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**REPORT BY THE EXTERNAL AUDITORS  
ON THE ACCOUNTS OF THE CERN PENSION FUND  
FOR THE FINANCIAL YEAR 2009**

audited by two representatives of the

ITALIAN COURT OF AUDIT

CORTE DEI CONTI



**Table of contents**

- 1. INTRODUCTION..... 1**
- 2. CERTIFICATE OF THE EXTERNAL AUDITORS.....2**
  - 2.1. General .....2**
  - 2.2 Opinion.....2**
- 3. PREAMBLE ..... 3**
- 4. LEGAL STATUS OF THE PENSION FUND WITHIN THE ORGANIZATION.....4**
  - 4.1. Amendments to the Rules and Regulations of the Pension Fund .....5**
- 5. THE CONTROL ENVIRONMENT IN CERN PENSION FUND.....6**
  - 5.1 Internal Control Environment .....6**
    - 5.1.1 High dependence on the Chief Operating Officer.....7**
    - 5.1.2 Segregation of Duties at the accountant level .....8**
    - 5.1.3 Lack of monthly management reporting .....8**
    - 5.1.4 Risk Management – Strategic decisions.....9**
  - 5.2 Audit .....9**
    - 5.2.1 External Audit ..... 10**
    - 5.2.2 Internal Audit ..... 12**
- 6. FINANCIAL RESULTS FOR THE YEAR..... 13**
  - 6.1 Financial Risks versus Performance ..... 15**
- 7. AUDIT RESULTS..... 16**
  - 7.1 Current accounts and Deposits ..... 16**
  - 7.2. Investment properties local auditors selection..... 17**
- 8. FOLLOW UP OF RECOMMENDATIONS 2004 – 2008 ..... 18**
- ANNEX 1 ..... 19**



## **REPORT BY THE EXTERNAL AUDITORS ON THE ACCOUNTS OF THE CERN PENSION FUNDS FOR THE FINANCIAL YEAR 2009**

### **1. INTRODUCTION**

The legal basis for the audit to be performed by the External Auditors is given in the Financial Protocol annexed to the Convention for the establishment of a European Organization for Nuclear Research of 1 July 1953, as modified on 17 January 1971; in the Financial Rules as approved by the Council; and in the Internal Regulations of CERN and CERN Pension Fund.

We have planned and performed our activity following generally accepted international auditing standards to the extent that these standards apply to CERN Pension Fund.

In particular, we have focused our audit on the Pension Fund's governance and internal control environment.

Moreover, we have analysed and evaluated the opinion expressed by PricewaterhouseCoopers (PWC) on the Financial Statements of the Pension Fund for the year 2009, as well as their Management Letter, jointly with the Management Replies. Finally, we have gathered and provided information on the status of implementation of recommendations that had been issued by External Auditors in the previous years, as requested by the CERN Council.

Thus, we have obtained a sufficient basis for the opinion given below.

It is worth mentioning that, this year, the Management decided to present only the Financial Statements, without an Annual report, differing in this to the document presented to the Council in 2008. In addition, the Actuarial Report is not annexed to the Financial Statements. In the Financial Statement, the Pension Fund Management only reported the Technical Balance Sheet, including the funding ratio, according to the assumptions taken by the Working Group II (WGII). The funding ratio, which results from the IPSAS assumptions, although derivable from the Statement of Financial Position, is not indicated.

## 2. CERTIFICATE OF THE EXTERNAL AUDITORS

### 2.1. General

As provided for in the Rules and Regulations of the Pension Fund, article I 2.01, Status of the Fund, the Fund is an integral part of CERN and therefore does not have its own legal status.

However, article I 2.02, Assets of the Fund, provides that the assets acquired by the Fund in fulfilling its purpose shall be deposited and held separately from those of CERN and ESO and they shall be totally and exclusively used for the purposes of the benefits provided for by the Rules.

The opinion we give under item 2.2 solely relates to accounts managed by the Fund and held as it is laid down in the Rules and Regulations of the Pension Fund. This opinion has to be examined within the External Audit mandate at CERN as a whole.

### 2.2 Opinion

We have analysed the Financial Statements of the CERN Pension Fund for the Year 2009.

We have examined the Consulting Actuary's Report for the year 2009, where it was stated that "*the financial stability of the Fund as at 31 December 2009 is not assured. The funding ratio is below 100% at the end 2009 and it amounts to 60,1% according to the technical assessment [according to the assumptions stated in the International Accounting Standard n.26] and to 69,5% [according to the assumptions stated by WGII]. The Pension Fund was therefore unable to fully guarantee its liabilities at the date of the assessment (...)*" It is also stated, in the same report, that "*[the funding ratio] has dropped from 72,7% as at 31 December 2008 to 60,1% as at 31 December 2009*".

The Actuary's Report also highlights that the Fund has no safety margin that would allow it to weather a further fall in the financial markets. In addition, the Fund's liabilities as at 31 December 2009 are not entirely covered by the available provident assets.

Furthermore, the Actuary's Report considered "unsatisfactory" the financial situation for the Fund at 31 December 2009, with a funding ratio of 60,1% and they highlighted the fact that "*if the PF had had to be liquidated at this date, it would have cost Member States 2.596.9 MCHF, according to the statutory guarantee of*

*benefits according to article I 3.03” and, what’s more, the under-funding of 2.596,9 MCHF (39,9% of the provident and technical provision) is “considerable” and it is the result of three factors like the change in the discount rate, the full capitalisation of the future indexation of pensions and the financial losses due to the 2008 crisis that have not yet been fully compensated for.*

*We have analyzed the opinion of PWC which draws “attention to the fact that the financial statements show a funding gap of 2.596,9 MCHF and a funding ratio of 60.1% (31.12.2008: 72,7%) based on the CERN Accounting Policy (refer to Chapter 2.2. [of the Financial Statement]”. Besides, they highlight that “measures to remedy this funding gap are currently being examined by an Advisory Group which was set up by the CERN Council”*

We believe that the CERN Pension Fund underfunding is critical and that immediate corrective action are necessary for restoring the full-funding, therefore we welcome the set-up of an Advisory Group.

In our opinion, the Financial Statements for the Year 2009 give a true and a fair view of the financial position of the CERN Pension Fund as at 31 December 2009, of its financial performance and its cash flows for the year 2009 in accordance with International Public Sector Accounting Standards (IPSAS).

### **3. PREAMBLE**

The Report by the External Auditors on the Accounts of the CERN Pension Fund for the financial year 2009 includes:

- a table providing information on the implementation status of previous years External Auditors’ (2004-2008) recommendations, as requested by the Chairman of the Finance Committee to the Council at its 142<sup>nd</sup> Meeting (CERN/2743). The table is enclosed as an Annex to this Report;
- the results of our audit which was focused on the Pension Fund’s governance and internal control environment;
- our analysis and assessment of the opinion of PWC on the Financial Statements of the CERN Pension Fund for the year 2009;

- our analysis and assessment of the Management Letter of PWC jointly with the Management replies, discussed and approved during the Pension Fund Governing Board (PFGB) meeting held on 5 May 2010;
- Our analysis and assessment of the Consulting Actuary's Report at 31 December 2009 prepared by PITTET Associates.

#### **4. LEGAL STATUS OF THE PENSION FUND WITHIN THE ORGANIZATION**

The Council decided, during the restricted Session of December 2006, to set up a Study Group to elaborate detailed proposals “*for a new governance structure of the CERN Pension Fund based on the recommendations of the Expert Panel (...) taking into account the special technical and legal aspects of the proper functioning of the Pension Fund in the particular framework of CERN as an international organization*”.

The conclusions of the Expert Panel were that “*although legal separation is desirable for pension funds in general (...) the establishment of the CERN Pension Fund as a separate legal entity may be lengthy and complex and may not even be legally feasible because of the international organization nature of CERN*”.

In relation to such conclusions, the Study Group confirmed that the Pension Fund remains an integral part of the Organization and has no separate legal personality.

The above-mentioned situation would ensure that the Fund can benefit from the privileges and immunities conferred to an International Organization such as CERN.

As a result, this is the present legal status of the Fund within the Organization according to the Pension Fund Rules and Regulations dated 1 January 1986, as updated on 1 November 2007 (new composition of the Governing Board)<sup>1</sup>.

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<sup>1</sup> In particular, the article 102.01 provides as follows:” The Fund, which is an integral part of CERN, shall be under the supreme authority of the Council. Its administration and management on its finances shall be separate from those of CERN...”. And the article 1.2.02 specifies: “The assets acquired by the Fund in fulfilling its purpose shall be deposited and held separately from those of CERN....They shall be totally and exclusively used for the purpose of the benefits provided for by these Rules.”

These Rules and Regulations shall remain in force as they stand, pending their complete revision in the frame of the implementation of the new governance structure that, on one hand, will enhance the operational autonomy of the Fund that had already been granted by the Council in 1986 and, on the other hand, the Fund will continue to hold its assets separately from those of CERN.

#### **4.1. Amendments to the Rules and Regulations of the Pension Fund**

In the Austrian Court of Audit's 2007 Report (refer to §4.2 doc. CERN/FC/4249 – CERN/2791, it was stated that *“during the course of the interim audit the External Auditors reviewed the amendments to Pension Fund Rules and Regulations (version 1 Nov 2007). The review revealed that the Rules and Regulations in its current version cannot be seen as a coherent document. For example according to Article I 2.05 the position of a General Manager should form part of the Governing Board in its new governance, however, Article I 2.07 still refers to the Administrator and his appointment and duties”*.

Consequently, the Austrian Court of Audit recommended *“(…) that the provisional and transitional nature of the current Rules and Regulations (version 1 November 2007) should be clearly mentioned in the preamble to this document. In addition - since the complete update of the Rules and Regulations, within the frame of the implementation of the Pension Fund's new governance structure, will take a considerable time - adequate transitional provisions should be defined so as to comply with the principle of legal certainty”*.

During the year 2008 the Management implemented this recommendation by inserting in the Pension Fund Rules and Regulation and in the Pension Fund's website the note *“These Pension Fund Rules and Regulations dated 1.1.1986, as updated on 1.11.2007 (new composition of the Governing Board), shall remain in force as they stand pending their complete revision in the framework of implementation of the Pension Fund's new governance structure (…)”*.

At the time of the issue of our Report, Working Group I has ended its mandate and we understand that the PFGB is scheduled to present to the Council a Green Paper in the June 2010 session. We received the draft version of this document with such short notice that the time allowed was not sufficient for us to express a written opinion on the draft amendments to the Fund's rules (Chapter I).

## 5. THE CONTROL ENVIRONMENT IN CERN PENSION FUND

### 5.1 Internal Control Environment

As mentioned in the Preamble (refer to §3), we obtained audit evidence directly and indirectly through the analysis and assessment of documents prepared by other auditors. These documents were PricewaterhouseCoopers' Opinion and Management Letter and the reports presented by the local auditors in charge of auditing the Pension Fund's Real Estate portfolio.

As for 2008, in their Management Letter, PWC reported on "*overall comments on the control environment of CERN Pension Fund*". In that paragraph it was stated that "*(...) the PFGB has to develop a clear strategy and define measures to remedy the funding gap, in spite of the fact that CERN and ESO guarantee the benefits acquired under the provisions of the Rules*".

The Management responded that "*(...) to remedy the funding gap fall within the remit of Working Group 2 (WG2) which will report to the PFGB*".

In 2009 WG2 issued a document, which was subsequently endorsed by the PFGB, where measures to restore full funding were presented to the Council in the White Paper of September 2009.

Furthermore, PWC highlighted the fact that "*With respect to the internal control system, controls are in place, however some organizational and administrative procedures are not always documented although controls are in performed.*".

The Management replied that "*The documentation of all organizational and administrative procedures will be addressed as a matter of priority as part of the self-assessment process to be recommended to the PFGB by Working Group 1*".

For the year 2009, PWC did not perform any follow-up of these two comments.

With regard to the documentation of all organizational and administrative procedures, we renew our recommendation that this should be enhanced its level.

Moreover, it is important to underline that very recently, as already reported in paragraph 4.1, WG1 produced a document that was endorsed by the PFGB itself in its May meeting (5 May 2010), and which is to be presented in the June 2010 session of the Council.

With regard to this point, it is extremely important to draw attention to the fact that we had not time to analyze these documents and therefore we reserve the option to express our opinion and/or comments in the future.

As for the development of a clear strategy and as for measures to remedy to the funding gap, they were proposed to the PFGB by WG2 already at the end of 2009, but no assessment of these measures has been carried out yet by other independent bodies, internal or external<sup>2</sup>. Notwithstanding, the Council had already put in place an Advisory Panel to propose a clear strategy to address the issue of underfunding (refer to annex 1).

We renew our recommendation to develop a clear strategy and to define measures to remedy to the funding gap.

### **5.1.1 High dependence on the Chief Operating Officer**

PriceWaterhouseCoopers draws the management's attention to the issue of the dependence on the Chief Operating Officer (COO) for accounting matters, by noting that the PF is *"highly dependent on the COO with regard of the monitoring of accounting and benefits services calculations. Should he leave the PF or be out-of-office for a long period, there is a risk that monitoring of they day-to-day operations decreases. This could lead to errors /mistakes within the financial statements"*.

The management responded that the recruitment of a qualified accountant is planned in accordance with the document "CERN PF 2010-2012 Strategic Plan" approved in February 2010 by the PFGB

We share the point of view of PWC and we thus recommend recruiting an additional accountant who can act as deputy in case of absence of the COO.

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<sup>2</sup> Refer to Paragraph 6.1 below for specific consideration over financial risks.

Accordingly, we will follow up that such recruitment will take place in a timely fashion.

### **5.1.2 Segregation of Duties at the accountant level**

PWC identified “*a lack of segregation duties at the accountant level. Year-end adjustments and day-to-day accounting entries recorded by the accountants are not always formally approved by the COO*”. A risk of unidentified error in the financial statements, or even manipulation, was clearly identified. In addition, it was noted that portfolios’ investments valuations provided by the global custodian, to be used to adjust year-end accounting values, are not checked by internal managers. PWC recommendation was “*(...) implementing a formal review of adjustments booked at year-end and day-to-day accounting entries.*” Besides, they recommend that unusual entries, which may have a significant impact on the financial situation, should be reported to PFGB.

The management replied that those adjustments producing differences in figures between the global custodian and the portfolio managers are resolved through contacts with both parties and recourse to market sources and corrections are made where clear evidence of error is identified. Concerning the global custodian values’ point, the management responded that internally administered portfolio will be subject to internal managers’ attestation in future. Furthermore, in order to improve the accounting interventions and day-today entries, a review system with approval limits will be introduced.

We share PWC findings, and we endorse their recommendations

### **5.1.3 Lack of monthly management reporting**

On this topic PricewaterhouseCoopers wrote “*Financial statements are fully completed only once a year (as at 31/12). A partial closing is annually performed at the end of June.*” They recommend establishing an appropriate and timely monthly management reporting.

As for the reporting on private equity, PWC commented that although an external consultant assisted the PF management to invest and to report on the evolution of the funds of private equities, internal documentation and follow-up

should be improved. The recommendation is to define a presentation format with a statement of investments and relevant financial information.

In relation to the issue of monitoring complex information by means of excel files, we observed the same problems that PWC identified and we share the view that *“There is a risk of having wrong and/or incomplete data and/or to delete some data by mistake.”*

On all these issues the Management accepted the requirements of the recommendations. We endorse PWC recommendations and we will follow-up the implementation of these issues as outlined by the Management

#### **5.1.4 Risk Management – Strategic decisions**

Last year - as also reported in annex 1 - PWC observed that strategic decisions (strategic allocation, tactical margin and investment drivers) were essentially based on qualitative analysis. They recommended implementing quantitative measurement of market risks taken by the PF such as VaR and stress analysis. This issue has not been implemented yet.

Moreover, PWC found that *“Diversifying Assets class represented 6,9% as at 31 December 2009 whereas the Strategic Asset Allocation (SAA) prescribes 14% with tactical bandwidths being 10-20%.”*. The Management responded they are working on processes to identify investments opportunities in this asset class for approval by the PF Investment Committee in order to implement the allocation as foreseen in the SAA.

We are in agreement with PWC’s findings and we recommend applying the SAA. We will follow up this issue during next financial year.

#### **5.2 Audit**

In the 2007 Report (refer to § 4.3 doc. CERN/FC/5249 CERN/2791), the Austrian Court of Audit referred to their 2005 audit report (CERN/FC/5046) where *“they recommended including basic audit principles in any review of the Pension Fund Rules and Regulations. However, the External Auditors noted that these*

*recommendations have not been addressed in the latest version (dated 1 November 2007) of the Pension Fund Rules and Regulations.”*

“Basic audit principles” have been included in the review of the Pension Fund Rules and Regulations carried out by Working Group I and endorsed by the PFGB in May 2010. This document is planned to be presented to the Council in the June session as a Green Paper.

As stated in the previous paragraph, we received the draft version of such a Green Paper within an insufficient lapse of time and consequently we could not express a written opinion.

### **5.2.1 External Audit**

Last year we endorsed the analysis and the resulting recommendation of the Austrian Court of Audit, integrally reported in our 2008 Report, which stated that *“that the appointment of two external auditors with the same reporting line to Council is not in line with the basic principle of an independent external audit mandate. The Council could be put in a very uncomfortable situation to deal for instance with two contradictory audit opinions which might hamper the discharging process”*.

This year, in the term of reference for the SACA (Standing Advisory Committee on Audit), the Council further clarified that the specialized auditors are only due to report to the Pension Fund Governing Board (PFGB).

This position, which re-establishes ‘one principal auditor’ entrusted with the responsibility for reporting on the financial statements, is aligned with the International Standards on Auditing (ISA 600) However, ISA 600 leaves the possibility for an ‘other auditor’ to play a role. It has to be noted that the work of the "other auditor" comprises the reporting only on a component of the financial data which is included in the financial statement audited by the ‘principal auditor’.

We are fully aware that Working Group 1 completed the revision of Chapter I of the Rules and Regulations of the Pension Fund and that, in May 2010, the Pension Fund Governing Board approved the document which will be presented to the Council as a Green Paper for approval in its session of June 2010. However, on account of the limited time we have had for analysing such a document, at present we are not in a position to express any opinion on the newly-proposed text.

As already occurred in 2008, the contract with PricewaterhouseCoopers (PWC) was renewed in November 2009 without a competitive tender and without taking into consideration our comments and recommendations.

Therefore, all the points we raised in our last year's report have not yet been implemented and followed up by the Management (see annex 1). For instance, we asked the Management to assign to PWC a firm deadline for presenting the PFGB the final version of their report containing the results of their audit. This requirement was made in order to allow us to have sufficient time to analyze in full and in details the contents of the PWC's report and management letter as well as any issue raised by them. This requirement has not been met.

In 2008 the CERN Legal Service prepared a contract template to be used instead of the standard PWC's general conditions, as the basic contractual framework. This template has not yet been utilized.

Finally, our recommendation which aimed at introducing clear performance indicators in the contract with the specialized auditor has not yet been implemented.

As a result of these circumstances, we obtained the signed PWC's opinion and Management Letter (jointly with the Management replies) on 5 May 2010.

Subsequently we received the position of Pension Fund Governing Board only in the very informal format of draft minutes, still unapproved at the time of the issuance of this report

We therefore renew our recommendation that, as of 2010, a clear procedure covering the tender procedure for the specialized auditor and the ensuing communication of their report and the Management's reply to the principal auditor (i.e. the External Auditors) should be submitted to the PFGB for decision and approval. This is also in line with the Austrian Court of Audit's recommendation.

We are of the opinion that not only such a procedure would follow up the recommendations stated by our predecessors, but also it would clarify the scope of an "additional special purpose audit". Additionally, we point out that we are available to contribute to clarify the Terms of Reference of the additional auditor.

### 5.2.2 Internal Audit

We endorse the analysis and recommendation of the Austrian Court of Audit regarding the internal audit issue, as integrally reported below:

*“The basic audit principles for internal audit should*

- ensure that the internal audit is part of the overall control system of the Pension Fund and;*
- define the reporting requirements.*

*The External Auditors were informed that an internal audit was conducted on the Pension Fund's internal trading activity. The report was issued in September 2007 and highlighted a number of weaknesses.*

*The External Auditors noted that no validation or comments on issues raised in this report have been received. This situation has been justified due to the restructuring process of the Pension Fund. The External Auditors were informed that the new Governing Board would deal with the issues raised in the internal audit report.*

*The restructuring of the Pension Fund led to a widely autonomous status of the Pension Fund. In this circumstance the involvement of CERN internal audit regarding the Pension Fund was not properly addressed.*

*The External Auditors are of the opinion that due to the fact that CERN and its Pension Fund form one legal entity the internal audit should be entitled to perform audits in all areas of CERN including its Pension Fund. This would ensure the overall target to improve CERN's internal control system and to avoid any white spots of unaudited areas.*

*The External Auditors are aware that the reporting lines of the internal audit are dependent on the area audited (CERN or CERN Pension Fund). While internal audit reports to the Director General on audits performed on CERN core activities, internal audit should report to equivalent executive bodies of the Pension Fund on audits performed on the Pension Fund.*

*The External Auditors recommend that the terms of reference of Working Group 1 should include the task to clarify the roles and responsibilities as well as the reporting line of the CERN internal audit with respect to the Pension Fund. This*

*includes the definition of the internal audit in the Rules and Regulations of the Pension Fund.”*

As stated in paragraph 5.2.1, we have not had the time to analyse the results of the WG1's work on the revised Chapter 1 of the Fund's rules, submitted in a Green paper to Council. Therefore, we would like to highlight that we received the draft green paper in a lapse of time which is not sufficient for expressing a written opinion. However, we fully share the view of our predecessors and, in particular, we recommend that Internal Audit shall fulfil its role independently at the Pension Fund, without any scope limitation.

## **6. FINANCIAL RESULTS FOR THE YEAR**

It is fundamental to highlight that some of the values recorded in 2009 are based on actuarial assumptions which differ from assumptions used in 2008. Therefore, analysing trends during the years or the evolution of certain values from the past year would not be sound and realistic and could lead to erroneous analysis.

Management provided explanation of the impact of the changes to the actuarial parameters between 2008 and 2009 in the Financial Statement under the paragraph “Critical accounting estimates and judgements”.

The Fund net result as at 31 December 2009 resulted equivalent to 313,8 MCHF (2008: -1.024,3 MCHF), with Net assets available for benefits equivalent to 3.903,5 MCHF.

The net result of 313, 8 MCHF is given by deducting from the positive result of the 2009 Investment (Income minus Expenses is equivalent to 472,9 MCHF) the outcome of the contributions minus benefits and payments which is negative is and equivalent to -159,1 MCHF.

The Council decided at its 135<sup>th</sup> Session held on 15 and 16 December 2005 to reduce the technical rate from 5.5% to 4.5% as of 1 January 2005.

At 31 December 2008 the technical deficit<sup>3</sup> applying a technical rate of 4.5%, was -1.345 MCHF compared to -274 MCHF as at 31 December 2007.

This year the technical deficit, equivalent to 2.596,9 MCHF, has been determined using as actuarial assumptions the discount rate based on the 30-years Swiss government bonds' value at 31 December 2009 equivalent to 2,55%, as recommended by us in our 2008 Report.

Because of the negative performance of the Fund during the year 2008, the funding ratio (percentage of the coverage of the actuarial commitments by the net assets) decreased from 94,4% on 31 December 2007, to 72,7% on 31 December 2008 and to 60,1% on 31 December 2009.

Although the drop from 72,7% to 60,1% was mainly due to the use of a different discount rate in comparison to the other years, given the relevance of this negative performance, it is also important to draw the attention to the Consulting Actuary's Report for the Year 2009 that considered "unsatisfactory" the financial situation for the Fund at 31 December 2009 with a funding ratio of 60,1% and assessed "considerable" the under-funding of 2.596,9 MCHF (39,9% of the provident and technical provision).

Furthermore the Actuary Report highlighted the fact that "*if the PF had had to be liquidated at this date, it would have cost Member States 2.596.9 MCHF, according to the statutory guarantee of benefits according to article I 3.03*"

Furthermore, it is also important to highlight that PWC, in their opinion, stated that "*without qualifying our opinion, we draw your attention to the fact that the financial statements show a funding gap of CHF 2.596.850.417 and a funding ratio of 60,1% 72,7% (31.12.2008: 72,7%) based on the CERN accounting policy [discount rate of 2,55%]. Measures to remedy this funding gap are currently being examined by an Advisory Group set-up by the CERN Council*".

We share the view stated in the Actuary's Report and by PWC and we consider the situation of the underfunding to be critical and we therefore welcome the

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<sup>3</sup> Technical deficit (2008: -1.345MCHF; 2007:-274 MCHF) is given deducting from the value of the Net Provident Assets (2008: 3.590 MCHF above mentioned; 2007:4.614MCHF) the "provident Capital and Technical Provisions" (2008:4.935MCHF; 2007: 4.888 MCHF)

Council initiative to establish an Advisory Group to analyse the historical reasons of the actual underfunding and propose corrective actions to the Council itself.

Moreover, in order to increase transparency, we recommend that the Actuary's Report should be brought to the Council's attention directly in the Financial Statements or indirectly, through a specific document where Management would carry out its detailed analysis.

## **6.1 Financial Risks versus Performance**

In the 2009 Financial Statements the Management dedicated an extensive Paragraph to the Financial Risk factors (Paragraph 2.3). These risks factors are the market risk (including price risk, currency risk, interest rate risk), credit risk and liquidity risk. They are listed individually in subparagraphs and assessed independently. Furthermore is stated that “ (...) *the Fund measures the degree of risk of its investments by making a quarterly calculation of 'value at risk' to estimate the maximum potential loss under normal market conditions*”. Even though we are of the opinion that such a paragraph enhanced the level of transparency of the information provided to the readers, we recommend improving the level of information already provided, by also mentioning how these risks could interact with one another and what their impact under abnormal market conditions might be. At the time of the issuance of our report, for example, the market conditions in Europe are particularly problematic and rendered more complex by an extremely high market risk.

However, for instance, it is not stated that the maximum market risk for the derivatives (ref.paragraph 2.5 .4) lies in the notional amount, equivalent to 1.433,6 MCHF, a risk that can effect more than 30% of the Assets.

Therefore, by increasing the level of such information in the Financial Statements, the Council could be better informed for taking decisions.

It is worth mentioning that this issue of financial risks inherent to a Capitalised Fund was extensively analysed by the Working Group II that presented its report to the PFGB which, in turn, presented it to the Council; in this Report it is mentioned (paragraph 4.3) that “*based on these long-term results [30-year period], which include the worst return ever recorded by the Fund, WGII maintains the view that a 5% return on investment is achievable given that, (...) , the Fund is not a*

*standalone entity and is therefore not obliged to follow a minimum risk policy”* Furthermore, in the WG II report it is also stated *“by investing in a diversified portfolio over a full business cycle (15 to 20 years), the PF could legitimately be expected to achieve a net return of 5%”*.

In order to provide transparent information to the decision-makers, we recommend the Management to show in a table what was the Assets composition, the financial risks and the performance achieved every year in the 30-year period taken as reference.

Moreover, considering that, 10 years ago, highly speculative financial instruments did not exist, we also recommend making a comparison between these values related to annual performances with the performance that the Pension Fund would have gained with a “minimal -risk” investment policy for the same past 30-year (for example, Swiss governmental bonds).

We are of the opinion that Council should be given all the possible elements in order to understand financial risks and to decide on an appropriate policy for solving the problems related to the underfunding.

## **7. AUDIT RESULTS**

### **7.1 Current accounts and Deposits**

In accordance with the International Standards on Auditing 505 stating *“Audit evidence obtained directly by the auditor is more reliable than audit evidence obtained indirectly or by interference (...) examples of situations where external confirmations may be used include bank balances and other information from bankers”*, we asked all the banks declared to have a business relation with the CERN Pension Fund to confirm current accounts and deposits balances as at 31 December 2009.

As for the deposits and the current accounts “out of State Street” we received all the banks’ confirmation letters by April, the reconciliation was performed and all variances were justified and explained. We did not observe any errors and the amounts recorded in the balance sheet are thus verified and confirmed.

Regarding State Street, the global custodian, we refer to what stated in paragraph 5.1.2 and we thus recommend a formal review of the accounting entries and adjustments at year end.

As also specified last year and in our Report on the 2009 CERN Financial Statements, we observed again that the exchange rates for certain foreign currencies at the closing date used by CERN differed from those same currencies utilized by the Pension Fund. This year, Management reported in paragraph 2.4 d) the different exchange rates for a five foreign currencies. However, the effects of these differences in the Accounts have not been disclosed. Since IPSAS have the objective, amongst others, to enhance, the comparability of financial statements and considering the fact that the two Financial Statements are interrelated, we renew our recommendation to employ the same foreign exchange rates for both entities. As a minimum requirement, the effect of the different exchange rates for different currencies should be disclosed, in order to allow to assess whether such differences are material or not for the accounts. We consider that, for a public funded International Organization, a generally world-wide rate accepted as official, published by public institutions such as, for example, the Swiss National Bank or the European Central Bank, could be more appropriate.

## **7.2. Investment properties local auditors selection**

The Pension Fund real estate portfolio consists of commercial and residential properties located respectively in Geneva, Berlin, the Netherlands, France and in the U.K. During the year 2008 two buildings in Paris, offices shops and residential, were acquired.

Real estate is managed locally by experts and, on a yearly basis, audited by local auditors.

This year we observed that PWC sent to real estates' local auditors a package of instructions on how to report in compliance with the International Standards on Auditing (ISA). Such instructions were not discussed with us as principal auditor. As a matter of fact, we noted that they modified the materiality thresholds that local auditors had to apply during their audits and this had an impact on the audit findings and, potentially, on the audit opinions expressed by the local auditors. Although we understand that the Management, being the auditee, is not responsible for the PWC's

initiative, we therefore recommend to the Pension Fund Governing Board to specify in the terms of reference of the tendering process for the selection of the specialized auditor, and in the subsequent contract, a specific clause that any different instruction should be agreed beforehand with the principal auditor.

## **8. FOLLOW UP OF RECOMMENDATIONS 2004 – 2008**

Following the request of the Council to examine and adopt the external auditor's recommendations for the past, we have reviewed all past recommendations that were still outstanding, either issued by our predecessors or by us in 2008.

In Annex 1 we listed two categories of recommendations:

- a) the recommendations that are still pending (not dealt with) or still ongoing (in progress);
- b) the recommendations that we now consider as completed.

In addition, Annex 1 also includes the comments received from the Pension Fund Management at the time of the issuance of the corresponding Report and the latest status on actions taken by Management.

Some of the Austrian's recommendations as well as the recommendations that we issued have not been implemented; therefore we recommend the Management to take the necessary action in respect of these recommendations so as to improve the effectiveness and efficiency of financial and administrative matters.

ANNEX 1

Report	Recommendation raised By Austrian Court of Audit 2004-2007	Comments received from CERN Management at the time of the issuance of the report	Status on actions taken by Management as reported by Austrian Court of Audit	Comments received from CERN Management related to 2009 Report	Status on actions taken by Management as evaluated by Italian Court of Audit
2004	<p><b><u>Organizational matters of the Pension Fund</u></b> With reference to a Working Group established in 2004 on the procedures for council appointments to the Governing Board of the Pension Fund and on the Term of Office of Members and Alternates the External Auditors recommended that efforts should continue to be made to implement an efficient organizational structure for the Pension Fund with clearly defined and separate roles and responsibilities of all members of the Pension Fund's bodies.</p>	No comment.	The procedures for the establishment of a new Pension Fund governance structure, including the roles and responsibilities of the Pension Fund's bodies and their members, is set out in document CERN/2733/Rev. 22 June 2007. The measures outlined in this document are in the process of being implemented.	New Governance structure implemented by PFGB through Working Groups 1, 2, 3 and 4..	<u>Closed</u>

Report	Recommendation raised By Austrian Court of Audit 2004-2007	Comments received from CERN Management at the time of the issuance of the report	Status on actions taken by Management as reported by Austrian Court of Audit	Comments received from CERN Management related to 2009 Report	Status on actions taken by Management as evaluated by Italian Court of Audit
2005 and 2006	<p><b><u>IT – Management of the Fund</u></b></p> <p>The External Auditors recommended that the Administration of the Fund should continue its efforts with respect to the organizational improvement of the Fund's IT system both on the technical side as well as on the personnel resources. This could also include considerations with respect to the availability of "off-the-shelf" IT-modules for retirement benefit programmes as well as the option for out-sourcing parts of the Fund's administration to specialized service providers.</p>	<p>In order to address this issue and to improve the logistics backup, an IT project was launched in 2005 with the following objectives:</p> <p>Migrate the in-house built computing systems of the Fund towards Organizational standards (Oracle HR);</p> <p>Review and improve available functionality by evaluating standard existing products available on the market.</p> <p>Amongst other things successful implementation of the project will ensure improved operational efficiency in the recurrent functional areas of the Fund and lead to an improvement in data security and quality.</p>	Ongoing	Acquisition of proposed software cancelled by PFGB at its meeting of 5 May 2010. Current system has been enhanced and reinforced to reduce risk. New initiative on benefits management and member communication to be launched.	<u>Ongoing</u>

Report	Recommendation raised By Austrian Court of Audit 2004-2007	Comments received from CERN Management at the time of the issuance of the report	Status on actions taken by Management as reported by Austrian Court of Audit	Comments received from CERN Management related to 2009 Report	Status on actions taken by Management as evaluated by Italian Court of Audit
2005	<p><b><u>Decision taken by the Finance Committee - Package of Equilibration Measures</u></b> The External Auditors noted, that the decision of the Finance Committee, not to support recommendation 5 of the "Package of Equilibration Measures", has an impact on the numerical content of recommendation 6. In the Auditors' view, this decision jeopardises the target of achieving a fully funded situation by end of 2033 (as decided by Council at its 131st Session in December 2004). The External Auditors recommended, that the "Package of Equilibration Measures" should be revised to take into account the impact of not supporting the original recommendation 5. Also, the External Auditors advise, that the financial consequences of limiting the non-indexation of pensions to the year 2005 as set out in recommendation 4, should be reconsidered in the light of the decision of Finance Committee.</p>	No comment.	<p>A new indexation policy has been implemented (Appendix C of the Rules and Regulations) as part of the Package of Equilibration Measures. Regarding the External Auditors recommendation, Working Group 2 is charged with the drafting of a Funding Policy and Funding Principles for the Pension Fund for examination by the Pension Fund Governing Board.</p>	Report by the PFGB on Funding Principles and policy and measures to restore full funding of the CERN Pension Fund (CERN/FC/5432/RA - CERN/2897/RA). Advisory Group set up by CERN Council.	<u>Closed</u>

Report	Recommendation raised By Austrian Court of Audit 2004-2007	Comments received from CERN Management at the time of the issuance of the report	Status on actions taken by Management as reported by Austrian Court of Audit	Comments received from CERN Management related to 2009 Report	Status on actions taken by Management as evaluated by Italian Court of Audit
2005	<p><b><u>Rules and Regulation of the Pension Fund – Pension Policy</u></b></p> <p>The External Auditors noted the absence of the Pension Policy as foreseen in the Rules. The External Auditors recommended that having a sound pension policy is vital and should be considered together with the overall review of the Rules and Regulations of the Pension Fund.</p>	<p>As stated by the Chairman of the Governing Board in his letter of 12 December 2005, “we feel that the Rules and Regulations regarding the Pension Fund clearly establish the existence of a capitalized fund, with carefully described rights and obligations for both the Sponsors and the participants in the Fund”. Nevertheless, to meet the requirements of the Auditors, a statement on Pension Policy will be included in an appropriate form in the next revision of the Rules and Regulations of the Fund.</p>	<p>This recommendation falls within the remit of Working Group 2 which is charged with the drafting of a Funding Policy and Funding Principles for the Pension Fund for examination by the Pension Fund Governing Board.</p>	<p>As stated by the Chairman of the Governing Board in his letter of 12 December 2005, “we feel that the Rules and Regulations regarding the Pension Fund clearly establish the existence of a capitalized fund, with carefully described rights and obligations for both the Sponsors and the participants in the Fund”. Nevertheless, to meet the requirements of the Auditors, a statement on Pension Policy will be included in an appropriate form in the next revision of the Rules and Regulations of the Fund.</p> <p>Report by the PFGB on Funding Principles and policy and measures to restore full funding of the CERN Pension Fund (CERN/FC/5432/RA-CERN/2897/RA). Advisory Group set up by CERN Council.</p>	<p><u>Closed</u></p>

Report	Recommendation raised By Austrian Court of Audit 2004-2007	Comments received from CERN Management at the time of the issuance of the report	Status on actions taken by Management as reported by Austrian Court of Audit	Comments received from CERN Management related to 2009 Report	Status on actions taken by Management as evaluated by Italian Court of Audit
<p><b>2005 and 2006</b></p>	<p><b>Rules and Regulation of the Pension Fund Investment Policy</b> The External Auditors noted the lack of a comprehensive document on investment policy as such, although guidelines exist in a number of various sources. The External Auditors recommended, that having a sound investment policy is vital and all existing guidelines should be consolidated for better understanding in one document –</p>	<p>It is envisaged that a definitive document that takes into consideration all valid contributions towards an optimal Investment Policy for the Fund will be submitted to the Governing Board via the Investment Committee for implementation within the timescale for the introduction of the new Pension Fund governance. Such a document is of high importance for all bodies involved in supervising the Fund's investment policy.</p>	<p>The new Investment Committee will be tasked with the establishment of a comprehensive investment policy to be submitted to the Pension Fund Governing Board for approval.</p>	<p>It is envisaged that a definitive document that takes into consideration all valid contributions towards an optimal Investment Policy for the Fund will be submitted to the Governing Board via the Investment Committee for implementation within the timescale for the introduction of the new Pension Fund governance. Such a document is of high importance for all bodies involved in supervising the Fund's investment policy. Statement of Investment principles policy and guidelines will be submitted to the PFIC by the PFMU in 2010.</p>	<p><u>Pending</u></p>

Report	Recommendation raised By Austrian Court of Audit 2004-2007	Comments received from CERN Management at the time of the issuance of the report	Status on actions taken by Management as reported by Austrian Court of Audit	Comments received from CERN Management related to 2009 Report	Status on actions taken by Management as evaluated by Italian Court of Audit
2005	<p><b>External Audit</b></p> <p>The External Auditors recommended including the basic audit principles in any review of the Pension Fund rules and regulations based on internationally accepted standards. The audit tasks (e.g. legality and regularity of financial management and accounting as well as the performance, economy, efficiency and effectiveness of the Fund's administration) should be determined accordingly. The revised rules and regulations should ensure, that the External Auditors are appointed by and responsible only to Council and fully independent from the management of the Fund.</p>	<p>In line with the recommendation of the Auditors, the review of the Rules and Regulations of the Fund (see point 10.2.1) will formalise the audit tasks, including audit of the financial status and the management of the Pension Fund, compliance with the Fund's investment and funding policy and other relevant regulations and guidelines. These formalised audit tasks will be based on fundamental audit principles and international auditing standards to be executed by fully independent auditors who are appointed by, and responsible only to, Council.</p>	<p>This recommendation falls within the remit of Working Group 1 which is charged with the revision of Chapter 1, Section 2 of the Rules and related Regulations for examination by the Pension Fund Governing Board.</p>	<p>In line with the recommendation of the Auditors, the review of the Rules and Regulations of the Fund (see point 10.2.1) will formalise the audit tasks, including audit of the financial status and the management of the Pension Fund, compliance with the Fund's investment and funding policy and other relevant regulations and guidelines. These formalised audit tasks will be based on fundamental audit principles and international auditing standards to be executed by fully independent auditors who are appointed by, and responsible only to, Council. Amendment to Chapter 1, Section 5- Audit, of the Fund's Rules was approved by the PFGB at its meeting of 5 May 2010. Recommended to CERN Council for approval at its June session.</p>	<p><u>Ongoing</u></p> <p>PFGB presented a Document to the Council for Approval</p> <p>We received the document with a too short notice to express a written opinion (refer to paragraph 4.1 and 5.2.1)</p>

Report	Recommendation raised By Austrian Court of Audit 2004-2007	Comments received from CERN Management at the time of the issuance of the report	Status on actions taken by Management as reported by Austrian Court of Audit	Comments received from CERN Management related to 2009 Report	Status on actions taken by Management as evaluated by Italian Court of Audit
2005	<p><b><u>Internal Audit</u></b> The External Auditors note that internal audit is an essential part of the overall internal control system of the Organization. Therefore the External Auditors recommended formalising the internal audit function in any review of the Pension Fund rules and regulations. Based on the principles of independence and objectivity, the responsibilities and competencies of the internal audit function should be determined according to internationally accepted standards.</p>	<p>The Administration recognises the important role played by the Internal Audit service as part of the overall control system of the Pension Fund. The formalisation of this role, based on the principles of independence and objectivity, will be considered in the review of the Rules and Regulations of the Fund within the general audit context.</p>	<p>This recommendation falls within the remit of Working Group 1 which is charged with the revision of Chapter 1, Section 2 of the Rules and related Regulations for examination by the Pension Fund Governing Board.</p>	<p>The Terms of Reference of the Working Group will be established with respect to the recommendations concerning External and Internal Audit. Amendment to Chapter 1, Section 5- Audit, of the Fund's Rules was approved by the PFGB at its meeting of 5 May 2010. Recommended to CERN Council for approval at its June session.</p>	<p><u>Ongoing</u> PFGB presented a Document to the Council for Approval  We received the document with a too short notice to express a written opinion (refer to paragraph 4.1 and 5.2.2)</p>

Report	Recommendation raised By Austrian Court of Audit 2004-2007	Comments received from CERN Management at the time of the issuance of the report	Status on actions taken by Management as reported by Austrian Court of Audit	Comments received from CERN Management related to 2009 Report	Status on actions taken by Management as evaluated by Italian Court of Audit
2006	<p><b>Special regulations and provisions</b></p> <p>The External Auditors noted that occasionally special regulations and provisions are put in force by the governing bodies for implementation by the Administration of the Pension Fund. These special regulations and provision date back to past decades. We noted that currently no comprehensive document exists indicating the special regulations and provisions granted including their validity and duration.</p> <p>We recommend that following an evaluation process all limits, special regulations and provisions put in place for the management of the Fund should be properly documented and periodically reviewed.</p>	<p>There is merit in the production of a document that reiterates and reviews these special regulations and provisions and consistent with the Auditors' recommendations the Administration will prepare once a year an appropriate format for approval by the Investment Committee in order to update systematically decisions which may have been taken.</p>	<p>The External Auditors have been informed that a review process took place. Following the interim audit a comprehensive document has been established which will be circulated to all IC Members for information</p>	<p>There is merit in the production of a document that reiterates and reviews these special regulations and provisions and consistent with the Auditors' recommendations the Administration will prepare once a year an appropriate format for approval by the Investment Committee in order to update systematically decisions which may have been taken.</p> <p>The issue of Special regulations and provisions will be subsumed in the Statement of Investment principles policy and guidelines to be submitted to the PFIC by the PFMU in 2010.</p>	<p><u>Ongoing</u></p>

Report	Recommendation raised By Austrian Court of Audit 2004-2007	Comments received from CERN Management at the time of the issuance of the report	Status on actions taken by Management as reported by Austrian Court of Audit	Comments received from CERN Management related to 2009 Report	Status on actions taken by Management as evaluated by Italian Court of Audit
2006	<p><b><u>Liabilities of Internal Managers</u></b></p> <p>The External Auditors would like to draw the attention to the fact that in case of fraud and errors occurring in funds handled by external managers the liabilities for compensation for damages lies with the external manager while in cases of fraud and errors arising in funds handled internally the risk lies with CERN and ultimately the member countries.</p> <p>The External Auditors recommended considering strategies to address this potential risk.</p>	<p>The Fund will explore, as recommended by the Auditors, initiatives to further address this issue, which among others, could entail daily compliance monitoring and liability insurance cover.</p>	<p>Daily compliance reports have been introduced, while contracting a liability insurance turned out - according to the Administrator of the Fund - would be feasible but the cost may be prohibitive. The telephone lines of the internal manager for investment deals will be recorded.</p> <p>A list of brokers has been established. In addition, the brokers were informed that two staff members are authorised to perform trading activities.</p> <p>The investment committee is involved in the broker selection process.</p>	<p>The Fund will explore, as recommended by the Auditors, initiatives to further address this issue, which among others, could entail daily compliance monitoring and liability insurance cover.</p> <p>The following measures have been introduced:</p> <ul style="list-style-type: none"> <li>• Daily compliance reporting for internal funds</li> <li>• list of authorized brokers established</li> </ul> <p>list of internal persons authorized to trade with limits established system to record telephone investment deals being installed.</p>	<p><u>Closed.</u></p> <p>Management implemented the issue and we will follow up the implementation.</p>

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2006	<p><b><u>International Public Sector Accounting Standards (IPSAS)</u></b></p> <p>The adoption of IPSAS can be seen as one of the greatest challenges the Pension Fund has to face in the coming years.</p> <p>✓ The External Auditors recommended that: a roadmap for the implementation of IPSAS should be established;</p> <p>✓ cooperation with the responsible department for the implementation of IPSAS at CERN should be initiated to ensure a coordinated approach;</p> <p>✓ the Financial Rules and Regulations should be updated accordingly to reflect the compulsory application of IPSAS.</p>	<p>The Pension Fund accounting policy is in line with International Accounting Standards (IAS) by having adopted a mark to market policy. Nevertheless, on the Liabilities' side of the balance sheet, regarding IPSAS, IAS 19 will be one of the major issues for actuarial valuation of the liabilities. In addition to traditional actuarial valuation based on long-term hypothesis as determined by the Council, the Pension Fund will provide the financial position based on IAS 19 for information purposes. With respect to the other items, the Pension Fund will address them by consulting other international Pension Funds.</p>	<p>The Pension Fund has adopted IPSAS with a work plan aiming at full implementation for the year-end 2008. Working Group 1 will incorporate this initiative into its re-drafting of the Financial Rules and Regulations.</p>	<p>The Pension Fund accounting policy is in line with International Accounting Standards (IAS) by having adopted a mark to market policy. Nevertheless, on the Liabilities' side of the balance sheet, regarding IPSAS, IAS 19 will be one of the major issues for actuarial valuation of the liabilities. In addition to traditional actuarial valuation based on long-term hypothesis as determined by the Council, the Pension Fund will provide the financial position based on IAS 19 for information purposes. With respect to the other items, the Pension Fund will address them by consulting other international Pension Funds.</p> <p>International Public Sector Accounting Standards were adopted by the Fund for its 2008 Financial Statements.</p> <p>Amendment to Chapter 1, Section 4-Article I.4.02, of the Fund's Rules was approved by the PFGB at its meeting of 5 May 2010. It stipulates that 'The Fund's accounts shall be prepared and presented by the Chief Executive Officer in accordance with the International Public Sector Accounting Standards, hereinafter referred to as IPSAS'. Recommended to CERN Council for approval at its June session.</p>	Ongoing.

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<p><b>2007</b>  (refer also to 2005)</p>	<p><b>External Audit</b> The External Auditors recommend that Terms of Reference for the newly established Working Group should be defined in order to meet the expectations of the Governing Board at its best. The terms of reference should inter alia refer to the issue of two External Auditors and address this issue to be in line with international accepted standards.</p>	<p>The Terms of Reference of the Working Group will be established with respect to the recommendations concerning External and Internal Audit.</p>	<p>This recommendation falls within the remit of Working Group 1 which is charged with the revision of Chapter 1, Section 2 of the Rules and related Regulations for examination by the Pension Fund Governing Board.</p>	<p>The Terms of Reference of the Working Group will be established with respect to the recommendations concerning External and Internal Audit. Amendment to Chapter 1, Section 5- Audit, of the Fund's Rules was approved by the PFGB at its meeting of 5 May 2010. Recommended to CERN Council for approval at its June session.</p>	<p><u>Ongoing.</u> PFGB presented a Document to the Council for Approval  We received the document with too short notice to express a written opinion (refer to paragraph 4.1 and 5.2.1)</p>

Report	Recommendation raised By Austrian Court of Audit 2004-2007	Comments received from CERN Management at the time of the issuance of the report	Status on actions taken by Management as reported by Austrian Court of Audit	Comments received from CERN Management related to 2009 Report	Status on actions taken by Management as evaluated by Italian Court of Audit
2007	<p><b><u>Internal Audit</u></b> The External Auditors recommend that the terms of reference of the newly established Working Group should include the task to clarify the roles and responsibilities as well as the reporting line of the CERN internal audit with respect to the Pension Fund. This includes the determination of the internal audit in the Rules and Regulations of the Pension Fund.</p>	<p>The Terms of Reference of the Working Group will be established with respect to the recommendations concerning External and Internal Audit.</p>	<p>This recommendation falls within the remit of Working Group 1 which is charged with the revision of Chapter 1, Section 2 of the Rules and related Regulations for examination by the Pension Fund Governing Board.</p>	<p>The Terms of Reference of the Working Group will be established with respect to the recommendations concerning External and Internal Audit. Amendment to Chapter 1, Section 5- Audit, of the Fund's Rules was approved by the PFGB at its meeting of 5 May 2010. Recommended to CERN Council for approval at its June session.</p>	<p><u>Ongoing.</u> PFGB presented a Document to the Council for Approval  We received the document with too short notice to express a written opinion (refer to paragraph 4.1 and 5.2.2)</p>

Report	Recommendation raised by Italian Court of Audit	Comments received from CERN Management	Status on actions taken by Management as evaluated by Italian Court of Audit
2008	<p><b><u>Internal Control Environment</u></b>            In PWC’s Management Letter, while recognizing, on the one hand, that the PFGB has actively assumed its leadership function to identify appropriate investment strategies considered by them as adequate for the Fund’s current risk capacity, they, on the other hand, considered that the PFGB has to develop a clear strategy and define measures to remedy the funding gap, in spite of the fact that CERN and ESO guarantee the benefits acquired under the provisions of the Rules.            “With respect to the internal control system, controls are in place, however some organizational and administrative procedures are not always documented although controls are in performed.”.</p>	<p>The management responded that ‘The document ‘Report of the Study Group on Pension Fund Governance’ (CERN/2733/Rev.) affirms that ‘the extent and legal status of CERN and ESO guarantee for pension entitlements and benefits (in proportion to their respective members and beneficiaries)’ as well as ‘the enforcement of the guarantees’ must be specified in the Fund Rules and/or policy statements and decisions. This issue as well as measures to remedy the funding gap fall within the remit of Working Group 2 which will report to the PFGB.            The Management responded that “The documentation of all organizational and administrative procedures will be addressed as a matter of priority as part of the self-assessment process to be recommended to the PFGB by Working Group1”.</p>	<p><u>Ongoing</u>            Refer to par. 5.1.</p>

Report	Recommendation raised by Italian Court of Audit	Comments received from CERN Management	Status on actions taken by Management as evaluated by Italian Court of Audit
2008	<p><b><u>Current accounts and Deposits</u></b></p> <p>As also specified in the Report on the Accounts of CERN for 2008, we found that the exchange rates for certain foreign currencies at the closing date used by CERN differed from those same currencies utilized by the Pension Fund and, what is more, in some cases they both differed from the Swiss National Bank's official exchange rates. Since IPSAS have the objective to enhance, among other issues, Comparability of financial statements and considering the fact that the two Financial Statements are interrelated, we thus recommend to employ the same foreign exchange rates for both Entities. We consider that for a public funded International Organization a generally world-wide rate accepted as official, published by public institutions such as, for example, the Swiss National Bank or the European Central Bank could be more appropriate.</p>	<p>Please refer to the document CERN/FC/5342 – CERN/2845 – “Report by the External Auditors on the Accounts of the CERN Pension Fund for the Financial YEAR 2008 - Comments by the Administration of the Fund.</p> <p>A detailed response to this recommendation is given in the document CERN/FC/5342 – CERN/2845 – “Report by the External Auditors on the Accounts of the CERN Pension Fund for the Financial YEAR 2008 - Comments by the Administration of the Fund”. Briefly;</p> <ul style="list-style-type: none"> <li>•the Fund uses the foreign exchange rates supplied by its global custodian – this is considered best practice in the pension fund industry</li> <li>•the source of these rates is Reuters World Markets, a recognized market standard</li> <li>•use of the Swiss National Bank or European Central Bank would create problems in terms of timing and availability of rates quoted.</li> <li>•use of different sources of exchange rates for year-end valuation and the valuation of foreign exchange contracts, used for currency hedging, would generate artificial gains or losses</li> <li>•Comparison of the Fund's financial statements under IPSAS, are best made with other pension funds who share the same activities and goals.</li> </ul> <p>In addition, in the Fund's Financial Statements for the year 2009 under the heading “Critical Accounting estimated and judgements” a table is provided indicating the exchange rates used by the Fund at the year-end and also the rates from the European Central Bank.</p>	<p><u>Pending</u></p> <p>(please refer to paragraph 7.1 of the report).</p>

Report	Recommendation raised by Italian Court of Audit	Comments received from CERN Management	Status on actions taken by Management as evaluated by Italian Court of Audit
2008	<p><b><u>Program access management</u></b></p> <p>We recommend to implement personalised user accounts to restrict system access and secure data. Such a measure will decrease the risk of a non-authorized access and also ensure a traceability of changes.</p> <p>Besides, a password change every three months is further recommended.</p>	<p>Consultation with the suppliers of the accounting system 'Winway' has confirmed that it is not technically possible to implement personalised user accounts within this application. Given the access controls which exist currently in respect of each workstation (system enforced personalised login and password changes) and the small number of people using the system (three staff members) it is considered that the probability of an undetected, unauthorized intervention is low. Nevertheless if and when a new version of the application becomes available that permits personalized user accounts this option will be taken up by the Fund.</p> <p>The existing benefits application, although requiring a personalised password to access the system, cannot enforce a periodic password change. The feasibility of this recommendation will be considered on installation of the new benefits computing system.</p> <p>Situation endorsed by the PFGB at its meeting held on 30 March 2010. The current system has been enhanced and reinforced to reduce risk This issue will be taken into account when implementing any new solutions in this domain.</p>	<p><u>Ongoing</u></p>

Report	Recommendation raised by Italian Court of Audit	Comments received from CERN Management	Status on actions taken by Management as evaluated by Italian Court of Audit
2008	<p><b><u>Segregation of Duties in the IT Systems. Development – go live</u></b></p> <p>There is no segregation of duties since an external consultant performs the development and go live of applications. ...The CERN Pension Fund IT is fully dependant on an external consultant.</p> <p>We recommended to reduce dependence towards IT external consultancies and to implement effective segregation of duties.</p>	<p>The present solution, which has been endorsed by the Pension Fund Governing Board (PFGB), has worked satisfactorily over the years. The external consultant, being independent of the Fund, cannot personally benefit from any unauthorized modification of an application.</p> <p>Nevertheless the new computing system will reduce dependence on the consultant and will effectively ensure a segregation of duties between development and implementation phases and will in general substantially reduce risk in this area.</p> <p>Acquisition of proposed software cancelled by PFGB at its meeting of 5 May 2010.</p> <p>Situation endorsed by the PFGB at its meeting held on 30 March 2010. The current system has been enhanced and reinforced to reduce risk. This issue will be taken into account when implementing any new solutions in this domain and in the development of the Internal Control System.</p>	<u>Ongoing</u>

Report	Recommendation raised by Italian Court of Audit	Comments received from CERN Management	Status on actions taken by Management as evaluated by Italian Court of Audit
2008	<p><b><u>Assumptions used to calculate the actuarial present value of retirement</u></b></p> <p>We are of the opinion and we consequently recommend, that the actuarial assumptions to be employed should be based on realistic economic assumptions calculated on market values.</p>	<p>Please refer to the document CERN/FC/5342 – CERN/2845 – “Report by the External Auditors on the Accounts of the CERN Pension Fund for the Financial YEAR 2008 - Comments by the Administration of the Fund.</p> <p>The PFGB at its meeting on 18 February 2010 approved the use of two sets of actuarial assumptions for depicting the Pension Fund’s liabilities in the 2009 financial statements: a market-based set of assumptions as proposed in the agenda document, and the set of assumptions used in the report by Working Group 2, reflecting a long-term view.</p>	<u>Closed</u>
2008	<p><b><u>SCI- Monitoring – Independent controller</u></b></p> <p>Financial activities are carried out either by external or internal managers who are supervised by the Pension Fund administration. Given the small number of administrative employees the control activity is not independent from the operational department. We recommended to implement a self-assessment process in order to ensure compliance with internal procedures, limits and restrictions decided by the Investment Committee, transactions validity, cash movements validity.</p>	<p>Following a thorough review of the Internal Control System (ICS) Working Group 1 will shortly make a recommendation to the PFGB that high priority be given to a self-assessment process within the Fund covering all aspects of internal procedures including transactions and cash movements validity. Furthermore, in the course of setting the Investment Principles of the Fund the IC will address the question of limits and restrictions.</p> <p>Internal Control System to be presented to the PFGB at its meeting in September 2010.</p>	<u>Ongoing</u>

<b>Report</b>	<b>Recommendation raised by Italian Court of Audit</b>	<b>Comments received from CERN Management</b>	<b>Status on actions taken by Management as evaluated by Italian Court of Audit</b>
2008	<b>Review of the portfolio valuation</b>	<p>The Fund has retained these securities within its portfolio in order to benefit from possible future claims and distributions. The Fund's global custodian, State Street Bank GmbH, who monitor corporate actions on behalf of the Fund have advised us that to remove these titles from our portfolio would mean that Fund waives the aforesaid claims and distributions as the titles would no longer be effectively held in State Street's custody. Indeed in such a scenario the custodian would require the Fund to sign a waiver to this effect. The Fund will discuss this issue further with the custodian with a view to finding a solution which will satisfy valuation requirements while at the same time retaining rights to possible future economic benefits.</p> <p>Given that the Fund invests in private equity funds whose financial reporting dates are the same as that of the Fund it is unlikely that valuations based on audited financial statements as at 31 December will be always be available. This issue is dealt with under 'Critical Accounting Estimates and Judgements' in the Annual Report where the basis for the Fund's valuation of private equity investments and the nature of the uncertainty with regard to these values is stated. It is likely that similar disclosure will be required in future in respect of these investments. However, it should be noted that the valuations based on the latest audited financial statements are reported to the IC at the earliest opportunity.</p> <p>Valuation of private equity investments disclosed under "Critical accounting estimates and judgements".</p>	<u>Closed</u>

Report	Recommendation raised by Italian Court of Audit	Comments received from CERN Management	Status on actions taken by Management as evaluated by Italian Court of Audit
2008	<p><b>Investment properties local auditors selection</b> Real estate is managed locally by experts and, on a yearly basis, audited by local auditors. We observed, as also reported by PriceWaterhouseCoopers, that some local auditors were re-elected without any formal engagement letter and no criteria were defined by the management regarding their selection.</p>	<p>Henceforth the Fund will request an annual engagement letter from the local auditors and will ensure that the content is consistent with the requirements of International Standards of Auditing and that reference is made to the independence and qualifications of the auditors. Furthermore the Fund will write to all local auditors reminding them of the necessity to meeting reporting deadlines in the future. All real estate auditors were obliged to supply a formal engagement letter in respect of the 2009 audit. The content was consistent with the requirements of International Auditing Standards and made specific reference to the auditors' independence and qualifications.</p>	<p><u>Closed for year 2009.</u></p>
2008	<p><b>Investment properties expert selection</b> No formal engagement letter is annually requested and no criteria are defined by the management regarding the selection of experts. Request an annual engagement letter which requires compliance with IPSAS criteria and defines quality criteria for expert designation (independence, qualifications ...).</p>	<p>Henceforth the Fund will request an annual engagement letter from the valuation experts specifying compliance with IPSAS and attesting to their independence and qualifications. Engagement letters meeting the required criteria were received from all valuation experts.</p>	<p><u>Closed for year 2009</u></p>

Report	Recommendation raised by Italian Court of Audit	Comments received from CERN Management	Status on actions taken by Management as evaluated by Italian Court of Audit
2008	<p><b>Investment properties valuation</b></p> <p>With regard to the valuation of the investment property, by sampling the valuation methods, we found that each expert applies the valuation method used in his respective country. Valuation principles consequently differ between countries, and, according to IPSAS 16, current prices on an active market are the best evidence of fair value. In the absence of current market prices and prices on less active markets, discounted cash flow projections should be used.</p>	<p>The Fund will write to each valuation expert imposing the valuation methods consistent with the provisions of IPSAS 16.</p> <p>Instructions were issued to all external real estate experts in order to have a consistent valuation approach compatible with the requirements of IPSAS 16.</p>	<p><u>Closed for year 2009</u></p>
2008	<p><b>Risk management – strategic decision</b></p> <p>Strategic decisions (strategic allocation, tactical margin and investment drivers) are essentially based on qualitative analysis. We recommended implementing quantitative measurement of market risks taken by the PF such as VaR and stress analysis.</p>	<p>Quantitative analysis is performed with regard to strategic asset allocation where the Fund uses the consultants Ortec who are recognized as having wide expertise in the quantitative field as applied to pension funds. The Fund is considering setting up tactical margins based on tracking error constraints. With regard to investment drivers the Fund has access to external research and analysis that include quantitative aspects.</p> <p>The Fund already obtains regular VaR reports from its custodian. Additionally the Fund is working on introducing additional and deeper analysis with the use of the product Algorisk proposed by State Street. Steps have already been taken in this direction. Implementation should be effective in 2009 Q2 and should enable stress-tests and what-if analysis to be carried out.</p> <p>Implementation of quantitative measurement in progress.</p>	<p><u>Ongoing</u> (see par. 5.1.4).</p>

