CERN/2670
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2 MAY 2005

ORGANISATION EUROPÉENNE POUR LA RECHERCHE NUCLÉAIRE
CERN EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH

CAISSE DE PENSIONS / PENSION FUND

ANNUAL REPORT

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EUROPEAN ORGANISATION FOR NUCLEAR RESEARCH

PENSION FUND

ANNUAL REPORT 2005

Preface by the Chairman

The year 2005, my last as Chairman of the Governing Board, was a very important one for the Pension Fund. Following extensive discussions at the Governing Board, it witnessed the Council's approval of a first package of measures designed to counter unfavourable long-term trends in the Fund's actuarial position caused, in particular, by structural aspects of the provident scheme whose high cost had hitherto been obscured by the good results of the 1990s.

Taking account of this overall situation and with a view to the preparation of a second set of measures, the Council decided to initiate a comparison of the CERN Pension Fund's benefits with other comparable European pension funds. It also commissioned a comprehensive review of the current Rules and Regulations of the Fund, as well as a new actuarial review at the end of 2006, to be available by mid-2007, all of which will form the basis for further decisions on various issues including, possibly, the contribution rate.

The Fund's performance of 12.4% in 2005 is an excellent result that is all the more gratifying since it will significantly improve the funding ratio in closed fund terms. Nevertheless, a single year, however excellent, is not enough to redress long-term imbalances, and it is highly probable that we have seen an end to the prospect of substantial satisfactory long-term performance that the years of high return at the end of the twentieth century appeared to promise. We must thus remain vigilant and make sure that risk is properly assessed, particularly given the maturity of the CERN Pension Fund and a climate which, although still dynamic, as witnessed by the good returns achieved, is not without a degree of instability, taking account of the world geopolitical situation, the explosion in oil prices, the increasing price of raw materials and rising interest rates in the United States.

The 2005 Annual Report provides all the information required to build up a clear picture of the Pension Fund. I trust that you will find it duly informative.

Finally, I should like to thank the Administrator of the Fund and all the members of his team for their hard work and support during my term of office as Chairman of the Governing Board.

J. Bezemer

1 Operation of the Fund's Bodies

1.1 Governing Board

The Governing Board met ten times in 2005. In addition to regular business such as reports from the Investment Committee, approval of the Annual Report, reports from the Working Group on Actuarial Matters and the External Auditors' report, these meetings were devoted, in particular, to drawing up a package of measures for proposal to the Council with a view to restoring the long-term balance of the Fund based on the results of the 2001-2003 actuarial review.

At its first meeting of the year on 18 January, the Governing Board took note that the new, more realistic parameters chosen (see table, page 5) resulted in a deterioration of the balance of the Fund. It reiterated its commitment to improving the technical balance of the Fund and, to that end, decided to examine an overall package of measures to be ready for the middle of the year 2005. At its following meeting, the Board underlined its determination to first stabilise the funding ratio at its current level of around 88% through corrective measures designed to prevent any further deterioration. Subsequently, the objective will be to restore the funding ratio to over 100% on a lasting basis. Although these two steps are complementary, they require different approaches since they are not of the same urgency. The first step must have a relatively rapid impact, whereas the second step can be implemented over a longer period. From the outset, the Governing Board was convinced of the need to involve all parties to the Fund (beneficiaries, active members and the Organization) in the measures taken as equitably as possible. During this second meeting of the year, the Governing Board further took note of the new financial parameters required for the Asset/Liability Modelling (ALM) study. These parameters were to serve as an indication to ORTEC, the company entrusted with drawing up the asset allocation models, of the performance expected from the various asset classes over the next ten years. These expectations are linked to the current climate on the financial markets and our projections, which are characterised by low-inflation and low interest rates. As a consequence, the expected returns from the various asset classes were lowered (see Table 4, Chapter 4.2 of the Annual Report).

At its meetings during the spring, the Governing Board was informed of the likely impact of various measures under consideration. For example, a one percentage point increase in contributions would bring about an improvement in the funding ratio over 30 years of around 5 percentage points. Although it is true that increasing the Fund's income through higher contributions has a non-negligible effect on the balance of the Fund, the most significant impact overall, given the Fund's maturity, derives from measures aimed, for example, at reducing expenditure through partial indexation of pensions. A one-off under-indexation of pensions of one percentage point in the first year of the projection, for example, generates an increase of around 2 percentage points in the final funding ratio.

The Governing Board was also informed of an appeal by a large number of pensioners (over 1150) challenging the Council's decision, of which they had been informed by the Administrator, to follow the Governing Board's recommendation not to adjust pensions by the cost-of-living index as of 1st January 2005. After some discussion, the Governing Board decided to authorise the plaintiffs to take their case directly to the Administrative Tribunal of the International Labour Organization (ILOAT) without having to go through the internal appeals procedure. The decision of the ILOAT is expected in 2006.

At its meeting on 20 April, the Governing Board was informed that, in restricted session, the Council had approved a change in the procedure for the appointment of the Chairman of the Governing Board, as well as a limit on the duration of the terms of office of the Board's members up to a maximum of 6 years, and that it had also unanimously decided to set up a new 'Osnes II' working group to examine any governance issues the group deemed appropriate. The Governing Board then heard a presentation from ORTEC, the external consultant in the Netherlands specialising in assets/liabilities modelling and measures designed to improve the financial balance of pension funds. The measures envisaged and presented by ORTEC included a feedback mechanism involving the simultaneous introduction of increased contributions and conditional pensions indexation whenever the funding ratio is below 100%. Professor G. Boender of ORTEC underlined again that optimum management of the Fund's assets alone would not be sufficient to restore the Fund's financial balance and that appropriate measures were essential given the structural causes of the under-funding situation.

Also during its spring meetings, the Governing Board approved measures concerning the redefinition of the composition of beneficiaries' families and a document containing a request for compensation for the reduction in the staff complement between 2001 and 2004, which was forwarded to the Director-General; it further took note of the External Auditors' report on the accounts for the 2004 financial year, which raised no contentious issues. The Board also took note of the strategic asset allocation needed to achieve the return target which, based on the new actuarial assumptions, has been set at 5%. The compound annual return of the current allocation is of the order of 4.5%, which is very close to the technical rate. It should be noted that this is a nominal rate that only partially takes account of pension adjustments. ORTEC confirmed that this level of return still requires a 40% allocation of the Fund's assets to risk-bearing equity, i.e. shares. Given that this asset class is subject to considerable fluctuations in value and is hence also the most volatile, the Governing Board was of the opinion that this aspect should be underlined in its recommendations on actuarial and financial parameters to CERN's governing bodies in order to make the Council aware of its responsibilities. Finally, at its May meeting, the Board made progress on the elaboration of a package of measures whose combined effect should not only make it possible to stabilise the funding ratio in the short-term but also, in the long-term (30 years), bring the funding ratio back to a level compatible with the Fund's objective of operating as a fully capitalised fund.

At its meeting on 7 July 2005 the Governing Board unanimously approved a package of equilibration proposals comprising: the use of more realistic actuarial parameters, in particular a reduction in the technical interest rate from 5.5% to 4.5%; the inclusion in the actuarial projections of future compensation to the Fund for reductions in staff numbers; a redefinition by the Governing Board, for each three-yearly actuarial review, of the parameters used to calculate transfer values and deferred pensions, based on actual data; confirmation of the Council's December 2004 decision to index pensions by 0% in 2005; an increase in contributions of 3 percentage points (1 pp for the personnel and 2 pp for the Organizations), according to terms and conditions to be defined, and the partial dynamic indexation of pensions linked to the funding ratio if a three-yearly actuarial review reveals that it is below 100%, subject to a maximum loss of purchasing power of 8%. As long as the Fund's long-term return remains in the region of 5%, the combined effect of all these measures should be to gradually restore the funding ratio so that it is 100% in 2033.

In addition to these concrete measures, the Governing Board also proposed that the following measures be studied:

- the possible introduction of a method for calculating more actuarially correct transfer values;
- the more regular review of the parameters relating to the constitution of the reserve for future increases in life expectancy;
- the possible introduction of a feedback mechanism such as a conditional pensions indexation mechanism coupled with dynamic contributions;
- an overall review of the Rules and Regulations of the Fund;
- the possibility of (partial) internal taxation of pensions or of retrocession of part of the taxes levied on the pensions.

The last three meetings of the year essentially culminated in the following decisions by the Council (CERN/FC/4993–CERN/2637) on 15 and 16 December 2005:

- approval of the package of measures to restore the financial balance of the Fund, as described above, with the exception of increased contributions, in which respect the Council adopted the Management's proposal for an increase of 0.51% of the reference salary, namely 0.17% for the personnel and 0.34% for the Organization (or 0.21% and 0.42% of the basic salary, respectively) with effect from 1.1.2006;
- amendments to the Rules of the Pension Fund concerning family composition. The new rules essentially redefine the persons entitled to a pension in the event of a beneficiary's death;
- a further amendment to the Rules of the Pension Fund, namely introduction of a new Article III 1.06, 'Extension of the contract beyond the age limit of 65';

– compensation to the Pension Fund of 11.16 MCHF for the reduction in the staff complement between 2001 and 2004, on the understanding that this sum would be added to the Organization's debt to the Fund;
– a pensions adjustment for 2006 of 0.99% with effect from 1 January 2006, which also takes account of the Fund's funding ratio.

The Council further agreed that the statutory provisions of the current Rules and Regulations of the Fund should be comprehensively reviewed, that the Fund should be compared with other comparable European pension funds in 2006 and that a full three-yearly actuarial review (in open-fund terms) should be launched at the end of 2006 to be available in 2007, with a view to reviewing the position of the Fund at the end of 2007 and possibly deciding on an increase in contributions or any other measure required. The parameters selected by the CERN Council for this actuarial review are as follows:

Parameters	**Old**	**New**
Inflation	3.0%	2.0%
Indexation of Pensions	3.0%	2.0%
Indexation of Salaries	3.5%	2.0%
Real Return	3.0%	3.0%
Technical Rate	5.5%	4.5%

At its last meeting in November, the Governing Board unanimously approved a set of amendments to the Rules of the Fund necessitated by modifications to Administrative Circular No. 14 covering disability and occupational accidents and illnesses.

Finally, on the membership side, the Governing Board reappointed P. Lambert as expert to the Investment Committee for a further period of one year and F. Sonnemann and S. Myers as members of the Committee for a further period of three years, all with effect from 1 January 2006. It also took note of the departure of I. Seis and J.-P. Ruder and of its Chairman, J. Bezemer, thanking them for their commitment to the good operation of the Fund and their constructive contributions during their terms of office.

The Council appointed Professor D. Riska as an alternate member of the Governing Board and Professor F. Ferrini as member and Chairman of the Board, both for a period of three years with effect from 1st January 2006. Mr C. Hauviller was elected as a member of the Board, Mr G. de la Fuente was re-elected as an alternate member and Mr P. Martel was elected as an alternate member for the first time, also with effect from 1st January 2006.

1.2 Investment Committee

The Investment Committee held nine meetings in 2005.

Its terms of reference, which are defined in the Regulations of the Investment Committee of the Pension Fund, can be sub-divided into two main components:

1. the Fund's asset allocation,
2. the supervision of the various managers entrusted with the Fund's portfolios.

In discharging the first of these two components, the Committee held a special meeting in October with a view to proposing a new strategic asset allocation to the Governing Board. This allocation is shown in Chapter 4.2 of the Annual Report. In this respect it should be noted that, in 2005, the Committee also redefined the percentages of assets under active management compared to passive management and, in parallel, agreed to the increased use of derivatives.

The highlights of the year also included:

– the creation of a new asset class for private-equity-type investments and the increased allocation to this type of asset from 1.3% to 2%;
– the creation of a further asset class, with an allocation of 2%, in the form of a 75 MCHF commodities basket;
– the future separation of the currency hedging programme into two parts: a passive currency hedging mandate with a hedge ratio of 70% and, in parallel, two active currency management mandates, each with an allocation of 100 MCHF;
– the removal of the 'hedge funds' category from the new strategic asset allocation.

With respect to the second component of its terms of reference, the Committee interviewed all the internal and external portfolio managers during the year, in line with past practice. It was decided to terminate one of the two European equity mandates and to transfer the assets concerned to the other manager (see Chapter 4.9, External Management and Performance). The Committee also approved an extension of the type of funds in which the manager of the absolute return mandate can invest. It further decided to replace the internally managed US mandate by a passive mandate.

After examining the various responses to a call for proposals for a general investment consultant to advise in the selection of portfolio managers, the Committee decided to hire Mercer.

Halfway through the year, the Committee examined the results of the asset/liability modelling study commissioned from ORTEC and its implications for the asset allocation. The decisions to be taken in this respect were deferred to 2006 as they were dependent on the decisions to be taken by the Council at the end of 2005 on the package of measures drawn up by the Governing Board to restore the Fund to financial balance.

Finally, the Investment Committee's other decisions during the year included producing a guide setting out the Fund's investment principles, subject to the Governing Board's approval, reviewing the tactical asset management process and continuing to examine the use of derivatives alongside portfolio managers.

1.3 Other Activities

1.3.1 Annual General Meeting

The annual general meetings of members and beneficiaries from CERN and ESO[1] were held in Geneva and Munich, respectively, in the autumn as usual. Those present were given every opportunity to raise questions on the Fund's affairs at these meetings (see the minutes of the 2005 Annual General Meeting, available from the Pension Fund).

The Chairman opened the meeting, and the Administrator of the Fund and the Chairman of the Investment Committee made presentations on, respectively, the 'Role of asset classes in pension funds' and 'The Pension Fund equilibration package as devised by the Governing Board'.

[1] ESO (European Southern Observatory) joined the CERN Pension Fund in 1968.

1.3.2 SCC Working Group on Pension Guarantees in the Event of Dissolution of the Organization

At its meeting on 12 August 2005, the Standing Concertation Committee (SCC) working group on pension guarantees (second phase) continued its work on the drawing-up of proposals, based on the report by the three experts, concerning the Member States' obligations in the event of the Organization's dissolution or of the withdrawal of a Member State.

The working group is also continuing to examine questions concerning the maintenance of the level of benefits to be paid by the Foundation after dissolution of the Organization, the preservation of the beneficiaries' purchasing power and the health insurance of the beneficiaries of the Foundation, all of which are quite complex. In this framework, it is studying the possibility of adding health insurance to the tasks assigned to the Foundation that will take over from the Pension Fund in the event of the Organization's dissolution.

1.3.3 Relations with Members and Beneficiaries

With the aim of improving contacts and the flow of information between the Pension Fund and its members, the Administration of the Fund has issued, as it does every year, a breakdown of individual pension rights or details of the transfer value entitlement to each member of the Fund. In addition, and for the first time, a breakdown of monthly benefits reflecting entitlements as at 1st January was sent out to the beneficiaries at the end of the year. Finally, summaries of Governing Board meetings are regularly published in the CERN Bulletin.

As in the past, the Fund responded to many questions (on rights, disability, transfer values) from members and beneficiaries. It also made efforts to advise and help its beneficiaries concerning integration into the Host States (approaches to the local authorities, certificates in support of claims of certain rights, etc.). The Fund also constantly plays an active role in cases associated with difficult family circumstances (death, disability and divorce).

2 Insured Population

2.1 Members

Table 1: Total Number and Fluctuation of Members[1] of the Fund (CERN + ESO) in 2005

	Men	Women	Total
Total Number on 31.12.2004	2 533	601	3 134
CERN[a]	2 283	550	2 833
ESO	248	53	301
Fluctuations in 2005			
CERN departures[b]	210	47	257
CERN entries	241	64	305
Variation CERN	+31	+17	+48
ESO departures	12	7	19
ESO entries	38	12	50
Variation ESO	+26	+5	+31
Total Number on 31.12.2005	2 590	623	3 213
CERN	*2 314	*567	*2 881
ESO	274	58	332

* *including 78 participants in the Progressive Retirement Programme (PRP)[c].*

[a] *The figures provided by HR for the year 2004 were amended after the publication of the Annual Report 2004 (i.e. a different categorisation of two people).*
[b] *Figures provided by HR, excluding fellows awarded staff contracts.*
[c] *Figures provided by HR on 26.01.2006.*

Breakdown of Departures from the Fund in 2005

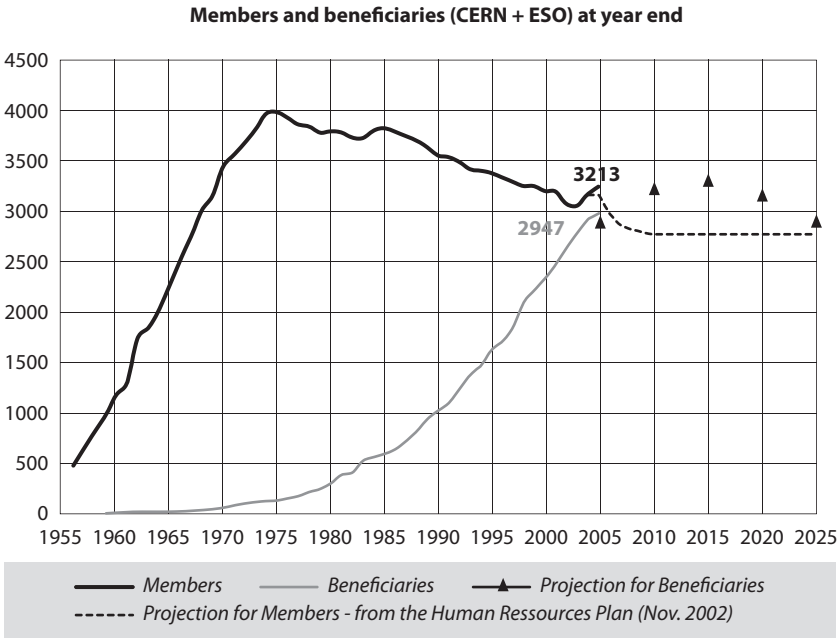
	Men	Women	Total
Total departures	**222**	**54**	**276**
Retirements	110	19	129
Deferred pensions	5	1	6
Incapacity	3	0	3
Transfer values	102	34	136
Deaths	2	0	2

Table 1 above shows membership as at 31.12.2005, including members whose contracts ended on that date. There were 276 departures from the participating organisations. These included 129 retirements, of which 78 were early retirements, i.e. before the age of sixty-five. This proportion is higher than in 2004 but lower than the long-term average for the Fund's overall membership. At CERN, an average of three-quarters of retirees opt for early retirement. In 2005, the number of Pension Fund members increased by 79, mainly due to an increase in the staff complement of both CERN and ESO. It should be noted that, at ESO, the number of members of the personnel increased more sharply than in 2004.

[1] Members of the Fund' means CERN staff members and fellows, and ESO staff members.

Departures as a result of retirement accounted for about 47% of all departures, as against 45% in 2004. The total number of arrivals (CERN+ESO) was 355.

The average age of members of the Fund was 40 years and 11 months for women and 42 years and 11 months for men, according to calculations as at 31.12.2005. Compared to 2004 there was a fall in the average age of members of the Fund (men and women combined), which is explained by a certain rejuvenation of the age structure following the large number of retirements and the recruitment of younger members of the personnel.



Graph 1

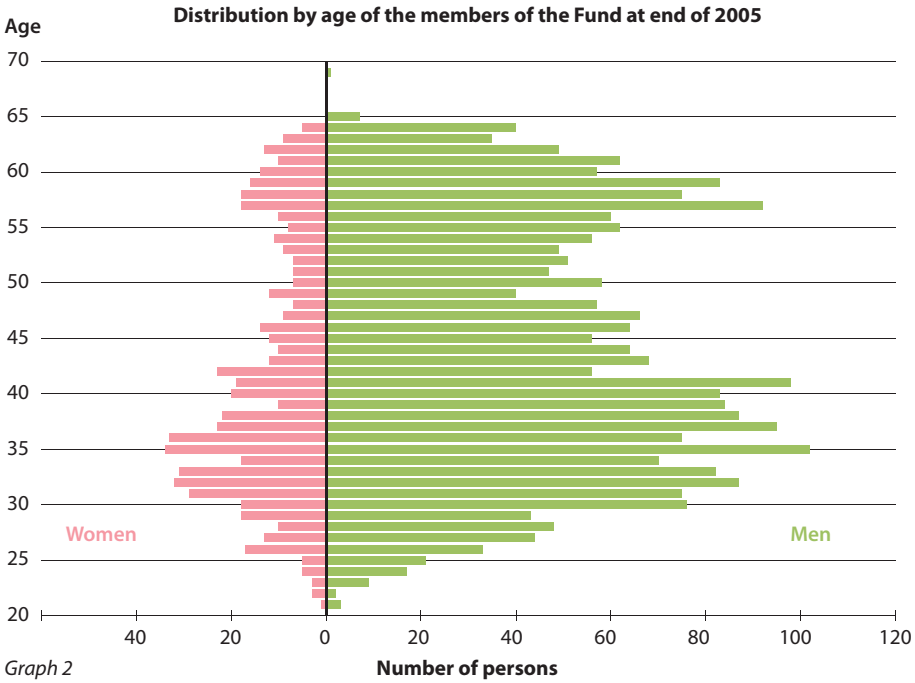
2.2 Beneficiaries

The number of beneficiaries at 31.12.2005, including participants in the Progressive Retirement Programme (see 2.3 below), was 2 947, representing a 3.8% increase compared to the total at 31.12.2004 (2 837). Graph 3 shows the net fluctuations by category of beneficiary over the last two years; retired staff make up the majority of beneficiaries, which is easily explained by their relatively young average age. Over time, the number of surviving spouses will increase as their partners pass away.

At the end of 2005, the average age of those receiving retirement pensions (retired people and surviving spouses) was 70 years and 5 months for women and 70 years and 1 month for men. Members retiring at the age of 65 accounted for 51 of a total of 129 new retirees.

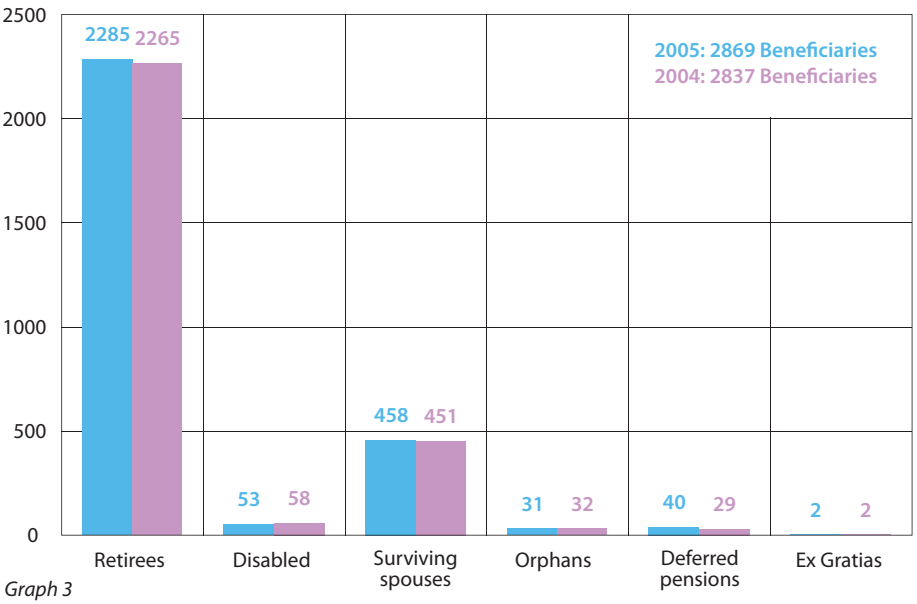
2.3 Participants in the Progressive Retirement Programme

At 31.12.2005 there were 78 participants in the Progressive Retirement Programme (PRP).

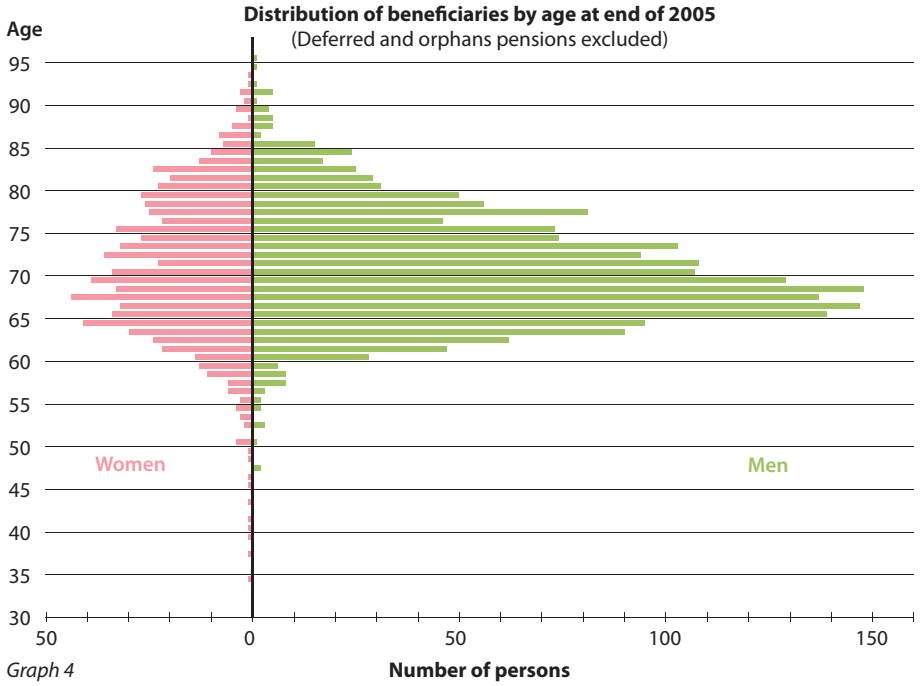


Graph 2

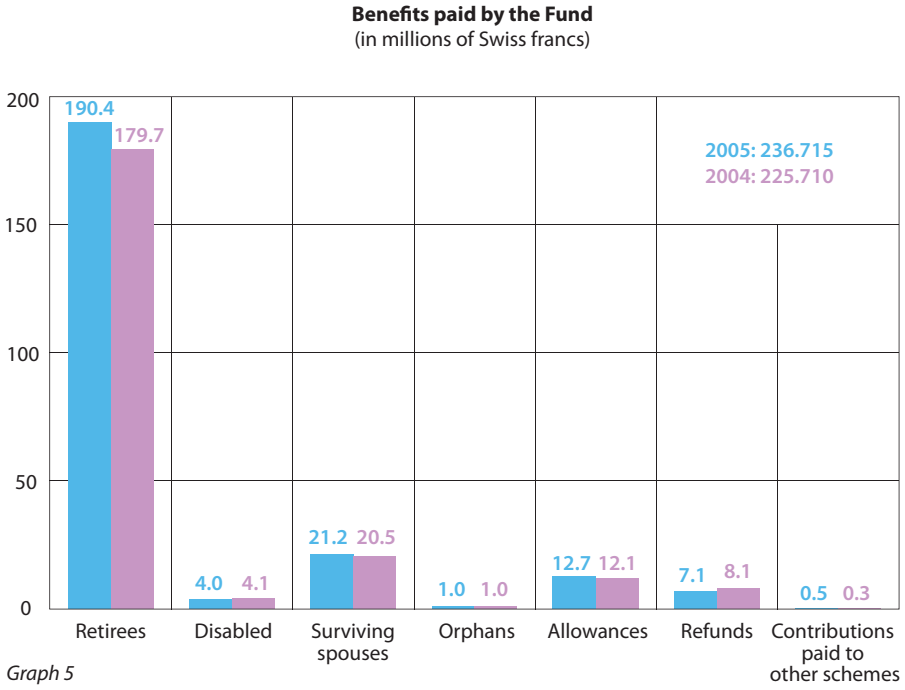
Beneficiaries of the Fund at year end by category
(Participants in the Progressive Retirement Programme excluded)



Graph 3



Graph 4



Graph 5

3 Contributions and Benefits

3.1 Contribution Rate

Following the decision taken by the CERN Council in December 2005, contributions as from 1.1.2006, expressed as percentages of the reference salary, are:

	Until 31.12.2005	As of 1.1.2006
Members:	10.12%	10.29%
Organizations (CERN and ESO):	20.25%	20.59%
TOTAL:	30.37%	30.88%

3.2 Amounts Received

The total amount received (including an amount of 2 024 799 CHF in compensation for shift work under the provisions of Administrative Circular No. 22 for the departure of 5 members of the personnel and an amount of 518 753 CHF for the Progressive Retirement Programme), was 124.9 MCHF in 2005, representing an increase of some 2.7 MCHF compared to 2004 (122.2 MCHF). This increase was mainly due to the higher level of contributions received from CERN and ESO (2 MCHF) and Members (1 MCHF) and also a greater amount in respect of compensation for shift workers and the Progressive Retirement Programme (0.1 MCHF). These amounts were partially offset by lower purchases of additional years of membership (0.4 MCHF).

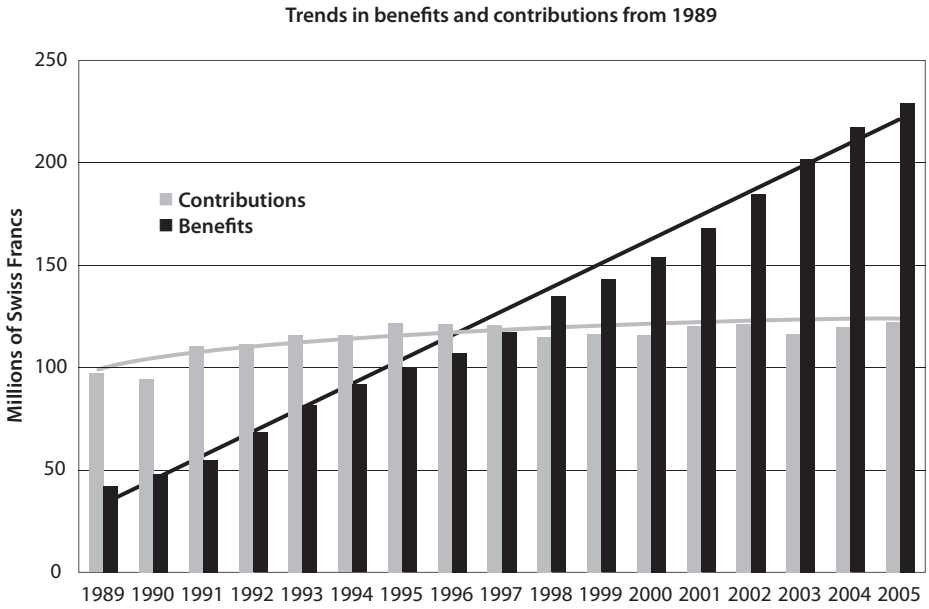
The Benefits and Contributions account (Chapter 9.3) provides the detailed figures and information on trends in the other items under this heading.

3.3 Amounts Paid

Graph 5 shows the benefits paid by the Fund during the year 2005 and, for the purposes of comparison, those paid in 2004. In 2005, the total payments, i.e. benefits (Items 2.1 to 2.6) plus transfer values and other payments (Item 4) shown in the Benefits and Contributions account (see Chapter 9.3) amounted to 236.8 MCHF, representing, in absolute terms, a rise of 11.1 MCHF (16.8 MCHF in 2004) or 5% compared to the previous year. This increase is mainly due to the growing number of new beneficiaries with full retirement pensions. This trend will continue in the coming years.

At some 83% of all benefits paid, retirement pensions represent the biggest item among the benefits paid by the Fund (see Item 2 of the Benefits and Contributions account).

The proportion of benefits paid in relation to the total amount received in contributions by the Fund amounted to almost 187% in 2005, compared to 181% in 2004. It should be noted that this figure first exceeded 100% in 1997. It is forecast that, with the long-term decrease in the number of active members of the Fund and the increase in the number of beneficiaries, the sums allocated to the payment of benefits will continue to rise compared to the funds received in contributions. In 2005, the contributions and compensations totalled 124.9 MCHF, whereas benefit payments plus transfer values and other payments amounted to 236.8 MCHF, generating a negative cashflow of 111.9 MCHF, compared to 103.5 MCHF in 2004.



3.4 Cash Flow

The Fund's cash flow position must take account of all income received (net income from real estate, bond coupons, dividends, repayments of the amount owing from CERN) and all future disbursements in the form of benefits to be paid. In addition, it should be pointed out that currency overlay can generate substantial inflows and outflows that are difficult to predict. Based on a projection of the above-mentioned elements, without currency overlay, it can be seen that the general trend in net cash-flow movements is for outgoings and all income including contributions to balance each other out (see the net amount in the profit and loss account, plus the contributions paid in, less the benefits paid out). Henceforth, the cash-flow trend will be negative, with the gap between inflows and outflows increasingly widening over the coming years to reach an order of magnitude of between 100 and 120 MCHF in 10 years' time, depending partly on bond market rates and on the volume of the Fund's portfolio.

3.5 Adjustment of Benefits

Following a decision by the CERN Council in December 2004, a rate of indexation of 0% was applied to pensions, fixed benefits and allowances with effect from 1 January 2005. This decision, based on the recommendation made by the Governing Board, was taken on the grounds that responsible management demanded an immediate response to preserve the financial position of the Fund from further deterioration and that, under the circumstances, the application of the Geneva consumer price index could not be justified. Table 2 shows the increase in CERN pensions and salaries and the rise in the cost of living in Geneva since 1984.

Table 2: Adjustment of CERN Pensions and Salaries

	Pensions Adjustment in %		Salaries Adjustment in %		Cost of Living[a]	
	Annual	Index 100 in 1983	Annual	Index 100 in 1983	Annual	Index 100 in 1983
01.01.84	3.47	103.5	3.00[b]	103.0	3.47	103.5
01.01.85	3.83	107.4	3.83[b]	106.9	3.83	107.4
01.01.86	2.47	110.1	2.41[b]	109.5	3.50	111.2
01.01.87	2.35[b]	112.7	2.35[b]	112.1	1.70	113.1
01.01.88	2.25	115.2	3.10	115.6	2.25	115.6
01.01.89	2.20	117.7	1.94	117.8	2.20	118.2
01.01.90	3.50	121.9	4.44[c]	123.0	3.50	122.3
01.01.91	5.10	128.1	6.59	131.2	5.10	128.5
01.01.92	5.40	135.0	5.50	138.4	5.40	135.5
01.01.93	3.60	139.9	2.40	141.7	3.60	140.4
01.01.94	3.00	144.1	1.20	143.4	4.60	146.8
01.01.95	1.00	145.5	0.39	143.9	1.00	148.3
01.01.96	1.74	148.0	1.31	145.8	2.10	151.4
01.01.97	0.00	148.0	0.00	145.8	0.50	152.2
01.01.98	0.00	148.0	0.00	145.8	0.60	153.1
01.01.99	0.50[d]	148.8	0.50[d]	146.6	0.90	154.5
01.01.00	1.30	150.7	1.30	148.5	0.90	155.8
01.01.01	1.40	152.8	5.22[e]	156.2	1.30[f]	157.9
01.01.02	0.80	154.0	1.30	158.2	0.90	159.3
01.01.03	0.60	155.0	1.20	160.1	0.60	160.2
01.01.04	0.70	156.0	1.10	161.9	0.70	161.4
01.01.05	0.00	156.0	1.30	164.0	1.70	164.1
[01.01.06	0.99	157.6	1.20[g]	166.0	1.20	166.1]

[a] *Cost of living, in Geneva, from August to August.*
[b] *Average percentage distributed in a differentiated way.*
[c] *Including a 1% increase from 1st July.*
[d] *Effective date: 1st June.*
[e] *This figure takes into account the five-yearly review (1995–1999) and the cost of living, giving 3.4%, and various increases in social security contributions (1.82%).*
[f] *Final figure from the Office Fédéral de la Statistique, after a revision of –0.1%, published after the pensions adjustment.*
[g] *Including an increase in contributions to the Pension Fund of 0.21%.*

3.6 Estimated Cost of the Reduction of the Active Membership

Following its 1996 decision (CERN/SPC/722–CERN/FC/3918) to complete the LHC over the period 1995–2008 with a decreasing staff complement, the CERN Council approved a first amount of compensation covering the years 1995–1997 on the basis of document CERN/2241–CERN/FC/4074, 'Compensation to the Pension Fund for the impact of early departures and the reduction of the active membership'. In this document, it was stipulated that, 'For future years, new calculations will be made each year on the basis of the most recent actuarial review and the observed decrease in staff numbers'.

It was on this basis that the Governing Board submitted to the Finance Committee and Council a request for 11.16 MCHF in compensation for the reduction in the active staff complement between 2001 and 2004, which the Council approved in December 2005. An amount of 11 160 000 CHF was added to the Fund's claim on the Organization.

The measures adopted by the Council at the end of 2005 include Recommendation No. 2, which reads:

'The Governing Board recommends that future actuarial projections include, as a working hypothesis and pursuant to Council's 1985 resolution and Article II 1.16 of the Fund's Rules, future compensations for the reduction of staff numbers deriving from the 1996 decision by the CERN Council, even though such compensations are to be decided upon by Council on a case-by-case basis' (document CERN/FC/4993–CERN/2637).

4 Assets Management and Performance[1]

4.1 Macro–Economic Environment and Market Trends

4.1.1 Macro–Economic Environment

United States: The US economy continued its progress but growth slowed as was largely expected. Real GDP growth is likely to be around 3.5% in 2005, compared with 4.2% the previous year. Employment growth was strong with robust non-farm payrolls reported during the year and the unemployment rate falling from 5.4% to 4.7%. The Federal Reserve Bank continued its policy of normalizing the level of short-term interest rates by increasing the US overnight lending rate from 2.25% to 4.25% with eight quarter percent increases in total. This trend is set to continue for a little longer, with the Federal Reserve and its new chairman Ben Bernanke set to take a tough stance on curbing inflation in 2006. Inflation increased significantly in the headline CPI (Consumer Price Index) numbers (hitting a high of 4.7% in September) due to higher energy costs; however, the core CPI numbers, which the Fed principally uses to set policy, were reasonably stable at just above 2%. Despite a succession of devastating hurricanes (particularly Hurricane Katrina, which flooded the centre of New Orleans in September), a very strong US dollar and increasing interest rates, the economy was remarkably resilient. A decline in Q4 GDP growth to 1.1% as a result of the economic disruption caused by the hurricanes is likely to be followed by a large rebound in the figures for the first quarter of next year.

Europe: Economic growth was sluggish but improved from quarter to quarter. Real GDP growth is 1.3% for the year. Figures were promising, with Q3 GDP growth showing a quarter-on-quarter rate of 0.6%, compared with 0.3% in Q1. Improvements were driven by a combination of business investment and private consumption but the contribution from net exports turned negative despite a falling EUR/USD exchange rate. Inflation remained contained despite peaking in September at 2.9% due to high energy and commodity prices. Core inflation remained well below the 2% target rate set by the European Central Bank (ECB). The ECB nevertheless continued to urge caution over price levels throughout the year and, after thirty successive months on hold, followed the Fed's example by increasing the European overnight refinancing rate by one quarter of one percent to 2.25%. The ECB has also made it clear that this is likely to be the first of a series of rate increases in 2006.

In the UK, economic growth slowed drastically during the year, and GDP growth forecasts by Chancellor Brown and the Bank of England were racheted down to take account of the disappointing performance of the economy. Real GDP growth is likely to be around 2.0%, and core CPI inflation is expected to remain below the 2% target rate. The slowdown in the housing sector combined with falling retail sales figures and a crowding-out of the private sector by heavy government spending in the public sector have created some problems for the Chancellor and the Bank of England. On the one hand, slowing economic growth and poor business investment in the private sector would support the Monetary Policy Committee (MPC) cutting rates but, on the other hand, it might be forced into raising the overnight lending rate to curb future inflation caused by fiscal and monetary laxity. So far, the MPC has cut the overnight lending rate once in 2005, leaving the rate at 4.5%.

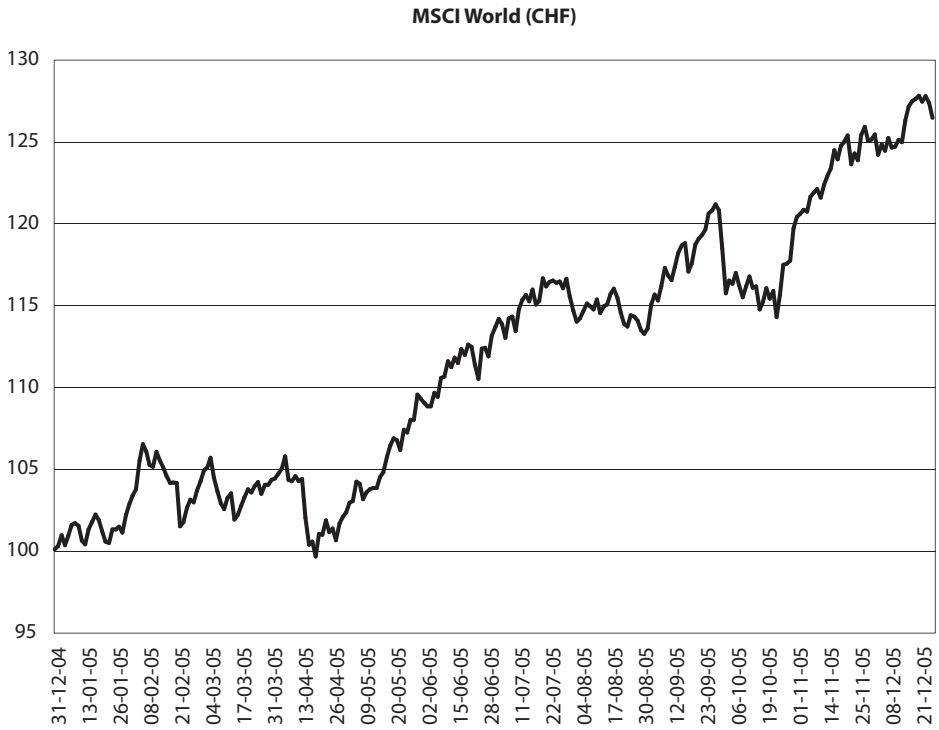
Japan: The Japanese economy went from strength to strength despite a temporary lull in Q3. Annualized quarterly real GDP figures for Q1-Q4 were 5.7%, 5%, 1.4% and 5% (preliminary), respectively. There had been a temporary setback in the second half of 2004 due to slowing export demand from China and inventory build-up, but strong domestic consumption growth and capital investment helped the economy recover strongly in 2005. The unemployment rate also fell to 4%, its lowest level since 1998. Core CPI recorded two consecutive small but positive readings for the first time in seven years. In the fourth quarter there were signs that the strong domestic recovery was being bolstered by improvements in externally focused manufacturing sectors, which could bode well for continued growth in 2006. With economic growth strong and the prospect of a departure from long-term deflationary forces, the Bank of Japan has alluded to the possibility of removing its policy of quantitative easing.

[1] A definition of some of the terms used in this chapter is given in Annex VII.

4.1.2 Market Trends

Equities: The markets were extremely strong in 2005. With the exception of the US market, the performance of all major market indices exceeded 20% in local currency. With the strong rise in the US dollar versus the Swiss franc, even the S&P 500 increased by more than 20% in Swiss franc terms. In Swiss franc terms, European equities (MSCI Europe index) increased by 26.8%, Japanese equities (Topix index) increased by 41.8% and Asia ex Japan equities by 43.0%. US small caps performace was in line with large caps but European small caps (MSCI European Small Cap Index) outperformed large caps by 11%.

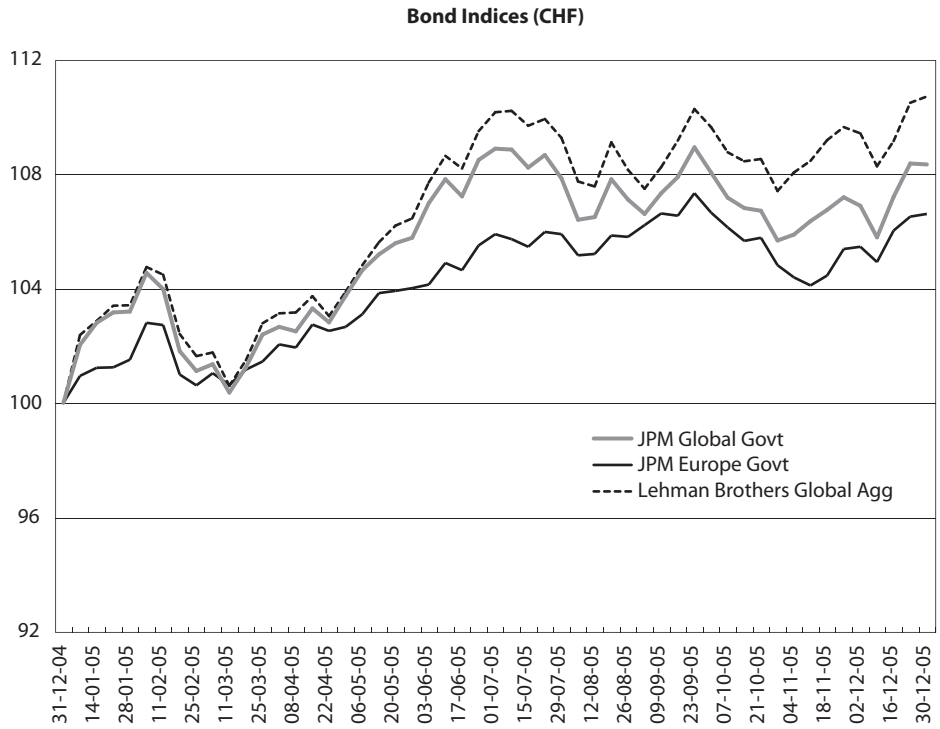
The MSCI World Index expressed in Swiss francs returned 26.9%, helped by strong non-US equity performance and a very strong US dollar (+15.9% versus Swiss franc).



Strong profits growth and solid upward earnings revisions bolstered the equity market, and a buoyant M&A market kept the positive newsflow coming and drove asset valuations higher, especially in Europe. Concerns about rapidly increasing oil and commodity prices did not greatly influence the market (except in the US) and served to help cyclical sectors like energy and materials. The Japanese equity market was driven by record profits growth and a realization that the recovery in Japan was going to be lasting. Further economic and financial reform should be ensured. US equity markets were once again the laggard, held back by increasing interest rates, higher energy prices and continuing uncertainty about inflation. US market indices did not keep up with earnings growth at all during the year and price-to-earnings ratios in fact contracted during the year.

Bonds: Bonds underperformed equities again but performed reasonably well on an unhedged basis. European bonds (JP Morgan European Bond Index) returned 6.6% in Swiss franc terms and Global bonds (Lehman Brothers Global Aggregate Index) returned 9.2%. Global unhedged returns were boosted by the strong US dollar, which increased by about 16% versus the Swiss franc. Long-term yields in the US, as represented by the ten-year treasury bond, were volatile but traded in a fairly small trading range of about 0.70%. They ended up at 4.4%, from 4.2% at the beginning of the year. The yield curve flattened considerably, however, as the 2-year treasury yield shifted up 1.3% and the ten-year increased by only 0.2%. The yield curve reflected the strong series of rate increases by the Fed throughout the year rather than fears of economic fallout as sometimes happens with a flat or inverted curve. In Europe the yield curve flattened by over 67 bp but the ten-year euro bond benchmark yield actually fell approximately 30 bp, reflecting slower growth and inflation

prospects in the Eurozone. Yields in the UK fell along the curve, with the 2-year gilt benchmark falling 20 bp and the ten-year 50 bp as growth and inflation expectations in the UK began to weaken. In Switzerland there was a significant flattening at the long end where the ten-year bond yield fell a modest 8 bp to 2.16% but the 30-year bond yield fell a staggering 59bp to end up at 2.21% (only 5 bp above the ten-year). In addition, the 2-year bond yield increased by 65 bp, reflecting the improving economy and the fact that the SNB was likely to make future increases to the target lending rate.



Cash and cash equivalents: Following the record low of 2003 and in a climate of rather restrictive monetary policy and escalating inflationary pressure, US short rates, which had virtually doubled in 2004, continued to rise in 2005 to reach 4.25% at the end of the year. The Federal Reserve pursued its normalization of real interest rates. In Europe, rates rose by some 0.25 percentage points, ending the year at 2.25%. Short-term liquid investments in the Swiss franc generated only a fraction of one percent in spite of a rise in the leading rate. The Bank of England continued to raise its leading rates. In a climate of stock-market recovery and relative stability on the bond markets, cash produced the lowest returns in 2005 for the third year running.

Real estate: Economic growth and the low returns on the bond markets kept the real-estate market attractive and, in general, continued to push property prices upwards. The office building market differs significantly from one metropolis to another for obvious reasons of demand, size, prestige, location and infrastructure. The rental value cycle for European office space is still favouring London and Paris, as well as the capitals of the new member states of the European Union. In Berlin and Amsterdam, where many large-scale office complexes have come onto the market, the situation is still difficult due to the abundant supply of new office space, which continues to have a negative influence on returns and on the appreciation of property values.

Currencies: The major story of the year in the currency markets was the strength of the US dollar, taking most of the market by surprise. The US dollar gained against all other major currencies, increasing by 15.2% versus the euro and by 15.9% versus the Swiss franc.

The table below gives an indication of the exchange rates of certain currencies against the Swiss franc at the end of each of the last two years.

Table 3: Currency Exchange Rates

Currency	on 31.12.2004	on 31.12.2005	Difference
US dollar	1.1371	1.3180	+15.9%
Yen (100)	1.1097	1.1166	+0.6%
Euro	1.5456	1.5546	+0.6%
Pound sterling	2.1831	2.2626	+3.6%

Source: State Street Bank

4.2 Strategic Asset Allocation

Each type of investment has a long-term risk/yield ratio. Within the framework of its own specific constraints (demography, contribution rate, benefits, indexation, actuarial balance), the long-term objective of the Fund is to try to maximise return by taking a degree of risk deemed to be acceptable. A total absence of high-risk assets essentially in the form of variable income securities, equity and real estate means that the Fund has to resort to other sources of funding in the form of increased contributions, which are hard to secure in the current climate. The necessary return targets are determined on the basis of regular actuarial and asset/liability modelling (ALM) studies. In general, the distribution of assets between the various asset classes and, to a lesser extent, between the various investment areas, is the decisive element in the Fund's performance. The current strategic allocation, which is set out in the table below, is partly based on the provisional conclusions of the 2005 ALM study, which takes account of a target return of 5.4%. The ALM study done by ORTEC shows that, in addition to traditional asset classes, the inclusion of a certain amount of private equity and commodities in the portfolio would allow the performance to be improved whilst simultaneously reducing the portfolio risk.

Table 4: Strategic Allocation

Investment Category	Strategic allocation	Summary breakdown end of 2005[a]	Expected long-term performance
Bonds and convertibles[b]	44%	37.9%	4.2%
Equities and investment funds	38%	41.1%[c]	7.3%
Real estate	10%	11.1%	6.0%
Cash and short-term holdings	2%	4.3%[d]	2.0%
Alternatives*	6%	5.6%	N/A
Totals	**100%**	**100.0%**	**5.4%**

* *= private equity, commodities, absolute return investments*

[a] *The discrepancy with respect to the percentage of cash shown in Annex IV is explained by the fact that the latter is based on accounting data, whereas in the table above each portfolio includes its respective liquid assets.*

[b] *Including amount owing from CERN.*

[c] *Including derivatives exposure.*

[d] *Actual cash is 17.3% if the derivatives exposure is included.*

4.3 Main Operations and Tactical Allocation

Around the strategic allocation of assets, fluctuation ranges are defined, thereby allowing tactical adjustments. The impact of short-term fluctuations on long-term performance nevertheless remains modest and, above all, it is the sustainability of the long-term strategy that must be watched.

The breakdown of effective allocations by asset category and investment area at the end of 2005 is as follows:

Table 5: Detailed Asset Allocation

Asset category – type of benchmark	**Strategic allocation**	**Actual allocation (end of year)***		**Difference between actual 2005 allocation and objective**	**Tactical allocation**
		2004	**2005[a]**		
Cash and short-term holdings	**2.0%**	**9.4%**	**4.3%[b]**	**+2.3%**	**0–10%**
Bonds and convertibles	**44.0%**	**40.6%**	**37.9%**	**–6.1%**	**35–55%**
– Global bonds	14.0%	6.8%	5.9%	–8.1%	
– European bonds (unhedged)	16.0%	21.6%	21.1%	+5.1%	
– High-yield bonds	2.0%	0.0%	0.0%	–2.0%	
– Amount owing from CERN[c]	12.0%	12.2%	11.0%	–1.0%	
Equities	**38.0%**	**37.9%[d]**	**41.1%**	**+3.1%**	**30–50%**
Large capitalizations					
– American indexes	12.0%	9.6%	12.3%	+0.3%	
– European indexes	12.0%	13.4%	14.6%	+2.6%	
– Japanese indexes	7.0%	4.4%	7.1%	+0.1%	
– Asian indexes excluding Japan	3.0%	2.2%	3.8%	+0.8%	
Small capitalizations					
– American Growth indexes	2.0%	2.2%	1.2%	–0.8%	
– European indexes	2.0%	2.4%	2.1%	+0.1%	
Alternatives			**5.6%**		
Absolute return strategies	2.0%		2.6%	+0.6%	
Private Equity	2.0%		1.4%	–0.6%	
Commodities	2.0%		1.6%	–0.4%	
Real estate	**10.0%**	**12.1%**	**11.1%**	**+1.1%**	**5–15%**

* *Source: State Street, performance reports*

[a] *The discrepancy with respect to the percentage of cash shown in Annex IV is explained by the fact that the latter is based on accounting data whereas in the table above each portfolio includes its respective liquid assets.*

[b] *Actual cash is 17.3% if the derivatives exposure is included.*

[c] *Allocation variation according to amount owing compared to overall assets.*

[d] *Including 3.7% divided into two portfolios: Absolute return strategies (2.4%) and Private Equity (1.3%).*

N.B.: The above tables and Graph 6 allocate to each portfolio the respective cash equivalents. The latter are thus linked to an index or investment area, which gives an idea of the choice of asset allocations. The consequences of the managers' tactical choices and hence of liquidity levels will therefore be discussed if necessary when analysing the managers' performances. Annex IV retains the account format. Graph 7 shows the Fund's asset allocation by currency both before and after currency overlay and Graph 8 the breakdown of real estate by country and category.

The Fund benefited from increasing its weighting in equities several times during the year. Coupled with the significant outperformance of equity over all other asset classes this led to a much higher equity weighting than the previous year.

The Fund also increased the use of derivatives for equity exposure collateralized by cash holdings to increase the allocation in equity and commodities. Actual cash holdings, including derivatives, increased slightly from 16.8% to 17.3% but, taking account of liquidity requirements associated with the trading of derivative investments, the amount of cash shown in the cash allocation is 4.3%. Over 10% of cash acts as collateral for exposure to Japanese, European and US equity derivatives.

From the asset management point of view, it is not only essential to know the results of each manager compared to his benchmark but, more important still, to know the performance of the Investment Committee which, in deciding tactical deviations from the Fund's strategic benchmark, has an important influence on the results obtained. Through the decisions on the asset allocation it took in April 2004, the Investment Committee has made a positive contribution of 36 MCHF, including 10 MCHF for 2005 alone. In this context it should be noted that the impact of certain decisions taken by the Investment Committee in 2004 did not materialise until 2005 and that it is therefore difficult to attribute the results of individual decisions to one or the other year with complete accuracy. The relative performance of the assets managed by the Investment Committee was +2.1% above the 11.4% benchmark. Outperformance was generated by allocation decisions, particularly the overweighting of European and Japanese equity and the underweighting of US equity and also the relatively high weightings of European small cap equities and Asia ex Japan equities. The advantage of overweighting European bonds versus global bonds is not obvious on an unhedged basis due to the strong US dollar but, after 70% hedging, this allocation was positive. The Committee's decision to remove hedging of the euro in October 2004 was also very positive for the Fund (adding about 13 MCHF to performance).

In 2005, the main decisions concerning the asset allocation were as follows:

In February, it was decided to transfer 50 MCHF from the Internal US Equity Portfolio to the Legg Mason US Equity portfolio because, at the time, the latter portfolio had been outperforming the former for the last year. In the same meeting, a tactical allocation of approximately 80 MCHF was made in European Equity via an MSCI Europe swap.

In March, the Rothschild European Equity Portfolio of approximately 70 MCHF was closed due to poor performance. The assets were transferred to the MFS European Equity Portfolio.

In May, it was decided to diversify the Japanese equity exposure by replacing 20 MCHF of Topix exposure with TSE2 (Japanese small caps) exposure. The Committee also reduced the Lee Munder US Small Cap Growth portfolio by 39 MCHF in favour of cash due to caution in this market and dissatisfaction with the manager's performance.

In June, based on excellent results and the feeling that the asset class would perform well in the future, the Committee increased the Rothschild Asia Ex Japan Equity Portfolio by approximately 32 MCHF. A proposal based on the Committee's increasing desire to use passive investment over active investment in equity was also approved, which allocated a target passive weighting to each major equity asset class (US/Europe/Japan). It was decided to target 66%, 33% and 50% in US, European and Japanese equity respectively. This was further approved by the Governing Board.

In the July meeting, the Committee approved the final allocation for a commodities basket of futures and swaps of 75 MCHF. The investment was made gradually between July and October; however, the final weighting in oil was not completed.

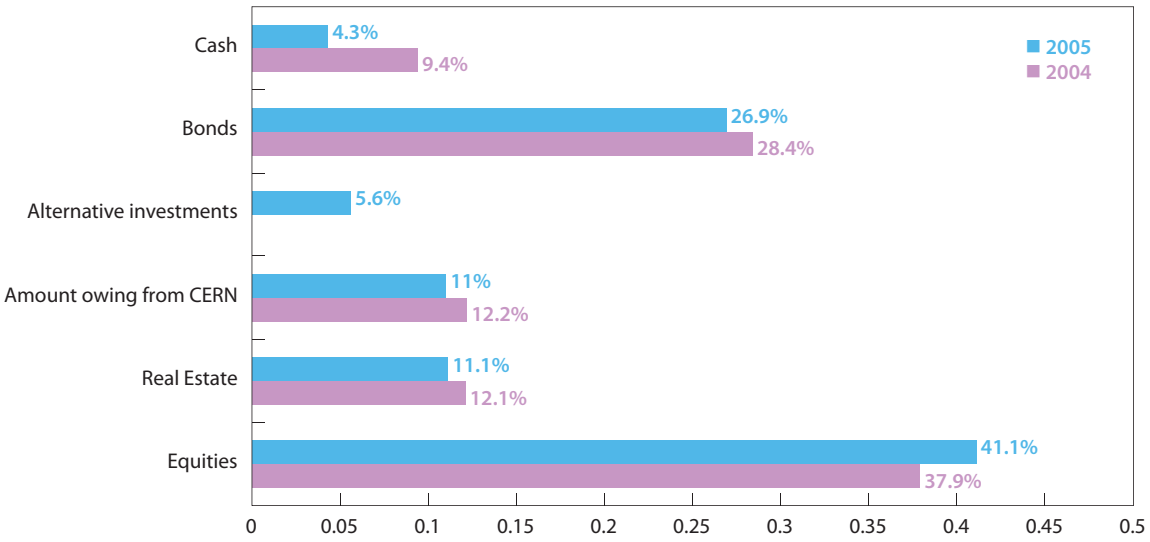
In September, in line with targeting a higher passive European Equity weighting, 56 MCHF was transferred from the Internal European Equity Portfolio to the UBS European Equity Index Portfolio.

In October, a proposal to revise the strategic asset allocation was approved. This involved removing the 3% weighting in global equities and increasing the Japanese equity weighting by the same amount. The weighting in small cap equities was also increased from 2.5% to 4%, and a 3% weighting was assigned to emerging market equities. A new asset category named 'Alternatives' with a 6% total weighting was also created and, within this, 2% weightings were assigned to 'Absolute Return Strategies', 'Commodities' and 'Private Equities'. In addition, the Committee approved the search for an investment consultant.

In November, the final proposal to increase the actual weighting in Japanese equity via Topix and TSE2 futures and swaps was approved, with a recommended target weighting in Japan of 7%.

In December, it was decided to reduce the US equity underweighting (increasing US equity by 73 MCHF) by decreasing the JP Morgan Global Fixed Income Portfolio by 35 MCHF and the UBS European Small Cap Equity Portfolio by 38 MCHF. The final increase in Japanese equity was also made in December.

Breakdown of the Funds' assets as at 31.12.2005

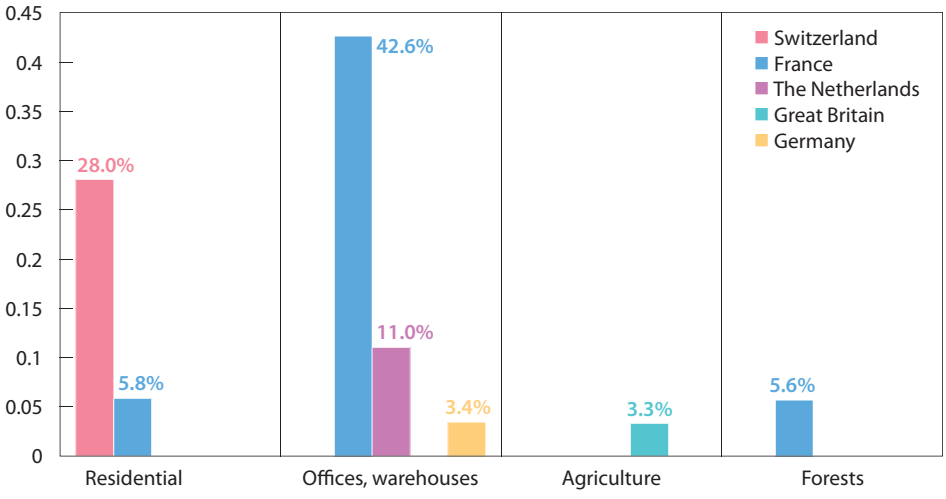


Graph 6

Breakdown of total assets by currency at the end of 2005

Graph 7

Breakdown of Real Estate by country and category at the end of 2005



Graph 8

4.4 Results of the Financial Year and Performance Comparison

Performance, as shown in Table 6 below, is calculated mainly according to the method used by portfolio managers. This is the case, in particular, for the overall performance, not adjusted for inflation (column E), which allows the Fund to be compared each year to banks, other investment companies or pension funds.

Table 6: Performance of the Investments

Year	Contributions balance	Funds held (31/12)	Inflation in %[a]	Overall performance in %	Overall real performance in %[b]
(A)	(B)	(C)	(D)	(E)	(F)
1956	–	1.33	–	–	–
1957	1.39	2.81	2.30	4.44	2.10
1958	1.80	4.74	–0.50	3.50	4.02
1959	2.18	7.13	1.00	3.60	2.58
1960	2.94	10.37	3.20	3.49	0.28
1961	2.91	13.69	3.90	3.47	–0.42
1962	3.96	18.21	5.40	3.57	–1.73
1963	4.69	23.61	3.10	3.45	0.34
1964	5.59	30.01	3.20	3.07	–0.13
1965	7.30	38.70	3.30	4.13	0.80
1966	9.03	49.12	4.90	3.22	–1.60
1967	10.33	64.06	5.90	8.49	2.45
1968	12.67	81.90	3.90	7.34	3.31
1969	15.52	98.45	2.50	1.15	–1.32
1970	16.61	119.00	5.60	3.69	–1.81
1971	18.53	148.30	5.70	8.40	2.55
1972	20.99	179.66	7.00	6.53	–0.44
1973	23.66	193.77	10.90	–4.99	–14.33
1974	27.72	204.97	8.30	–7.96	–15.01
1975	30.97	269.78	3.40	15.35	11.56
1976	32.06	337.20	1.80	12.37	10.38
1977	33.32	364.07	1.70	–1.82	–3.46
1978	31.14	392.76	0.80	–0.65	–1.43
1979	30.82	453.48	5.00	7.33	2.21
1980	32.13	520.92	3.90	7.52	3.48
1981	41.01	560.86	5.50	–0.20	–5.40
1982	37.27	683.50	5.20	14.73	9.06
1983	184.49	930.71	3.10	8.73[c]	5.46
1984	47.71	1054.92	3.30	8.01	4.56
1985	46.36	1174.09	4.20	6.75	2.45
1986	48.16	1302.43	1.00	6.69	5.64
1987	124.2	1463.48	2.20	2.78[c]	0.57
1988	56.83	1635.82	2.40	7.74	5.22
1989	54.93	1794.29	4.50	6.23	1.65
1990	46.4	1842.88	4.60	0.12	–4.28

[a] *Inflation in Geneva from August to August for the years 1956 to1966, and from December to December for the years 1967 to 2004.*

[b] *Performance based on inflation from August to August for the years 1956 to 1966, and from December to December for the years 1967 to 2004.*

[c] *The calculation takes account of the repayment of the amount owing from the Organization.*

Table 6: Performance of the Investments (continued)

Year	Contributions balance	Funds held (31/12)	Inflation in %[a]	Overall performance in %	Overall real performance in %[b]
(A)	(B)	(C)	(D)	(E)	(F)
1991	55.8	2067.82	5.50	9.04	3.36
1992	43.24	2280.07	3.20	8.09	4.74
1993	32.25	2519.93	3.70	9.04	5.15
1994	23.89	2521.84	0.40	–0.87	–1.26
1995	23.76	2654.78	2.00	4.31	2.26
1996	6.90	3075.83	0.70	15.58	14.78
1997	0.47	3330.09	1.20	8.25	6.97
1998[d]	–22.10	3507.17	–0.10	6.00	6.11
1999[e]	–33.47	4048.06	1.70	13.04	11.15
2000	–40.74	3992.47	1.40	–0.37	–1.74
2001	–52.13	3805.69	0.70	–3.39	–4.07
2002	–64.71	3531.70	1.00	–5.55	–6.48
2003	–89.43	3750.27	0.90	8.83	7.86
2004	–103.42	3852.62	1.60	5.56	3.90
2005	–111.92	4209.49	1.20	12.35	11.02

[d] *The reimbursement of the amount owing from the Organization has not been taken into account as it was received on 31/12.*

[e] *The calculation base takes account of the additionnal credit of 105.3 MCHF as at 31/12/98 and corresponds to assets amounting to 3612.47 MCHF (C(i-1)).*

- (B) Difference between contributions received and benefits paid (re-stated on a cash basis).
- (C) and (D) from Annual Reports.
- (C) Funds include debtors and creditors.
- (D) Inflation from August to August.
- (E) = (–1 + (C(i) – B(i) / 2) / (C(i–1) + B(i) / 2)) * 100
- (F) = ((E) – (D)) / (1 + (D) / 100)

NB: Long-term cumulated performances are presented in Table 12.

For all securities (bonds and equities), the performance obtained is based on market prices and the exchange rate on the last day of trading in the year. Accrued interest is part of overall assets. With regard to the valuation of real estate, Chapter 4.10 gives full information on the policies followed.

In 2005, the performance comparison performed by the consultancy firm Watson Wyatt, commissioned by the Swiss Association of Provident Institutions (ASIP), shows that the participating Swiss pension funds achieved an overall performance of 13%. At the same time, the Crédit Suisse index of Swiss pension funds indicates gains of 12.6%, based on data provided by Global Custody. With returns of 12.4%, the CERN Pension Fund achieved a comparable level of performance. There are two reasons why the Fund was not able to outperform these two benchmarks. Firstly, Swiss equity accounts for 50% of the equity holdings of Swiss provident funds, compared with a mere 3% for the CERN Pension Fund. With a performance of 35.6%, the Swiss stock market outperformed most other developed-world stock markets by a wide margin. Secondly, the Fund's currency overlay policy had a negative impact on its 2005 results. Many Swiss funds do not hedge their exchange-rate risk, and this was another positive factor in their favour in 2005.

It should be noted that the Fund's total assets are in excess of 4.2 BCHF for the first time. The 4 BCHF milestone had been previously achieved only once, at the end of 1999. Assets had then declined to 3.5 BCHF at the end of 2002 before beginning their renewed upward trend in 2003.

4.5 Contribution of Asset Classes and Managers to the Performance

The table below gives the contribution to the annual performance of each asset category for the year 2005 and the year 2004 for comparison:

Table 7: Summary of the Annual Performance of Each Asset Category

	Annual performance 2004	Annual performance 2005
Total assets	+5.6%	+12.4%
Bonds*	+5.1%	+8.1%
Debt	+3.7%	+4.7%
Equity	+7.7%	+25.7%
Real estate	+6.3%	+8.9%
Cash and equivalent	+2.5%	+2.0%

* *Without the amount owing from the Organization.*

Equities: In 2005 the equity portfolios systematically performed extremely well on the whole. With an increase of 25.7% in this asset category, the Fund's performance was slightly below the international equity index calculated by Morgan Stanley Capital International (MSCI World in Swiss francs), which rose by 26.9% over the year. In local currency terms, the performance of the US market brought the Fund a fairly low return (4.9%) but this was offset by the appreciation of the dollar, which resulted in a performance of +21.6% in Swiss franc terms. The European markets performed well with a substantial gain of 26.8% in Swiss franc terms (MSCI), which was only marginally affected by the slight rise of the euro and the pound sterling against the Swiss franc. Over the year, in addition to the European market, the components that made the biggest contribution to performance were Asia ex-Japan (+43.9%), Japan (+41.8%) and European small and medium caps (+45.8%).

Bonds: The Fund's bond portfolios progressed by 8.1% overall and have a comparable performance with the JP Morgan world sovereign debt index (JP Morgan Government Bond Index Global) expressed in Swiss francs, which progressed by 8.3%.

The combined (equities and bonds) movable assets yield, excluding derivatives and the other assets, was 17.7%, which compares rather favourably with that of other Swiss pension funds and with the 14.5% performance of the Pictet LPP 2000–40[1] reference index.

Debt: The yield from the amount owing to the Fund by CERN was 4.7%. The performance of the cash deposited with the Federal Swiss authorities in Bern stood at around 2%, while the remaining cash generated just under 1%.

Real Estate: With constant parameters (i.e. with an unchanged real-estate portfolio), the real-estate portfolio achieved an increase of 8.93% on the average value of the properties. Taking account that, in income terms, performance amounted to 5.6%, the capital appreciation was 3.3%, which is to be added to the net income obtained and is part of overall performance. The building at Amstelveen S.E. in the Netherlands, the Fund's largest building in terms of floor area, has again been subject to a reduction in value, which has detracted from the Fund's performance. With three exceptions, the Fund followed the valuation recommendations of the specialists entrusted with appraising the value of the properties in the portfolio. In two cases it was more cautious, only taking part of the increase in value into account, while in the third case the value was adjusted to reflect the signing of a purchase agreement for a higher amount than the valuation. Diversification in several different countries and several types of property to avoid over-dependence on a single market is always essential, which assumes a certain overall critical mass of properties.

In 2005 the income from real-estate investments was 26.2 MCHF, the same figure as in 2004. A decrease in rents in France in local currency terms was offset by a more favourable exchange rate. The value of the Fund's real-estate

[1] LPP 2000–40 is an index reference calculated by the Banque Pictet for Swiss pension funds and corresponds to an allocation of 60% in bonds and 40% in equities, which is very close to the Fund's strategic asset allocation.

holdings based on the evaluation procedure set out in Annex V was 473.9 MCHF, compared to 459.5 MCHF in 2004. This represents an increase of 14.4 MCHF (including 2.4 MCHF for exchange rate fluctuations) due to improved estimations of market value following the upturn in the British, Swiss and French real-estate markets. The Netherlands and German markets remain difficult and generate little return for the Fund. The portfolio has generated a return of 7.6% since its creation.

Absolute Return Strategies: see under Chapter 4.12.

Table 8: Income from the Real Estate Portfolio as at 31.12.2005

Country Properties	Nature of Property	Year of		Gross income received[a] in 2005
		Acquisition	Construc-tion	
(1)	(2)	(3)	(4)	(8)
Switzerland				
Gd-Saconnex	492 Residential flats	1964	1964/8	5.52
Meyrin	54 Residential flats	1965	1964	0.59
United Kingdom				
Babraham Farms	700 ha Farming land	1982	–	0.43
France				
Nanterre	1 200 m^2 Offices 2 100 m^2 Industrial warehouses	1984	1983	0.04
Levallois-Perret	1 706 m^2 Offices	1984	1972	0.72
Forests (7)[b]	2 668 ha Commercial woodlands	1984/5/6/9	–	0.12
Lyon Charlemagne	7 632 m^2 Offices	1985	1985	0.45
Lyon Brumaire	2 500 m^2 Offices	1989	1990	0.40
Paris (Opéra)	5 418 m^2 Offices and flats	2000	1878[c]	2.44
Paris (Saint-Honoré)	3 054 m^2 Offices	2000	18th century[c]	2.63
Boulogne	4 877 m^2 Offices	1987	1988/89	1.65
Ferney-Voltaire	Service flats and residential	1988	1989/90	1.88
Neuilly	2 000 m^2 Offices with parking	1995	1995	1.34
Paris (N.-D.-d.-Victoires)	4 458 m^2 Offices and flats	2003	19th century[d]	1.73
Netherlands				
Amstelveen	2 369 m^2 Offices	1986	1987	0.64
Amsterdam S.E.	13 800 m^2 Offices	1987	1985	2.67
Hoofddorp	8 200 m^2 Offices	1992/93	1992/93	2.06
Germany				
Berlin	3 981 m^2 Offices	2002	1907[c]	0.84
Totals				**26.15**

[a] *Converted to Swiss francs where appropriate*
[b] *The Jouy Forest (119 ha) was sold in October 2005.*
[c] *Major refurbishment 1980 onwards.*
[d] *Rénovation lourde dans les années 1980.*

4.6 Currency Overlay

As the reporting currency and the payment of benefits are in Swiss francs, non-Swiss investments expose the Fund's total assets to currency risk. In fact, currency is an integral component of the risk and performance of each investment and its impact on overall performance must be analysed and if possible neutralized.

The aim of non-Swiss-franc investments is twofold: first, to reduce the overall risk of the Fund by diversification and, secondly, to increase the overall return potential through higher-yield performances on foreign markets. In 1996, the Fund elected to diversify its exposure outside the Swiss franc in order to reduce its overall risk and to achieve its long-term return objectives as defined by the actuarial reviews, as well as, in parallel, covering itself against the exchange risk. Overall, this policy has had the desired effect.

In the second half of 2004, the Investment Committee adopted a fixed 70% hedge ratio for foreign currencies excluding the euro, for the whole Swiss franc exposure of the Fund.

The management of currency overlay as defined by the Governing Board was entrusted to two fund managers, JP Morgan Fleming Asset Management (2/3 of the programme) and FX Concepts (1/3 of the programme) from early 2004 onwards. However, the currency overlay programme was restructured at the end of November 2005 and the passive management of the currency overlay was entrusted entirely to FX Concepts. As currency as an active asset class has historically been shown to be value-adding, two low-risk pure alpha currency mandates (where the manager is asked to achieve a positive return compared to an asset class assumed not to generate any alpha) were initiated with unleveraged notional values of 100 MCHF each, one entrusted to JP Morgan and the other to FX Concepts. It was felt that, by splitting the passive and active parts of the overlay, there would be more flexibility for the overlay and greater transparency in the evaluation of the active part as well as fewer management constraints for the active managers. The performance and effectiveness of the managers will be reviewed after one year.

Until 30 November 2005, the currency return of the Fund's underlying assets was +9.34%, before the effect of the overlay. After the impact of the 70% CHF overlay benchmark, the currency return was +1.53%. JP Morgan Fleming's active management relative to the 70% CHF index (70% hedging of all currencies except the euro) resulted in an outperformance of 81 bp[1] over the year, leading to an excess gain of approximately 6.2 MCHF versus the benchmark. The active management of FX Concepts relative to the index led to an outperformance of 137bp over the year, giving a gain of approximately 5.8 MCHF versus the benchmark.

Until end November 2005	**Outperformance**	**Benchmark**	**Total**
JP Morgan	+6.2 MCHF	–58.4 MCHF	–52.2 MCHF
FX Concepts	+5.8 MCHF	–31.0 MCHF	–25.2 MCHF
Total	+12.0 MCHF	–89.4 MCHF	–77.5 MCHF

Overall, since 1997, the currencies in the portfolio have had a negative annual performance of 0.23%, with a volatility of 3.74%. The benchmark for 70% currency overlay registered a negative performance of 7% over the year but reduced risk to the level of 1.47%. Thus, while in terms of performance the Fund has been penalised for using currency overlay, it has benefited from it in terms of reduced risk. It should also be noted that this overall result has been strongly influenced by the upturn in the US dollar in 2005.

4.7 Derivatives

The CERN Pension Fund has found that using derivatives is an effective way of gaining exposure to markets (particularly equities) as an alternative to investing cash in those markets directly. Before 2003, the Fund's use of derivatives (excluding the internally run portfolios where the use of derivatives was sometimes important as a protection for underlying positions by the purchase of put options) was confined to small positions taken by the Chairman and Administrator (sanctioned by the Investment Committee) with a view to profiting from investment areas (eg. commodities, emerging market equities) without running an actual cash portfolio. The maximum nominal value of this exposure was 60 MCHF (around 1.5% of the total Fund) and this limit was rarely reached.

[1] Source: JP Morgan Quarterly Reports

The derivatives programme was substantially increased in 2004/2005, however, when, as a result of poor performance by active managers in key equity markets (eg. the US) and encouraged by the desire to take advantage of the high yield received on the cash held in Swiss francs, the Investment Committee decided to sanction a much larger use of derivatives to comply with the strategic asset allocation. This was done gradually whilst eliminating or reducing poorly performing actively run mandates. The Fund also found using futures an effective way of initiating investments in Japanese equities (which until early 2003 had been reduced to 0% in the actual allocation) at a time when the Fund had no portfolio manager in that sub asset class. Regarding this last aspect, the Fund will be initiating a search for a Japanese equity manager in 2006 because the region is thought to be an area where active managers can add value above the standard Topix index. This will lead to a reduction in the amount of Japanese derivatives.

Derivatives (excluding the equity and bond portfolios) added +87.6 MCHF to the 2005 accounting gain. This can be subdivided into the contribution from tactical asset allocation of +80.5 MCHF and from operations of the Chairman of the Investment Committee & Administrator of +6.9 MCHF. A detailed breakdown is provided below:

Tactical Asset Allocation:

US Equity (S&P 500):	+1.4 MCHF
Japanese Equity (Topix):	+73.6 MCHF
European Equity:	+3.5 MCHF
Commodity Futures:	+2.0 MCHF

Operations of Chairman of Investment Committee & Administrator:

US Equity (S&P 500):	+0.4 MCHF
Japanese Equity (Nikkei):	+3.5 MCHF
European Equity:	–0.2 MCHF
Emerging Market Equity:	+2.1 MCHF
Commodity Futures:	+1.1 MCHF

Derivatives used by the external fund managers, who are entitled to use such products only in a defined framework of hedging operations without leverage, registered a loss of –0.7 MCHF. The internal management unit recorded a gain of +0.9 MCHF.

4.8 Internal Management and Performance

Equity Portfolios

United States: During the year, following a strategic decision by the Investment Committee, the internally-managed U.S. equity portfolio was converted into a passive portfolio. The change was made at very little cost and without major difficulty.

Europe: During the first six months of the year, the shares in firms that seemed to offer the best fundamentals and which were heavily overweighted in our portfolio did not perform as expected. As a result, there was a slight fall in the value of the portfolio compared to its benchmark.

During the second half of the year, the surprising strength of the dollar in the end vindicated the choices made by the internal managers. Shares in the insurance and semi-conductor manufacturing sectors contributed strongly to the portfolio's recovery.

In October, following a decision by the Investment Committee, the amount of the internally managed European portfolio was reduced by one quarter. In spite of the handicap caused by so much liquidity, the internally managed portfolio was able to remain in balance and to record a performance that was perfectly in line with its benchmark.

Table 9: Internal Management Structure

Investment Category	Benchmark[a]	Performance	Relative performance
European bonds 876.9 MCHF	**JP Morgan Govt Europe** Internal management	**+6.6%** +7.6%	 +1.0%
Shares. passive mandates **Large capitalizations** 120.7 MCHF	 **S&P 500** Internal management	 **+4.4%** +4.3%	 –0.1%
Shares. active mandates **Large capitalizations** 181.0 MCHF	 **S&P 350 Europe** Internal management	 **+26.8%** +26.7%	 –0.1%

[a] *The benchmark values are shown in bold.*

Bond Portfolio

As in the previous year, the main options open to investors to add value remained limited. With lower quality bonds already having performed strongly and the returns on most of the markets included in the benchmark not offering significant differences, the main decision during the year was to remain heavily overweighted in UK bonds. By this strategy, the managers were able to take advantage of the strong outperformance of the pound sterling, the higher performance by euro-denominated bonds and the narrowing of the differences between the latters' rates and those of UK pound-denominated bonds (thus resulting in a more significant capital gain).

Several changes to the portfolio's sensitivity to interest rate movements in the event of market excesses also pushed the performance of the internal portfolio well beyond the benchmark, confirming the excellent performance of this portfolio over the long term.

4.9 External Management and Performance

The following table shows the external management structure at the end of the year, as well as the managers' performances.

In the bonds segment, the JP Morgan Fleming Global Fixed Income mandate outperformed the benchmark by 55bp. Since the mandate was awarded in October 1997, the portfolio has outperformed by an average of 56bp per annum, justifying the retention of JP Morgan as an active global bonds manager.

There are now only six active external equity and bond managers in the Fund. The number and nature of the mandates have been optimised over the last three years by the Investment Committee, according to the managers' performances.

As the previous year, there were again some very good performances by the equity managers in the Fund. The best outperformance was +8.1 percentage points, achieved by the UBS European Small Cap portfolio. The MFS European portfolio had a second successive year of above-target outperformance of +2.4%. The Legg Mason US portfolio also outperformed for a second year running, beating the S&P 500 benchmark by 2.4%. The Rothschild Asia ex Japan did not do as well as the previous year but still outperformed its benchmark by 0.8%. Finally, the Lee Munder US Small Cap portfolio underperformed by 0.7%.

In themselves, annual performance figures are clearly not enough to evaluate the quality of the different managements in place. What is important to follow is the long-term results. The risk-return ratio is therefore of fundamental importance. Volatility and tracking error measurement in relation to benchmarks are essential components of investment policy.

Table 10: External Management Structure

Investment category	Benchmark[a] – Manager	Performance in CHF	Relative performance
Global bonds			
243.6 MCHF	**Lehman Brothers Global Aggregate**	**+9.2%**	
	– JP Morgan Fleming Asset Management, London	+9.8%	**+0.6%**
Equities, passive mandates			
187.5 MCHF			
Large caps:	**MSCI Europe**	**+26.8%**	
	– UBS Asset Management, Zurich	+26.5%	**–0.3%**
Equities, active mandates			
603.1 MCHF			
Large caps:			
	MSCI Europe	**+26.8%**	
269.4 MCHF	– Massachussets Financial Services, London/Boston	+29.2%	**+2.4%**
	S&P 500	**+21.6%**	
176.5 MCHF	– Legg Mason Capital Management, Baltimore	+24.0%	**+2.4%**
	MSCI Asia ex Japan Free	**+43.0%**	
157.2 MCHF	– La Compagnie Financière Ed. de Rothschild, Paris	+43.9%	**+0.9%**
Small caps:			
139.6 MCHF	**Russell 2000 Growth**	**+20.7%**	
50.2 MCHF	– Lee Munder Investments, Boston	+20.0%	**–0.7%**
	MSCI Europe Small Cap	**+37.7%**	
89.4 MCHF	– UBS Asset Management, Zurich	+45.8%	**+8.1%**
Currency overlay			
(Non-European and non-Swiss assets of the Fund)	**70% hedge ratio on non-euro and non-Swiss assets**	**–8.2%**	
1 204.7 MCHF	– JP Morgan Fleming Asset Management, London*	–7.4%*	**+0.8%**
	– FX Concepts, New York*	–6.9%*	**+1.4%**

[a] *The benchmark values are shown in bold.*

* *until 30 November 2005*
Source: State Street (except Currency Overlay), performance reports, amounts as at 31.12.2005 and annual performances.

4.10 Real-Estate Assets and Performance

General

The Real-Estate Assets Management Committee held six meetings during 2005, at which it examined numerous reports and recommendations from the Administration of the Fund and the real-estate coordinator, *Patrimoine et Stratégie Européenne*. In addition to determining the value of properties based on the valuations of the independent experts monitoring the Fund's real-estate portfolio, the Real-Estate Assets Management Committee dealt principally with decisions on the amounts to be allocated to important renovation work and with specific issues relating, in particular, to the European real-estate markets and taxation. On the whole, the tenant occupancy levels for the portfolio may be regarded as good as few premises lay vacant, with the notable exception of the buildings in Amsterdam Zuidoost and Amstelveen. The two tenants concerned vacated but continue to pay their rent.

Acquisitions and Sales

There was no major change in the real-estate portfolio in 2005. The Fund decided to sell two buildings in France but no potential buyers have yet made a firm commitment. However, the Fund has also sold a forest holding for the equivalent of 500,000 euros.

Switzerland

The management of the Fund's properties produced no surprises. The increase in net income from 5.2 MCHF in 2004 to 5.5 MCHF in 2005 reflects the Fund's complete success in obtaining the release of the 300 000 CHF in rents that had been paid into blocked accounts with the Geneva Lease and Rent Tribunal in the framework of the legal proceedings concerning mobile-phone antennae on the roof of flats in Grand-Saconnex. The rent monies were paid back to the Fund at the beginning of 2005.

France

The market stabilised in 2005, with values remaining high. As in previous years, the Fund's properties had a high occupancy level, with the exception of the Nanterre building, which was put up for sale, and the Lyon-Charlemagne building, whose rate of occupancy was affected by its location within a new development area (Lyon Confluence), where transformation work is in progress. In terms of results, there was a fall in rents owing to difficulties in renting vacated properties and to non-recoverable losses following the termination of rental contracts. Over the year, total rents received amounted to 13.3 MCHF, a fall of 840 000 CHF on the previous year.

While pursuing a policy of updating and indexing rents, the Fund is keen to maintain rents at the going rates to avoid finding itself without tenants in the event of an economic downturn.

United Kingdom

The only property owned by the Fund in the United Kingdom is the Babraham farm near Cambridge, which is a long-term investment. The net income from rents and the various crops grown on the Fund's land fell from 0.5 MCHF in 2004 to 0.4 MCHF in 2005. This poor result is attributable to prices on the international agricultural markets and to falling yields per hectare due to unfavourable climatic conditions. It should be noted that income from the rental of the farm cottages is a stabilising factor compared to the uncertainty of crop production.

Netherlands

The Fund's three properties in the Netherlands are still fully let to three quality tenants, but, in the case of two of them (Amsterdam Zuidoost and Amstelveen), the tenants have decided to concentrate their activities at another site. The Fund is therefore faced with the problem of finding new tenants for large surface areas (13 800 m^2 and 2 369 m^2 respectively) in a difficult climate associated with abundant supply in one case and urban development work in the other. Although income was in line with that of the previous year (approximately 5.4 MCHF), the current valuations of these buildings, with the exception of the Hoofdorp building, are significantly lower than the acquisition price and continue to be negatively affected by the absence of new tenants.

Germany

The building in the centre of Berlin acquired in 2002 is not yet bringing in the expected return despite a satisfactory rate of occupancy. The Berlin market remains depressed, with the vacant surface area far exceeding demand, which often leads to rent reductions when leases are renegotiated. In the medium term, however, the German market in general and the Berlin market in particular will become more international, which, combined with an improvement in the economy, should bring about a more buoyant real-estate market.

Forests

The Fund's woodlands have been more actively exploited for several years, resulting in higher levels of income than in the past. In 2005, however, this type of investment again generated poor levels of return with respect to the amount of funds invested in such real-estate holdings. The Fund succeeded in reducing the number of its forests by one and is still exploring means of capitalising on its investments in this area.

4.11 Amount Owing from the Organization to the Fund

At the end of 2004, the amount recorded in the Fund's and in the Organization's accounts as outstanding from the Organization stood at 454 432 175 CHF.

Following the agreed repayment schedule (CERN/FC/4563–CERN/2441), the amount outstanding at 31.12.2005 was 452 269 946 CHF.

It should be borne in mind that the real rate of interest for servicing the amount in question is 3%. Repayment extends to 2030. This claim on the Organization by the Fund has existed since the 1980s.

Table 11: Plan of Amortization of the Debt to the Pension Fund Including Additional Payment of 7.95 MCHF in Dec. 98 and 3.170 MCHF in Dec. 99, Recovered in 2001 (2.0 MCHF), in 2002–2005 (2.1 MCHF) and in 2006 (0.72 MCHF) (2006 Prices) (Amounts in MCHF)

Year	Amortization	Interest	Amortization and interest	Debt
	I	II	III = I + II	IV
	Debt at 2004 prices (index = 0.7%)			**463 723 169**
2004	**9 290 994**	**13 724 995**	**23 015 989**	**454 432 175**
	Debt at 2005 prices (index 1.7%)			**462 157 522**
2005	**9 887 576**	**13 673 029**	**23 560 605**	**452 269 946**
	Debt at 2006 prices (index 1.2%)			**457 697 185**
2006	11 833 665	13 535 993	25 369 658	457 496 258*
2007	12 951 184	13 181 360	26 132 543	444 894 056
2008	13 339 719	12 792 825	26 132 543	431 913 789
2009	13 739 911	12 392 632	26 132 543	418 544 114
2010	14 152 108	11 980 436	26 132 543	404 773 348
2011	15 063 926	11 942 152	27 006 078	389 709 422
2012	15 515 845	11 490 234	27 006 078	374 193 577
2013	15 981 319	11 024 759	27 006 078	358 212 258
2014	16 460 759	10 545 319	27 006 078	341 751 499
2015	16 954 582	10 051 497	27 006 078	324 796 918
2016	17 463 219	9 542 859	27 006 078	307 333 699
2017	17 987 116	9 018 963	27 006 078	289 346 583
2018	18 526 730	8 479 349	27 006 078	270 819 853
2019	19 082 531	7 923 547	27 006 078	251 737 322
2020	19 655 008	7 351 070	27 006 078	232 082 315
2021	20 244 657	6 761 421	27 006 078	211 837 657
2022	20 851 997	6 154 081	27 006 078	190 985 660
2023	21 477 557	5 528 521	27 006 078	169 508 104
2024	22 121 884	4 884 195	27 006 079	147 386 219
2025	22 785 542	4 220 537	27 006 079	124 600 677
2026	23 469 108	3 536 971	27 006 079	101 131 569
2027	24 173 180	2 832 898	27 006 078	76 958 389
2028	24 898 376	2 107 702	27 006 078	52 060 013
2029	25 645 326	1 360 752	27 006 078	26 414 687
2030	26 414 687	591 391	27 006 078	

* *Including the additional compensation of 11.16 MCHF agreed by Council in December 2005.*

Movements during 2005 were as follows:

Balance as at 31.12.2004	454 432 175 CHF
Indexation (1.7%)	7 725 347 CHF
Interest on indexed balance (3%)	13 673 029 CHF
Net balance	475 830 551 CHF
Total paid in 2005 under repayment schedule	(23 560 605 CHF)
Balance as at 31.12.2005	452 269 946 CHF

The Organization paid the due interest and principal on 4 July and at the end of the year (29.12.2005).

4.12 Alternative Investments

Commodities: The decision to introduce a new asset class like commodities was taken for two reasons: it provides the Fund first with a means of hedging against unexpected inflation and second with a means of diversification as commodities are not correlated with other asset classes. The commodities basket is composed as follows: 50% energy, 15% copper, 15% livestock, 10% agriculture, 5% sugar, 5% gold. The Fund's basket has a lower weighting in energy products than the Goldman Sachs commodities index. In 2005, the basket outperformed the Goldman Sachs index, generating a return of 1.5 MUSD.

Private equity investments: The Private Equity portfolio was completely reviewed in 2005. It emerged that this asset class, in which CERN has held investments since 1993, has performed well and achieved its objective by generating a higher return than traditional equity. This is entirely in line with expectations since investors in private equity will expect to earn an illiquidity premium. As it stood in 2005, the private equity portfolio was overweight in venture capital and underweight in development capital and buyouts. In 2005, the situation was balanced out through commitments to companies specialising in the latter activities, namely Vestar V, BC Partners, Charterhouse VIII and Alpha Private Equity. Only one venture-capital holding remains – Neomed IV. In addition to the above, a number of direct investments were made, on the recommendation of a specialised consultancy firm, for a total value of under 2 MCHF.

Absolute Return Strategies: In order to enhance the investment process and to avoid, or at least minimise, capital losses during market downturns, an absolute return portfolio was set up, and its management was entrusted to a Spanish company specialising in quantitative systems. The portfolio comprises equity, bonds and cash-account funds managed by various managers. The aim is not to beat a relative benchmark but to obtain an absolute return. The Fund has defined a maximum volatility threshold of 15%, which allows it to set an annual return objective of 9% over three years. In 2005, this investment generated returns of 14.6%, in line with expectations. This type of investment is intended to provide greater long-term stability than a conventional portfolio.

5 Long-Term Results

All the experts agree that future rates of return (performance) will not reach the levels of the 1990s during the next ten years. In fact, bond yield rates have fallen significantly (from 8% to 4%). It must be expected that the bond markets will offer returns of around 4% in the medium term and the equity markets a performance of the order of 7%. In these circumstances, the Governing Board's decision to reduce the rate of return from 6% to 5% appears fully justified but is not a reflection of a lack of confidence in the future of capitalised funds. The policy to be adopted depends on the maturity of the Fund. For an ageing fund bearing a significant commitment associated with the mathematical reserve for its beneficiaries, building up capital again is more difficult because of the negative cash-flow balance between benefits to be paid and contributions received. Asset allocation must therefore be very cautious.

The purpose of assets/liabilities modelling is to provide a framework for strategic decisions that are dependent on the risk budget a pension fund can afford and on the sharing of risk between the various parties. A new comprehensive ALM study will be carried out in 2006.

Based on the 4.5% technical rate and the expected returns as shown below, the expected performance is of the order of 5%, with a standard deviation of 10.5%. The compound return is of the order of 4.5%, very close to the technical rate after currency hedging (see also Chapter 4.2).

Table 12: Comparison Between the Assumptions of the Technical Balance Sheet and The Actual Data

	Assumptions Technical Balance Sheet[a]	1957–2005 49 years	1986–2005 20 years	1996–2005 10 years	2001–2005 5 years
Gross performance TWR[b]	–	5.1%	5.5%	5.8%	3.3%
Gross performance IRR	5.0%	5.6%	5.6%	5.9%	3.1%
Rate of pension adjustment	2.0%	– [c]	1.9%	0.7%	0.8%
Inflation	–	3.2%	2.1%	1.0%	1.1%

[a] *Assumptions decided by the Governing Board on 2 November 2004 and approved by the CERN Council in December 2005 (CERN/FC/4993–CERN/2637).*

[b] *Geometric mean of annual performance for the period under consideration (TWR).*

[c] *There were no pensions in payment during the first six years of the Fund's existence and the pensions paid during the following fifteen years or so account for only a very small percentage of the total pensions paid at 31.12.2005.*

In 2005, returns of 12.4% were achieved. Over five years, the average performance (time-weighted return) increased from 0.9% (2000–2004) to 3.3% (2001-2005), i.e. by almost 2.4 percentage points. The reason for this sharp increase is that the statistics now reflect a very good year (2005) and no longer include data from a somewhat negative year (2000). Over ten years, the overall performance of 5.9% is higher than the new rate of return set by the CERN Council. Taken over the 49 years of the Fund's existence, the last three years' positive results, which came on the back of three particularly tough years, have had no great impact on long-term performance. The 5% rate used in the actuarial assumptions has nonetheless been exceeded, and this shows that the 4.5% long-term technical rate chosen by the CERN Council is consistent with the gross rate of return generated by the Fund since its inception. This rate of return has only been possible over the past fifteen years owing to the investment of a large proportion of the Fund's assets in equity portfolios with the aim of optimising long-term profitability. If, for whatever reason, this policy were to change with a view to limiting risks and increasing the weighting of government bonds in the portfolio, the return on investment would suffer and the technical rate would have to be reviewed.

6 Value at Risk

The Fund has once again undertaken to measure the degree of risk of its investments by embarking on a calculation of 'value at risk'. For the Fund, this has involved calculating, every year and with a confidence level of 95%, the maximum potential loss under normal market conditions. The outcome was that the loss for this period could have been in the order of 273 MCHF based on the Funds'assets and its allocation at the end of 2005, corresponding to 6.5% of the Fund's total assets (225 MCHF at the end of 2004, corresponding to 5.8% of the total assets). This upward trend is explained by the fact that the equity allocation, including derivatives, rose sharply in 2005. Diversification in terms of geographical areas and types of equity, as well as decorrelation, always generates a significant reduction in portfolio risk. Without this diversification of asset classes, countries and currencies and without currency overlay, the risk exposure of total assets would have been much greater.

7 Actuarial Results in Closed-Fund Terms

Every year the Fund reviews its actuarial position using the closed-fund method, which gives a snapshot of the financial position of the Fund at a given moment, i.e. in this case as at 1st January 2006, without taking future developments into account. The results of the 2005 review can be found below.

Taking into account the new equilibration measures approved by the CERN Council in December 2005 (CERN/FC/4993–CERN/2637), in particular the decision to rely on a simulation of the choices made by staff members between the transfer value and a deferred pension that is based on the proportions actually observed (Recommendation No 3) as well as the Fund's performance in 2005, there has been a strong improvement in the funding ratio from 87.65% as at 1st January 2005 to 101.0% as at 1st January 2006. Almost half the reduction in the technical deficit with respect to 2005 may be attributed to the exceptional historical performance obtained, which corresponds to a 5.9 pp reduction in the technical deficit (former calculation method). The remainder of the funding ratio improvement (7.2 percentage points) may be attributed in particular to the new method of simulating the choice of transfer values.

Table 13: Funding Ratio Using the Closed-Fund Method (Technical Rate of 4.5% without taking account of future indexation of benefits)

	1st January 2005	1st January 2006	1st January 2006
	Old calculation method		New method
Fund's Assets (KCHF)	3 852 619	4 209 487	4 209 487
Actuarial Commitments[a] (KCHF)	4 395 528	4 496 953	4 175 782
– pensioners' share	2 798 073	2 942 403	2 952 281
– active members' share	1 541 494	1 466 278	1 139 940
– life-expectancy provision	55 961	88 272	73 807
Technical balance (KCHF)	(542 909)	(287 466)	44 460
Funding ratio	87.7%	93.6%	101.0%

[a] *Without taking account of future indexation of benefits.*

The mathematical reserve for pensioners is becoming increasingly predominant and currently accounts for nearly three-quarters of the Fund's actuarial commitments (compared with a little over two-thirds ten years ago). Based on the number of pensioners at the end of 2005, this amounts to 1 MCHF per beneficiary, spread across all beneficiary categories. It is clear that the inertia due to the sheer size of the mathematical reserve for beneficiaries (twice the reserve for active members) has the greatest impact on the balance of the Fund when pensions are indexed, even when the level of indexation is low.

With a funding ratio of 100%, the Fund's risk capacity (above all the scope for investing in higher-performance equities) has improved, although it remains largely insufficient. In the current circumstances, only a funding ratio of about 120% would provide the safety margin needed to achieve the technical rate (4.5%) used in the actuarial review or, in closed-fund terms, the means to grant future indexation of benefits. From this standpoint, the Fund still finds itself on the horns of a dilemma—on the one hand, bond yields are safe but insufficient to guarantee the Fund's balance, while equity markets, which do generate higher yields, are very uncertain in the short term. This being the case, the only way the Fund will be able to extract itself from this dilemma is by taking a long-term view in its investment decisions.

8 Accounts

8.1 Financial Situation

A simplified overall view of the movements recorded in the Fund's accounts is given in the following table. The table shows the change in the net assets ('funds held') of the Fund between 31.12.2004 and 31.12.2005.

Table 14

Funds held at 31.12.2004					**3 852 619**
Activity during the year 2005					
Incomings			**Outgoings**		
Contributions			**Benefits**		
Contributions & validations	+120 945		Pensions	–229 254	
Purchase of added years	+1 255		Refunds	–478	
Validation of previous periods of membership			Transfer values	–7 066	
Indemnities from third parties	+134				**–236 798**
		+122 334			
Compensation for early departures	+2 025		**Expenditure**		
Compensation for PRP	+519				
		+2 544	Portfolio costs		
Income			– Bank charges	–48	
			– Management costs	–6 958	
Interest other than on bonds	+20 004		– Custody fees	–1 818	
Interest & dividends	+66 612		– Taxes paid	–1 827	
Real Estate	+34 243		Real Estate		
Amount owing from CERN (indexation & interest)	+21 398		– Expenses	–7 958	
			Administrative costs of the Fund	–3 302	
Income from other sources	+308				**–21 911**
		+142 565			
Results on operations					
– Sales	+209 197				
– Foreign exchange	–91 793				
		+117 404			
Revaluation of assets					
Moveable Assets	+215 588				
Real estate	+15 119				
		+230 707			
Heating plant fund					
Change in heating plant fund		**+23**			
Total : +615 577			**Total : –258 709**		
Net increase: 356 868					
Funds held at 31.12.2005					**4 209 487**

In thousands of Swiss francs (rounded)

9 Annual Accounts

The following three tables summarise the situation in 2005 as well as in 2004.

The Balance Sheet shows the financial situation of the Fund and includes the transfers to/from the accounts below, showing the amount the Fund has accumulated to meet its commitments.

The Profit and Loss account shows the result realised for the year, i.e. profits and losses made on investments, the increase or fall in the value of assets and the amounts available for investment.

The Benefits and Contributions account shows the amount of contributions received and the benefits paid out, the difference being made up from the Fund's assets.

9.1 Balance Sheet

	at 31.12.05		at 31.12.04	
	CHF	**CHF**	**CHF**	**CHF**
1. Assets				
1.1 Current accounts		62 687 250.90		32 810 612.51
1.2 Deposit accounts		741 524 108.89		833 571 804.70
1.3 Loans		83 330.00		99 997.00
1.4 Securities				
– Conventional bonds	1 142 597 929.13		941 633 564.58	
– Equities	1 031 270 573.73		888 076 169.50	
– Investment funds & index investments	354 422 769.22	2 528 291 272.08	233 448 884.55	2 063 158 618.63
1.5 Derivatives		0.00		628 361.46
1.6 Real estate				
– Residential properties CH	133 047 000.00		129 580 000.00	
– Agricultural property GB	15 632 238.75		14 677 117.26	
– Commercial properties D	16 323 171.90		16 228 829.68	
– Commercial properties F	202 018 684.61		189 800 027.15	
– Residential property F	27 671 662.84		26 275 248.06	
– Forests F	26 911 469.40		26 275 248.06	
– Commercial property NL	52 265 241.84	473 869 469.34	56 692 711.70	459 529 181.91
1.7 Amount owing from CERN		452 269 946.00		454 432 175.00
Plus				
2. Current assets & receivables				
2.1 Sundry debtors				
– Tax administrations	797 835.18		756 047.44	
– Estate agencies	2 604 979.17	3 402 814.35	2 651 990.54	3 408 037.98
2.2 Receivables				
– Income outstanding	15 660.05		996 381.35	
– Accrued interest	19 749 019.70		17 714 490.02	
– Accrued dividends	1 277 499.38		779 509.60	
– Open settlements	13 749 878.66		30 902 212.89	
– Open forward foreign exchange contracts	3 195 939 858.94	3 230 731 916.73	1 860 157 183.43	1 910 549 777.29
2.3 Advance payments		23 713.47		
2.4 Cash held by third parties				
– Real-estate bank accounts	527 082.83		783 289.09	23 395.23
– Margin accounts with brokers	2 029 975.87	2 557 058.70	10 000 494.23	10 783 783.32
Total assets of the Fund		**7 495 440 880.46**		**5 768 995 745.03**
Less				
3. Current liabilities & payables				
3.1 Sundry creditors				
– Members of the Fund	1 836 004.50		1 885 728.05	
– Retentions (tenants)	3 179 434.36		3 211 944.81	
– Real estate	3 569 403.88	8 584 842.74	3 548 931.66	8 646 604.52
3.2 Payables				
– Expenditure outstanding	4 646 951.97		2 563 084.84	
– Reimbursements of contributions	1 253 032.00		904 928.00	
– Pre-payments received	2 274 830.00		2 056 296.00	
– Open settlements	73 253 922.94		42 048 408.80	
– Open forward foreign exchange contracts	3 195 939 858.94	3 277 368 595.85	1 860 157 183.43	1 907 729 901.07
Total assets less current liabilities		4 209 487 441.87		3 852 619 239.44
Total net assets of the Fund		**4 209 487 441.87**		**3 852 619 239.44**

	at 31.12.05		at 31.12.04	
	CHF	**CHF**	**CHF**	**CHF**
4. Capital of the Fund		**4 187 659 923.93**		**3 831 451 408.35**
Plus				
4.1 Provisions				
– General provision for real-estate repairs	21 566 000.00		20 929 000.00	
– Heating plant fund, Grand-Saconnex	261 517.94	21 827 517.94	**238 831.09**	21 167 831.09
Total Capital & Provisions		**4 209 487 441.87**		**3 852 619 239.44**

5. Actuarial commitments and provision for fluctuations

	2005		2004	
Actuarial liabilities:		4 166 027 828		4 395 527 830
– active members	1 139 940 091		1 541 494 151	
– pensioners[a]	2 952 280 719		2 798 072 234	
– life-expectancy provision	73 807 018		55 961 445	
Net assets available for paying benefits		4 209 487 442		3 852 619 239
Solvency in CHF		43 459 614		–542 908 591
Fluctuation reserve				

[a] *Without future indexation of benefits*

6. Derivatives
Instruments
Futures

Contract Type	**Currency**	**Contract Value**	**CHF**
– BOVESPA	BRL	8 091 283	4 566 006
– TOPIX	JPY	10 268 400 000	114 659 306
– EUROSTOXX	EUR	19 409 500	30 173 772
– GOLD	USD	3 052 440	4 022 963
– COPPER	USD	4 656 250	6 136 705
– COPPER	USD	2 710 425	3 572 205
– LIVE CATTLE	USD	6 049 632	7 973 112
– SUGAR	USD	1 136 016	1 497 212
– SUGAR	USD	1 721 978	2 269 481
			174 870 762
SWAPS			
– GS Petroleum	USD	18 894 789	24 902 387
– TSE2	JPY	2 382 199 860	26 600 189
– GS Agriculture	USD	9 000 000	11 861 550
– TOPIX	JPY	10 264 143 000	114 611 771
– TOPIX	JPY	2 785 115 235	31 099 235
– S&P	USD	106 552 085	140 430 320
– S&P	USD	56 795 083	74 853 080
			424 358 532
			599 229 294
By markets			
– Japanese Equity			286 970 501
– European Equity			30 173 772
– US Equity			215 283 400
– Commodities			62 235 615
– Brazilian Equity			4 566 006
			599 229 294

9.2 Profit and Loss Account

	31.12.05		31.12.04	
	CHF	**CHF**	**CHF**	**CHF**
1. Income				
1.1 Interest on current accounts	272 346.28		248 156.48	
1.2 Interest on deposit accounts	19 728 401.97		15 123 292.25	
1.3 Interest on loans	3 749.88		4 569.34	
1.4 Interest on bonds:				
– conventional	40 513 245.38		41 518 365.14	
1.5 Dividends:				
– on equities	20 241 605.43		19 234 126.72	
– from investment funds	5 856 613.51		6 283 420.44	
1.6 Real-estate income	34 242 815.56		35 043 319.93	
1.7 Interest and indexation on amount owing from CERN	21 398 376.00		16 948 493.00	
1.8 Income from other sources	308 592.88	142 565 746.89	561 077.92	134 964 821.22
Less				
2. Expenditure				
2.1 Bank charges	48 155.76		87 036.86	
2.2 Portfolio management expenses	6 957 697.50		6 194 103.52	
2.3 Fees for custody and administration of securities	1 818 491.48		1 651 599.48	
2.4 Taxation	1 827 579.60		1 584 994.73	
2.5 Real-estate expenditure (including maintenance)	7 958 192.53		9 391 483.94	
2.6 Administrative costs of the Pension Fund	3 288 103.08		3 003 905.79	
2.7 Miscellaneous expenses	13 652.56	21 911 872.51	8 836.67	21 921 960.99
Net income for the year		**120 653 874.38**		**113 042 860.23**
Plus				
3. Results on operations				
3.1 Results on sales of:				
– conventional bonds	19 973 415.89		5 896 334.96	
– equities	86 512 597.67		10 619 203.58	
– investment funds	15 097 414.32		(1 831 905.69)	
– financial derivatives	87 614 796.34		8 864 172.55	
– real estate	(1 451.21)		0.00	
		209 196 773.01		
3.2 Foreign exchange:				
– differences realized on operations	(11 431 503.34)		(582 848.08)	23 547 805.40
– differences realized on currency overlay programme	(80 361 630.65)	(91 793 133.99)	25 260 053.34	24 677 205.26
Net result for the year before revaluation		**238 057 513.40**		**161 267 870.89**
Plus				
4. Revaluation				
4.1 Movable assets:				
– changes due to movements in price	161 868 477.60		102 500 431.02	
– changes due to currency fluctuations	53 720 336.50	215 588 814.10	(60 651 320.04)	41 849 110.98
4.2 Real-estate assets:				
– changes due to movements in price	12 756 765.25		5 586 595.52	
– changes due to currency fluctuations	2 362 506.00	15 119 271.25	(2 871 254.21)	2 715 341.31
Net result for the year after revaluation		**468 765 598.75**		**205 832 323.18**

5. Movements to (and from) capital				
5.1 General Provision for real-estate repairs				
Transfer from General Provision for repairs:	0.00		0.00	
Transfer to General Provision for repairs:	637 000.00		113 000.00	
– (re-)financing of provision at 31 December 2004				
Net change in provision		637 000.00		113 000.00
		468 128 598.75		205 719 323.18
5.2 Capital				
(Decrease)/increase in capital		**468 765 598.75**		**205 832 323.18**

9.3 Benefits and Contributions Account

	31.12.05		31.12.04	
	CHF	CHF	CHF	CHF
1. Contributions				
1.1 Contributions from members of the Fund	40 191 553.00		39 135 941.00	
1.2 Contributions from participating Organizations	80 753 185.00		78 755 841.00	
1.3 Validations of previous periods of membership	0.00		4 960.00	
1.4 Purchase of additional years of membership	1 255 853.66		1 732 387.44	
1.5 Indemnities received from third parties	134 198.00	122 334 789.66	214 508.00	119 843 637.44
Less				
2. Benefits				
2.1 Retirement pensions	190 364 182.55		179 588 273.80	
2.2 Incapacity pensions	3 961 257.40		4 053 297.00	
2.3 Surviving spouse pensions	21 220 370.75		20 480 974.40	
2.4 Orphans' pensions	958 053.00		985 805.00	
2.5 Family allowances	12 667 663.00		12 135 024.00	
2.6 Ex gratia pensions	82 212.00	229 253 738.70	82 189.00	217 325 563.20
Net contributions for the year		**(106 918 949.04)**		**(97 481 925.76)**
Plus				
3. Compensations				
3.1 For shift workers (Administrative Circular No 22)	2 024 799.00		1 938 770.00	
3.2 For Progressive Retirement Programme	518 753.00	2 543 552.00	508 543.00	2 447 313.00
Less				
4. Payments				
4.1 Contributions paid to other schemes	478 467.13		322 988.03	
4.2 Transfer values	7 066 219.00	7 544 686.13	8 062 038.00	8 385 026.03
Total net income (expenditure) for the year		**(111 920 083.17)**		**(103 419 638.79)**
Benefits and contributions appropriation account				
5. Movements to (and from) capital				
5.1 Transfer to increase (decrease) capital		(111 920 083.17)		(103 419 638.79)
		(111 920 083.17)		**(103 419 638.79)**

10 Notes on the Accounts

10.1 Notes on the Balance Sheet[1]

1. Assets

1.1 Current accounts

Amounts held in current accounts by the Fund and by its investment managers. The Fund now also holds bank accounts for rent payments received within the framework of its real-estate portfolio.

1.2 Deposit accounts

Amounts held readily available, for asset allocation purposes or investment opportunities.

1.3 Loans

There is a balance of 83 330.00 CHF outstanding on the loan made in 1995 for financing the work on the heating plant at Grand-Saconnex.

1.4 Securities

These positions have been revalued as at 31.12.2005 in accordance with accounting policy.

The total for shares includes an amount of 3 834 585.10 CHF and the total for investment funds includes an amount of 53 723 251.86 CHF relating to non-quoted securities.

For index and investment funds, as at 31.12.05 the Fund held 187 541 355.00 CHF with managers responsible for tracking various market indices ('passive' as opposed to 'active' management). The balance of 166 881 414.22 CHF was held principally in mutual funds and a real return fund invested in various geographic and specialized funds.

1.5 Derivatives

No call options were bought in 2005.

1.6 Real estate

The portfolio consists of residential property in Switzerland, office and residential properties in France, office properties in Germany and the Netherlands, a farm in the United Kingdom and forests in France.

All properties are shown at the valuation figures accepted by the Real-Estate Asset Management Committee at its meeting of 7 March 2006. See also Accounting Policy (Annex V).

1.7 Amount owing from CERN

This is indexed to the cost-of-living index in Geneva and bears interest at the agreed rate of 3%.

	CHF	CHF
Balance as at 31.12.2004		454 432 175.00
Indexation (1.7%)	7 725 347.00	
Interest on indexed balance (3%)	13 673 029.00	
Net balance		475 830 551.00
Total paid in 2005 under repayment schedule	(23 560 605.00)	
Balance as at 31.12.2005		452 269 946.00

The Organization paid all the compensation due to the Fund for departures in 2005 in accordance with Administrative Circular No. 22, and also made an advance payment in respect of 2006.

[1] The Notes refer to the 2005 figures.

2. Current assets and receivables

2.1 Sundry debtors

Taxes levied at source on dividend and interest payments to the Fund, which the Fund will be able to recover, together with various amounts of VAT paid upon acquisitions and operations within the real-estate portfolio, which will also be recovered.

Amount owed to the Fund by real-estate managers and tenants.

2.2 Receivables

Sums due for 2005 but still outstanding as at 31.12.2005. Accrued interests and dividends will be received during 2006.

Open settlements are operations which were entered into in 2005 but which will only be completed (settled) in 2006.

Open forward foreign exchange contracts are commitments made by the Fund to buy/sell currencies. This amount shows the market value of open commitments in Swiss francs at the Balance Sheet date. It includes the foreign exchange activity of all managers/portfolios, but mainly consists of the activity of the currency overlay managers. Given that for each operation there is a buy and a sell of currencies for the Fund, the same amount appears under Current Payables (Section 3).

The nature of the mandate given to the specialist manager, together with those given to other managers who are entitled to 'cover' their own operations on the Fund's behalf, means that at any given moment the Fund is running a substantial level of forward currency contracts.

Although the net impact of these operations should never be as great as the nominal amounts (i.e. those shown on the Balance Sheet) may appear to suggest, those amounts are of such a magnitude that upon settlement (completion of the contracts) they lead to significant cash-flows for the Fund.

2.3 Advance payments

An amount of 23 713.47 CHF was paid in respect of audit fees.

2.4 Cash held by third parties

In 2005, this item concerned bank accounts held by the local managers to pay operating expenses for the real-estate portfolio and amounts needed for margin calls on derivatives.

3. Current liabilities and payables

3.1 Sundry creditors

Amounts held by the Fund for those leaving the Organizations who have not yet indicated where they wish their transfer value to be paid. No interest is paid by the Fund on these amounts.

Amounts held as rent guarantees from tenants.

Money owed by the Fund to real-estate managers or tenants.

3.2 Payables

Expenditure outstanding concerns principally management and custody fees as well as amounts relating to other expenditure incurred by the Fund in 2005 for which payment had yet to be made as at 31.12.2005.

Prepayments received, i.e. the advance payment made by the Organization in respect of departures in accordance with Administrative Circular 22.

Open settlements are operations entered into during 2005 but which will only be completed (settled) in 2006.

Open forward foreign exchange contracts: counterpart of same heading above (see Current Receivables).

4. Capital of the Fund	CHF
Movements in this account were as follows:	
Capital at 31.12.2004	3 831 451 408.35
Result on Benefits and Contributions account	(111 920 083.17)
Result on Profit and Loss account	468 128 598.75
Capital at 31.12.2005	4 187 659 923.93

4.1 Provisions

General Provision for Real-Estate Repairs	
Balance at 31.12.2004	20 929 000.00
Re-financing at 31.12.2005:	
Transfer from Profit and Loss account to bring provision to 5% of value of portfolio excluding forests and the farm	637 000.00
Balance of General Provision at 31.12.2005	**21 566 000.00**
Heating plant fund, Grand-Saconnex	
Balance at 31.12.2004	238 831.09
Financing 2005	22 686.85
Balance at 31.12.2005	**261 517.94**

5. Actuarial liabilities and fluctuation reserve

The established practice for capitalised pension funds is to place the actuarial value of benefits on the liabilities side of the balance sheet. A set of accounting standards has been developed in several countries to determine this value. The United Kingdom uses the FRS17 accounting standard, introduced in 2000, while the United States uses the FAS87, introduced in 1985 and currently under review. In Switzerland, provident institutions are subject to the new Swiss accounting standard GAAP RPC 26. Under this standard, the annual accounts must faithfully reflect the financial position of the provident institution. In line with these general principles, and at the request of the auditors, the Fund's actuarial liabilities now appear for the first time at the bottom of the balance sheet, to which should be added the fluctuation reserves.

6. Derivatives

In line with standard accounting practice, all the derivatives concluded by the Fund are shown at the bottom of the balance sheet at their value as at 31.12.2005. These positions are covered by the Fund's liquid assets. (see also Derivatives in Chapter 4.7).

10.2 Notes on the profit and loss account[1]

	CHF	CHF
1. Income		
1.1 Interest on current accounts		
Interest credited to current accounts held by the Fund.		272 346.28
1.2 Interest on deposit accounts		
Interest on short-term deposits and similar investments.		
Accrued interest of 64 170.18 CHF is included.		19 728 401.97
1.3 Interest on loans		
Interest paid to the Fund on loans made to third parties.		
For details of loans, see notes on Balance Sheet.		3 749.88
1.4 Interest on bonds		
Interest included:		
– conventional bonds		40 513 245.38
of which accrued interest	19 684 849.52	
1.5 Dividends		
Dividends on the Fund's holdings in equities and distributions from investment funds:		
– on equities		20 241 605.43
– from investment funds		5 856 613.51
An amount of 1 277 499.38 CHF representing dividends declared but yet to be paid is included in the above amount for equities.		
1.6 Real-estate income		
Gross income from real estate (miscellaneous rents, sales of farm and forest products), broken down as follows:		
– residential properties CH	9 243 631.77	
– office properties D	1 231 969.34	
– agricultural property GB	1 638 792.04	
– office properties F	13 386 306.82	
– residential property F	2 182 949.12	
– forests F	473 207.14	
– office properties NL	6 085 959.33	34 242 815.56
1.7 Interest and indexation on the amount owing from CERN		
– Indexation of consolidated amount owing from CERN, 1.7% for 2005	7 725 347.00	
– Interest on consolidated amount owing from CERN, 3.0%	13 673 029.00	21 398 376.00
1.8 Income from other sources		
The amount recovered via a commission recapture programme and a small surplus from life insurance premiums.		308 592.88
Total income		**142 565 746.89**

[1] The Notes refer to the 2005 figures.

	CHF	CHF
2. Expenditure		
2.1 Bank charges		
For maintenance of accounts, transfers and overdraft charges.		48 155.76
2.2 Portfolio management expenses		
Fees paid to external investment managers.		6 957 697.50
2.3 Fees for custody and administration of securities		
Custody fees and securities management costs other than bank charges.		1 818 491.48
2.4 Taxation		
The level of tax paid reflects a 'cost' of diversification of investment by the Fund in seeking higher returns. However, it would not be in the interests of the Fund to invest only in countries where it enjoys exemption.		1 827 579.60
2.5 Real-estate expenditure		
The expenditure figures include maintenance costs. Following receipt of the rent monies consigned to a blocked account, the provision made in 2004 for possible losses was reversed in 2005.		
Expenses on residential properties in Switzerland comprise: caretaker, electricity, water, insurance, taxes, maintenance charges and management fees. The expenses are high in relation to the income received. This is due to the fact that, in Switzerland, the operating costs of residential property are borne by the owner.	2 742 363.09	
For the commercial properties in Germany, the expenses comprise those normally falling on the owner, plus management fees.	393 581.46	
The expenses for the agricultural property in the United Kingdom comprise operating costs, management fees, purchase of materials and equipment amortized immediately.	1 204 333.42	
For the commercial properties in France, the expenses comprise those normally falling on the owner, plus management fees.	1 981 630.43	
For the residential property in France, the expenses comprise those normally falling on the owner, plus management fees.	308 246.11	
Forest expenses in France comprise operating costs (undergrowth clearance, marking, felling and planting), management fees and insurance.	350 706.60	
For commercial properties in the Netherlands, the expenses comprise those normally falling on the owner, plus management fees and insurance.	721 489.27	
In addition to the above operating costs, the Fund has also incurred the following charges:		
Audit and evaluation fees	125 115.73	
Management fees for G.I.E. *Patrimoine et Stratégie Européenne* (Real-estate coordinators).	130 726.42	7 958 192.53
2.6 Administrative costs of the Pension Fund		
In January 1992, the Fund took over its own administrative (personnel and materials) operating costs in conformity with the CERN Council's decision of December 1991 (CERN/FC/3440/Add.). This entry reflects this decision.		3 288 103.08
2.7 Miscellaneous expenses		
Minor expenses met directly by the Fund.		13 652.56
Total expenditure		**21 911 872.51**

	CHF	CHF
3. Results on operations		
3.1 Results on sales		
The results reflect the gains (or losses) made during the year:		
– conventional bonds	19 973 415.89	
– equities	86 512 597.67	
– investment funds	15 097 414.32	
– financial derivatives (see below)	87 614 796.34	
– real estate	(1 451.21)	
		209 196 773.01
The gain on derivatives positions, due to tactical allocation, was some 80.5 MCHF. The operations entered into by the Chairman of the Investment Committee and the Administrator generated 6.9 MCHF. External managers realized a loss of 0.7 MCHF, while the Fund's internal managers recorded a net gain of 0.9 MCHF.		
3.2 Foreign exchange differences realized		
The result on operations is due to changes in exchange rates on transactions in all portfolios.	(11 431 503.34)	
The currency overlay programme generated a net loss.	(80 361 630.65)	(91 793 133.99)
Total result on operations		**117 403 639.02**

4. Revaluations

Revaluations are carried out on all movable assets and real-estate assets at the end of the year. Revaluation changes the value of the assets in the Fund's accounts from their book (accounting) value to their market value, thereby giving a more accurate picture of the current value of those assets. In essence, this means taking unrealized profit and loss into account. Revaluations have been made in accordance with the principles set out in Annex V.

4.1 Movable assets

	Changes due to price	Changes due to currency
	CHF	CHF
Equities	108 341 734.56	35 308 482.09
Investment funds and index funds	42 943 181.65	3 424 052.31
Conventional bonds	10 583 561.39	14 987 802.10
Total movable assets	161 868 477.60	53 720 336.50

All assets shown at their market value, or the last known value, on the last business day of the year.

4.2 Real-estate assets

	Changes due to price	Changes due to currency
	CHF	CHF
Residential properties CH	3 467 000.00	0.00
Office property D	0.00	94 342.22
Agricultural property GB	420 841.86	534 279.63
Office properties F	11 115 302.77	1 103 354.69
Residential property F	1 243 670.24	152 744.54
Forests F	1 266 989.05	148 216.11
Office properties NL	(4 757 038.67)	329 568.81
Total Real Estate	12 756 765.25	2 362 506.00

All assets shown at the value determined by the Fund's Real-Estate Asset Management Committee on the basis of recommended valuations from independent experts.

In accordance with the Fund's accounting policy regarding revaluation as set out in Annex V, the amounts which are due to changes in quotation (price) and those that are due to changes in currency (foreign exchange) are charged to the Profit and Loss account (Section 4–Revaluation).

5. Movements to (and from) capital

5.1 General Provision for real-estate repairs

The General Provision for real-estate repairs is used to meet expenditure incurred on major repairs and maintenance. Five per cent of the value of the Fund's real-estate portfolio (excluding forests and the farm) has been deemed to be an appropriate provision.

5.2 Capital

The capital corresponds to the Pension Fund's capital or to the net assets after all other book-closing operations have been completed.

Breakdown of the 2005 result

(cf. Table 14)	CHF	CHF
Variations in net assets		
Net assets of the Fund as at 31.12.2004		**3 852 619 239.44**
Change in net assets		
Result from Benefits and Contributions account	(111 920 083.17)	
Result from Profit and Loss account	468 765 598.75	
Increase in Heating Plant fund, Grand-Saconnex	22 686.85	356 868 202.43
Net assets of the Fund as at 31.12.2005		**4 209 487 441.87**

The details are given in the Profit and Loss and Benefits and Contributions accounts.

10.3 Notes on the Benefits and Contributions Account[1]

1. Contributions

1.1 Contributions from members of the Fund

These comprise ordinary contributions, based on reference salaries, at a rate of 10.12% in 2005.

1.2 Contributions from participating Organizations

These comprise the ordinary contributions of CERN and ESO, based on reference salaries, at a rate of 20.25% in 2005.

1.3 Validations of previous periods of service

Payments made by members in respect of the third and fourth steps in pension improvements.

1.4 Purchase of additional years of membership

This represents transfer values received from other schemes and purchases of additional periods of membership (37 cases in total).

1.5 Indemnities received from third parties

Sommes reçues par la Caisse pour deux cas d'accidents professionnels.

2. Benefits

2.1/2.6 Benefits

The various benefits paid are calculated in accordance with the 1986 Scheme where it is the most favourable, otherwise with the 1967 or 1976 Basic Schemes with the addition of the 1982 Complementary Scheme for those members with acquired rights. A breakdown by type of benefit paid is given in Graph 5.

3. Compensation

3.1 Compensation for shift work (Administrative Circular No. 22)

In application of the Council's decision on 31.10.1985 that the Organization must compensate the Fund for any additional cost incurred by the latter as a result of a personnel policy decision by the Organization. The actuarial calculation gives the following amount for the year 2005:

In 2005 there were five departures.

		CHF	CHF
	Number of departures	Amount	Average per departure
Administrative Circular No. 22	5	2 024 799.00	404 959.80

CERN made an advance payment of 2 056 296.00 CHF for this purpose in December 2004. The advance overpayment of 31 497.00 CHF will be deducted from the 2007 amount as requested by the Organization.

3.2 Compensation for Progressive Retirement Programme

Representing 5% of the basic salary of staff participating in this scheme, paid by the Organization to the Fund. The Organization pays the relevant amounts with its other contributions on a monthly basis.

[1] The Notes refer to the 2005 figures.

4. Payments

4.1 Contributions paid to other schemes and transfer values

	CHF	CHF
Amounts paid directly to members on departure	7 066 219.00	
Amounts paid to other schemes on members' departure	141 811.00	
Amounts paid in order that members maintain membership in other schemes, in accordance with Art.II1.11 of the Rules (1986 edition)	336 656.13	7 544 686.13

5. Movements to and from capital

Transfer to decrease capital

The difference of –111 920 083.17 CHF between income and expenditure has been transferred to Capital.

11 Audit Certificate

CERTIFICATE OF THE EXTERNAL AUDITORS

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

The opinion under item 2.2 solely relates to accounts administered by the Pension Fund and held within the conditions laid down in the Rules and Regulations of the Pension Fund. This opinion has to be seen in the context of the external audit process at CERN as a whole.

The development of the amount owing from CERN (contained as an asset in the Pension Fund's Balance Sheet) is highlighted under item 6.4 below. Further legal, financial and economic considerations with respect to this amount are addressed in the Auditors' Report on the Accounts of CERN for the Financial Year 2005 (CERN/FC/5043 and CERN/2668, paragraph 3.9, Long-Term Debts).

We have examined the Annual Accounts of the CERN Pension Fund for the Financial Year 2005 as presented in Chapter 2, 3, 8, 9, 10 of the Annual Report 2005. These accounts include the balance sheet as at 31 December 2005, the benefits and contributions account, the profit and loss account and the notes in annexes as far as they relate to the year 2005. The audit comprised an appropriate range of audit procedures designed to examine, on a test basis, the amounts and disclosures in the annual accounts and evidence relating to transactions underlying the accounts. It also included an assessment of

information in the accounting principles used and significant estimates made by management, as well as the overall presentation of information in the accounts. As a result of the audit, we are of the opinion that the Annual Accounts 2005 properly reflect the recorded financial transactions of the year, which were in accordance with the budget provisions, the Financial Rules and the Internal Financial Regulations. The Annual Accounts with Financial Statements present fairly, in all material respects, the financial position of CERN Pension Fund as at 31 December 2005, subject to the observations in our report.

Without qualifying our opinion, we draw attention to a test case which was brought before the International Labor Organization (ILO) concerning an appeal by a pensioner against the non-indexation of pensions in 2005, which could lead to certain financial implications for CERN (see paragraph 6.7 of the report).

Karl Jaros Reinhard Rath

Auditors from the Austrian Court of Audit

Vienna, 23 May 2006

12 Actuary's Report on the Year 2005

The actuary was engaged in his usual consultancy assignments in 2005. In practice, this meant providing assistance to the Working Group on Actuarial Matters in its deliberations and analysis of the options for improving the financial balance of the Fund, notably through judicious amendments to the Pension Fund's Rules. In this context, we were asked to make several projections to measure the long-term impact of the amendments under discussion.

As has been standard practice since 2003, we drew up a technical balance sheet as at 1st January 2005. This means determining the Fund's funding ratio in the event of immediate liquidation at that precise date. In other words, we assessed to what extent, on that date, the Fund's commitments to its members (insured active members and pensioners) were covered by its overall assets on the same date.

The technical balance sheet on liquidation as at 1st January 2005 was as follows:

Assets Overall assets taken into consideration (A)	3 852 619 239 CHF
Liabilities Actuarial commitments (B)	4 395 527 830 CHF
Technical deficit	–542 908 591 CHF
Funding ratio [(A) / (B)]	87.65%

The 'actuarial commitments' are the sum of the capital required to cover the pensions in payment (also known as 'the mathematical reserves of the pension beneficiaries'), which amounted to 2 854 033 679 CHF, including a 55 961 445 CHF reserve for future increases in life-expectancy, and the capital required to cover the acquired rights of the insured active members, which amounted to 1 541 494 151 CHF.

We calculated these actuarial commitments using the standard actuarial calculation rules, the EVK 2000 biometric tables and the new technical interest rate of 4.5%, applied since 1 January 2005, but not taking into account future indexation of pensions.

The EVK tables are published every ten years by the Swiss Federal Pension Fund, the occupational provident scheme for staff employed by the Swiss Confederation. They are often used by Swiss actuaries to assess the actuarial commitments of pension funds.

The technical interest rate is a discount rate which corresponds to the average annual rate of return which the Fund hopes to achieve in the (long-term) future, with a built-in safety margin. It is one of the basic assumptions chosen by the CERN Council to determine the Fund's actuarial commitments.

Having decided to reduce the technical interest rate from 6% to 5.5% as of 1 January 2003, the CERN Council changed the rate once again, setting it at 4.5% as of 1 January 2005, in order to give the Fund a more solid financial foundation in the long term. This reduction of the technical interest rate by 1.0% in one fell swoop had the effect of increasing the actuarial commitments at the beginning of 2005 by 373.4 CHF, or 9.3%, and thereby inflating the technical deficit by the same amount. With a technical interest rate of 5.5%, the Fund's funding ratio would have been 95.8% at 1st January 2005, in other words very close to the figure on 1 January 2004 (96.1%). This clearly demonstrates that the reduction of the technical interest rate was the main cause of the deterioration in the Fund's financial balance at the beginning of 2005.

In 2005, the stock markets flourished and the CERN Council took a number of decisions that are likely to improve the financial balance of the Fund in the future. These two factors have already significantly contributed to improving the Fund's position as the funding ratio as at 1 January 2006 has risen to 101.0%. As usual, we will report more fully on the Fund's situation at the beginning of 2006 in our management report on the 2006 financial year.

We would like to end this short report by thanking all those with whom we have collaborated throughout 2005 and in particular the Administrator, C. Cuénoud, the Governing Board Vice-Chairman Dr J-P. Matheys, the members of the Working Group on Actuarial Matters, and Mr M. Karlsson and Mr M. Angberg of the Fund's Information Technology Service. Their expertise and availability enabled us to complete our assignments in the best possible conditions.

Meinrad Pittet
Consulting actuary

Geneva, 29 March 2006

Annexes[1]

[1] The annexes are given for information. Only the Report itself is submitted to the Finance Committee and the Council for approval.

I Composition of the Bodies of the Fund at 31.12.2005

Governing board

Members and Alternates[1]	Appointed by
J. Bezemer (Alternate: J.-P. Ruder)	CERN Council
E. Chiaveri (Alternate: T. Lagrange)	Director-General of CERN
R. Fischer (Alternate: K. Banse)	Director-General of ESO[2]
J. Lahaye (Alternate: vacant)	Elected by the members of the Fund
P. Levaux (Alternate: F. Bello)	CERN Council
J.-P. Matheys (Suppléante : F. Ranjard)	Elected by the members of the Fund
S. Myers (Alternate: F. Sonnemann)	Elected by the members of the Fund
A.J. Naudi (Alternate: P. Geeraert)	Director-General of CERN
I. Seis (Alternate: G. de la Fuente)	Elected by the members of the Fund
M. Vitasse (Alternate: G. Deroma)	CERN Staff Association

Observer for beneficiaries	Appointed by
J.-F. Barthélemy (Alternate: F. Wittgenstein)	Governing Board in agreement with the Staff Association

Chairman's Group	Appointed by
J. Bezemer, Chairman	CERN Council
J.-P. Matheys, Vice-chairman	CERN Council
A.J. Naudi, Vice-chairman	CERN Council

[1] Members and their alternates are appointed or elected by the same authority.
[2] ESO: European Southern Observatory.

Investment Committee in 2005

Members	J.-P. Matheys, Chairman C. Cuénoud, Secretary R. Fischer P. Geeraert S. Myers A.J. Naudi M.-J. Simoen F. Sonnemann
Experts	P. Lambert
Observer	J. Bezemer (until 31.12.2005) F. Ferrini (as of 1.07.2005)
Administration	M. Herbert

Administrator	**Appointed by**
C. Cuénoud	CERN Council

Consulting Actuary	**Appointed by**
Pittet Associés SA, Geneva	Governing Board

Consulting Medical Practitioner	**Appointed by**
N. Roux (CERN Consulting Medical Practitioner)	Director-General of CERN

External Auditors	**Appointed by**
Karl Jaros, Der Rechnungshof, Vienna	CERN Council
Reinhard Rath, Der Rechnungshof, Vienna	CERN Council

II Membership of the Committees in 2005

Movable assets management committee

Members

C. Cuénoud, Chairman
F. Armuzzi (Administration)
A. Fucci
P. Geeraert
T. Lagrange
J.-P. Matheys
B. Piette (Administration)

Real-estate asset management committee

Members

C. Cuénoud, Chairman
E. Chiaveri
F. Cliff
C. Hauviller
J.-P. Matheys
F. Ranjard
S. Revol (Administration)

III Personnel of the Administration of the Fund in 2005

Administrator

C. Cuénoud

Benefits service

J. d'Altilia
E. Clerc
G. Praire

Information Technology

M. Angberg / M. Karlsson (as of September 2005)
C. Lamboley

Financial service

A. Boureau
M. Brouant-Gindre
G. Marme
J. Steel

Internal management, real-estate

C. Cuénoud
S. Revol

Internal management, movable assets

F. Armuzzi
B. Piette (seconded from MeesPierson BGL SA, Geneva)
S. Revol

Office of the Administrator

M. Herbert
S. Revol

IV Summary Breakdown of the Fund's Assets Converted into Swiss Francs (in Thousands of Francs)

Categories of investment		on 31.12.05		on 31.12.04	
		TOTAL	%	TOTAL	%
1	**Current accounts, deposits and loans**				
	Current accounts	62 687	1.5	32 811	0.9
	Short-term deposits and loans	741 607	17.6	833 672	21.6
	Total	**804 294**	**19.1**	**866 483**	**22.5**
2	**Bonds and convertible bonds**				
	EUR	743 072	17.7	620 642	16.1
	U.S.A.	179 466	4.3	141 622	3.7
	United Kingdom	143 073	3.4	94 620	2.5
	Denmark	32 944	0.8	26 647	0.7
	Japan	19 474	0.5	35 497	0.9
	Sweden	15 040	0.4	16 997	0.4
	Poland	4 872	0.1	0	0.0
	Canada	4 290	0.1	5 609	0.1
	Mexico	367	0.0	0	0.0
	Other	0	0.0	0	0.0
	Total	**1 142 598**	**27.1**	**941 634**	**24.4**
3	**Shares (including investment funds)**				
	U.S.A.	546 197	13.0	460 527	12.0
	EUR	429 630	10.2	336 783	8.7
	United Kingdom	213 958	5.1	185 290	4.8
	Switzerland	75 676	1.8	56 555	1.5
	Hong Kong	35 355	0.8	28 376	0.7
	Japan	23 340	0.6	0	0.0
	Norway	16 086	0.4	7 765	0.2
	Sweden	15 161	0.4	19 236	0.5
	Singapore	8 266	0.2	4 570	0.1
	Thailand	5 436	0.1	3 968	0.1
	Indonesia	5 201	0.1	9 173	0.2
	Denmark	3 279	0.1	2 542	0.1
	Philippines	3 009	0.1	1 248	0.0
	Malaysia	2 931	0.1	3 401	0.1
	Poland	1 698	0.0	0	0.0
	Canada	471	0.0	2 091	0.1
	Other	0	0.0	0	0.0
	Total	**1385 694**	**32.9**	**1 121 525**	**29.1**
4	**Financial derivatives**				
	Total	**0**	**0.0**	**628**	**0.0**
5	**Real estate**				
	Properties F	229 691	5.5	216 075	5.6
	Residential properties CH	133 047	3.2	129 580	3.4
	Commercial properties NL	52 265	1.2	56 693	1.5
	Forests F	26 911	0.6	26 275	0.7
	Commercial properties D	16 323	0.4	16 229	0.4
	Agricultural property GB	15 632	0.4	14 677	0.4
	Total	**473 869**	**11.3**	**459 529**	**11.9**
6	**Amount owing from CERN**				
	Total	**452 270**	**10.7**	**454 432**	**11.8**
7	**Miscellaneous**				
	Assets (debtors + sundry debit balances)	3 236 716		1 924 765	
	Less Liabilities (creditors + sundry credit balances)	3 285 954		1 916 377	
	Total	**–49 238**	**–1.2**	**8 388**	**0.2**
	Total net assets	**4 209 487**	**100**	**3 852 619**	**100.0**
	NB: Rounded totals				

V Accounting Policy

1. General

Pursuant to Article I 4.01 of the Rules of the Pension Fund, approved by the CERN Council on 23 June 1989, the unit of account of the Pension Fund is the Swiss franc, and the Pension Fund accounts are therefore drawn up in this currency. Some accounts are drawn up in local currencies to facilitate the work of the independent auditors and real-estate management control. This affects accounts relating to holdings in Germany, France, Great Britain and the Netherlands. During the year, the various accounts are consolidated in Swiss francs at the exchange rate applicable and any exchange-rate fluctuations are recorded as positive or negative adjustments in the Profit and Loss account at the Balance Sheet date.

2. The accounting year

The accounting year is 1st January to 31st December.

3. Plan of accounts

The accounts are set out under eight headings, i.e.

1. Assets
2. Liabilities
3. Payment of benefits
4. Financial charges
5. (not used)
6. Contributions
7. Investment income
8. Results

Headings 1 and 2 are accounts which appear in the Balance Sheet.

Headings 3 and 6 are accounts which are used to draw up the Benefits and Contributions account.

Headings 4 and 7 are accounts which are used to draw up the Profit and Loss account.

The accounts of Heading 8 are used to draw up the Benefits and Contributions and the Profit and Loss accounts and to effect internal transfers of funds between the Fund's portfolios.

4. Cash at bank and fixed-term accounts

Accounts denominated in currencies other than the Swiss franc are periodically adjusted to take account of exchange-rate variations, at the end of the year at the latest.

5. Securities portfolio

A global custodian holds 'global accounts' on the Fund's behalf for each of the Fund's portfolios. The custodian also holds, in consolidated form, a statement of all the securities and liquid assets which are held on the Fund's behalf.

In setting the purchase price, brokers' fees and commissions are added to the sum paid on the stock exchange. The accumulation method is used for staggered purchases to determine the new average purchase price of the security.

If a partial sale is made, the average price of the security is not changed, and the profit or loss made is calculated in relation to the sum invested. Selling costs are deducted from the profit made or added to the loss.

It should be noted that the aforementioned purchase price has been calculated in relation to the portfolio concerned, i.e. in relation to the manager's 'global account'. To ensure that the result of an operation fairly represents a manager's transaction (purchase and sale of securities), it must be calculated in relation to the prices and rates obtained by him without being affected by operations on the same security made by another manager.

The Private Equity values at 31 December 2005 are calculated according to the Fair Market Guidelines of the European Private Equity & Venture Capital Association (EVCA).

6. Revaluation

At the end of the year, securities are recorded at their market values on the last business day of the year, taking account of stock exchange quotations and exchange rates. This applies to bonds, convertible bonds, shares, investment funds and financial derivatives (Market to Market). Real-estate asset values are determined by the Fund's Real-Estate Asset Management Committee working on valuations provided by independent expert valuers and recommendations from the Fund's Manager (responsible for co-ordinating the local managers). This applies to all real-estate assets each year. The values arrived at are converted into Swiss francs at the year-end exchange rate. The amounts which are due to changes in quotations (price, value) and to changes in currency (foreign exchange) are charged to the Profit and Loss account.

7. Real Estate

Real-estate income is recorded in the Profit and Loss account. It should be noted that farming implements and equipment are written off immediately in the year of purchase and are deducted from income.

Valuation

The valuation procedures adopted for real estate can be summarised as follows:

– - formal complete valuations are to be made on a five-yearly basis for the entire portfolio, starting on 31.12.1996. These valuations are carried out by expert valuers appointed on ten-year contracts;

– each year a 'desk-top' valuation of the whole portfolio is to be carried out by the appointed experts, except where there have been major technical modifications to the structure of an asset, in which case physical inspection thereof precedes the issue of the valuer's estimation;

– for each asset a standard valuation schedule is drawn up, containing rental values, current rents, yields, values per square metre, etc. These data are kept up to date by the Manager, who is also responsible for proposing a budget for each valuation exercise;

– the Manager is responsible for making all the arrangements for the valuations and associated reports to the Real-Estate Asset Management Committee and for presenting annually, to the Committee, a report giving observations on the valuations made and on their significance as regards the present and future investment strategy of the Fund.

8. Amount owing from the Organization to the Fund

This is indexed at the beginning of the year by the increase in the Geneva cost-of-living index for the period applied at CERN, i.e. from 31st August of the current year to 31st August of the following year. At the end of the year, 3% interest is charged to the amounts due.

9. Benefits and Contributions account

This is the 'welfare' part of the Pension Fund, recording all income and expenditure relating to pensions. The negative balance of this account is met directly from the Capital of the Pension Fund.

10. Profit and Loss account

This account records all transactions associated with the financial operations of the Pension Fund, in particular income received and realised profits and losses. In addition, this account also contains the interest accrued as at 31st December on short-term investments, bonds and convertible bonds.

The balance on this account is transferred to or met from the Capital of the Fund.

11. Capital

This represents the resources of the Pension Fund accumulated over the years to allow it to meet its obligations under the Rules. It does not coincide with the actuarially determined mathematical reserve. At its meeting of 9 April 2002, the Governing Board, on the basis of a recommendation by the Pension Fund's consulting actuary, took the decision that henceforth the notion of 'Capital and Provisions' should correspond exclusively to the Fund's total net assets.

12. Provisions

12.1 General Provision for Real-estate repairs

This provision is created by a withdrawal from income (Provision from the Profit and Loss account) to meet substantial repair and maintenance costs. Such expenditure is decided by the Administrator in agreement with the Fund's real-estate manager. The amount of the provision has been set at 5% of the value of all real-estate holdings, excluding farmland and forests.

12.2 Heating plant fund CH

This fund contains the amounts accumulated for the maintenance and replacement of equipment for a heating plant at Grand-Saconnex, which is shared with another user. Each user pays a lump sum every year to remunerate this fund, as laid down in the convention signed between the two parties. Expenditure is decided by mutual agreement.

Foot of the Balance Sheet

13. Actuarial liabilities and fluctuation reserve

The established practice for capitalised pension funds is to place the actuarial value of benefits on the liabilities side of the balance sheet. A set of accounting standards has been developed in several countries to determine this value. The United Kingdom uses the FRS17 accounting standard, introduced in 2000, while the United States uses the FAS87, introduced in 1985 and currently under review. In Switzerland, provident institutions are subject to the new Swiss accounting standard GAAP RPC 26. Under this standard, the annual accounts must faithfully reflect the financial position of the provident institution. In line with these general principles, and at the request of the auditors, the Fund's actuarial liabilities now appear for the first time at the bottom of the balance sheet, to which should be added the fluctuation reserves.

VI 2005 Accounts and 2006 Budget of the Pension Fund

A General

The administration of the CERN Pension Fund has become progressively more complex. On the investment side, for instance, the complexity has increased due to the necessary diversification in new asset classes and the growing use of specialized external managers. On the administrative side, it is above all the growing number of retirees and the increasing number of requests for information relating to all aspects of the Fund that are responsible.

Overall expenditure of the Fund in 2005 is given in the table below, together with the figures for 2004 by way of comparison:

Year	**2005**	**2004**
Bank fees	48	87
Manager fees	6 958	6 194
Custody and performance calculation fees	1 818	1 652
Taxes	1 828	1 585
Real-estate maintenance and management expenses	7 958	9 381
General administrative expenses	3 302	3 013
Total	**21 912**	**21 922**

It may be noted that the Fund's overall expenditure in 2005 remained stable compared with 2004. The rise in managers' fees and custody costs is due to the increase in equity holdings in 2005 over 2004. This rise was offset by a fall in real-estate maintenance expenditure. The increase in administrative expenditure can be explained by the more frequent use of the Fund's consulting actuary and outside consultants (Ortec, GFI).

During 2005, the Governing Board was informed of the results of a comparative survey of several major pension funds with respect to administrative overheads and manager fees, not taking into account taxes and real-estate maintenance costs. Although the total costs shown in the survey are not easily comparable due to structural differences in terms of how the assets are managed, the comparison shows that the average cost at CERN, including expenditure associated with management, real-estate and movable assets investments, custody, internal and external managers and general administrative overheads, is at the level of 32 bp of total assets, i.e. 13 439 kCHF, compared with 28bp for the sample of 14 major Swiss funds analysed in the survey.

With effect from 1.1.1992, the administrative costs of the Fund formerly borne by the Organization have been charged to the Fund.

Article 3 of the Financial Regulations of the Pension Fund, Budget Management, sets out the procedures to be followed, i.e. the Governing Board approves the budget, which is then presented by the Administrator to the Finance Committee and the CERN Council for adoption.

At its meeting of 20.9.2005, the Governing Board approved the 2006 budget (see under C).

B 2005 Expenditure

In 2005, the Fund's overall expenditure (3 304 kCHF) was slightly higher than the budget envelope provided for (3 195 kCHF). Personnel expenditure was lower than budgeted due to the non-replacement of a member of staff. With regard to 'Materials', an overspend was recorded under temporary labour due to a requirement for increased resources in the Benefits Section. In addition, an increase in actuarial studies gave rise to an overspend in 'Experts and Consultants'.

Personnel

The staff of the Fund and the units/services to which they belong within the Administration are shown in Annex 3 of this report. It should be noted that one post is charged to Experts and Consultants in the Fund's budget.

Materials

The expenses for 2005 cover operating expenses essentially associated with services the Fund needs to carry out its activities (temporary labour, training, travel, experts and consultants, expenditure connected with the operation of the Governing Board). They also include the cost of maintaining links with the Fund's global custodian, which allows the Fund to monitor its investments on a daily basis, as well as subscriptions to the information services of Reuters and Bloomberg, plus computer-related expenditure (software and machines).

External Management Costs

For information, the external management costs (assets and real-estate management) are as follows:

	Expenditure KCHF		**2006 estimate KCHF**
	2004	**2005**	
Assets (management and custody fees)	7845	8776	7800–8300
Real Estate (mangement fees)	1179	1313	1000–1300
Total	**9024**	**10 089**	**8800–9600**

C 2006 Budget

The 2006 budget is 170 kCHF higher than the 2005 budget. The heading « Personnel » shows an increase of 100 kCHF following the recruitment of a member of staff in the Benefits Section. The increase in the amount budgeted under « Materials » is due principally to the temporary labour support required to develop tools to measure performance and update the database on external portfolios.

Table 15: Budget of the Pension Fund for the Financial Year 2006 Approved by the Governing Board on 20.09.2005 (in KCHF)

Headings and Sub-headings	**2005 Annual Accounts 2005 prices (CERN/FC/5042 CERN/2667)**	**2005 Budget 2005 prices (CERN/FC/4842)**	**2006 Budget 2006 prices (CERN/FC/4959)**
Personnel	1885	2025	2125
Materials			
Operating expenses			
Library	60	40	40
Colloquia, seminars, conferences	9	15	15
Contracts (maintenance, temporary labour, minor work, service)	227	40	90
Third party payments and fees	95	75	75
Experts and consultants	622	555	570
Training costs	19	20	20
Duty travel expenses	46	70	70
Official hospitality expenses	22	30	30
Communications	275	270	275
Sub-total	**1375**	**1115**	**1185**
Supplies			
Investments and equipment	44	55	55
Sub-total	**44**	**55**	**55**
Total Materials	**1419**	**1170**	**1240**
Grand total	**3304**	**3195**	**3365**

VII Definitions

Alpha

Alpha is the positive yield generated by a fund manager with respect to a benchmark.

Basis point (bp)

A hundredth of a percentage point (1bp = 0.01%).

Derivatives

A derivative security is an instrument whose value is based on, and determined by, another security or index (i.e. futures, swaps, options.)

Performance

Profits and losses, whether realized or not, on an asset, an asset class, a portfolio or the Fund as a whole (overall performance), plus dividends, interest or net rentals obtained. Performance is expressed as a percentage of the mean capital invested. It is also referred to as nominal performance.

Real performance

Performance corrected for inflation.

Swap

A swap instrument is defined as an agreement to pay or receive the difference between one type of cashflow and another type based on a notional principal. This could be, for example, an agreement to pay or receive the difference between a fixed rate of interest and a floating rate or the difference between an index and the short-term interest rate.

Technical rate

The technical rate is the long-term rate of return that the Fund hopes to achieve, taking account of a safety margin. It serves as a discount rate for calculating the actuarial commitments to the beneficiaries and the current values of deferred pensions of the insured active staff.

Time Weighted Return

Figures relating to average performance over several years obtained by cumulating annual results depend on the method of calculation and the required aim. When calculating performance and making comparisons with banks, management companies or other pension funds, the Time Weighted Return (TWR) method should be used, i.e. the geometric mean of annual performances. If the Fund's objective is to measure the average yield and compare it with the economic assumptions posited in the actuarial calculations, the internal rate of return (IRR) method should be used. In fact, this second formula takes into consideration the scale of the amounts invested (and the moment of investing them), whose order of magnitude has a considerable effect on the average overall performance obtained. Under this formula the new funds added to the Fund every year provide an average rate of interest (not corrected for inflation) depending on the year under consideration. Their aggregate must equal the capital available in the Fund for the year in question. Application of this method is particularly important for adding together results from several years to obtain a mean yield on capital over a long period.

Tracking error

One classic measure of absolute risk (volatility) is the standard deviation in a series of monthly performances. Tracking error can be used to measure the scale of bets made compared with the benchmark.

Value at risk

The amount of overall assets at risk (value at risk) is calculated using a technique based on the calculation of probabilities to estimate the maximum loss that a portfolio could sustain taking account of the historical volatilities associated with the securities in the portfolio and their correlations. The adjective 'maximum' in this context does not correspond to the maximum loss in the worst possible scenario but only to the maximum loss within a certain confidence level—most frequently 95%—and for a given period. One of the basic assumptions of this approach is that the historical price movements of securities are a reasonable guide for determining their future movements.

Volatility

Volatility is a classic means of measuring absolute risk, i.e. standard deviation from a set of monthly results.

Yield

Income from invested capital, expressed as a percentage of the said capital.