation necessary to validate the work done by Eurostat. The documents distributed to the Working Group provided all necessary details. The documentation is kept available in CIRCA (website of Eurostat), to which members of the Working Group have access. The Working Group makes suggestions or asks for explanations. There has always been agreement on the decisions.

Eurostat also exchanges relevant information on actuarial issues with international organisations such as the JPAS (Joint Pensions Administrative Section of the Coordinated Organisations, which include the OECD, NATO, ESA, the Council of Europe, NAMSA and others), the EPO (European Patent Office) and Eurocontrol.

### **3.2.** Qualified independent expert

In accordance with Article 13(4) of Annex XII to the Staff Regulations, Eurostat is assisted by a qualified independent expert (Ernst & Young Actuaires-Conseils, 11, allée de l'Arche, 92037 Paris La Défense cedex) with regard to the methodological implementation and to the definition and calculation of the corresponding actuarial assumptions.

Concerning actuarial assumptions, Ernst & Young Actuaires-Conseils carried out investigations to ensure that the underlying data provided by Eurostat were used correctly.

**Reports from E&Y (available on CIRCA) validated the Eurostat contribution rates**. On several occasions they made remarks which Eurostat took into account where possible.

### 4. PARAMETERS AND ACTUARIAL ASSUMPTIONS

### 4.1. Main variables

### *4.1.1. Statutory parameters*

These are values mainly linked to the application of the Staff Regulations. These values change according to certain conditions related to the individual situation of each official (e.g. the annual accrual rate is 1.9% for staff recruited from 1 May 2004 and 2% for those recruited before this date). These values can be clearly established.

#### 4.1.2. Actuarial assumptions

These are values that are not known and cannot be established exactly. The main actuarial assumptions are the mortality and invalidity tables, the ISP (individual salary progression) table, the probability of being married at the retirement date, the coefficients for orphans and divorced spouses, etc. The values of these actuarial assumptions were estimated according to general actuarial practices and were discussed with national experts from the relevant departments of the Member States at the yearly meetings of Article 83 Working Group.

### *4.1.3. Economic parameters*

Pursuant to Articles 10 and 11 of Annex XII to the Staff Regulations, the Real Discount Rate (RDR) and the General Salary Growth (GSG) are calculated as the average of the corresponding rates for the 12 preceding years.

In the 2008 update, the value of the RDR is **3.1%** compared to 3.4% in the 2007 actuarial assessment. The GSG is **0.4%** instead of 0.5% in 2007. Combined with the effect of changes in other actuarial assumptions, these changes explain why the calculated pension rate increases to 10.9%.

### 4.1.4. Demographic parameters

The observed population is made up of contributing members of the PSEO including:

- active officials as well as officials on parental leave,
- members whose pension contribution is optional (e.g. officials who have taken leave on personal grounds),
- invalids who receive invalidity allowance under Article 78 of the Staff Regulations,
- beneficiaries of an allowance for termination of service.

**47 596** contributing members were recorded at 31 December 2007, which represents a net increase of **2 643** participants compared to the previous year.

This significant increase in the population is mainly explained by the recruitment of contract agents (a new category of population defined in the Conditions of Employment of Other Servants) and officials and temporary agents from the new Member States.

There were 7 037 contract agents among the contributing members at 31 December 2007, as against 6 404 at 31 December 2006, which represented an increase of 9.88%. Most of these new contributing members are replacing auxiliary staff (a former <u>non-contributing</u> staff category).

### 4.2. Summary of the main parameters used in the last pension assessment

The following tables show the values of the main parameters and actuarial assumptions. Please note that these tables only present an overview of the main variables and are not exhaustive. Please refer to the Staff Regulations for precise and complete information.

### Statutory parameters used in the actuarial assessment

Parameter	Value		
Legal source	Staff Regulations in force from 01.05.2004		
Reference date for the population (Annex XII Article 1)	31.12.2007		
Maximum official retirement age (Staff Regulations Article 52)	65 (67 on an exceptional basis)		
Minimum official retirement age (Staff Regulations Article 52 and Annex XIII Article 22)	63 or before for officials in service before 01.05.2004		
Minimum age for early retirement (Staff Regulations Article 52, Annex VIII Article 9 and Annex XIII Article 23)	55 or before for officials in service before 01.05.2004		
Category and grade for the minimum subsistence figure (Annex VIII Article 6)	first step of grade 1		
Maximum retirement pension (Staff Regulations Article 77)	70% of the basic salary at the retirement date		
Annual accrual rate (Article 77 of the Staff Regulations and Article 21 of Annex XIII)	1.9% or 2% for officials recruited before 01.05.2004		
Bonus for officials in service after the normal retirement age (Annex VIII Article 5 and Annex XIII Article 22)	Barcelona incentive		
Minimum retirement pension (Staff Regulations Article 77)	4% of the minimum subsistence figure per year of service		
Invalidity allowance (Staff Regulations Article 78)	70% of the basic salary		
Minimum invalidity allowance (Staff Regulations Article 78)	100% of the minimum subsistence figure		
Reversionary pension (Staff Regulations Article 79 and Annex VIII Article 18)	60% of the retirement pension		
Minimum reversionary pension (Staff Regulations Article 79 and Annex VIII Article 18)	35% of the last basic salary		
Survivor's pension (Staff Regulations Article 79 and Annex VIII Article 17)	60% of the retirement pension that would have been payable to the official		
Minimum survivor's pension (Staff Regulations Article 79)	35% of the last basic salary or minimum subsistence figure		

# Actuarial assumptions<sup>2</sup>

Actuarial assumption	Value		
Average age difference between married men and women	3 years		
Probability of being married at retirement age for men	84%		
Probability of being married at retirement age for women	38%		
Marital status	status at evaluation date		
Coefficient for orphan's and divorced spouse's pension	10%		
Annex VIII coefficient (correction coefficient)	0,0%		
Assumed retirement age	63 to 64		
Real discount rate (RDR)	3.1% (see point 2)		
General salary growth (GSG)	0.4% (see point 3)		
General pension revaluation (GPR)	0.4% (equal to the GSG)		
Individual salary progression (ISP)	2008 ISP table		
Mortality table (healthy people)	2008 ICSLT		
Mortality table (invalids)	Mortality rate corresponding to a person 3 years older than healthy person		
Invalidity table	2008 EU invalidity table		

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2008 Assessment.

#### 5. **RESULTS: EVOLUTION OF THE PENSION CONTRIBUTION RATE**

#### 5.1. Evolution of the contribution rate for pensions

	Pension assessments							
	2004	2005	2006	2007	2008			
Items	Reference date			Reference date				
	31/12/2003	31/12/2004	31/12/2005	31/12/2006	31/12/2007			
Service cost for retirement	25,9%	25,4%	25,9%	26,9%	29,6%			
Service cost for invalidity	3,8%	3,8%	3,7%	2,3%	2,2%			
Service cost for death	1,6%	1,6%	1,6%	1,7%	1,0%			
Ratio service cost / BS	31,29%	30,8%	31,2%	30,9%	32,8%			
Officials' contribution rate (1/3 of total ratio)	10,4%	10,3%	10,4%	10,3%	10,9%			
Applied officials' contribution rate	9,75%	10,25%	10,25%	10,25%	10,90%			

#### Pension contribution by year

During the period 2004-2008, in order to guarantee balance of the scheme, the pension contribution rate was calculated as 1/3 of the ratio between the total service cost and the total annual basic salaries.

#### 5.2. Results of the last pension assessment

The calculated contribution rate indicated above (10.9%) is one third of the ratio between the total of the service cost ( $\triangleleft$  002 million) and the total of annual basic salaries ( $\triangleleft$  056 million). This rate is *higher* (+0.6%) than the one calculated in 2007 (10.3%)

The provisional 2008 actuarial assessment of the Pension Scheme of European Officials (PSEO) indicates that, in order to ensure the balance of this pension scheme, the contribution rate necessary to finance one third of the benefits payable would be **10.9%** of the basic salary (or of the invalidity allowance).

Pursuant to Article 83a of the Staff Regulations, where it is shown that there is a gap of at least 0.25 points between the rate of contribution currently applied (10.25%) and the rate required to maintain actuarial balance (10.9%), the Council is to consider whether the rate should be adapted, in accordance with the arrangements laid down in Annex XII.

In accordance with Article 2(2) of Annex XII, the adjustment taking effect on 1 July 2008 shall not lead to a contribution being more than one percentage point above or below the applied rate of the previous year (10.25%).

Consequently, in order to guarantee the balance of the pension scheme, the following contribution rate should be applied from 1 July 2008: **10.9%** 

#### 6. **BALANCE OF THE PENSION SCHEME**

As explained in part 2.1.2 of this report, the PSEO is in balance if the annual contributions paid by the staff cover one third of the rights acquired during the year, i.e., according to the Staff Regulations, as regards a retirement pension, 1.9% or 2% of the final basic salary before retirement. As the pension contribution rate is calculated to guarantee that the scheme is in balance, the scheme is in balance when the calculated rate is applied.

During the reference period of this report indicated in Article 14 of Annex XII to the Staff Regulations, the Commission proposed and the Council adopted the Eurostat's calculated rate of contribution after taking into account the specific provisions of the Staff Regulations:

- Article 2(1) of Annex XII to the Staff Regulations (any adjustment shall not lead to a contribution being more than one percentage point above or below the valid rate of the previous year);
- Article 2(2) of Annex XII to the Staff Regulations (the adjustment taking effect on 1 July 2004 shall not lead to a contribution higher than 9.75% and the adjustment taking effect on 1 July 2005 shall not lead to a contribution higher than 10.25%);
- Article 83a(4) of the Staff Regulations (the adaptation of the rate should be considered if there is a gap of at least 0.25 points between the rate of contribution currently applied and the rate required to maintain actuarial balance).

The following table summarises the calculated and applied contribution rates:

### Summary of calculated and applied contribution rates for pension



The chart shows that the applied pension contribution rate was very close to the one calculated by Eurostat. Please note that small differences between the rates due to the

application of the above mentioned provisions of the Staff Regulations can be positive or negative; these differences tend to cancel each other out in the long term.

Therefore, the method has fulfilled its specific aim to guarantee that the pension contribution paid by staff to the budget covers one third of the cost under the pension scheme, as specified in Article 1(1) of Annex XII to the Staff Regulations, and, hence, the scheme is in balance.

### 7. **PROBLEMS ENCOUNTERED, SOLUTIONS AND FURTHER WORK**

### 7.1. *ISP*

Usually, past observations are used when calculating actuarial assumptions (e.g. life table, GSG). This was not the case in 2004 when defining the ISP (Individual Salary Progression). The new Staff Regulations in force from 1 May 2004 created a new category of personnel (contract agents) and introduced major changes in salary scale and promotion rules relating to officials and temporary agents. All these changes made using past observations on individual salary progression when defining this assumption not practicable.

In 2004-2005 the method was based on indicative promotion rates using Table B in Annex I to the Staff Regulations. For the 2006 assessment a new method was presented to the Article 83 Working Group. This method is based on a moving average of the indicative promotion rate and the observed promotion rate (as from 2005) by category of personnel, grade, step and years to retirement up to a maximum of 12 years of observations. The same observation period is used for calculating the RDR and GSG rates.

### **Proposed solution:**

It is proposed to continue with this method. This method takes the observed promotions increasingly into account as their weight in the average will grow larger and larger compared to the indicative promotion rates. The ISP calculated in this manner takes the step increase of staff throughout their career fully into account. Some improvements to the current method could be envisaged if necessary, in agreement with national experts of Member States.

### 7.2. Invalidity

A new invalidity table (2008 EU invalidity table) has been used in the 2008 assessment of the pension scheme. As explained above, four years only of invalidity observations (2004, 2005, 2006 and 2007) have been used to estimate invalidity rates in the context of the new Staff Regulations in force from 1 May 2004 (beneficiaries of invalidity allowance were accounted for). This new invalidity table was presented at the 27 June 2008 meeting of the Article 83 Working Group.

This short period of observation to estimate invalidity rates does not lead to as accurate a set of estimates as a longer period would. Consequently, future updates of the invalidity rates could be necessary. This approach is also supported by the independent expert.

### **Proposed solution:**

To continue to observe invalidity each year and calculate the invalidity rates based on a moving average of available observations up to a maximum of 12 years of observations (the same observation period is used for calculating the RDR and GSG rates).

### 7.3. Life table

The same life table (2004 EU life table) has been used as in the 2004 pension assessment. The real mortality rate in the period 2004-2007 was analysed and compared to the expected mortality according to the EU-2004 life table. The result of this analysis is that mortality in ages 30 to 69 is lower and mortality for ages above 70 is higher compared to EU-2004 life table.

Eurostat and the Joint Pension Administrative Section for the six Coordinated Organisations have launched a common project which aims to draw up a common life table based on a large population of civil servants based in Europe: the 2008 ICSLT (International Civil Servants Life Table). This life table has been certified by an external actuarial expert who also recommended the regular updating of life tables. It was used in the 2008 calculation.

### **Proposed solution:**

To use the 2008 ICSLT life table instead of the 2004 EU Life table.

# 7.4. Discount rate

Eurostat encountered difficulties in obtaining the 2005 and 2006 interest rate to be used for the pension assessment. The origin of the problem, as explained above, was that the euro zero-coupon yield curve with a maturity of 21 years was no longer produced by the Commission as production of all euro zero-coupon yield curves has been transferred to the ECB (European Central Bank). Because the ECB had not yet produced the euro zero-coupon yield curve with a maturity of 21 years, Eurostat estimated the 2005 and 2006 rates using as input the 30-year euro area benchmark government yield as produced by the ECB and adjusting the rates to 21 years of maturity.

The ECB implemented the euro yield curve in the summer of 2007 and Eurostat has disseminated "daily" data for the maturities 1 to 30 years since then as well. In addition, annual 2007 data have been available on the Eurostat website since January 2008.

The 2007 annual nominal rate for 21 years maturity for zero-coupon government bonds is 4.5% (the real rate is 2.2%). Consequently, the moving average (1996-2007) of the real rate which has been used in the 2008 provisional pension assessment is 3.1%.

# Proposed solution:

Article 10 of Annex XII to the Staff Regulations gives the framework for determining the interest rate: "1. The interest rates to be taken into consideration for

the actuarial calculations shall be based on the observed average annual interest rates on the long-term public debt of Member States...". As the problem of availability of data has been solved (the ECB now produces the euro zero-coupon yield curve with a maturity of 21 years), Eurostat will continue using it in actuarial calculations. Thus, the above-mentioned nominal rate of 4.5% will be used in the 2008 pension assessment.

#### 8. BUDGETARY IMPACT OF THE COMMUNITY PENSIONS SCHEME

Pursuant to the second paragraph of Article 83 of the Staff Regulations, officials pay one third of the cost of the Community pension scheme. In accordance with the first paragraph of the same Article, benefits paid under this pension scheme are to be charged to the budget of the Communities. Member States jointly guarantee payment of such benefits.

As explained above, the contributions paid during the current year are not calculated so as to cover the payment of pensions and other benefits for the current year. The actuarial balance principle guarantees a balance in the long term, not a yearly balance. This means that the rate of contribution is based on the payments to be made in the future when the contributing civil servants retire. The rate is not connected to or influenced by the current budgetary expenditure to finance pensions for retired civil servants.

Pension contributions finance one third of the future obligation. The contributions are paid to the Community budget as revenue. The total obligation is covered by the Member States at the moment of payment.

The chart below shows the impact of increasing pension contribution rates and the increasing number of contributing members. **The revenue collected from the pension contribution more than doubled** during the shown period (2000–2007) from 154 million euros in 2000 to 340 million euros in 2007.



This increase is mainly determined by:

the increasing pension contribution rate (from 8.25% in 2000 to 10.25% in 2005, 2006 and 2007);

the increasing number of contributing members of the pension scheme (e.g. from 34 511 in 2004 to 47 297 in 2007).

### 9. CONCLUSIONS

The method has fulfilled its specific aim to guarantee that the Community pension scheme is in balance, as the pension contribution paid by the staff to the budget covers one third of the rights acquired every year due to the following reasons:

- the contribution rate calculated by Eurostat covered one third of the pension rights acquired that year;
- the calculated contribution rate was validated by a qualified independent expert;
- the applied contribution rate was very close to the calculated one;
- small differences between the calculated and applied rates were due to the specific provisions of the Staff Regulations. As these differences can be positive or negative, they tend to cancel each other out in the long term.

The budget revenue from the pension contribution has increased following the increases in the contribution rate and in the number of contributing members.

For the above reasons, the Commission takes the view that the Pension Scheme of European Officials is in balance. The problematic issues were addressed without implying a revision of Annex XII. The Commission therefore considers that no modification of the Staff Regulations is needed.