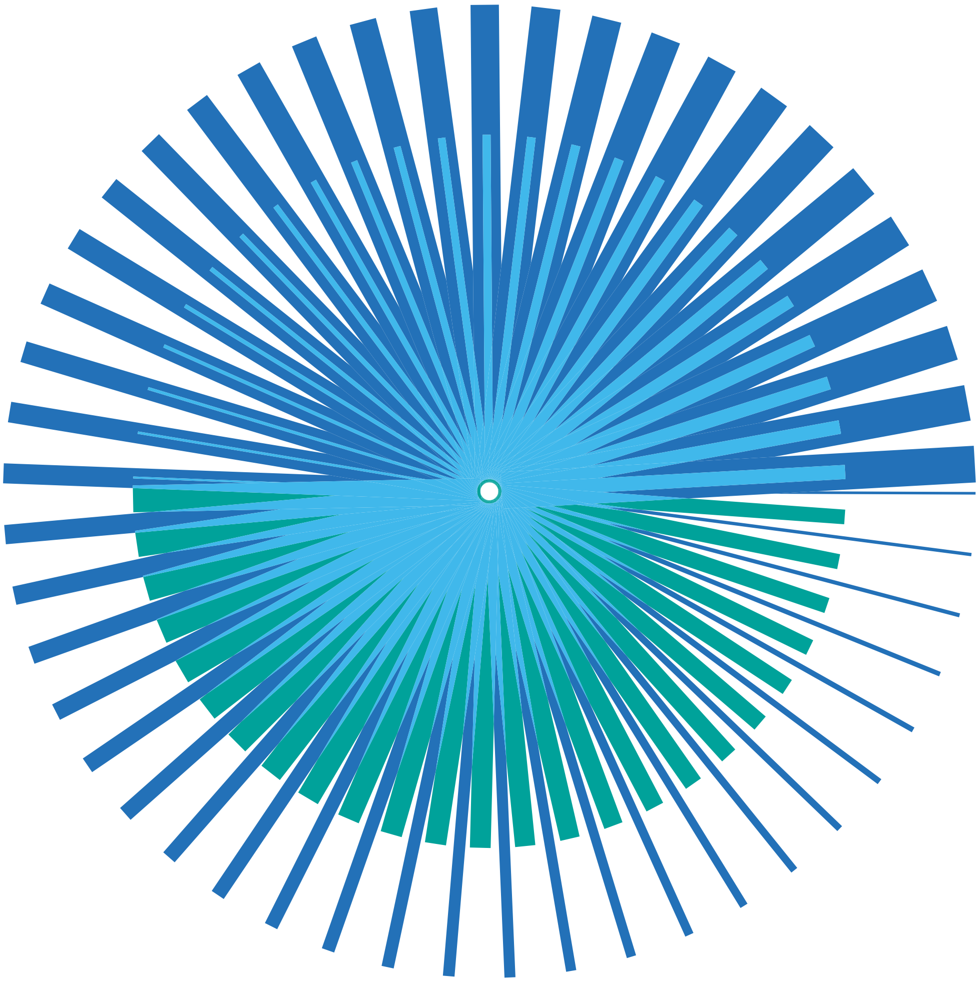
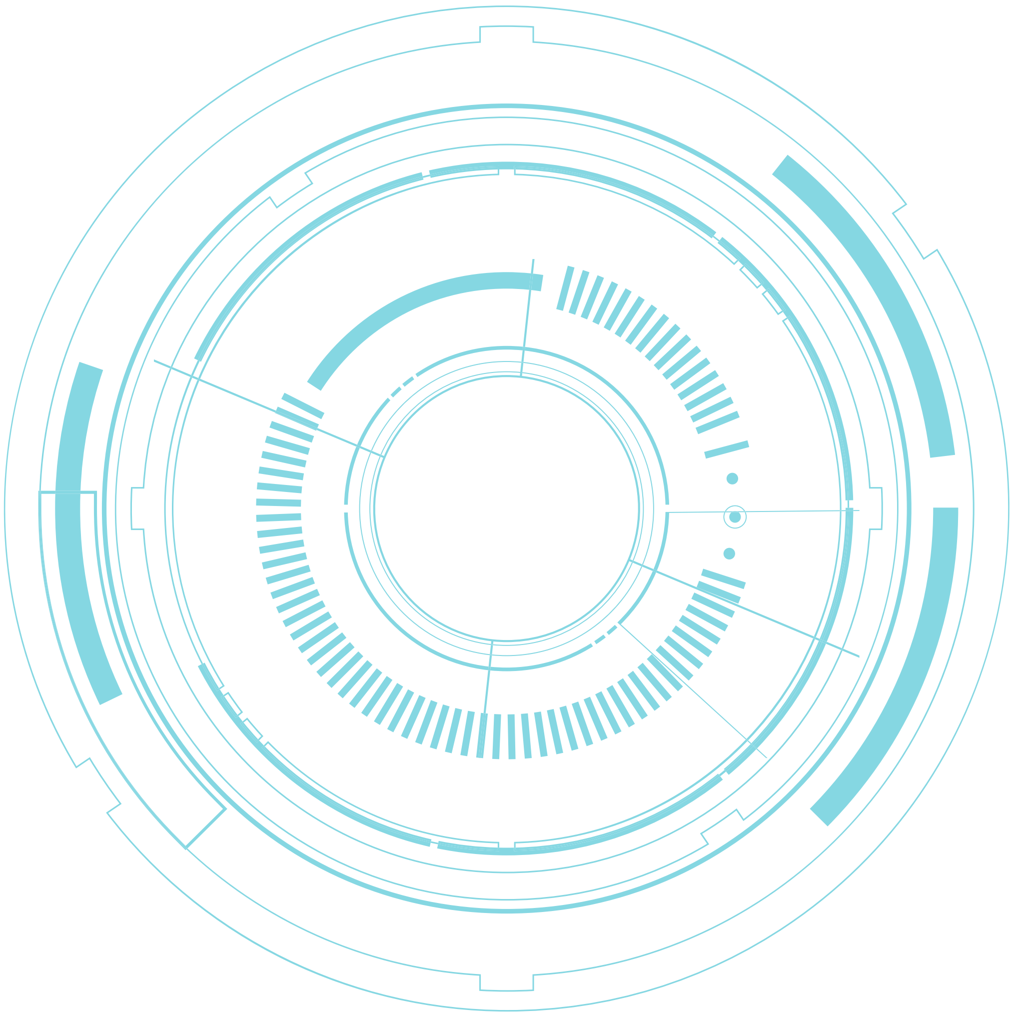


PENSION FUND

Annual Report and Financial Statements for the year ended 31 December 2023

CERN



The Financial Statements included in this Report are published in accordance with International Public Sector Accounting Standards (IPSAS) and the Rules and Regulations of the Pension Fund.

CONTENTS




MESSAGE FROM THE CHAIR

As one of my last duties as Chair of the Pension Fund Governing Board (PFGB), I am pleased to share with you the Pension Fund's Annual Report and Financial Statements for the financial year that ended on 31 December 2023.

This document is intended to give you an update on the financial status of the Pension Fund, as well as a summary of the key activities in relation to members and beneficiaries and details of the investment performance. Since launching the new format of our Annual Report last year, which provides you with key information in an accessible format and enhanced disclosures on governance and our Environmental, Social and Governance (ESG) policy, we have received very positive feedback from our members, beneficiaries and other stakeholders. We trust that you continue to find the document useful.

It has been another busy year for the Pension Fund, as we continue to prioritise our key purpose of insuring our members and beneficiaries, as well as the members of their families, against the economic consequences of disability, old age and death. In 2023 we paid benefits totalling 323 MCHF to over 3 250 beneficiaries around the world.

An important part of the Fund's purpose is ensuring that members and beneficiaries receive benefits that are suitable, fair and consistent. I am pleased to report that the Council approved two important updates in relation to early retirement and purchases of additional periods of membership. More details, including the effective dates of these changes, can be found in the Members and Beneficiaries section of this document.

During the year there was a rotation of the Fund's External Auditors, with the Court of Auditors of Portugal replacing the National Audit Office of Finland. I would like to take the opportunity to express my appreciation to the Finnish External Auditors for their very positive collaboration over the last five years.

Another important change was the appointment by the PFGB of a new Fund Actuary, following a competitive tender process. The Fund's Actuary is a key adviser and I am delighted to welcome Aon Switzerland Ltd. to this role. Aon is one of the leading actuarial firms in the world and counts several intergovernmental organisations amongst its clients. We look forward to benefiting from Aon's extensive experience and expertise, particularly in view of the full actuarial study to be performed in 2025. I would like to thank the outgoing Actuary, Buck Consultants Limited, for their work and dedication to the Fund over the past few years.

The financial markets remained uncertain and challenging over the year. The Fund further enhanced the integration of its ESG policy into the management of its investments, underlining our continued commitment to managing climate-related risks and opportunities. Details of the Fund's performance and ESG reporting are included in the Investment and ESG section of this document.

Following some expected turnover in 2022, I am pleased to say that the composition of the PFGB remained stable during 2023. Both Dirk Ryckbosch and I completed our mandates at the end of the year and will be replaced by Florin-Dorian Buzatu, who will become PFGB Chair, and Cristina Biino, both of whom have been appointed by the CERN Council. I would like to take this opportunity to thank Dirk for his valuable contributions to the PFGB.

The Actuarial and Technical Committee (ATC) welcomed Kate Yates and Peter Hristov as new members in May, whilst in the Investment Committee (IC) Jacob Bjorheim completed his second three-year mandate at the end of the year and will be replaced by Graham Jung from the start of 2024. I also extend my gratitude to Jacob for his service to the Investment Committee.

Looking back over the last three years, I am proud of what the Fund and the PFGB have achieved, always remaining focused on the long-term health of the Fund and its core purpose of providing pensions to its beneficiaries, as well as retaining the confidence of its key stakeholders such as the Finance Committee, the CERN Council and ESO. I would like to sincerely thank the members of the PFGB, the CEO and the PFMU for the support they gave me during my time as Chair. I wish my successor, Florin-Dorian Buzatu, every success, and I am confident that the Fund remains in safe hands and in a good position to face any future challenges and thus secure a healthy and long-term future for its members and beneficiaries.

In closing, I would like to sincerely thank all the members of the PFGB and its sub committees for their continued commitment and dedication. On behalf of the PFGB, I would also like to warmly thank the CEO and his colleagues in the PFMU for the excellent service provided to the members and beneficiaries of the Fund.

Ossi Malmberg
Chair, Pension Fund Governing Board

ANNUAL REPORT

CERN PENSION FUND IN NUMBERS 2023

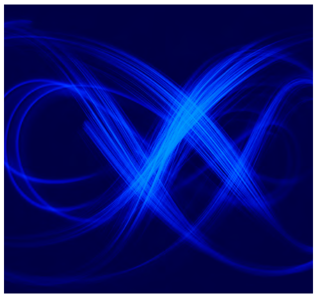
"The purpose of the Fund is to insure its members and beneficiaries, as well as members of their families, against the economic consequences of disability, old age and death. (Article I 1.02)."

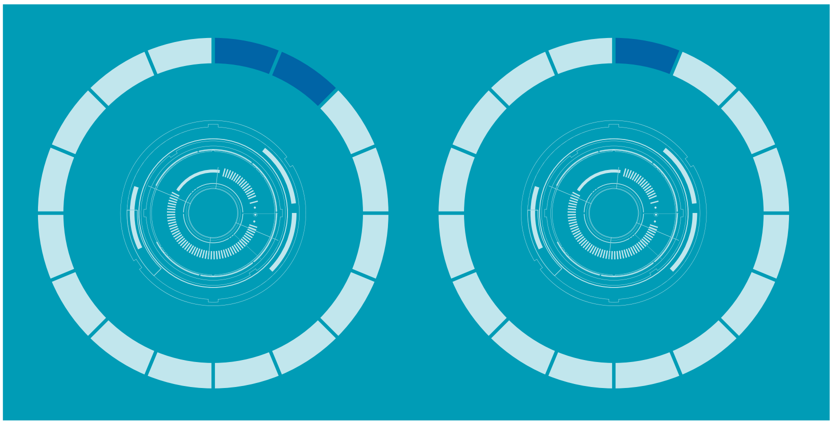
Formed in **1955**

—

2 Sponsor Organisations

—





4199 members

—

3674 beneficiaries

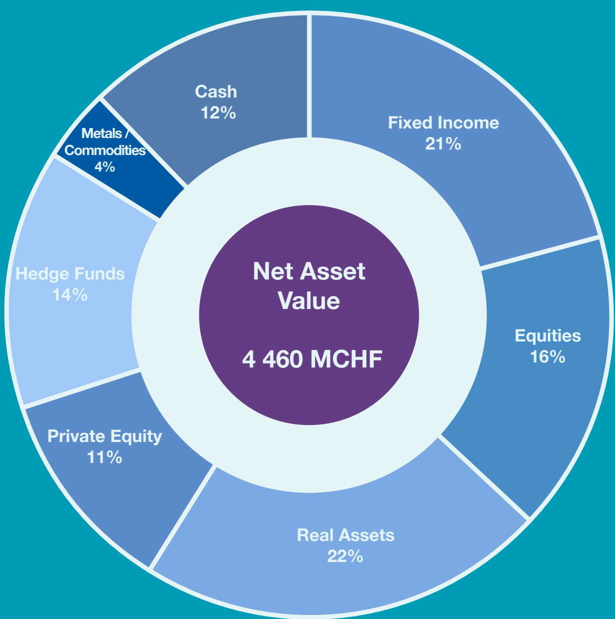
—

Welcomed **570** new members

—

Supported families of **164** beneficiaries who sadly passed away

—



"The Pension Fund takes a holistic approach to the management of risk and operates an assurance framework that provides the PFGB and other stakeholders with an assessment of the strength of controls for risk management."

7 Beneficiaries aged over 100

—

18 Beneficiaries aged under 21

—

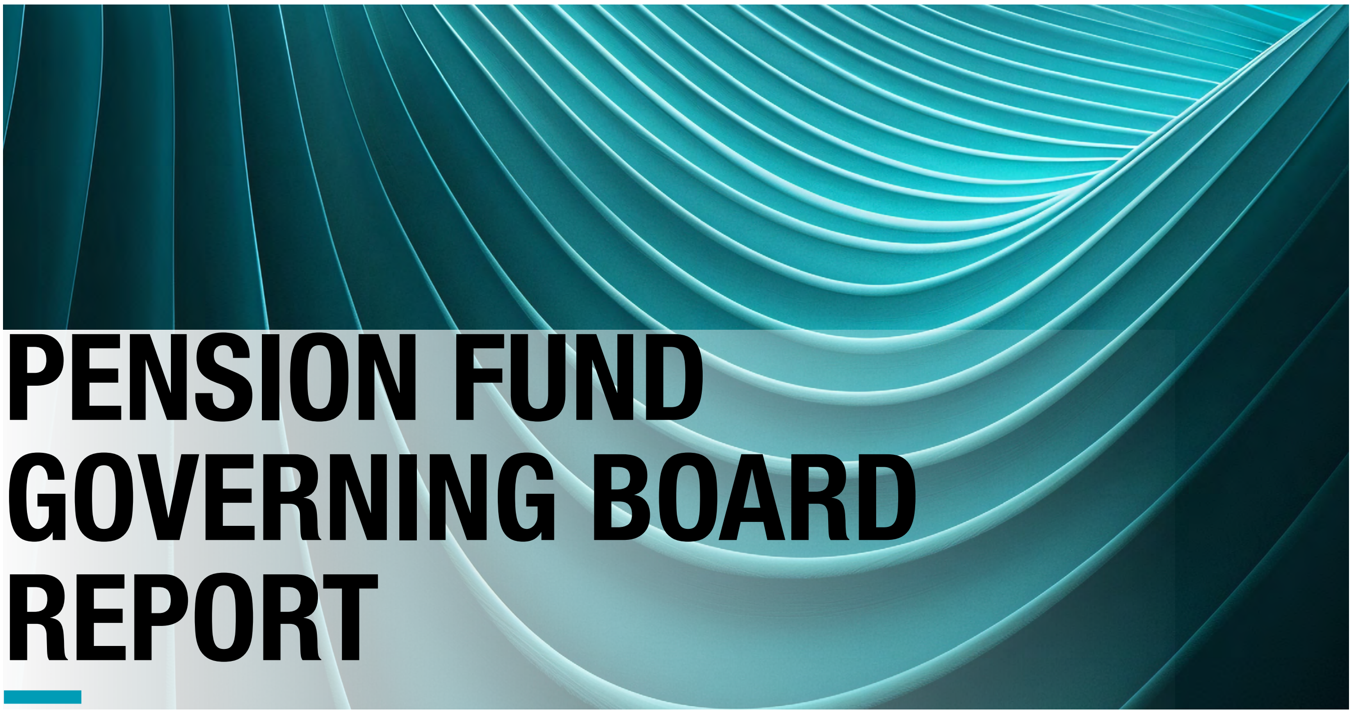
46 Countries with beneficiaries

—

Over 25 Million CHF paid each month

—

10 Current beneficiaries with benefits for more than 50 years



PENSION FUND GOVERNING BOARD REPORT

The PFGB is pleased to present its Annual Report and Financial Statements for the year ended 31 December 2023.

Composition of the bodies of the Fund and Advisers (2023)

Governing Board

Investment Committee

Members

Raphaël Bello, Chair
Jacob Bjorheim (until 31.12.2023)
Georges Hübner
Graham Jung (as of 01.01.2024)
Marcus Klug
Isabelle Mardirossian

Actuarial and Technical Committee

Members

Joanne Segars, Chair
Philippe Charpentier
Peter Hristov (as of 1.05.2023)
Jan Robinson
Kate Yates (as of 1.05.2023)

Chief Executive Officer

Douglas Heron

Chief Investment Officer

Elena Manola-Bonthond

Chief Operating Officer

Kandy Mitchell

Auditors

	Appointed by:
CERN External Auditors	
Court of Auditors of Portugal, *Lisbon, Portugal*	CERN Council
Internal Audit	
CERN Internal Audit Service	CERN Council

Advisers

Fund Actuary

Aon Switzerland Ltd, *Nyon, Switzerland (as of 01.01.2024)*
Buck Consultants Limited, *London, UK (until 31.12.2023)*

Custodian

Northern Trust Global Services SE., *Luxembourg*

Main Banker

UBS SA, *Nyon, Switzerland*

Risk Consultant

ORTEC Finance AG, *Pfäffikon, Switzerland*

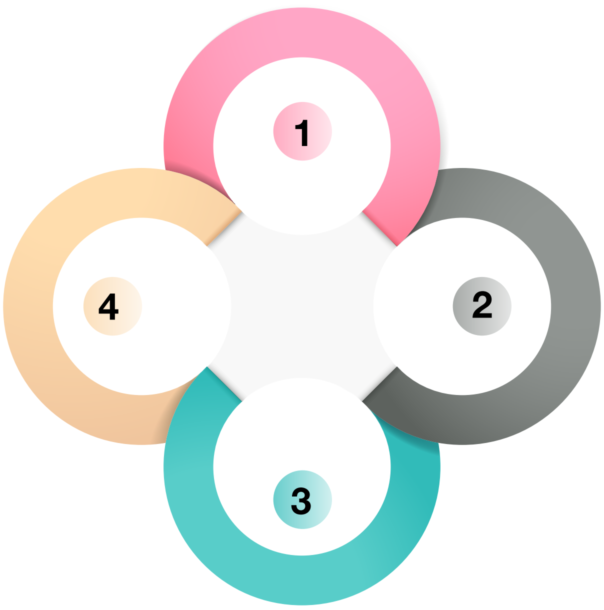
CERN Consulting Medical Practitioner

MEDABE SA, *Monthey, Switzerland*

Members	Appointed by:
Ossi Malmberg, Chair (until 31.12.2023) Dirk Ryckbosch (until 31.12.2023) Florin-Dorian Buzatu (Chair as of 01.01.2024) Cristina Biino (as of 01.01.2024)	CERN Council
Thomas Groffmann	ESO Council
Raphaël Bello	CERN Management responsible for Finance and Human Resources
Isabelle Mardirossian, Vice-Chair Ofelia Capatina	CERN Staff Association
Alain Delorme	ESO Staff Association
Philippe Charpentier	CERN and ESO Pensioners Association
Andreas Hilka Joanne Segars	Professional members appointed by CERN Council

GOVERNANCE

GOVERNANCE STRUCTURE FOR CERN PENSION FUND



1 The Fund is an integral part of CERN, has no separate legal personality and is under the supreme authority of the Council. The activities of the Fund are part of the official activities of CERN and benefit from privileges and immunities.

2 The Fund has operational autonomy within CERN and shall be managed in accordance with its Rules and Regulations. The Director-General shall have no responsibilities with respect to the management of the Fund.

3 The assets of the Fund shall be held separately from those of CERN and shall be used solely for the purpose of the Fund. Neither CERN nor ESO shall reclaim, borrow or impose a lien upon the assets of the Fund.

4 The oversight of the Fund shall be entrusted to the Governing Board, assisted and advised by the Investment Committee and Actuarial and Technical Committee. The management of the Fund shall be entrusted to the Chief Executive Officer.

CERN COUNCIL AND ITS FUNCTIONS

- Established the Pension Fund and acts as its supreme authority
- Decides on proposals from the Director-General concerning contributions paid to the Fund and the benefits provided by it
- Decides on proposals from the PFGB concerning changes to Pension Fund Rules and Regulations not relating to contributions and benefits
- Informed of the Fund's investment and operational performance and adopts measures to ensure the actuarial balance of the Fund

PENSION FUND GOVERNING BOARD (PFGB) AND ITS FUNCTIONS (ART. 1 2.05)

- Informs Council of financial balance of Fund and proposes any measures needed to ensure the actuarial balance of the Fund
- Approves actuarial parameters for periodic actuarial reviews
- Approves Statement of Funding Principles, Risk Limit, Strategic Asset Allocation, Investment Guidelines and Statement of Investment Principles
- Selects the Chief Executive Officer, proposes their appointment by Council and supervises their work
- Decides on proposals from Investment Committee and Actuarial and Technical Committee
- Approves the internal control system of the Fund and the internal audit programme
- Approves the Operational Plan and Budget of the Fund
- Approves the appointment of the Actuary and the custodian of the Fund's assets
- Decides on appeals lodged against individual decisions taken by the Chief Executive Officer
- Takes any other measures related to its oversight function

Pension Fund Governing Board composition (Art 1 2.06)
Two appointed by the Council (at least one Council delegate); one appointed by ESO Council; one ex-officio from CERN Management; two appointed by CERN Staff Association; one appointed by ESO Staff Association; one appointed by ESO and CERN Pensioners Associations; two professional members.

INVESTMENT COMMITTEE AND ITS FUNCTIONS (ART 1.2.10)

- Recommends to the PFGB the Statement of Investment Principles, Investment Guidelines, Risk Limit and Strategic Asset Allocation
- Monitors the implementation of the above
- Monitors the investment performance
- Approves or recommends to the PFGB, proposals from the CEO relating to the appointment of external service providers involved in the asset management process
- Reports to, and acts on requests from, the Governing Board on investment activities

Investment Committee composition (Art 1 2.11)
Two members of the PFGB; two external professional experts; any additional members with relevant experience (of PFGB or external expert) as the PFGB may decide to appoint.

ACTUARIAL AND TECHNICAL COMMITTEE AND ITS FUNCTIONS (ART. 1 2.13)

- Selects and proposes the Actuary for appointment by the Governing Board
- Defines and monitors the execution of the Actuary's mandate for the preparation of the Periodic Actuarial Review (PAR)
- Recommends, in agreement with the Actuary, to the Governing Board the actuarial parameters for the PAR
- Verifies the draft PAR and recommends to the Governing Board its submission to the Council
- Monitors the Fund's funding status and advises the Governing Board on any measures aimed at achieving full funding
- Examines proposed changes to the CERN/ESO Staff Rules and Regulations and to the Fund's Rules and Regulations, to determine any impact to the Fund and reports the results to the Governing Board
- Prepares and maintains a Statement of Funding Principles
- Reports to, and acts on requests from, the Governing Board on its activities

Actuarial and Technical Committee composition (Art 1 2.14)
Two members of the Governing Board; one or more additional members with relevant experience (who may be PFGB or an external expert) as the PFGB may decide to appoint.

THE FUNCTIONS OF THE CHIEF EXECUTIVE OFFICER (ART. 1 2.08)

- Acts as the legal representative of CERN for all matters relating to the Fund
- Under oversight of the PFGB, is responsible for the management of the Fund (head of the PFMU)
- Applies and interprets the Rules and Regulations of the Fund
- Implements the decisions of the Governing Board
- Acts as Secretary to the Governing Board, Investment Committee and Actuarial and Technical Committee
- Prepares and submits to the Governing Board the Annual Report and Financial Statements of the Fund
- Appoints external service providers, defines their mandates and monitors their execution

OVERVIEW OF THE YEAR 2023

PENSION FUND GOVERNING BOARD

The PFGB met five times during the year, with some meetings conducted in person – on site at CERN or ESO – and others via videoconference.

The PFGB's agendas included recurrent items such as the approval of the submission of the Fund's Annual Report and Financial Statements to the CERN Council and the approval of the Fund's investment risk limit and strategic asset allocation. In addition, the Fund's Actuary presented the Fund's actuarial "dashboard", and the Pension Fund Management Unit (PFMU) presented the Fund's annual budget for administrative expenses and its medium-term plan for approval, as well as an update on the Fund's key business risks and Internal Control System. The PFGB also reviewed the 2024-2026 programme of work for the internal audit of the Fund, as well as internal audit reports on the portfolio management system and the Purchasing Power Loss (PPL) mechanism. As part of the follow-up on these and previous audits, the Internal Audit Service presented updates on the implementation of the outstanding audit recommendations.

Appointment of new Actuary

Following a competitive tender, the PFGB appointed Aon Switzerland Ltd. as the Fund's Actuary. The new Actuary undertook a transition plan, including a comprehensive process to ensure an accurate understanding of the Fund's benefits and a reconciliation of the results with those of the previous Actuary.

Amendments to the Funds Rules and Regulations

The Working Group on Factors and Parameters, which has been mandated by the Council to review the suitability of a number of factors and parameters used by the Fund to determine benefit entitlements, concluded its work in respect of two factors. The PFGB received a report from the Actuarial and Technical Committee and an actuarial analysis performed by the Fund's Actuary with respect to the proposed amendments, which were subsequently approved by the Council during its session in December 2023. Further details of the amendments to the Fund's Rules and Regulations can be found in the Members and Beneficiaries section later in this report. The Working Group will continue its review of the other factors in the coming year.

The PFGB also approved guidelines for the implementation of the CERN Code of Conduct in the Fund's Regulations. These guidelines replace the previous Code of Conduct of the Pension Fund.

Risk limit

On the recommendation of the Investment Committee, the PFGB approved the Fund's strategic asset allocation (SAA) for 2024, as well as a change to the Fund's 1 Year 5% CVaR risk measure, bringing it from -8% previously to -10% for the coming year.

Updates to Council and Finance Committee

Over the year, the PFGB Chair and the CEO provided regular updates to the Finance Committee and the Council on the PFGB's activities, with a particular focus on the financial status of the Fund, the service activities in relation to members and beneficiaries and the investment performance.

INVESTMENT COMMITTEE

The Investment Committee (IC) held four meetings during the year. It received regular reports from the PFMU on the performance of individual asset classes, examining and reviewing the actions taken by the PFMU aimed at optimising the Fund's performance in line with the risk limit and the strategic allocation set by the PFGB.

Environmental, Social and Governance

ESG remained a key priority, and the IC provided important oversight of the Fund's ESG roadmap, receiving regular progress reports from the PFMU, including the Fund's first report on progress across the four pillars of the Task Force on Climate-Related Financial Disclosures (TCFD). The IC also received a status report on an ESG peer survey conducted by the PFMU, as well as regular updates on the Fund's carbon footprint. More information on this and ESG more generally can be found in the Investment and ESG chapter later in this document.

Investment Guidelines

The Fund's general and asset-specific investment guidelines are reviewed on a regular basis. In 2023, the Fund's General Investment Guidelines and several of the asset-specific investment guidelines were updated by the PFMU and reviewed by the IC for subsequent approval by the PFGB.

ACTUARIAL AND TECHNICAL COMMITTEE

The Actuarial and Technical Committee (ATC) met four times during the year. The ATC's agendas included regular items such as the review of the Actuary's year-end report and semi-annual dashboard, which serve as the basis for monitoring the funding situation.

Procurement and onboarding of new Actuary

The ATC provided important oversight of the procurement of the Fund's new Actuary, Aon Switzerland Ltd. It also received regular updates on the thorough process that was implemented for the transition from the previous actuary, Buck Consultants Limited.

Benefits Service

Regular updates were provided by the PFMU on the activities of the Benefits Service, in particular a quarterly dashboard showing the key activities in relation to members and beneficiaries and the strategic roadmap designed to enhance the infrastructure within the service and the tools available for communicating with members and beneficiaries. The key performance indicators presented to the ATC provided evidence of an excellent quality of service to members and beneficiaries, with most showing a success rate of 98% or more compared to the target service levels, throughout the year. The PFMU provided updates to the ATC on the indexation of benefits and the different purchasing power loss (PPL) adjustments to be applied to different cohorts of beneficiaries, including the communication approach to allow beneficiaries to understand their own PPL account and adjustment. The ATC received a summary of proposals and options with respect to offering beneficiaries the possibility to receive their benefits to a bank account outside Switzerland. Annual reports from the PFMU on data quality checks performed on membership data and the annual life certificate exercise were also presented to the ATC, as well as the annual report from the Fund's Medical Practitioner.

MANAGEMENT COMMENTARY

REPORT BY THE CEO

Presenting our annual report and financial statements

Following consultation with our stakeholders, last year we introduced several changes to the format and the content of the Annual Report & Financial Statements that you find here. The objective of making these changes was to provide you with the key information in an accessible format. I hope that you find the report useful, and I would encourage you to visit our website at https://pensionfund.cern.ch/ where you can find further information about our benefits, policies and investments.

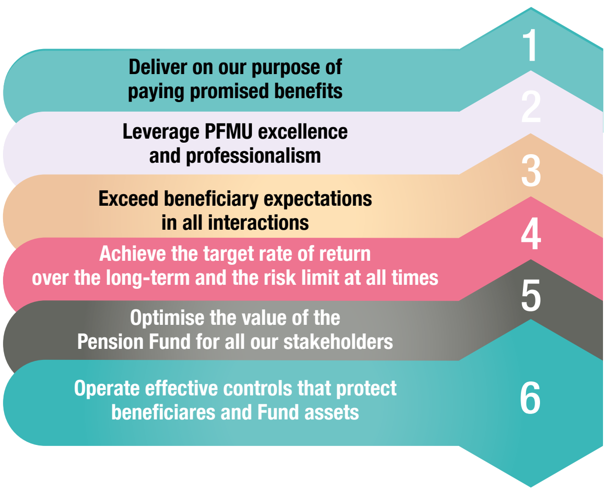
Evaluating the Funding Ratio

Every three years, or earlier by exception, the Pension Fund carries out a Periodic Actuarial Review to determine the funding ratio, broadly defined as the sufficiency of its assets to meet obligations to pay pension benefits at the current time and over a projected period. In contrast to the funding ratio that we update each year and disclose in this report, the Periodic Actuarial Review is a comprehensive evaluation of the many individual assumptions that form the basis of the calculations of the Fund's projected cashflows, assets and liabilities. The next Periodic Actuarial Review is scheduled to take place at the effective date of 1 January 2025 and the results will be reported to CERN Council in the June session and communicated to all of our stakeholders later in 2025.

Listening to beneficiaries to inform our plans and priorities

During the year I was pleased to have the opportunity to meet with several of our members, beneficiaries and beneficiary associations both at CERN and at ESO. These meetings, whether in groups arranged formally, such as our Annual Information Meetings, or the individual opportunistic conversations, provide my team and me with valuable insight into how members and beneficiaries feel about their pension benefits and how the Fund provides its services. This insight forms the basis of our operating plan and the work we plan for the year ahead and I'm grateful to all of those who took the time to share their views.

Overarching strategic objectives in the 2023 Operating Plan

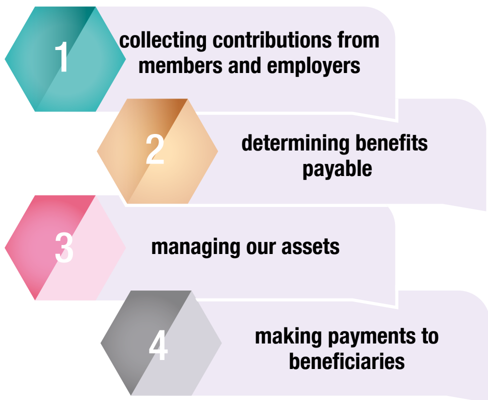


A preview of an exciting year ahead

The operating plan for this coming year, approved by the Governing Board, sets out an ambitious programme of work. The triennial Periodic Actuarial Review will be a substantial task, but it takes place alongside planned upgrades to the document management and workflow systems that provide the basis of benefit calculations. These upgrades will provide more efficient handling and storage of paper within the PFMU and, in time, enable our beneficiaries to choose to receive communications from us via an entirely digital path.

Our purpose is clear and the work of each colleague in the PFMU is dedicated to it

Our purpose is to insure our members and beneficiaries, together with their families, against the financial consequences of disability, old age and death. Delivering this involves four principal functions:



Each colleague in the PFMU supports one or more of these activities and during another challenging year has made a valuable contribution. I wish to thank them for their work and their commitment to the projects we have planned for this year.

Douglas Heron
CEO, CERN Pension Fund

MEMBERS AND BENEFICIARIES

Over **25** million chf benefits paid each month

—

Welcomed **570** new members

—

Supported **164** families of beneficiaries who sadly passed away

—

Converted **21** members to deferred status

—

46 countries with beneficiaries

—

Processed **58** members to retiree status

BENEFITS SERVICE OVERVIEW FOR THE YEAR 2023

The purpose of the Fund is to insure its members and beneficiaries, as well as the members of their families, against the economic consequences of disability, old age and death. (Article I 1.01).

Engaging with our members and beneficiaries

During the year many of you interacted with our Benefits Service, whether by e-mail, telephone or a visit in person. The service also enjoyed a very successful visit to our members at ESO, providing direct in-person access to the Benefits Service.

We were delighted to be able to also meet members and beneficiaries during our annual sessions at both CERN and ESO, which allowed us to update you on the Fund's investment performance, benefits and governance matters. The sessions were attended by over 500 members and beneficiaries, either in person or via the webcast. We very much appreciate these opportunities to share information regarding the status and activities of the Fund and to answer your general questions and feedback.

Updated factsheets for our new members and those approaching retirement

Last year we launched new factsheets for those approaching retirement. We also took the opportunity to update the factsheets that are shared with our new members. Both documents are available on our website. We hope that you find these a useful reference point for key information on these important milestones of your pension journey.

In-person information sessions continue to be organised as part of the induction sessions for new arrivals, and retirement seminars are held each year to support those who are approaching retirement.

Amendments to the Fund's Rules and Regulations

We are pleased to inform you that the Council approved changes to the actuarial factors in relation to two areas of the Fund's Rules i.e. early retirement and the possibility to purchase additional periods of membership, following the proposals from a working group that was asked to look at the suitability of some of the factors used in the administration of pension benefits. Actuarial factors are used when a change is made to standard benefits, for example when you exercise an option available to you as a member and the defined benefit payable from the date of your retirement is converted into a different format. One of the key objectives of the working group's review was to ensure that the factors were fair, reasonable and in the best interests of all, including you as members of the Fund. The factors have been updated to reflect the best estimate, which means that they represent the "true cost" for the Fund.

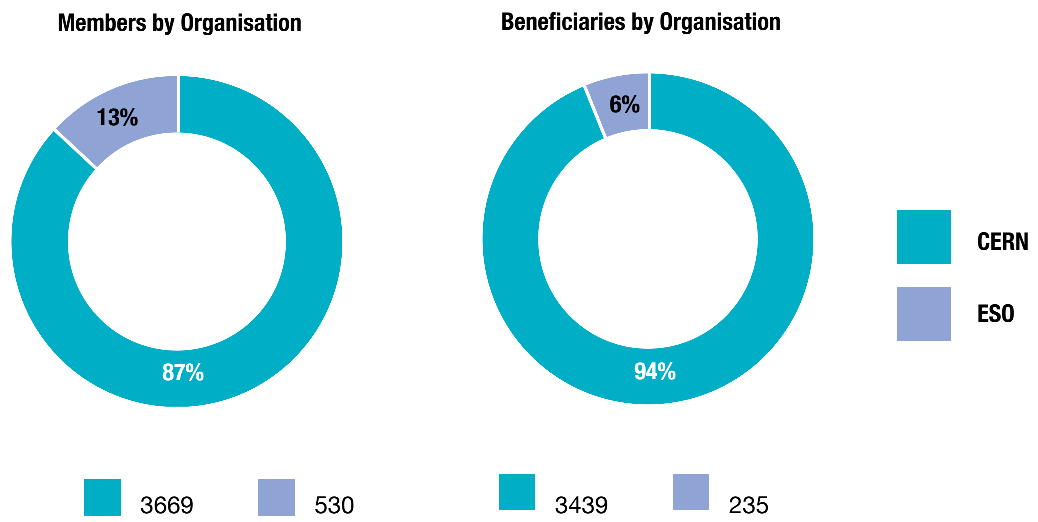
The factors for early retirement have been updated for all members who joined the Fund on or after 1 July 1987. The new factors will be effective from 1 July 2024, and at all ages there is an increase in the amount of pension that would now be payable if you chose to retire early. In addition, the factors applied for the purchase of additional periods of membership, whether by transferring from another scheme or purchasing with your own funds, have been updated to reflect the age-based best estimate. The new factors for the purchase of additional periods of membership will be effective from 1 February 2024. In order to align with the vesting period of five years of service for a pension, it is no longer possible to purchase additional periods of membership using your own funds if you have less than five years of service.

Performance indicators for key processes

The Fund's in-house Benefits Service provides a dedicated team for all our members and beneficiaries. Key processes include the monthly payment of benefits to beneficiaries living in over 45 countries, as well as the payment of transfer values to members who decide to leave the Fund when their contract ends. Support for families of deceased beneficiaries is an important part of the Benefits Service's activities and we aim to complete the administration processes in an efficient and compassionate way.

The Benefits Service monitors the service provided to members and beneficiaries against a set of key performance indicators (KPIs). Each KPI is measured against agreed targets regarding the timeliness of response and is rated as green, amber or red. A summary of the key performance indicators by category is included below. All ratings were green during the year.

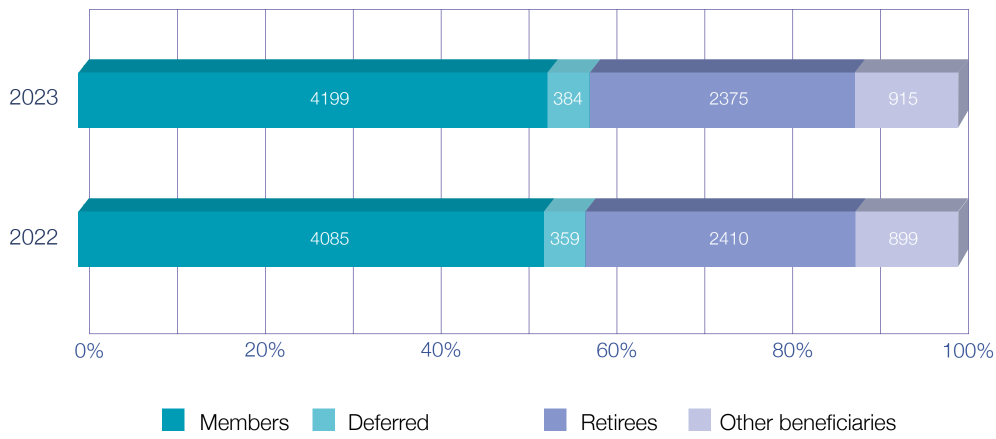
		2023			
Service	**Average quarterly volume**	**Q1**	**Q2**	**Q3**	**Q4**
Payment of monthly benefits	9 880	●	●	●	●
Processing of contributions	12 380	●	●	●	●
Transfer values	75	●	●	●	●
Purchases of additional periods	14	●	●	●	●
Handling deaths	41	●	●	●	●
Updates of personal/financial data	170	●	●	●	●
Attestations	40	●	●	●	●
Feedback/complaints	2	●	●	●	●



The number of members and beneficiaries as at 31 December was as follows:

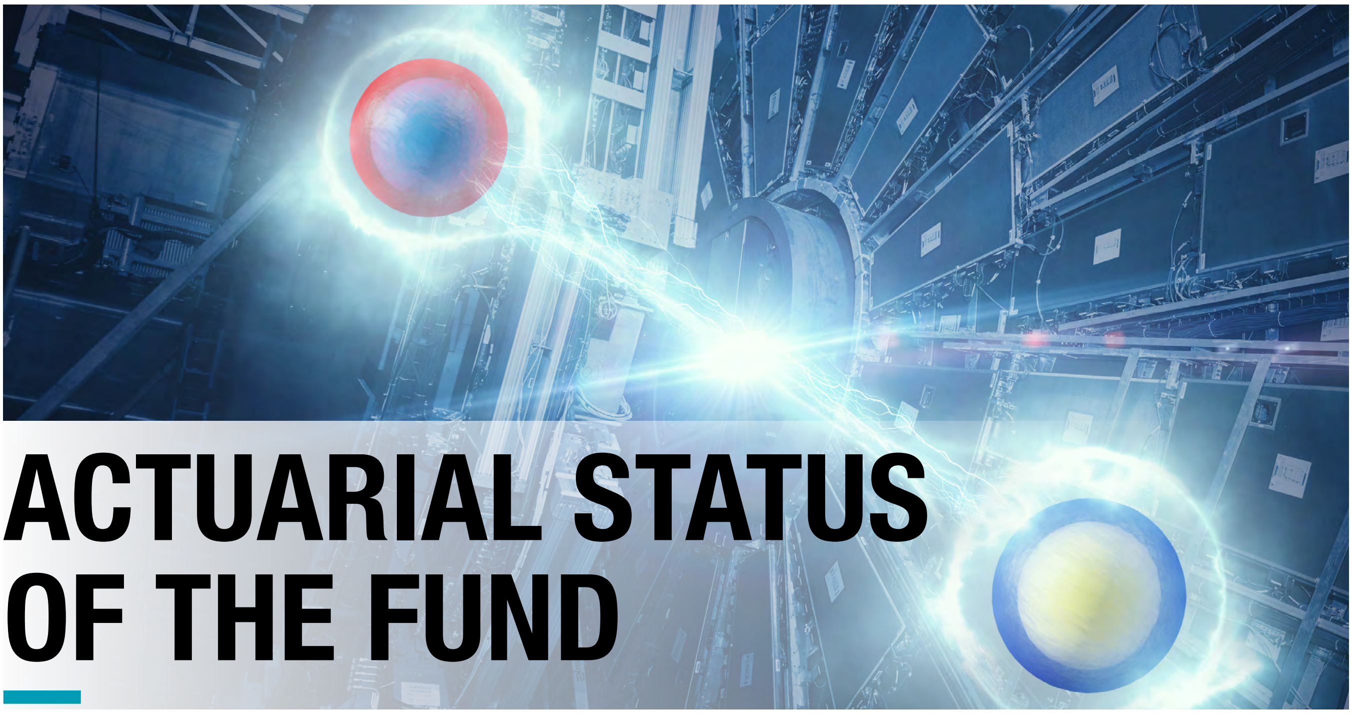
	2023			2022		
	CERN	ESO	Total	CERN	ESO	Total
Members (pre 01.01.2012)	1 483	272	1 755	1 541	280	1 821
Members (post 01.01.2012)	2 186	258	2 444	2 019	245	2 264
Total Members	**3 669**	**530**	**4 199**	**3 560**	**525**	**4 085**
Deferred retirement pensions	316	68	384	297	62	359
Retirement pensions	2 235	140	2 375	2 278	132	2 410
Surviving spouse pensions	829	19	848	818	17	835
Orphan pensions	38	2	40	37	1	38
Disability and ex-gratia	21	6	27	19	7	26
Total Beneficiaries	**3 439**	**235**	**3 674**	**3 449**	**219**	**3 668**

Members and Beneficiaries



There were 463 members who left the two Organisations (CERN and ESO) during the year 2023 (459 in 2022), 52 of which were retirements (64 in 2022):

	2023	2022
Retirement	52	64
Deferred Pension	21	19
Disability	6	2
Transfer Value	381	372
Deaths	3	2
Total Departures	**463**	**459**



ACTUARIAL STATUS OF THE FUND

A key measure when assessing the financial situation of a defined-benefit pension fund such as the CERN Pension Fund (the “Fund”) is the funding ratio. The funding ratio indicates the degree to which the Fund’s assets cover the value of liabilities to be paid now and in the future and is calculated by dividing the net assets at the balance sheet date with the present value of the liabilities.

A funding ratio of 100% means that a pension fund is in a position to service all of its obligations whereas funding ratios in excess of 100% and below 100% indicate overfunding and underfunding scenarios respectively. Funding levels can fluctuate hence many pension funds target a funding ratio above 100%.

LIABILITY MEASUREMENT

It is important to note that a pension fund’s liabilities can be defined and measured in a variety of ways and therefore different funding ratios may be calculated for the same fund.

The accumulated benefit obligation (ABO) measure takes into account those liabilities accumulated or accrued at a given valuation date. Only those benefit payments that are due to be made to members and existing beneficiaries at the valuation date are included in this measure and therefore no future accumulation of benefits is assumed.

Another approach to liability measurement which does take into account anticipated increases in benefits is the projected benefit obligation (PBO) method. This measure accounts for expected remuneration increase linked to career change and indexation, and also pension indexation. The funding ratio based on the PBO is generally considered the single most appropriate measure for assessing the financial position of the Fund at a given date.

When considering how a pension fund’s liabilities will evolve over time the PBO liability is projected forward using a consistent set of actuarial assumptions. The PBO can be projected forward on either a ‘closed fund’ or ‘open fund’ basis. For a closed fund projection, no allowance is made for any new entrants to the Fund over time such that the analysis focuses only on the current membership. Conversely, an open fund projection will anticipate new entrants to the Fund, making allowance for the accrual of benefits for these members as time progresses.

Table 1 below summarises the elements of the different liability measures described above:

Liability Measure	Accrued Service	Remuneration Indexation	Pension Indexation	New Entrants
ABO	X			
PBO (Closed Fund)	X	X	X	
PBO (Open Fund)	X	X	X	X

Table 1

ACTUARIAL ASSUMPTIONS

In addition, these different methods of determining a funding ratio may use different actuarial assumptions including salary and pension indexation, longevity and the discount rate. These assumptions are typically derived from studies of previous experience of trends in these variables over different periods of time. The Fund's actual experience over the study period is compared to the current actuarial assumptions used in the Fund's actuarial models and where variations are detected adjustments may be made to better reflect, in the actuarial model, the recent and accumulated history of these assumptions.

Note that where an experience study is not feasible, actuarial assumptions may instead be set with reference to a fund's investment strategy, current market conditions, publicly available statistics, legislation, accounting standards, or a best estimate of future trends. The Fund's Actuary is appointed by the PFGB to carry out the actuarial studies on an independent basis.

In 2023 the CERN Pension Fund has disclosed information on the financial situation of the Fund based on the following different liability measures:

1. The Accounting Measure under International Accounting Standard 26 (IAS 26) – Accounting and Reporting by Retirement Benefit Plans (PBO – Closed Fund)
2. The Updated Funding Measure – Best Estimate assumptions (PBO – Closed Fund)
3. The Periodic Actuarial Review as at 1 January 2022 – Best Estimate assumptions (PBO – Open Fund)

The key actuarial assumptions applied in the different liability measures are indicated in Table 2 below. For further details regarding the actuarial assumptions applied under IAS 26 please refer to the "Extract of Actuary's Report to the Pension Fund for financial year-end 2023". The actuarial assumptions used for the Updated Funding Measure as at 31 December 2023 were "Best Estimate" assumptions. The long-term inflation assumption remained unchanged for the year-end calculation, based on advice from the Fund's Risk Consultant. However, this assumption of 1.25% is different to the long-term inflation assumption of 1.1% that was used in the last Periodic Actuarial Review as at 1 January 2022. Whilst there is no change to the Best Estimate real discount rate of 2.6% nor the nominal discount rate of 3.85% used in the year end Updated Funding Measure calculation, it is also different to the rate used in the last Periodic Actuarial Review due to the different long-term inflation assumption for the year-end calculation.

Actuarial Assumptions	Accounting Measure under IAS 26 PBO (Closed Fund) 31 December 2023	Updated Funding Measure Best Estimate PBO (Closed Fund) 31 December 2023	Periodic Actuarial Review Best Estimate PBO (Open Fund) 1 January 2022
Discount Rate	AON Swiss AA Corporate Bond Yield Curve (1.33% single equiv. rate)	3.85% p.a. (1.25% + 2.6%)	3.7% p.a. (1.1% + 2.6%)
Remuneration increase linked to inflation	1.25% p.a.	1.25% p.a.	1.1% p.a.
Indexation of pensions linked to inflation	1.25% p.a.	1.25% p.a.	1.1% p.a.
Remuneration increase linked to career change	1.55%*	1.55%*	1.55%*
Mortality and disability tables	94% ICLST2018**	94% ICLST2018**	94% ICLST2018**

Table 2

* Remuneration increase linked to career change is 1.55% p.a. when expressed as a liability-weighted average. The underlying assumption is 0.0% p.a. for CERN Fellows, 2% p.a. for ESO Fellows, and age dependent groupings (between 1.2% and 2.0% p.a.) specific to CERN and ESO for non-Fellows. i.e. the best estimate assumption that was used for the Periodic Actuarial Review as at 1 January 2022.

** Following analysis of the Fund's mortality experience, an adjustment of 94% to the probabilities contained within the ICSLT2018 tables was proposed as the best estimate assumption.

DISCOUNT RATE

A key actuarial assumption is the discount rate which is used to calculate the present value of a pension fund's future liabilities and can be determined in different ways. Given the long term nature of pension fund liabilities, discount rates can be based on long term market interest rates or on actuarial assumptions that are more stable. Even small differences in the discount rate used can have a significant effect on the value of the liabilities and therefore the funding ratio. Different discount rates may be used under different approaches to liability measurement disclosed by the Fund.

EXPLANATION OF DIFFERENT LIABILITY MEASURES AND ACTUARIAL ASSUMPTIONS

The Accounting Measure under International Accounting Standard 26 (IAS 26) – Accounting and Reporting by Retirement Benefit Plans

The Fund prepares its financial statements in accordance with International Public Sector Accounting Standards (IPSAS) and International Accounting Standard 26 (IAS 26). As there is no IPSAS with respect to the reporting of the pension plan the Fund conforms to the provisions of IAS 26 in presenting the net assets available for benefits, the actuarial present value of promised retirement benefits and the resulting excess or deficit.

The Fund uses the PBO closed fund approach to value liabilities under IAS 26 and this permits an assessment of the financial position of the Fund by comparing the net assets of the Fund with its liabilities as at 31 December 2023. As the PBO method takes account of future salary and pension increases, it presents a higher value for liabilities than that which would be calculated under the ABO method.

Under IAS 26 the Fund uses a discount rate that refers to high-quality Swiss corporate bonds. This is a variable rate and as such is likely to produce volatile funding ratios from one year to the next. Using this variable discount rate to calculate the present value of promised retirement benefits illustrates the extent to which the Fund's net assets as at 31 December 2023, if invested with minimal investment risk would meet the liabilities at this date. It is important to note that this approach to determining the discount rate, although required by accounting standards, produces a very conservative funding ratio that is inappropriate for assessing the financial health of the Fund.

Updated Funding Measure

This measure of the Fund's liabilities also uses the PBO closed fund approach but with a different set of actuarial parameters that represent a best estimate of the long term funding view. Best Estimate actuarial assumptions are those which are most likely to be borne out in practice. For each assumption there is a 50% chance of actual experience being more favourable than assumed and a 50% chance of experience being less favourable than the best estimate assumption. The aggregate effect is that actuarial gains and losses should be equally likely in future years.

An important difference from the actuarial assumptions under the Accounting Measure is the discount rate which under this method represents the Fund's long term investment return target. The use of a consistent discount rate reduces the funding ratio volatility which is inherent in the Accounting Measure approach.

The Periodic Actuarial Review as at 1 January 2022

As provided for under Article I 4.04 of the Fund's Rules, a Periodic Actuarial Review is performed at least every three years. The purpose of this review is to inform CERN Council of the financial situation of the Fund. The last Periodic Actuarial Review was carried out as at 1 January 2022.

With respect to this liability measurement the actuary projects the assets and liabilities to determine the expected funding level in the future. The PBO method is again used but in addition future contributions, the expected return on assets and future accrual of service for current and new members of staff is included in the projection. Given this inclusion of expected future service for the current and future population and the use of a consistent discount rate, this measure of a future funding ratio is the most appropriate approach for funding purposes.

The Periodic Actuarial Review report provides an illustration of the variability in funding level i.e. a "funnel of doubt" using stochastic scenarios on the discount rate assumption.

As in the case of the previous Periodic Actuarial Review, a Best Estimate approach was used to set the actuarial assumptions for the Periodic Actuarial Review as at 1 January 2022.

Best Estimate actuarial assumptions are those which are most likely to be borne out in practice. For each assumption there is a 50% chance of actual experience being more favourable than assumed and a 50% chance of experience being less favourable than the Best Estimate assumption. The aggregate effect is that actuarial gains and losses should be equally likely in future years.

The next Periodic Actuarial Review will be conducted as at 1 January 2025.

Funding Situation under different Liability Measures

Table 3 below shows the funding situation under each of the liability measurement approaches using the actuarial assumptions mentioned in Table 2 above. The prior year funding ratios under the first two measurements are presented in the "Extract of the Actuary's Report to the Pension Fund for financial year-end 2023". There is no funding ratio at 1 January 2041 nor 1 January 2052 as these two measures are projected on a closed fund basis.

Liability Measure	**Funding Position Accounting Measure under IAS 26** As at 31 December 2023 kCHF	**Funding Position Updated Funding Measure** As at 31 December 2023 kCHF	**Funding Position Periodic Actuarial Review** As at 1 January 2022 kCHF
Net assets of the Fund	4 460 361	4 460 361	4 982 000
Actuarial Liabilities	10 138 017	6 619 973	6 464 000
Surplus/(Deficit) in the Fund	(5 677 656)	(2 159 612)	(1 482 000)
Funding Ratio at date of measure	44.0%	67.4%	77.1%
Funding Ratio at 1 January 2041	N/A	N/A	97.1%
Funding Ratio at 1 January 2052	N/A	N/A	114.4%

Table 3: Funding situation under each of the liability measurement approaches.

Summary

Different approaches to the measurement of liabilities may be applied to determine the financial situation of a pension fund under different scenarios and to meet the requirements of accounting standards.

The most appropriate method of liability measurement for assessing the funding situation is the PBO in an open fund scenario as determined in the Fund's three-yearly Periodic Actuarial Review.

INVESTMENT AND ESG REPORT

MACROECONOMIC HIGHLIGHTS

In 2023, global economic activity sustained its expansion. The IMF reports a 3.1% increase in global GDP, representing a slight deceleration compared to the 3.5% growth observed in 2022.

Contrary to the initial forecasts, which had predicted a significant slowdown in developed economies due to monetary policy tightening, the United States and several major emerging market and developing economies showed considerable resilience. This ongoing growth was partly fuelled by the continued expenditure of savings accumulated by consumers during the 2020 pandemic. However, economic performance was not uniform across all regions. Europe and China, for instance, experienced a slowdown. In Europe, higher interest rates and supply constraints impeded growth, while China's real-estate market stresses adversely impacted its economic activity.

Labour markets globally continued to strengthen, with unemployment rates remaining low in many countries, although some economies observed a moderate increase.

Despite the sustained economic growth in 2023, inflation rates began to recede, although they still remained high. The IMF estimates a drop in global CPI inflation to 6.8%, down from 8.7% in 2022. This decline was more pronounced in advanced economies. In the US and Europe, some alleviation of the previous supply constraints led to a reduction in goods prices. Core inflation also decreased but continued to be relatively high, influenced by the tight labour market and persistent labour supply shortages.

In response, central banks continued to implement a series of interest rate hikes throughout the year, pausing their tightening cycles when rates reached levels deemed to be sufficiently restrictive and inflation showed signs of decline. Due to the rapidity of previous interest rate increases, monetary policy rates reached their highest point since the 1980s.

Additionally, 2023 witnessed persistently elevated geopolitical risk, due to renewed conflict in the Middle East. This resurgence of instability significantly contributed to heightened volatility in the commodity markets, affecting energy prices in particular. The geopolitical tensions not only disrupted supply chains but also led to fluctuations in oil and gas prices, thereby influencing global economic conditions.

In conclusion, the year 2023 was marked by resilient economic growth and diminishing inflationary pressure, with central banks playing a pivotal role through interest rate adjustments and the gradual easing of financial conditions. Geopolitical risk remained an important factor throughout the year.

RISK MANAGEMENT AND ASSET ALLOCATION

The Fund’s risk management and asset allocation policy is set out in the Statement of Investment Principles, which has been approved by the PFGB. It is based on an annual risk limit and an annual strategic asset allocation (SAA), and on managing the current asset allocation (CAA) in a manner compatible with both the risk limit and the investment return objective.

The Fund’s return objective is to meet or exceed the actuarial best-estimate discount rate, adjusted for Geneva inflation, over the long term. Since 2022, the best-estimate real-rate assumption has stood at 2.60% per annum. The

PFGB set the same risk limit for 2023 as for 2022, namely a 5% Conditional Value-at-Risk (CVaR) limit of -8%.

The SAA for 2023, which was drawn up by the PFMU in collaboration with the Risk Consultant (Ortec Finance) and was subsequently endorsed by the Investment Committee and approved by the PFGB, is shown in Table 4 below. The actual (CAA) exposure by asset class as at 31 December is shown in the first column.

Asset class	CAA as at 31-12-2023	SAA 2023	SAA 2022
Fixed Income	21.06% (18.65%)	26.50%	26.50%
Equities	15.87% (15.25%)	17.00%	17.00%
Real Estate	17.77%	19.00%	19.00%
Infrastructure	1.85%	2.50%	2.50%
Timber/Farmland	2.34%	2.50%	2.50%
Private Equity	11.2% (7.59%)	6.00%	6.00%
Hedge Funds	13.91%	11.00%	11.00%
Precious metals/ Commodities	3.55%	5.50%	5.50%
Cash and Overlay	12.45%	10.00%	10.00%

Table 4: CAA as at 31-12-2023, SAA 2023 and SAA 2022.

The numbers in parentheses show the exposure net of equity hedges and cash held at asset class level.

In 2023, the level of uncertainty driven by inflation expectations and geopolitical risk led the Risk Consultant to recommend the continued use of a CVaR error margin, as implemented on 12 March 2020, in accordance with the risk framework approved by the PFGB in November 2017.

The risk level of the SAA increased throughout 2023. The Russia-Ukraine war triggered increased commodity prices and elevated uncertainty. This, combined with rising inflation and interest rates, a fear of recession and a tightening of the monetary policy stance by the central banks, led to a downturn in the business cycle. Sentiment remained negative throughout the year as there was little sign that inflation would decline to the level of central bank targets in the short term, given persistent labour market tightness and the prospect of an energy crisis. At the end of the year, the business cycle outlook for 2023 and 2024 had slightly improved as the cycle progressed, despite the remaining above-average market volatility and elevated geopolitical and inflation uncertainty.

Throughout the year, the Fund's risk, as estimated by the Risk Consultant using the disequilibrium scenarios, remained within the one-year 5% CVaR limit of -8% +/- the 2 percentage point error margin. It is recalled that the use of disequilibrium scenarios, which are short-term scenarios, is necessary because the Fund's risk limit is expressed in terms of a one-year time horizon. These scenarios take account of the current policies of central banks, which tend to keep the level of risk from rising to the level of the long-term expectation

PORTFOLIO PERFORMANCE IN 2023

In 2023, the Fund returned a performance of -1.10%, net of external management and custody fees, as reported by the external performance-monitoring reporting service (APEX) as at 31 December 2023. This performance, which is calculated using a time-weighted rate of return to eliminate the impact of external cash flows and the associated timings, does not include the governance and internal management/ operations costs[1], which are evaluated at approximately 0.23 percentage points. Geneva inflation stood at 1.45%.

Figure 1 shows the Fund's cumulative returns compared to the return objective since December 2011, as reported by APEX. The return objective corresponds to the best-estimate real rate, which has stood at 2.6% per annum since 2022 and which has changed over the period, as a result of the triennial periodic actuarial review. The real rate of return is calculated by subtracting the Geneva inflation rate from the Fund's nominal rate of return. As at 31 December 2023, the Fund's cumulated real returns since December 2011 exceeded the objective by 16.34 percentage points.

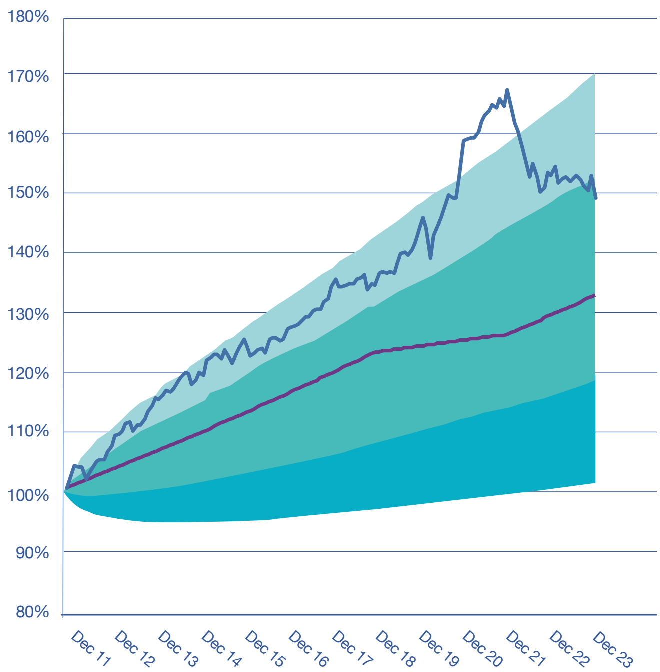
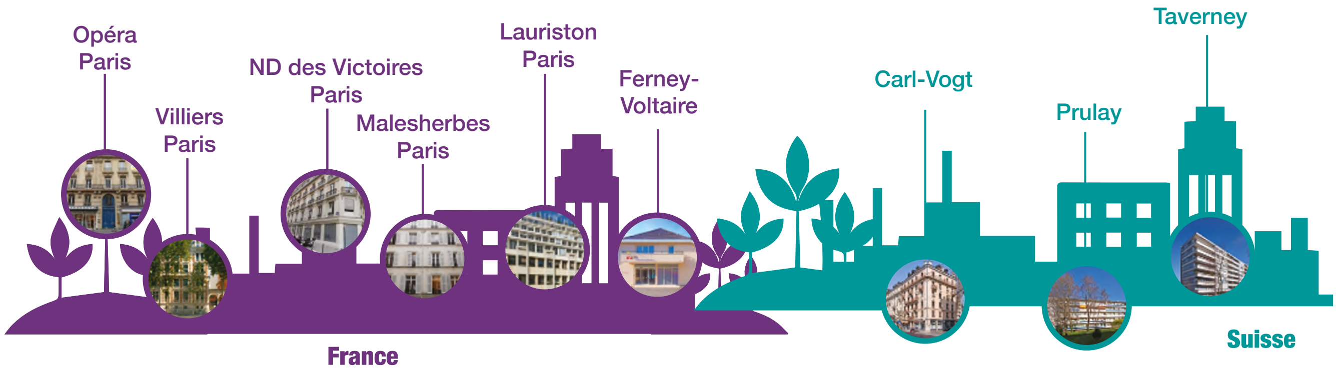


Figure 1: Cumulative Real Return vs. Objective (Real Rate)

1. Includes PFGB, ATC and IC expenses, Actuary, CERN services, Risk Consultant, PFMU staff, temporary labour and external service providers related to the investment process, such as due diligence providers, data providers, real-estate appraisal service and performance-reporting services.



Currency Hedging Policy

Throughout the year, the PFMU maintained a prudent currency hedging policy, staying close to a 100% hedge of the Fund's overall currency exposure on average. The rate differential between Switzerland and both the US and the eurozone led to a historically high FX hedging cost (approximately 2.1% for EUR and 4.2% for USD). At the same time, the Swiss franc saw a notable appreciation, rising by 6.6% against the EUR and 9.8% against the USD.

Fixed Income

The fixed-income portfolio returned +2.74% after currency hedging costs.

In 2023, the German 10-year government bond yields decreased from 2.57% to 2.07%, while 10-year US government bond yields increased slightly from 3.88% to 3.97%. Intra-year, however, the fixed-income markets experienced significant volatility.

Throughout most of 2023, from January until mid-October, the previous year's trends continued. The year was marked by a sell-off in rates and a consistent performance of credit and emerging markets, with higher-risk assets performing particularly well. Both the Federal Reserve and the European Central Bank maintained their restrictive monetary policies, raising short-term rates to 5.5% and 4%, respectively. In October, the 10-year German government bond yields reached close to 3%, and the 10-year US Treasury yield exceeded 5%. However, in November, a persistent decline in inflation prompted a notable shift when the Fed and the ECB indicated a potential end to their hiking cycle. This resulted in the strongest bond market performance over a short period on record. The Fund's fixed-income portfolio gained +5.12 % in the fourth quarter. In consideration of the market volatility, however, the portfolio was managed with a notable underweight with respect to the benchmark throughout the year.

Equities

The equity portfolio returned +11.82% after currency hedging costs.

2023 was a strong year for the equity markets in developed economies. The S&P 500 index rose to 4770 from a level of 3840 on 31 January 2022, while the Japanese Topix index rose by 25% in JPY. However, the strong performance of the US market was largely driven by a concentrated set of large market capitalisation companies and by the optimism around developments in artificial intelligence. This environment was challenging for active managers, who, in general, lagged behind the benchmarks. Significant strategic allocation to Japanese equities was an important source of performance for the Fund: its conservative FX hedging policy made it possible to insulate the performance from the currency weakness. On a tactical level, the Fund retained an overweight to Europe and an underweight to emerging markets, both of which contributed positively to the performance.

Real Assets: Real Estate - Timber and Farmland - Infrastructure

The real-assets portfolio comprises the following three sub-portfolios: real estate (directly owned properties and real-estate funds), timber/farmland and infrastructure.

Real Estate

The real-estate portfolio returned -18.71% after currency hedging costs. This loss reflects the decrease in the annual valuations of the Fund's directly held properties compared to their level at the end of 2022. Directly held properties account for 92% of the Fund's real-estate portfolio.

While it was expected that the real-estate markets would be negatively impacted by the rise in government bond yields, the performance of the Fund's directly held portfolio was additionally affected by a change in the valuation method adopted by the valuation agent for the properties in France and Switzerland. More specifically, the discounted cash flow (DCF) method has been used to establish fair value for accounting purposes, over the evidence of comparable sales; a method preferred by the accounting standards in active markets and which formed the basis of previous valuations in the portfolio in our largest markets. DCF valuations are closely correlated to short-term fluctuations

in often volatile reference yields and thus saw considerable reductions as rates increased markedly during 2023. The PFMU estimates that the change of methodology accounted for some 6.3 percentage points, i.e. approximately one third, of the negative performance of the real-estate portfolio.

The Fund's real-estate office holdings, all of which are in sought-after locations in city centres, are long-term, income-generating assets providing capital preservation benefits to the Fund and did not experience any deterioration of their occupancy rates and were unaffected by remote-working trends. In Paris, these trends proved favourable and drove a move from peripheral locations to the city centre, boosting the demand rents for high-end office space. As a result, the Fund retains a high degree of confidence in the suitability of these assets for long-term ownership with an ongoing ability to generate suitable risk-adjusted returns from them.

No investments or divestments were made during the year.

Timber and Farmland

The timber and farmland portfolio returned +3.00% after currency hedging costs. 55% of the portfolio is invested in directly owned forests in France, while the rest of the exposure is managed through investment funds.

The positive performance of the portfolio was largely driven by the increase in the capital value of the directly owned forests. These forests are managed according to the irregular forest management[2] technique, which is deemed to be best suited to maintaining ecological diversity.

During the year, the Fund purchased seven new directly owned forests, representing a total surface area of 418 hectares.

Infrastructure

The infrastructure portfolio ended the year at +0.79% after currency hedging costs.

The portfolio is exposed to brown and greenfield investments in developed markets. As of the end of 2023, the infrastructure portfolio comprised six funds, of which five are unlisted and one is listed. The funds with a mature vintage reported good performances in local currency but less so in CHF, the reporting currency, given the hedging costs. The OECD core infrastructure fund was largely liquidated during the year, with mixed results in USD and even less positive results in CHF A recently purchased vintage fund is still in the capital deployment phase, which impacts the performance in both local currency and, in particular, in CHF.

During the year, a new investment in the private space, focused on energy transition, was made.

Private Equity

In 2023, the private equity portfolio returned -1.85% after currency hedging costs. This result primarily stemmed from the negative performance across different strategies, which cancelled out the positive returns from growth funds. It is important to note that private market performance is reported with a delay of several months and that managers often smooth out the performance over time, meaning that the rebound in the equity markets in the second half of 2023 may not be fully reflected in these figures.

Last year, valuations in global private equity markets were adjusted downwards due to lower debt capacity and the delayed effects of the downtrend in equity markets in 2022. While private equity activities continued, dealmaking and fundraising were significantly reduced compared to previous years. Despite this, the portfolio maintained a good balance between distributions and capital calls, generating a relatively modest negative net cash flow of about 5.9 MCHF.

In 2023, the Fund committed a total of almost 66 MCHF to private equity across different strategies. As of December 2023, the portfolio consisted of 91 active funds (involving 48 managers, as in 2022), which were invested across buyout, growth and venture capital. Approximately 20 funds make up

2. Also called 'uneven-aged forest management'.

half of the total exposure (NAV plus unfunded commitments). The geographic exposure of the total commitment is spread evenly between Europe and North America.

Hedge Funds

In 2023, the hedge fund portfolio returned +4.25% after currency hedging costs.

At the end of 2023, the hedge fund allocation comprised 14 funds. Several full redemptions were triggered by the time window of opportunity to allocate to high-conviction managers that remain hard-closed for extended periods of time. Additional commitments totalling 97 MUSD were made across existing funds in view of the increased allocation to hedge funds in the 2024 SAA.

The funds in the overlay portfolio delivered a muted performance as these strategies are expected to underperform in strong markets.

Commodities/Precious Metals

In 2023, the commodities and precious metals portfolio delivered a positive performance of 1.41% after currency hedging costs.

UPDATE ON OPERATIONAL INFRASTRUCTURE

The implementation of the Portfolio Management System (PMS) was completed in 2023. The implementation of a PMS represents a major improvement in the infrastructure of the Fund, as it strengthens all trade flow processes and provides an overall more robust and more reliable set-up in terms of operations and business continuity. The implementation of the new system was audited by the CERN Internal Audit service and no major recommendations were issued.

CONCLUSIONS – MACRO OUTLOOK

Looking ahead to 2024, the macroeconomic and financial landscape continues to present challenges. On a positive note, the global economy has demonstrated sustained resilience, notwithstanding the tighter financial conditions and the persistence of elevated geopolitical risk. Moreover, the gradual easing of inflationary pressures, coupled with the prospective advantages of advancements in artificial intelligence, offers encouraging long-term prospects.

However, the prevailing climate is marked by significant uncertainty. This is evidenced by less favourable financial market valuations, which could potentially reduce medium-term returns. Additionally, persistent high inflation remains a primary concern. The possibility of new geopolitical disturbances, potentially affecting commodity prices, could further limit the capacity of central banks to bolster economic growth.

UPDATE ON THE IMPLEMENTATION OF THE ESG POLICY

In November 2021, the Pension Fund Governing Board (PFGB) adopted an ESG policy as an integral part of the Fund’s Statement of Investment Principles. At the same time, the PFGB approved an ESG implementation work plan, with an explicit focus on addressing climate-related risks and opportunities, with substantial steps forward taken during 2022. The progress achieved in 2023 is reported in the next section. The ESG plan itself is updated on an annual basis.

In parallel, the Fund continued to participate in collective engagement activities. In 2023, it participated in 15 initiatives on various ESG topics led by Ethos Engagement Pool International (EEPI).

AN ESG IMPLEMENTATION WORK PLAN, WITH AN EXPLICIT FOCUS ON ADDRESSING CLIMATE-RELATED RISKS AND OPPORTUNITIES

MANAGEMENT OF CLIMATE RELATED RISKS AND OPPORTUNITIES: PROGRESS REPORT

This section summarises the work carried out in 2023 to strengthen the Fund's management of climate-related risks and opportunities. It is organised according to the guidelines of the Task Force on Climate-Related Financial Disclosures (TCFD), as reproduced below, around the pillars of governance, strategy, risk management and metrics/targets.

I. Governance

Describe the oversight of the climate-related risks and opportunities. Describe management's role in assessing and managing climate-related risks and opportunities.

The Fund acknowledges that climate risk can have a systemic impact on the value of its investments. Climate change is expected to be a source of increased physical risks (e.g. climate events) and transition risks (e.g. tighter regulatory requirements, legal risks, stranded assets, social unrest).

The Fund is on a path of progressively integrating the management of climate risks into its global investment risk management framework. While the responsibility for this integration lies within the remit of the CEO and the CIO, the progress is continuously monitored by the Investment Committee and the PFGB.

II. Strategy

In 2022 the Fund completed two exploratory studies, a climate impact analysis and a carbon footprint and transition pathway study, with the objective of providing an initial evaluation of the Fund's climate risk. In 2023 a second carbon footprint measurement was carried out. In addition, the Fund is active in identifying opportunities to invest in climate transition themes. This combination of bottom-up and top-down approaches is deemed to be appropriate, given the complexity of the matter and the inherent uncertainties.

Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term. Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

In 2022, the PFMU commissioned a climate impact analysis to evaluate the Fund's strategic asset allocation over a long-term investment horizon, according to three stylised climate scenarios:

> **Orderly Transition** – explores the transition and physical risks involved in an orderly and smooth transition towards a low-carbon, climate-resilient economy consistent with the goals of the Paris agreement.

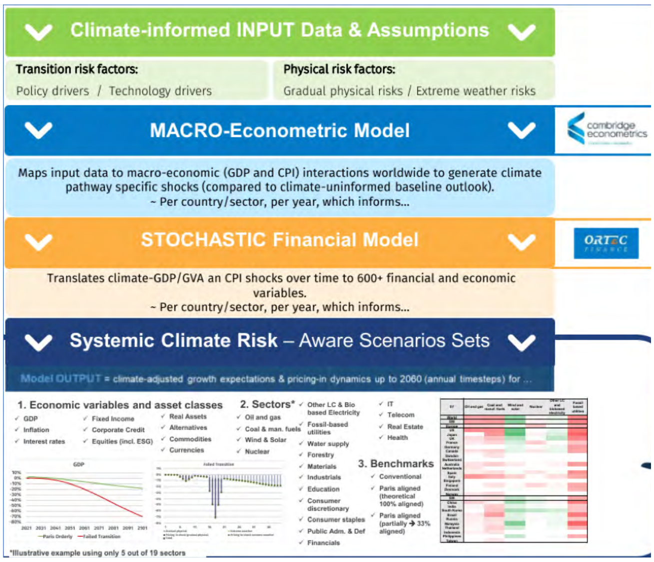


Figure 2: Climate MAPS methodology. Source: Ortec Finance

> **Disorderly Transition** – explores how a transition can have more severe financial impacts when the pricing-in of climate risks occurs abruptly and with financial sentiment shocks.

> **Failed Transition** – explores the severe physical impacts of a scenario where current policies continue, the Paris Agreement is not met and global temperatures increase well beyond 2°C, triggering serious physical risks.

The methodology is presented in Figure 2.

The results of the climate impact analysis were presented in the 2022 investment report. The study revealed that the investment return would be only modestly lower in an orderly transition. In a disorderly scenario, the effect is larger, with transition risks manifesting themselves early. In the failed transition scenario, the performance is expected to deteriorate quite significantly later on, as physical risks start to be realised. Accepting that such studies rely on long-term assumptions and impacts the Fund will carry out further studies when it is likely to result in meaningful and valuable insights. The second iteration of this study is expected to be performed in 2024.

As mentioned in the preamble of this section, the Fund strives to identify opportunities to invest in climate-focused themes. During the reporting period, the Fund invested in an infrastructure fund with an energy transition focus and in a company focused on sustainable batteries.

The Fund continues to invest in the timber asset class, both through direct ownership and through investment funds. The directly owned forests in the portfolio have been managed since inception according to the" irregular forest management" approach[3].

3 Also called 'uneven-aged forest management'. This approach can be defined as "managing and using forests and woodlands in a manner and with an intensity that allow them to maintain their ecological diversity, productivity, regeneration capacity and vitality and their ability to fulfil, now and in the future, relevant ecological, economic and social issues, locally and globally, and that they cause no impediment to other ecosystems" (Ministerial Conferences for the Protection of Forests in Europe – Strasbourg 1990, Helsinki 1993)

III. Risk Management

Describe the organisation's process for identifying, assessing and managing climate-related risks. Describe engagement activity with investee companies to encourage better disclosure and practices related to climate-related risks. Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management.

Given that the climate impact analysis provided useful insight into climate-related risk, the Fund plans to incorporate physical and transition risks in its next ALM study scheduled for 2024. In addition to this analysis, the Fund carried out its second carbon footprint and transition pathway analysis, the main results of which are detailed in the Metrics and Targets section below.

IV. Metrics and targets

Describe the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.

The Fund assesses the climate impact of the securities it holds by measuring their carbon footprint. For this purpose, it used the methodology and data provided by S&P Trucost for the combined corporate bonds and listed equity holdings as of September 2023, which accounted for 21% of the NAV excluding cash. Complementary figures were calculated by scaling absolute emissions, relative to the portfolio's value (C/I) or the revenues (C/R) of the underlying firm. The TCFD recommends using the weighted-average carbon intensity (WACI), which measures the average carbon-to-revenue ratio across individual portfolio holdings according to their individual weights.

The data used to evaluate emissions is backward-looking by its nature. For this reason, the Fund used a complementary metric for carbon footprinting, namely the Implied Temperature Rise (ITR)[4], which the TCFD defines as an attempt to estimate the global temperature rise associated with the greenhouse emissions of a single entity (company, fund, etc.). However, the ITR is more dependent on assumptions and models.

Using the same S&P Trucost service, the Fund separately measured the carbon intensity of its direct real-estate holdings, which account for 16% of NAV of December 2023 excluding cash. For this portfolio, the alignment with the decarbonisation pathway envisaged for the real-estate sector under the International Energy Agency 2°C scenario was evaluated using the Carbon Risk Real Estate Monitor (CRREM) global pathway.

The Fund's approach to climate-related opportunities is bottom-up, as discussed in the previous section. No specific metrics has been developed in this regard.

Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHGs)[5] emissions and the related risk. Disclose weighted average carbon intensity (WACI) for each product or investment strategy where data and methodology so allow.

In absolute terms, the 2023 carbon footprint of the Fund's combined corporate and listed equity holdings (henceforth the "aggregate portfolio") is estimated at 78,190 tCO2 e. In accordance with the TCFD recommendation, this calculation includes Scope 1[6] and Scope 2 emissions. If Scope 3 "Non-electricity first tier of the supply chain" emissions are included (i.e. CO2 e emissions generated by companies providing goods and services in the first tier of the supply chain), the footprint rises to 110,330 tCO2 e.

In 2022, with regards to the aggregate portfolio, the absolute amount of tCO2 e was 57,654 including Scope 1 and 2. The footprint was 80,376 tCO2 e also including Scope 3 "Non-electricity first tier of the supply chain". The difference in absolute terms between 2023 and 2022, also taking Scope 3 into consideration, amounts to approx. 30k tCO2 e. The annual net increase is largely attributed to two main factors: a change in the modelling methodology employed by S&P, our data provider, for emissions of certain companies, and the inclusion of emissions from entities that commenced reporting in 2023.

In 2023 with reference to the aggregated portfolio, the weighted-average carbon intensity (WACI) of the analysed portion of the portfolio – Scope 1 and 2 – is 142 tCO2 e/MCHF per year. The C/R, C/I and WACI of the aggregate portfolio – Scope 1, Scope 2 and Scope 3 – are 279, 136 and 196 tCO2 e/MCHF, respectively. The Scope 1 and Scope 2 results are shown in Figure 2. In 2022, the weighted-average carbon intensity (WACI) of the aggregated portfolio – Scope 1 and 2 – was 212 tCO2e/MCHF per year. The C/R, C/I and WACI of the aggregate portfolio – Scope 1, Scope 2 and Scope 3 – were 267, 91 and 258 tCO2 e/MCHF, respectively. The differences in carbon intensity measures between 2023 and 2022, with 2023 often reporting higher figures, are mostly direct consequences of the aforementioned increase of the numerator, the total apportioned amount of tCO2e.

4 ITR incorporates current GHG emissions or other data and assumptions to estimate expected future emissions associated with the selected entities. Then, the estimate is translated into a projected increase in global average temperature (in °C) above preindustrial levels that would occur if all companies in corresponding sectors had the same carbon intensity as the selected assets (source: TCFD internal documentation).

5 Calculations of GHG emissions are presented in metric tonnes of carbon equivalent, which weights each greenhouse gas by its Global Warming Potential.

6 Scope 1 emissions are greenhouse gases generated by direct company operations (i.e. emissions generated by electricity production, burning fuel in corporate fleet). Scope 2 emissions are those generated by purchased electricity, heat or steam. Scope 3 emissions ae those that are indirectly generated by a company's activities either "upstream" (i.e. by suppliers) or "downstream" (i.e. through the use of sold products). Scope 3 emissions are subject to far greater uncertainty compared to Scope 1 and 2 emissions.

THE FUND IS ACTIVE IN IDENTIFYING OPPORTUNITIES TO INVEST IN CLIMATE TRANSITION THEMES

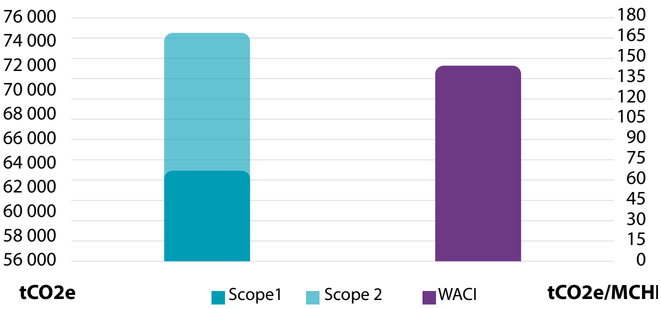


Figure 3: Carbon footprint and WACI, Scope 1 and Scope 2 emissions, CERN Pension Fund corporate and listed equity portfolio. Source: S&P Trucost for CERN Pension Fund.

Asset owners should describe the extent to which their assets under management and products and investments strategies, where relevant, are aligned with a well below 2°C scenario, using whichever approach or metrics best suit their organisational context or capabilities.

Figure 4 shows the path of the Fund's combined corporate bond and listed equity portfolio emissions, according to three different temperature paths, using firm-level estimates provided by S&P Trucost. The implied temperature path of the portfolio is measured to be in the 2-3 °C range, which exceeds the goals of the Paris agreement.

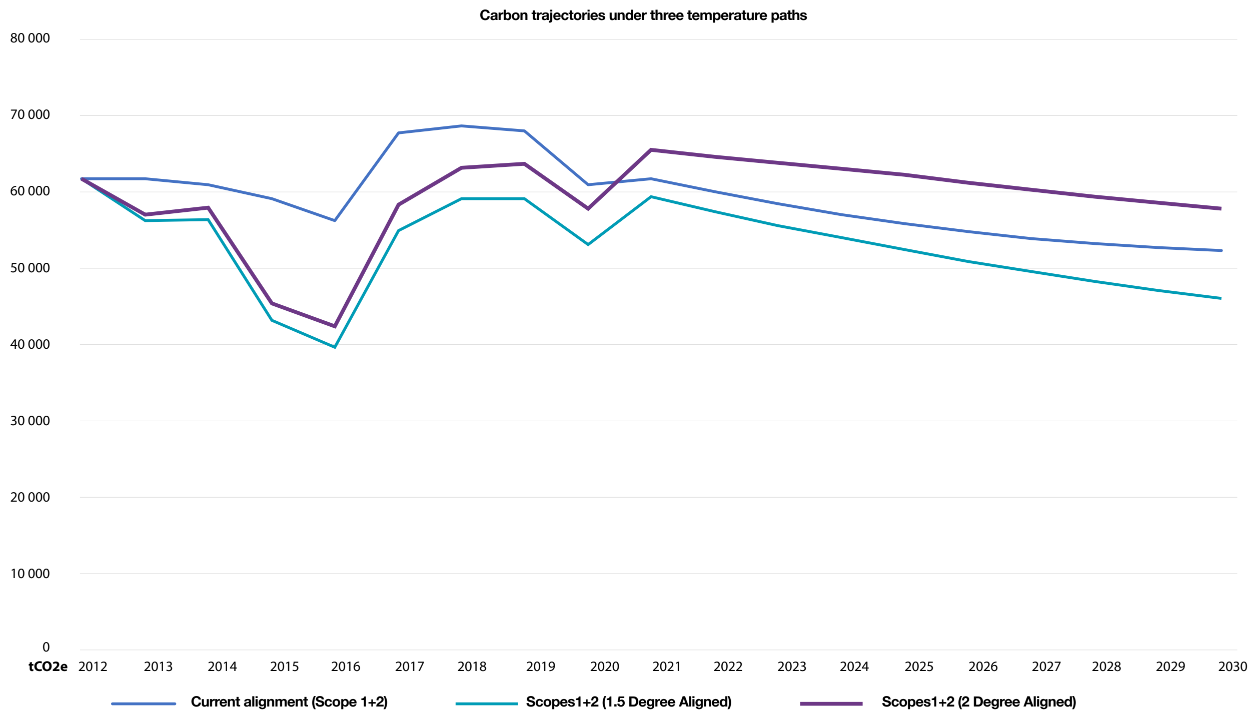


Figure 4: Carbon trajectories according to three temperature paths, Scope 1 and Scope 2 emissions, CERN Pension Fund corporate and listed equity portfolio. Source: S&P Trucost for CERN Pension Fund.

The carbon intensity of the Fund's direct real-estate portfolio is 8 kg CO2e/m2, with a WACI value of 7 kg CO2e/m2. Figure 5 shows the portfolio's carbon intensity against the 2 °C Aligned Carbon Intensity Path. In its current state, the portfolio appears to be well positioned with respect to the CRREM milestones in 2030 and in 2040.

Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.

The Fund may consider setting targets for the management of the portfolio in the medium term, after having thoroughly assessed the drivers of its carbon footprint and temperature alignment performance.

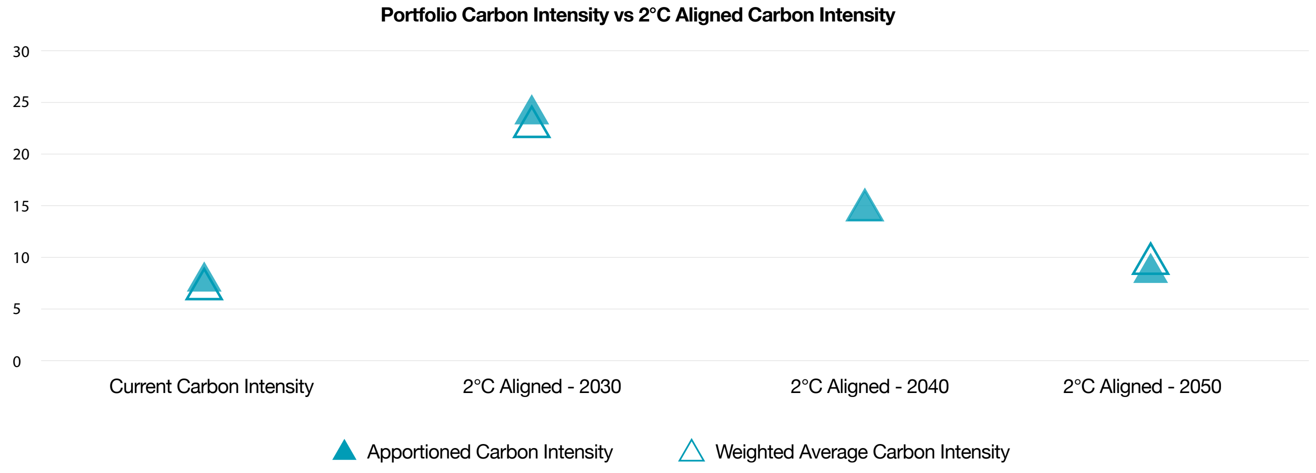
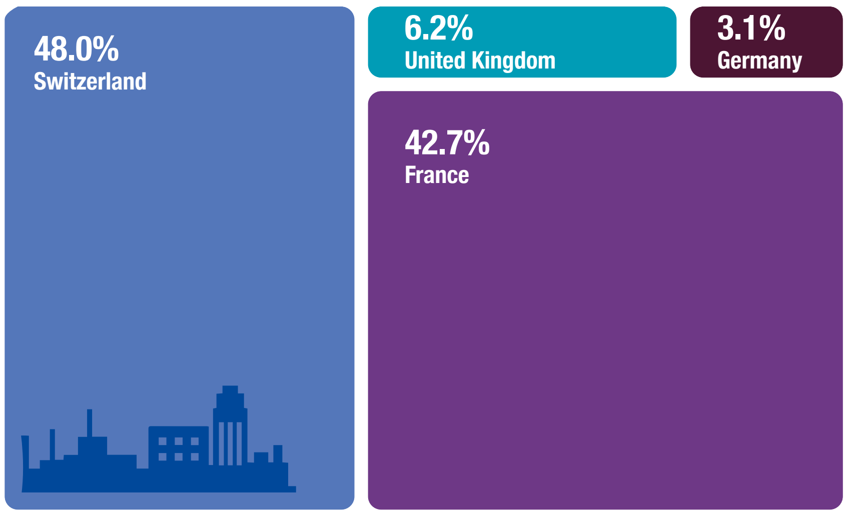


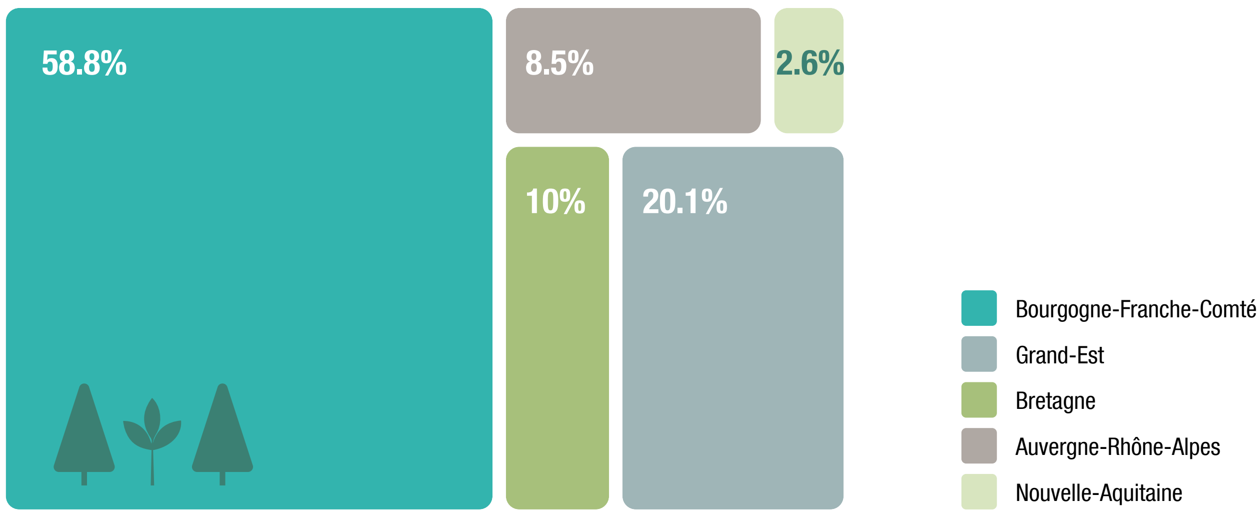
Figure 5: Direct Real Estate: Portfolio carbon intensity vs CRREM 2°C Aligned Carbon Intensity Milestones. Source: S&P Trucost for CERN Pension Fund.

REAL-ESTATE PORTFOLIO

2023 - PROPERTIES (EXCLUDING FORESTS) HELD BY COUNTRY



2023 - FORESTS HELD BY FRENCH REGIONS



FINANCIAL STATEMENTS

External Auditors’ Opinion

on the Financial Statements of the Pension Fund of the
European Organization for Nuclear Research (CERN-PF) for the year ended 31 December 202

To the Council of CERN

OPINION

We have audited the financial statements of the Pension Fund of the European Organization for Nuclear Research (CERN-PF) for the year ended 31 December 2023. These financial statements comprise statement of financial position, statement of the financial performance, cash flow statement, statement of changes in net assets available for benefits as well as the notes to the financial statements.

Unqualified Opinion of financial statements

In our opinion, the financial statements present a true and fair view, in all material aspects of the Pension Fund of the European Organization for Nuclear Research as at 31 December 2023, of its financial performance and of its cash flows for the year ended, in accordance with International Public Sector Accounting Standards (IPSAS) and International Accounting Standard 26.

BASIS FOR OPINION

We conducted the audit in accordance with the International Standards of Supreme Audit Institutions (ISSAIs) issued by the International Organization of Supreme Audit Institutions (INTOSAI), and the International Standards on Auditing (ISAs).

These standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance as to whether the accounts of the CERN-PF are free from material misstatement and the transactions underlying them are legal and regular.

All the rules, instructions, procedures, documentation and other evidence, as well as the information and explanations requ ired have been provided timely and adequately.

MANAGEMENT´S RESPONSIBILITY

The CERN-PF Management is responsible for the preparation and fair presentation of the financial statements in accordance with IPSAS and for such internal control as it determines to be necessary to allow the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Management is responsible for assessing the ability of CERN-PF to continue as a going concern, disclosing, as applicable, matters related to the going concern and using the going-concern basis of accounting unless the Management intends either to liquidate CERN-PF or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the financial reporting process of the Organization.

AUDITOR´S RESPONSIBILITY

We operated independently and performed such audit as deemed necessary to meet financial audit obligations regarding the Finance Committee and the Council.

Our objectives are to obtain reasonable assurance as to whether the financial statements as a whole are free from material misstatements, whether due to fraud or error, and to issue an audit report that includes our opinion. Reasonable assurance means a high level of assurance but is not a guarantee that an audit conducted in accordance with the ISSAIs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or taken together, they could reasonably be expected to influence the economic decisions of users taken based on these financial statements.

As part of an audit in accordance with the International Standards of Supreme Audit Institutions (ISSAIs), we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement in the financial statements, whether due to fraud or error, design and perform audit procedures that are responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than the risk of not detecting one resulting from error, as fraud may involve collusion, forgery, intentional omission, misrepresentation or the overriding of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control of CERN-PF.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Management.
- Draw conclusions as to the appropriateness of the Management's use of the going-concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists in relation to events or conditions that may cast significant doubt on the ability of CERN-PF to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our audit report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our audit report. However, future events or conditions may cause CERN-PF to cease as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves a fair presentation.

The audit involved performing procedures to obtain sufficient and appropriate evidence about the amounts and disclosures in the financial statements to provide a basis for our opinion. The procedures selected relied on the auditor´s judgment, including the assessments of the risks of material misstatements of the Financial Statements, whether due to fraud or error. In making those risks assessments, the auditor considers the internal control system relevant to the entity´s preparation of the financial statements in order to design audit procedures that are appropriate in the circumstances.

We believe that the audit evidence is sufficient and appropriate to provide a basis for our opinion.

KEY AUDIT MATTERS

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the current period. We do not provide a separate opinion on these matters.

• Internal Control System

Given that 2023 was the first year of our mandate as External Auditor, a special focus was given to the thorough understanding of the organization's existing internal controls.

As part of our audit work, we have assessed the overall internal control environment, analyzed the copy of internal audit reports, interviewed key personnel, and performed additional procedures on benefits payment, financial assets valuation and cash and cash equivalents.

There are no recommendations/observations in this area.

• Contributions and Benefits Payable

In 2023, the net membership activities cost was negative in 65 MCHF, which resulted from 258 MCHF in contributions received and 322 MCHF in benefits paid.

Given the importance and sensitivity of this particular area, the audit team carried out an evaluation of the Benefits Service policies and procedures, segregation of duties, payroll process and controls, tested internal controls, and interviewed key personnel in the Benefits Service. At his level, there are no recommendations/observations.

• Management of Investments

During 2023, the investment area registered a net loss of 46 MCHF, due to an income of 29 MCHF and an expenditure of 75 MCHF.

We should note the market movements in relation to the real estate assets which had a significant negative impact on the performance. The performance was also affected from a change in valuation method adopted for properties in France and Switzerland.

Moreover, significant gains were observed on foreign exchange (155 MCHF). These are mostly as a result of the currency overlay hedging programme and provide an offset to the corresponding foreign exchange losses, included in the gains and losses on assets held in non-Swiss Franc currencies.

There are no recommendations/observations, at this level.

OTHER INFORMATION

The CERN Pension Fund Management is responsible for the other information, included in the Pension Fund Annual Report that comprises the Pension Fund Governing Board Report and an Extract of the Actuary's Report on the Fund as at 31 December 2023, as well as the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon. However, in connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If based on the work we have performed we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

Based on the procedures we performed, nothing has come to our attention, as part of our audit of the financial statements that causes us to believe that the transactions of the CERN Pension Fund have not been made, in all significant respects, in accordance with the relevant Pension Fund regulations.

COMMUNICATION TO MANAGEMENT

We communicated with managers charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

LONG FORM REPORT

We issued a long-form report on the audit of the CERN-PF´s Annual Accounts for the year 2023, where a more detailed presentation of the audit issues can be found.
We conclude that there are no material issues to draw the attention of the Council.

Lisbon, 10 MAY 2024.

THE EXTERNAL AUDITORS,

José F. F. Tavares,
President of the Portuguese Court of Auditors

Maria da Luz Carmezim,
Member of the Portuguese Court of Auditors

Audit team:
— Mr. Nuno Miguel Martins Lopes (Auditor-Chief).
— Mr. João Carlos Cardoso (IT Manager).
— Mr. João Paulo Amado (IT Manager).
— Mr. Carlos Arede (Auditor).
— Mr. Joel Gustavo Silva Ribeiro (Auditor).

FINANCIAL STATEMENTS

STATEMENT OF FINANCIAL POSITION

As at 31 December

(in kCHF)	Note	2023	2022
Assets			
Cash and Cash Equivalents	5	780 670	829 629
Short-Term Deposits	6	60 000	-
Settlements Receivable		2 670	1 058
Sundry Debtors	7	5 844	5 679
Other Receivables	8	12 086	9 862
Derivatives	9	169 303	134 207
Bonds	10	638 841	645 132
Equities	11	311 661	382 176
Investment Funds	12	1 822 134	1 771 467
Total Financial assets		**3 803 209**	**3 779 209**
Investment Property	13	693 388	865 351
Total Non-Financial assets		**693 388**	**865 351**
Total assets		**4 496 597**	**4 644 560**
Liabilities			
Settlements Payable		279	354
Sundry Creditors	14	14 845	14 562
Other Payables	15	4 856	2 924
Derivatives	9	16 256	48 347
Total liabilities		**36 236**	**66 187**
Net assets available for benefits		**4 460 361**	**4 578 372**

As at 31 December

(in kCHF)	Note	2023	2022
Vested pension capital *			
Benefit Obligation in respect of members		5 038 813	4 336 954
Benefit Obligation in respect of beneficiaries		5 099 204	4 629 679
Vested pension capital		**10 138 017**	**8 966 633**
Technical deficit		**(5 677 656)**	**(4 388 261)**
Funding Ratio		**44.0%**	**51.1%**

* See Extract of Actuary's Report

STATEMENT OF FINANCIAL PERFORMANCE

		Year ended 31 December	
(in kCHF)	**Note**	**2023**	**2022**
Investment Income			
Financial Assets			
Dividend Income	16	53 451	45 111
Interest Income	17	33 236	26 153
Unrealised Gains/(Losses) on Financial Assets at Fair Value Through Profit & Loss	18	(44 943)	(135 891)
Realised Gains/(Losses) on Financial Assets at Fair Value Through Profit & Loss	19	(9 264)	(182 957)
Non-Financial Assets			
Investment Property Income and Gains/(Losses)	20	(158 171)	7 171
Foreign Exchange Gains/(Losses)	21	154 676	(3 842)
Total Investment Income/(Loss)		**28 985**	**(244 254)**
Investment Expenses			
Financial Assets			
Investment Management Fees	22	60 225	59 871
Custody Fees and Administration of Securities		464	517
Transaction Costs		768	1 580
Taxation		449	577
Non-Financial Assets			
Investment Property Expenditure	23	10 996	13 562
Investment Related Expenditure		2 489	2 750
Total Investment Expenses		**75 391**	**78 858**
Net Investment Income/(Loss)		**(46 406)**	**(323 112)**
Other Expenses			
Bank Charges		26	24
Other Financial Expenses	24	1 035	2 532
Administration Costs	25,32	6 021	6 044
Total Other Expenses		**7 082**	**8 600**
Change in Net Assets before Membership Activities		**(53 488)**	**(331 712)**

Year ended 31 December

(in kCHF)	Note	2023	2022
Membership Activities	**26**		
Contributions			
Member Contributions		69 442	67 399
Employer Contributions		122 909	119 643
Employer Special Contributions		61 400	61 400
Purchase of additional years of membership		2 736	2 695
Indemnities received from third parties		96	50
Compensations	27	952	778
Procurement of entitlement to pension for surviving spouse paid by members		240	257
Total Contributions		**257 775**	**252 222**
Benefits and Payments			
Retirement pensions		243 018	244 428
Disability pensions		1 830	1 838
Surviving spouse pensions		47 268	46 628
Orphans pensions		1 276	1 306
Family allowances		12 515	12 788
Ex gratia payments granted		66	66
Transfer values paid to members	28	12 832	13 067
Transfer values paid to other schemes	29	2 706	1 139
Amounts pending selection from members	30	697	2 437
Contributions paid to other schemes		90	102
Total Benefits and Payments		**322 298**	**323 800**
Net Membership Activities Cost		**(64 523)**	**(71 577)**
Net Increase/(Decrease) in Net Assets During Year		**(118 011)**	**(403 289)**
Net Assets Available for Benefits at Beginning of Year		4 578 372	4 981 661
Net Assets Available for Benefits at End of Year		**4 460 361**	**4 578 372**

CASH FLOW STATEMENT

(in kCHF)	Year ended 31 December 2023	 2022
Cash flows from membership activities		
Contributions and other receipts	256 567	251 313
Benefits and other payments	(318 349)	(321 144)
Net cash flows from membership activities	**(61 782)**	**(69 830)**
Cash flows from investing activities		
Financial Assets		
Purchases of Bonds	(179 905)	(303 913)
Purchases of Equities	(250 832)	(431 112)
Purchases of Investment Funds	(472 158)	(581 644)
Purchase of short-term deposits	(60 000)	-
Proceeds from sale of short-term deposits	-	60 000
Proceeds from sale of Bonds	167 542	482 665
Proceeds from sale of Equities	326 283	687 948
Proceeds from sale of Investment Funds	352 924	214 468
Net receipts from Derivatives	85 550	5 680
Dividends received	63 077	43 504
Net Interest received	26 519	11 577
Non-Financial Assets		
Investment Property payments	(18 626)	(18 865)
Purchases of Investment Property	(12 562)	(12 157)
Investment Property receipts	32 523	30 204
Net tax receipts	(914)	1 065
Management and Custody Fees paid	(5 154)	(2 987)
Administrative and other Operating expenses paid	(9 113)	(8 744)
Net cash flows from investing activities	**45 154**	**177 688**
Net (decrease) increase in cash and cash equivalents	**(16 628)**	**107 858**
Cash at beginning of the year	829 629	750 506
Unrealised Gains /(Losses) on Cash and Cash Equivalents	(32 331)	(28 734)
Cash at end of the year	**780 670**	**829 629**

STATEMENT OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS

(in kCHF)	2023	2022
Balance as at 1 January	**4 578 372**	**4 981 661**
Employer Contributions	122 909	119 643
Member Contributions	69 442	67 399
Employer Special Contributions	61 400	61 400
Purchase of additional years	2 736	2 695
Indemnities and Compensations	1 048	828
Procurement of Entitlement to pension for surviving spouse paid by members	240	257
Benefits paid	(305 973)	(307 055)
Transfer values and contributions paid to others schemes	(16 325)	(16 745)
Investment Income/(Loss)	28 985	(244 254)
Investment Expenses	(75 391)	(78 858)
Other Expenses	(7 082)	(8 600)
Balance as at 31 December	**4 460 361**	**4 578 372**

NOTES TO THE FINANCIAL STATEMENTS

1. GENERAL INFORMATION

1.1. FUND DESCRIPTION

Under Chapter IV of the CERN Staff Rules and Regulations, the European Organization for Nuclear Research (CERN), which has its seat in Geneva, is responsible for the social insurance coverage of its staff. Thus it set up in 1955 a pension fund which constitutes the CERN personnel's social protection for disability, old age and death.

The governance structure of the Fund and its relations with the Council and the Director General of CERN are defined in the Rules of the Pension Fund ("the Rules," available at: https://pensionfund.cern.ch). The Rules and Regulations of the Fund are approved by CERN Council.

The Rules state that "The purpose of the Fund is to insure its members and beneficiaries, as well as the members of their families, against the economic consequences of the disability and old age of its members and of the death of its members and beneficiaries" (Art. I 1.01).

With respect to the status of the Fund within the Organisation, according to the Rules, "The Fund is an integral part of CERN, and, as such, has no separate legal personality and is under the supreme authority of Council" (Art. I 2.01). In addition, "The Fund shall enjoy operational autonomy within CERN and shall be managed in accordance with the framework set out in the Rules and Regulations". (Art. I 2.02).

Regarding the oversight and management of the Fund, Article I 2.04, states that

"1. The oversight of the Fund shall be entrusted to the Governing Board, assisted and advised by the Investment Committee and the Actuarial and Technical Committee.
2. The management of the Fund shall be entrusted to the Chief Executive Officer of the Fund, hereinafter referred to as "the Chief Executive Officer."

Article I 2.03 of the Rules further provides that the assets of the Fund shall be held separately from those of CERN and shall be used solely for the purpose of the Fund.

The Fund operates as a defined-benefit scheme. The members of the personnel of CERN and the members of the personnel of the European Southern Observatory (ESO), which has its seat in Munich, are members of the CERN Pension Fund. Conditions relating to the admission of ESO staff to the Fund are set out in the CERN/ESO Agreement.

Pensions are calculated in the following manner:

For members who joined the Fund on or before 31 December 2011, 2% of the Basis for the Calculation of Benefits, as set out in Article II 1.08 of the Rules, for each year of membership, up to a maximum of 35 years;

For members who joined the Fund on or after 1 January 2012, 1.85% of the Basis for the Calculation of Benefits, as set out in Article II 1.08, of the Rules, for each year of membership, up to a maximum of 37 years and 10 months.

The retirement age is as follows:

i. **For members who joined the Fund on or before 31 December 2011**: 65 years;
ii. **For members who joined the Fund on or after 1 January 2012:** 67 years.

The entitlement to a pension begins after a minimum of five years' contributions.

1.2. FUNDING ARRANGEMENTS

According to the Rules, the resources of the Fund derive from (a) contributions from CERN and ESO, (b) contributions from its members, (c) the income from the investment of its assets, and (d) gifts and legacies. The contributions are expressed as a percentage of each member's reference salary, which is equal to the basic remuneration for 40 hours' work per week multiplied by a coefficient set out in Annex A to the Rules.

Contributions are apportioned between the member and the participating Organizations as follows:

i. **For members who joined the Fund on or before 31 December 2011: member: 11.33%; Organization: 22.67%; total: 34%;**
ii. **For members who joined the Fund on or after 1 January 2012: member: 12.64%; Organization: 18.96%; total: 31.6%.**

1.3. TERMINATION TERMS

When membership of the Fund terminates before the applicable age of retirement for a reason other than death or total disability, a transfer value is calculated on the basis of the reference salary at the date of termination:

i. Less than five years of service: where the member has less than five years of service, the transfer value is paid into another pension scheme or to the member;
ii. Between five and ten years of service: the member has the choice between a deferred retirement pension, or payment into another pension scheme, or, if the latter option is not possible, to the member;
iii. Ten or more years of service: the member has the choice between a deferred retirement pension, and payment into another pension scheme, or, if the latter option is not possible, into a private insurance scheme offering comparable guarantees.

Payment of a transfer value extinguishes any right to a pension, except that for partial disability that is already being paid.

1.4. SIGNIFICANT ACTIVITIES FOR THE PERIOD

There were no significant activities during the year.

1.1.1. Beneficiaries

As at 31 December 2023 the number of beneficiaries was 3,674 (3,668 as at 31 December 2022).

1.1.2. Members

As at 31 December 2023 the number of members of the Fund was 4,199 (CERN: 3,669 and ESO: 530) compared to 4,085 (CERN: 3,560 and ESO: 525) as at 31 December 2022.

1.5. INVESTMENT POLICY

The Fund's principles governing the investment policy are set out in the Statement of Investment Principles CERN/PFGB/90.6c/A/Rev. which is approved by the PFGB.

The Fund strives to maximise returns while remaining below a maximum level of risk. The maximum level of allowable risk is referred to as the "risk limit".

The Fund's portfolio is constructed and managed with the objective of remaining at all times within the risk limits approved by the PFGB, while striving to attain the Fund's investment return objective.

When selecting and managing investments, the Fund considers adapting the time horizon to the market conditions or to the circumstances of the Fund. In addition, the requirement for active management and the sensitivity of the risk and return to market cycles are also considered.

The Fund may invest in a wide range of asset classes including listed equity, government and non-government debt, currencies, money market instruments, property, commodities, private equity/debt. The Fund may also invest in strategies with absolute return focus. Investments may be undertaken directly (internally), or indirectly (e.g. via funds or investment agreements), in physical assets or derivatives.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

2.1. BASIS OF PREPARATION

The CERN Pension Fund Financial Statements for the financial year ended 31 December 2023 have been prepared on a going-concern basis and pursuant to Article I 4.02 of the Rules of the Pension Fund, in accordance with International Public Sector Accounting Standards (IPSAS) and International Accounting Standard 26, Accounting and Reporting by Retirement Benefit Plans, as there is no such equivalent IPSAS. The preparation of financial statements in conformity with IPSAS requires the use of certain critical accounting estimates. It also requires the Fund to exercise its judgement in the process of applying the Pension Fund's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed under note 3. If such estimates and assumptions deviate from the actual circumstances, the original estimates and assumptions will be modified as appropriate in the year in which the circumstances change.

Whilst the accounts of the Fund are maintained to the nearest Swiss franc, these financial statements are expressed in thousands or millions of Swiss francs. Some rounding differences may therefore occur.

At its meeting on 11 April 2024 the PFGB approved the submission of the CERN Pension Fund Annual Report and Financial Statements for 2023 to CERN Council, via the Finance Committee, for approval and discharge.
The accounting policies set out below have been applied consistently by the Fund and throughout all periods presented in these financial statements.

The following new standards, that are issued but not yet effective, up to the date of issuance of the Fund's financial statements, are disclosed below. The Fund intends to adopt these standards, if applicable, when they become effective:

i. IPSAS 43, Leases – effective January 1, 2025
ii. IPSAS 44, Non-current Assets Held for Sale and Discontinued Operations – effective January 1, 2025
iii. IPSAS 45, Property, Plant and Equipment – effective January 1, 2025
iv. IPSAS 46, Measurement – effective January 1, 2025
v. IPSAS 47, Revenue – effective January 1, 2026
vi. IPSAS 48, Transfer Expenses – effective January 1, 2026
vii. IPSAS 49, Retirement Benefit Plans – effective January 1, 2026

Once effective, the above standards are not expected to have any effect on the amounts in the Statement of Financial Position, Statement of Financial Performance, Cash Flow Statement nor the Statement of Changes in Net Assets Available for Benefits.

2.2. MEASUREMENT BASE

The measurement base adopted is that of historical cost as modified by the revaluation of financial assets and financial liabilities (including derivative financial instruments) and investment property at fair value through profit or loss.

2.3. FOREIGN CURRENCY TRANSLATION

2.3.1. Functional and presentation currency

Pursuant to Article I 4.02 of the Rules of the Pension Fund, the unit of account of the Pension Fund is the Swiss franc which is the functional and presentation currency.

2.3.2. Transaction and balances

At each balance sheet date monetary assets and liabilities that are denominated in foreign currencies are translated into Swiss francs at the exchange rates ruling on that date. Foreign currency transactions are accounted for at the exchange rates prevailing at the date of the transaction. Gains and losses arising on translation are shown separately in the Statement of Financial Performance for the period.

2.4. CLASSIFICATION OF ASSETS AND LIABILITIES

The CERN Pension Fund is an entity that, inter alia, manages assets used to pay pensions. As such, the assets and liabilities are disclosed in the Statement of Financial Position in an order that broadly reflects their relative liquidity.

2.5. CASH AND CASH EQUIVALENTS

Cash and cash equivalents include cash in hand, deposits held at call with banks and other short-term highly liquid investments with original maturities of three months or less, as well as margin accounts with brokers that cover margin calls on derivative positions.

2.6. FINANCIAL ASSETS

Financial assets are recognised on the Fund's Statement of Financial Position when the Fund becomes a party to the contractual provisions of the instrument.

The Fund classifies its financial assets in the following categories: at fair value through profit or loss and loans and receivables. The classification depends on the purpose for which the financial assets were acquired. Management determines the classification of its financial assets at initial recognition.

2.6.1. Financial assets at fair value through profit or loss

The Fund's business is investing in assets with a view to profiting from their total return in the form of interest, dividends, distributions and increases in fair value.

A. Classification

The Fund classifies its investments in cash and cash equivalents, debt, equity securities, investment funds and derivatives as financial assets at fair value through profit or loss. Cash and cash equivalents, bonds, equities and investment funds are designated by the Fund at fair value through profit or loss. Derivatives are classified as assets held for trading.

The portfolio of investment funds is categorized as financial assets designated at fair value through profit or loss at inception and is shown under Investment Funds on the Statement of Financial Position.

B. Recognition and derecognition

Purchases and sales of unquoted and quoted investments are recognised and derecognised on trade date where a purchase or sale is made under a contract whose terms require delivery within the timeframe established by the market concerned.

Financial assets are derecognised when the rights to receive cash flows from the investments have expired or have been transferred and the Fund has transferred substantially all risks and rewards of ownership.

C. Measurement

Financial assets at fair value through profit or loss are initially recognised at acquisition cost. Transaction costs are expensed in the Statement of Financial Performance. Subsequent to initial recognition, all financial assets at fair value through profit or loss are measured at fair value which is based on the last reported bid price (sales price) at the balance sheet date. Unrealised gains and losses arising from changes in the fair value of the "financial assets at fair value through profit or loss" category are presented in the Statement of Financial Performance in the period in which they arise. Interest, dividends and investment management fees arising from financial assets are shown separately in the Statement of Financial Performance and are not included in Unrealised or Realised Gains/(Losses) on Financial Assets at Fair Value Through Profit and Loss.

2.6.2. Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Sundry debtors include recoverable withholding tax levied at source on dividends and reimbursable value added tax paid on investment property transactions, investment property debtors and other due amounts.

Settlements receivable represent amounts due to the Fund for securities sold that have been contracted for but not yet settled or delivered at the balance sheet date.

Other receivables include accrued interest on cash and short-term deposits, dividends receivable and outstanding receipts.

These amounts which do not carry any interest are expected to be received within twelve months and are accordingly stated at their nominal value. Loans and receivables are subsequently carried at amortised cost using the effective interest method less any impairment losses.

2.7. IMPAIRMENT OF FINANCIAL ASSETS

Financial Assets carried at amortised costs are Loans and Receivables.

The Fund assesses at the end of each reporting period whether there is objective evidence that this group of financial assets is impaired. A financial asset or a group of financial assets is impaired and impairment losses are incurred only if there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset (a "loss event") and that loss event (or events) has an impact on the estimated future cash flows of the financial asset or group of financial assets that can be reliably estimated.

Evidence of impairment may include indications that the debtors or a group of debtors is experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial reorganisation, and where observable data indicates that there is a measureable decrease in the estimated future cash flows, such as changes in arrears or economic conditions that correlate with defaults.

For loans and receivables, the amount of loss is measured as the difference between the asset's carrying amount and the present value of the estimated future cash flows (excluding future credit losses that have been not been incurred) discounted at the financial asset's original effective interest rate. The carrying amount of the asset is reduced and the amount of the loss is recognised in the Statement of Financial Performance.

2.8. OFFSETTING FINANCIAL INSTRUMENTS

Financial assets and liabilities are offset and the net amount reported in the Statement of Financial Position when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously.

2.9. NON-FINANCIAL ASSETS

Those assets where there is no contractual right to receive cash or another financial asset are listed under this heading.

2.9.1. Investment property

Investment property is defined as land, buildings and forests held to earn rental income and capital appreciation and is not occupied by the Fund.

Investment property is measured initially at its cost, including related transaction costs. After initial recognition investment property is carried at fair value, representing open market value determined annually by external valuators with professional qualifications and experience. Fair value is based on active market prices, adjusted, if necessary, for any difference in the nature, location or condition of the specific asset. If the information is not available, the Fund uses alternative valuation methods such as recent prices on less active markets or discounted cash flow projections. Changes in fair values are recorded in the Statement of Financial Performance, as part of Investment Property Income.

The costs of the day-to-day running of the properties, e.g. repairs and maintenance, are recognised in the Statement of Financial Performance as incurred. Expenditure incurred in the replacement or renovation of part of an existing investment property that is 5% or more of the value of that property is recognised in the carrying amount, only when it is probable that future economic benefits associated with the item will flow to the Fund and the cost of the item can be reliably measured.

2.10. OTHER FINANCIAL LIABILITIES

Other financial liabilities include Settlements Payable, Sundry Creditors and Other Payables.

Settlements payable represent amounts due by the Fund for securities purchased that have been contracted for but not yet settled or delivered at the balance sheet date.

These amounts are not interest-bearing and are due within twelve months. They are initially recognised at their fair value and subsequently measured at amortised cost using the effective interest method.

2.11. DERIVATIVE FINANCIAL INSTRUMENTS AND HEDGING ACTIVITIES

The Fund's activities expose it to the financial risks such as foreign currency risk, interest rate risk and credit risk. Therefore the Fund may use derivative instruments such as foreign exchange forward contracts, interest rate swap contracts and credit default swaps to hedge these exposures. The Fund may also use derivative instruments for investment purposes, principally to gain exposure to specific markets.

Derivatives are initially recognised at fair value on the date on which a derivative contract is entered into and are subsequently re-measured at fair value. Any gains and losses arising from changes in the fair value are recognised in the Statement of Financial Performance. The Fund does not apply hedge accounting.

Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative.

The Fund may, at a given time, hold the following derivative instruments:

A. Forward contracts

Forward contracts are contractual obligations to buy or sell financial instruments on a future date at a specified price. A forward contract is a non-standardised contract written by the Fund and the counterparty to the agreement. The contracts are collateralised by cash and changes in the forward contracts' value are settled on reset, rollover or closure of the contract. The forward contracts are settled on a gross basis.

B. Options

An option is a contractual arrangement under which the seller (writer) grants the purchaser (holder) the right, but not the obligation, either to buy (a call option) or sell (a put option) at or by a set date or during a set period, a specific amount of securities or a financial instrument at a predetermined price. The seller receives a premium from the purchaser in consideration for the assumption of the future securities price. Options are settled on a gross basis.

C. Swaps

Swaps are contracts to exchange cash (flows) on or before a specified future date based on the underlying value of currencies/exchange rates, bonds/interest rates, commodities, stocks or other assets.

D. Futures

Future contracts are contractual obligations to buy or sell financial instruments on a future date at a specified price established in an organised market. The futures contracts are collateralised by cash and changes in the futures contracts' value are settled daily with the exchange. Futures are settled on a net basis.

E. Credit default swaps

Credit default swaps are contractual obligations under which the seller receives a premium or interest-related payments in return for agreeing to compensate the buyer in the event of a credit event on an underlying reference obligation. Credit events usually include bankruptcy and payment default.

2.12. PROVISIONS

Provisions are recognised when the Fund has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

2.13. ACTUARIAL LIABILITIES

The PFGB approves the significant actuarial assumptions for the calculation of the actuarial present value of promised retirement benefits at the end of the period, taking advice from an independent actuary concerning the appropriateness of the assumptions. The actuarial present value of promised retirement benefits at the end of the period is included in the Statement of Financial Position under the heading "Vested pension capital".

The actuarial present value of the promised retirement benefits, based on projected remuneration and capitalised pension indexation, is disclosed to indicate the magnitude of the potential obligation on a going concern basis.

In accordance with IAS 26, the actuarial method used to calculate the actuarial commitments is the projected unit credit method (PUC method). The projected unit credit method considers that each service period allows for an additional unit of benefits rights and evaluates each of these units separately to obtain the final value of the liability.

2.14. REVENUE RECOGNITION

2.14.1. Revenue from exchange transactions

Interest income is recognised on time proportionate basis using the effective interest method.

Rental income is recognised over the term of the lease on a straight line basis.

Dividend income is recognised when the right to receive payment is established.

2.14.2. Revenue from non-exchange transactions

The Fund does not recognise revenue from non-exchange transactions. Non-exchange transactions include administrative support and office accommodation provided free of charge by CERN.

3. CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

The Fund makes estimates and assumptions that affect the reported amounts of assets and liabilities. Estimates and judgements are continually evaluated by the Fund, with input from independent experts, and are based on historical experience and other factors, including assumptions about future events that are believed to be reasonable under the circumstances. The resulting accounting estimates will, by definition, seldom equal the related actual results.

The most significant estimates made during the period are outlined below.

3.1. ACTUARIAL ASSUMPTIONS

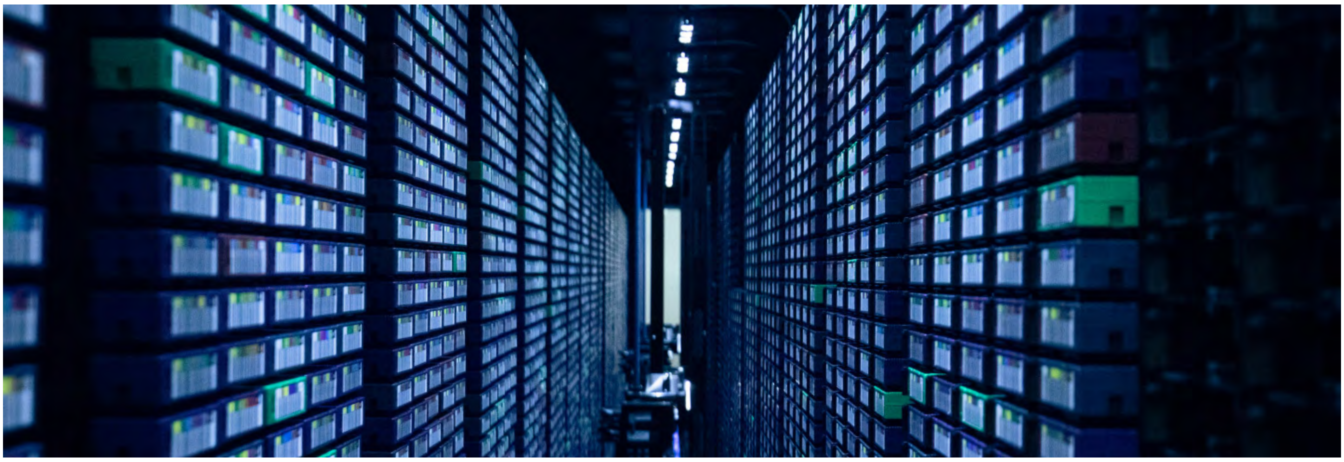
The liabilities of the Fund, in respect of promised benefits to be paid, have been determined using methods relying on actuarial estimates and assumptions. These assumptions reflect the long-term nature of future benefits. Changes in these estimates and assumptions could materially affect liabilities in respect of benefits.

The basis for the Fund's actuarial assumptions is set out under note 2. "Summary of Significant Accounting Policies".

The table hereafter shows the significant actuarial assumptions proposed by the Fund's Actuary and approved by the PFGB at its meeting of 15 February 2024 (CERN/PFGB/105.4a) and also those used in the corresponding period. The reference discount rate as at 31 December 2023 is the AON Swiss AA Corporate Bond Yield Curve.
As a result, the discount rate applied for 2023 is 1.33% when expressed as a single equivalent rate. In 2022, the rate was 2.03%, when expressed as a single equivalent spot rate.
The assumption for the indexation of pensions and indexation of remuneration was 1.25%, in both 2023 and 2022. All other assumptions used as at 31 December 2023 and 31 December 2022 are those assumptions that were approved for the 1 January 2022 Periodic Actuarial Review.
The assumptions are presented as single equivalent spot rates or a liability-weighted average for simplicity.

Actuarial Assumptions	2023	2022
Discount Rate	1.33%*	2.03%*
Remuneration increase linked to inflation	1.25%	1.25%
Indexation of pensions linked to inflation	1.25%	1.25%
Remuneration increase linked to career change	1.55%**	1.55%**
Mortality and disability tables	94% ICSLT2018 GEN	94% ICSLT2018 GEN

*The underlying best estimate assumption is the AON Swiss AA Corporate Bond Yield Curve. The single equivalent spot rate approximates this underlying curve.
** Remuneration increase linked to career change is 1.55% p.a. when expressed as a liability-weighted average. The underlying assumption is 0.0% p.a. for CERN Fellows, 2% p.a. for ESO Fellows, and age dependent groupings (between 1.2% and 2.0% p.a.) specific to CERN and ESO for non-Fellows. i.e. the best estimate assumption that was used for the Periodic Actuarial Review as at 1 January 2022.



Aon Switzerland Ltd is the Fund's Actuary. An extract of the Actuary's Report on the Fund as at 31 December 2023 is included at the end of this document for information purposes.

In 2023, the Fund's Actuary did not propose any change to the reference used for the discount rate assumption, however the yield curve data was different compared to 2022. The other actuarial assumptions were not updated compared to 2022. Following advice from the Fund's Risk Consultant, the Actuary retained the updated long-term inflation assumption i.e. indexation of pensions and indexation of remuneration of 1.25%. All other assumptions reflect the Best Estimate assumptions used in the 1 January 2022 Periodic Actuarial Review. The updated assumptions were accepted by the PFGB. The sensitivity of results as at 31 December 2023, i.e to changes in the discount rate, is set out in the extract of the Actuary's report.

In 2023 the discount rate used to determine the present value of future promised benefits was 1.33% when expressed as a single equivalent rate (2.03% in 2022). The effect of this change was an increase in liabilities of 1,239,468 kCHF.

Total liabilities, as at 31 December 2023, were 10,138 MCHF (8,967 MCHF as at 31 December 2022).

3.2. FAIR VALUE OF INVESTMENT PROPERTY

The fair value of the Fund's investment property is considered to be its market value. As at 31 December 2023 the fair value of Investment Property was 693,388 kCHF (865,351 kCHF as at 31 December 2022).

The fair values of the Investment Property were determined based on valuations performed by independent valuers, as at 31 December 2023 and 2022. In compliance with IPSAS 16, and in order to arrive at the most reliable estimate of the fair value within a range of reasonable fair value estimates, the fair values of the properties (excluding the forests) have been determined using a discounted cash flow method. As at 31 December 2022 the properties were valued using a sales comparison approach, where possible, or a discounted cash flow method. The independent valuers use assumptions that are mainly based on market conditions existing at each balance sheet date. The fair values of the forests have been determined by an expert in the forest industry, using market practice for valuing forest land i.e. taking into account current market prices for forest land and inventory.

The principal considerations underlying the estimation of fair value are those related to:
- Current or recent prices of similar properties;
- Appropriate discount rates ranging from 3.90% to 9.05% (3.00% to 5.50% in 2022);
- The receipt of contractual rentals;
- Expected future market rentals;
- Void periods;
- Maintenance requirements;
- Current market prices for forest inventory.

These valuations are regularly compared to actual market yield data, and actual transactions and those reported by the market. The expected future market rentals are determined on the basis of current market rentals for similar properties in the same location and condition.

3.3. FAIR VALUE OF FINANCIAL ASSETS NOT QUOTED IN AN ACTIVE MARKET

In arriving at the fair value of financial assets not quoted in an active market, the Fund considers factors such as industry performance, company performance, quality of management, the price of the most recent financing round, exit opportunities which are available, liquidity preference, comparable market transactions, discounted cash-flows, earnings multiples and net present value analysis. The maximum use of market inputs is made with as little reliance as possible on entity-specific inputs.

3.3.1. Investment Funds

As at 31 December 2023 the Fund had holdings in investment funds totalling 1,287,628 kCHF (1,285,443 kCHF in 2022) that are not quoted in an active market. Many of these investment funds have the same reporting period as the Fund. Consequently, in some cases, audited financial statements attesting, inter alia, to the value of the Fund's investments in these funds were not available at the reporting date. Where audited statements were not in evidence, the Fund used unaudited statements as at 31 December 2023 provided by the independent administrators or fund. In other cases, unaudited statements as at 30 September 2023 were used, as adjusted for capital movements between the last received statements and 31 December 2023.

Valuations totalling 1,183,720 kCHF (921,742 kCHF in 2022) were based on unaudited statements. These holdings are included in note 12 "Investment Funds".

The Fund has the following outstanding commitments to Private Equity, Real Estate and Private Debt funds as at 31 December:

	2023		2022	
(in kCHF)	**Total Net Asset Value**	**Outstanding Commitment**	**Total Net Asset Value**	**Outstanding Commitment**
US Private Equity	180 070	114 814	189 171	137 904
European Private Equity	176 915	51 782	193 589	45 974
Real Estate funds	83 773	11 820	86 854	18 126
Private Debt	92 428	56 112	78 258	30 546
Total	**533 186**	**234 528**	**547 872**	**232 550**

3.3.2. Over- the-counter derivatives instruments

The fair value of over-the-counter derivatives instruments is determined using quoted prices at the balance sheet date. When an instrument or its equivalent does not have a market price, its valuation is determined using a valuation model that is based on observable market inputs.

4. FINANCIAL RISKS

4.1. FINANCIAL RISK FACTORS

The Pension Fund's activities expose it to a variety of financial risks: market risk (including price risk, foreign exchange risk, interest rate risk), credit risk and liquidity risk. The Fund's overall risk management programme seeks to maximise the returns derived for the level of risk to which the Fund is exposed and seeks to minimise potential adverse effects on the Fund's financial performance. The Fund uses derivative financial instruments to both hedge and to create certain risk exposures.

All securities investments present a risk of loss of capital. The maximum loss of capital on bonds, equities, investment funds and purchased options is limited to the fair value of those positions. The maximum loss of capital on written put options, long futures and forward currency contracts is limited to the notional contract values of those positions. On written call options and short future positions the maximum loss of capital can be unlimited.

The management of these risks is carried out by the Fund in line with investment guidelines approved by the PFGB. The Fund uses different methods to measure and manage the various types of risk to which it is exposed; these methods are explained below.

4.1.1. Market risk

The risk management policy of the Fund is defined in the Statement of Investment Principles. It is based on setting a risk measure, an annual risk limit and managing the asset allocation exposure compatible with the risk limit and with the return objective.

The Fund uses CVaR (Conditional Value at Risk) to measure and monitor its market risk. The CVaR of a certain confidence level measures the expected return of the corresponding tail of the return distribution. 1 Year 5% CVaR is defined as the annual expected return in the worst 5% of the return distribution of a portfolio. CVaR is also called expected shortfall.

The risk measure of 1 Year 5% CVaR is approved by the PFGB, based on the recommendation of the IC. The annual 1 Year 5% CVaR risk limit of -8% for 2023 was set by the PFGB taking into account the actuarial return considerations. The risk exposure of the Strategic Asset Allocation (SAA) and the Fund is estimated by the independent risk consultant on a bi-weekly basis and reported to the IC on a quarterly basis and compared to the risk limit set by the PFGB. In addition, the Fund's Risk Manager monitors the expected risk relative to the risk limit on a daily basis.

During 2023 all quarterly evaluations of the estimated 1 Year 5% CVaR showed that the Fund was within the risk limit of -8%, taking into account the 2 percentage point margin referred to in the Risk Framework of the Fund that was approved by the PFGB in November 2017. This margin was utilised throughout 2023 because of the market conditions observed. As at 31 December 2023, the estimated 1 Year 5% CVaR of the Fund was -8.7% (-9.5% as at 31 December 2022), according to data provided by the Fund's independent risk consultant (and not the data included in these Financial Statements).

A. Price Risk

The Fund is exposed to securities and derivative price risk. This arises from investments held by the Fund for which prices in the future are uncertain.

Where assets of the Fund are denominated in currencies other than the Swiss franc, the price initially expressed in foreign currency and then converted into Swiss franc will also fluctuate because of changes in foreign exchange rates. Paragraph B: "Foreign exchange risk" sets out how this component of price risk is managed and measured.

Some of the Funds' financial assets and liabilities are exposed to market price risk. The fair value of these assets as at 31 December is as follows:

(in kCHF)	2023	2022
Assets		
Bonds	638 841	645 132
Equities	311 661	382 176
Investment Funds	1 822 134	1 771 467
Derivatives	169 303	134 207
Total Financial assets	**2 941 939**	**2 932 982**
Liabilities		
Derivatives	16 256	48 347
Total Financial liabilities	**16 256**	**48 347**

B. Foreign exchange risk

The Fund is exposed to foreign exchange risks arising essentially upon investments in assets denominated in foreign currencies as outlined in the table below. As a general policy, the Fund hedges its exchange rate risk to the level of 100% of its exposure, but may alter the hedge ratios depending on tactical considerations. The Fund uses three month rolling forward foreign exchange contracts and currency options to cover the currency exposure of existing and anticipated investments in foreign currency. The value of currency forward contracts as at 31 December 2023 is disclosed in note 9. "Derivatives".

As at 31 December 2023, given a shift of 10% in foreign currency rates against the Swiss Franc with all other variables held constant, the Statement of Financial Performance would have shown a higher/lower result of 5,768 kCHF (2,598 kCHF as at 31 December 2022).

The table below summarises the Fund's net assets that are denominated in a currency other than the Swiss franc. The table excludes the forward foreign exchange contracts that are used to hedge foreign exchange rate exposure:

(in kCHF)	2023	2022
US dollar	1 709 625	1 871 937
Euro	1 476 692	1 481 620
Pound sterling	165 635	190 538
Japanese yen	95 742	105 029
New Zealand dollar	28 880	31 389
Swedish krona	17 526	12 522
Other currencies	32 963	39 861
Total	**3 527 063**	**3 732 896**

The Fund uses year-end exchange rates supplied by its custodian. The source of these rates is Reuters World Markets.

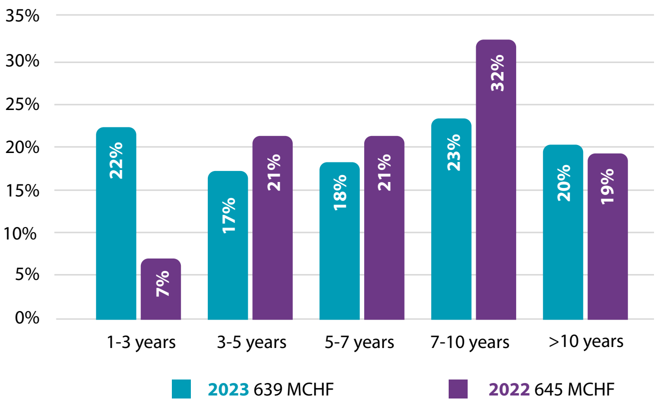
The table below shows the rates used by the Fund at 31 December to covert the major currencies in the Fund's portfolio to the Swiss franc:

Currency	2023	2022
Euro	0.930	0.987
Pound sterling	1.073	1.113
US dollar	0.842	0.925

C. Cash flow and fair value interest rate risk

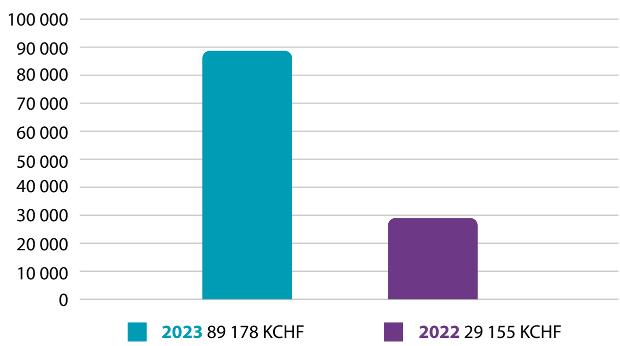
Fair value interest rate risk arises from the effects of fluctuations in the prevailing levels of market interest rates on the fair value of financial assets and future cash flows. The Fund holds some fixed income investments and cash on short-term deposits. The duration of the fixed income investments is regulated by investment guidelines. The Fund may use derivatives to hedge interest rate exposure.

The analysis below summarises the maturity range of the Fund's principal fixed income portfolio at 31 December and is a measure of the sensitivity of the fair value of the Fund's fixed interest securities to changes in market interest rates:



The duration of the above securities, which is the weighted-average term to maturity of the cash flows, was 6.78 years at 31 December 2023 (2022: 7.01 years).

The following table indicates the Fund's exposure to fair value interest rate risk in respect of cash and short-term deposits:



The Fund also holds cash, a limited number of floating rate debt and derivatives that expose the Fund to cash flow interest rate risk.

As at 31 December 2023, if interest rates on these investments had been 1% higher with all other variables held constant, the net assets available for benefits at the end of the year would have been higher by 8,541 kCHF (7,739 kCHF higher as at 31 December 2022).

4.1.2. Credit risk

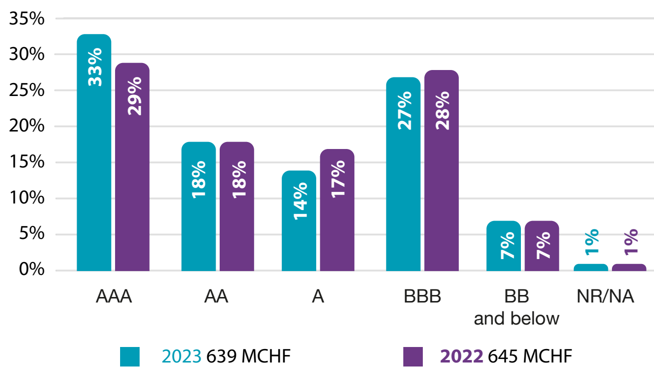
The Fund is exposed to credit risk, which is the risk that the counterparty will be unable to pay amounts in full when they fall due.

Credit risk arises from cash and cash equivalents short-term deposits, derivative financial instruments and bonds, as well as credit exposures including outstanding receivables and committed transactions.

All transactions in listed securities are contracted using approved brokers and settled/paid for upon delivery. The risk of default is considered minimal, as delivery of the securities sold is only made once the custodian has received payment. Payment is made on a purchase once the securities have been received by the custodian. The trade will fail if either party fails to meet its obligation.

The Fund invests in fixed income securities issued by various bodies such as governments, agencies or corporations. These holdings are managed in line with the investment guidelines to ensure issuer quality and diversification. In addition, the Fund limits the amount of credit exposure to any financial institution through diversification of its counterparties and strict monitoring of open receivables on derivatives instruments. If a derivative position is showing a profit, the Fund may ask for collateral or force the reset of the position.

The analysis below summarises the issuer quality of the Fund's principal fixed income portfolio at 31 December:



The maximum exposure to credit risk at 31 December is set out below:

(in kCHF)	2023	2022
Bonds	638 841	645 132
Cash and Cash Equivalents	780 670	829 629
Fixed Income funds	58 883	71 377
Private Debt	92 428	78 258
Short Term Deposits	60 000	-
Derivatives	169 303	134 207
Settlements Receivable	2 670	1 058
Other assets	17 930	15 541
Total	**1 820 725**	**1 775 201**

No material financial assets were past due as at 31 December 2023.

4.1.3. Liquidity risk

Liquidity risk is the risk that the Fund may not be able to generate sufficient cash resources to settle its obligations in full as they fall due, or can only do so on terms that are materially disadvantageous. In addition to its commitments to pay monthly benefits, the Fund is exposed to the periodic settlement of margin calls and gains and losses on derivative positions. The hedging of exchange rate risk can generate substantial cash flows that are difficult to predict. Therefore the Fund aims to maintain sufficient levels of cash and cash equivalents to meet its short-term liabilities. The Fund does not take leveraged positions on the market.

The table below analyses the Fund’s financial liabilities (excluding the derivative financial instruments in a loss position) into relevant maturity groupings, based on the remaining period at the balance sheet date to the contractual maturity date:

(in kCHF)	< 7 days	1-3 months	3-12 months
As at 31 December 2023			
Settlements payable	279		
Members and Beneficiaries	7'879		
Investment property deposits			2'431
Taxes payable		255	
Investment property creditors		3'825	
Transfer Value Payments Outstanding	2'027		
Payments Outstanding		2'829	
Total	**10'185**	**6'909**	**2'431**
As at 31 December 2022			
Settlements payable	354		
Members and Beneficiaries	7'398		
Investment property deposits			2'334
Taxes payable		209	
Investment property creditors		4'180	
Transfer Value Payments Outstanding	656		
Payments Outstanding		2'269	
Total	**8'408**	**6'657**	**2'334**

The following table analyses the Fund's derivative financial instruments in a loss position that will be settled on a gross basis into relevant maturity groupings based on the remaining period at the balance sheet to the contractual maturity date:

(in kCHF)	1- 6 months	> 6 months
At 31 December 2023		
Forwards	1 180	-
Credit default swaps	-	215
Swaps	-	12 862
Futures	213	-
Options	-	1 786
Total	**1 393**	**14 863**
At 31 December 2022		
Forwards	16 292	-
Credit default swaps	-	632
Swaps	-	28 598
Futures	1 125	-
Options	-	1 700
Total	**17 417**	**30 930**

4.2 FAIR VALUE ESTIMATION

The fair value of financial assets traded in active markets (such as trading securities) is based on quoted market prices at the close of trading on the reporting date.

An active market is a market in which transactions for the asset take place with a sufficient frequency and volume to provide pricing information on an on-going basis.

The fair value of assets not traded in an active market is determined using valuation techniques. The Fund uses a variety of methods and makes assumptions that are based on market conditions existing at each year end date. Valuation techniques include the use of recent arm's length transactions, reference to other instruments that are substantially the same, discounted cash flow analysis, and option pricing models, making maximum use of market inputs and relying as little as possible on entity-specific inputs.

The carrying amounts of the financial assets and liabilities not measured at fair value in the Statement of Financial Position approximate their fair value.

Specific valuation techniques used to value financial instruments include:

i. Quoted market prices or dealer quotes for similar instruments;
ii. Prices sourced from broker quotes, inter-dealer prices or other reliable pricing services;
iii. The present value of the estimated future cash flows using observable yield curves, prices and other available market information;
iv. The latest available valuation received from fund administrators;
v. Other techniques, such as discounted cash flow analysis.

The fair value hierarchy has the following levels:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets that the Fund can access at the measurement date;
- Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly, or indirectly;
- Level 3 inputs are based on unobservable market inputs for the asset or liability.

The level in the fair value hierarchy within which the fair value measurement is categorised in its entirety is determined on the basis of the lowest level input that is significant to the fair value measurement in its entirety. For this purpose the significance of an input is assessed against the fair value measurement in its entirety. If a fair value measurement uses observable inputs that require significant adjustment based on unobservable inputs, that measurement is a Level 3 measurement. Assessing the significance of a particular input to the fair value measurement in its entirety requires judgement, considering factors specific to the asset.

The determination of what constitutes "observable" requires significant judgement by the Fund. The Fund considers observable data to be that market data that is readily available, regularly distributed or updated, reliable and verifiable, not proprietary, and provided by independent sources that are actively involved in the relevant market.

The following table analyses within the fair value hierarchy the Fund's assets measured at fair value at 31 December 2023:

(in kCHF)	Level 1	Level 2	Level 3	Total
Assets				
Financial assets designated at fair value through profit or loss:				
Cash and Cash Equivalents	299 316	-	-	299 316
Equities	311 335	-	326	311 661
Bonds	-	638 104	737	638 841
Investment Funds	534 506	-	1 287 628	1 822 134
Sub total	**1 145 157**	**638 104**	**1 288 691**	**3 071 952**
Financial assets held for trading:				
Derivatives	1 912	167 391	-	169 303
Sub total	1 912	167 391	-	169 303
Total assets at fair value through profit or loss	**1 147 069**	**805 495**	**1 288 691**	**3 241 255**
Liabilities				
Financial liabilities held for trading:				
Derivatives	213	16 043	-	16 256
Total liablities at fair value through profit or loss	**213**	**16 043**	**-**	**16 256**

The following table analyses within the fair value hierarchy the Fund's assets measured at fair value at 31 December 2022:

(in kCHF)	Level 1	Level 2	Level 3	Total
Assets				
Financial assets designated at fair value through profit or loss:				
Cash and Cash Equivalents	118 183	-	-	118 183
Equities	381 823	-	353	382 176
Bonds	-	644 358	774	645 132
Investment Funds	486 024		1 285 443	1 771 467
Sub total	**986 030**	**644 358**	**1 286 570**	**2 916 958**
Financial assets held for trading:				
Derivatives	16 857	117 350	-	134 207
Sub total	**16 857**	**117 350**	**-**	**134 207**
Total assets at fair value through profit or loss	**1 002 887**	**761 708**	**1 286 570**	**3 051 165**
Liabilities				
Financial liabilities held for trading:				
Derivatives	2 825	45 522	-	48 347
Total liablities at fair value through profit or loss	**2 825**	**45 522**	**-**	**48 347**

Investments whose values are based on quoted market prices in active markets, and are therefore classified within Level 1, include money market funds, listed equities, exchange-traded derivatives and exchange-traded funds.

Financial instruments that trade in markets that are not considered to be active but are valued based on quoted market prices, dealer quotations or alternative pricing sources supported by observable inputs are classified within Level 2. These include government bonds, corporate bonds, and over the counter derivatives. As Level 2 investments include positions that are not traded in active markets and/or subject to transfer restrictions, valuations may be adjusted to reflect illiquidity and/or non-transferability, which are generally based on available market information.

Investments classified within Level 3 have significant unobservable inputs, as they trade infrequently. Level 3 instruments include unlisted investment funds, over the counter derivatives and unlisted equities. As observable prices are not available for these securities, the Fund has used valuation techniques to derive the fair value.

There was one transfer, totalling 2,718 kCHF between levels during the year ended 31 December 2023: (During the year ended 31 December 2022: Two transfers totalling 1,065 kCHF). One exchange-traded fund position was transferred from Level 1 to Level 3.

The following table presents the movement in level 3 instruments for the year ended 31 December 2023 by class of financial instrument:

(in kCHF)	Equities	Derivatives	Bonds	Investment Funds	Total
Opening balance	353	-	774	1 285 443	1 286 570
Purchases	-	-	-	117 832	117 832
Sales	-	-	-	(35 331)	(35 331)
Transfers into level 3	-	-	-	2 718	2 718
Unrealised Gains/(Losses) on Financial Assets at Fair Value Through Profit & Loss	(27)	-	(37)	(89 892)	(89 956)
Realised Gains/(Losses) on Financial Assets at Fair Value Through Profit & Loss	-	-	-	6 858	6 858
Closing balance	326	-	737	1 287 628	1 288 691

The following table presents the movement in level 3 instruments for the year ended 31 December 2022 by class of financial instrument:

(in kCHF)	Equities	Derivatives	Bonds	Investment Funds	Total
Opening balance	**62**	1 517	-	1 076 885	1 078 464
Purchases	-	-	-	275 903	275 903
Sales	-	(1 517)	-	(118 982)	(120 499)
Transfers into level 3	291	-	774	-	1 065
Unrealised Gains/(Losses) on Financial Assets at Fair Value Through Profit & Loss	-	-	-	63 611	63 611
Realised Gains/(Losses) on Financial Assets at Fair Value Through Profit & Loss	-	-	-	11 974	11 974
Closing balance	**353**	**-**	**774**	**1 285 443**	**1 286 570**

4.3. INVESTMENTS EXCEEDING FIVE PERCENT OF NET ASSETS AVAILABLE FOR BENEFITS

The Fund was invested in one Investment Property representing five percent or more of net assets available for benefits as at 31 December 2023 and 31 December 2022. In addition, the Fund was invested in a total of 489,819 kCHF, including five properties, each representing five percent or more of Investment Property as at 31 December 2023. (As at 31 December 2022: 661,704 kCHF and six properties)

The Fund was invested in a total of 523,028 kCHF, including two exchange-traded funds and two unlisted funds, as at 31 December 2023, each investment representing five percent or more of Investment Funds. (As at 31 December 2022: 422,597 kCHF in two exchange-traded funds and one unlisted fund).

The Fund had currency forward asset positions hedging US Dollar and Euro against Swiss francs totalling 70,640 kCHF as at 31 December 2023 each representing five percent or more of the Derivatives assets balance. (As at 31 December 2022: 73,621 kCHF representing currency forward asset positions hedging US Dollar against Swiss francs and one interest rate swaps).

As at 31 December 2023 the Fund had three swap liability positions totalling 12,229 kCHF, each representing five percent or more of the Derivatives liabilities balance. (As at 31 December 2022: 28,119 kCHF representing four swap liability positions).

5. CASH AND CASH EQUIVALENTS

For the purposes of the cash flow statement, cash and cash equivalents comprise the following balances with original maturity of 90 days or less:

(in kCHF)	2023	2022
Current accounts	446 870	675 944
Money Market funds	299 316	118 183
Deposit accounts	29 178	29 155
Margin accounts with brokers	5 306	6 346
Total	**780 670**	**829 629**

The decrease in the Current accounts balance during the period was largely as a result of an increase in investments in Money Markets Funds

The amounts under the heading “Margin accounts with brokers” concern cash collateral pledged with derivative counterparties of the Fund. The cash is held in segregated accounts with the brokers and is callable by the Fund to the extent that collateral balances are in excess of the net fair value liability amount of the open derivative positions held with each broker.

6. SHORT-TERM DEPOSITS

Short-term deposits are made for varying periods, depending on the immediate cash requirements of the Fund and earn interest at the respective short-term rate. The deposits are made for more than 3 months and hence are classified as short-term deposits.

7. SUNDRY DEBTORS

(in kCHF)	2023	2022
Recoverable taxes	3 190	3 171
Investment property debtors	2 406	2 390
Other due amounts	248	118
Total	**5 844**	**5 679**

8. OTHER RECEIVABLES

(in kCHF)	2023	2022
Accrued interest	2 663	1 018
Dividends receivable	1 185	1 265
Outstanding receipts	111	88
Payments in advance	8 127	7 492
Total	**12 086**	**9 862**

The increase in Accrued interest during the period includes 1,623 kCHF of Accrued interest on Euro cash balances.

9. DERIVATIVES

The following table shows the types of derivative contracts held by the Fund as at 31 December:

	2023		2022	
(in kCHF)	**Assets**	**Liabilities**	**Assets**	**Liabilities**
Forwards:				
Currency Overlay programme	152 694	(1 180)	96 912	(16 292)
Credit default swap	192	(215)	-	-
Swaps	10 795	(12 862)	20 065	(29 230)
Futures	520	(213)	1 680	(1 125)
Options	5 102	(1 786)	15 550	(1 700)
Total	**169 303**	**(16 256)**	**134 207**	**(48 347)**

10. BONDS

The fair value of investments in bonds, 638,841 kCHF as at 31 December 2023 (645,132 kCHF as at 31 December 2022) is as follows:

(in kCHF)	2023	2022
Europe, Middle East and Africa	283 927	272 550
North America	266 487	277 163
Asia	56 353	62 968
Emerging Markets	32 074	32 451
Total	**638 841**	**645 132**

Source of geographical data: country of risk data provided by Custodian

The exposure of bonds to market and credit risk is described under note 4.1. “Financial Risk Factors”.

11. EQUITIES

The fair value of investments in equities, 311,661 kCHF as at 31 December 2023 (382,176 kCHF as at 31 December 2022) is as follows:

(in kCHF)	2023	2022
Europe, Middle East and Africa	242 615	273 660
North America	69 046	100 917
Asia	-	6 087
Emerging Markets	-	1 512
Total	**311 661**	**382 176**

Source of geographical data: country of risk data provided by Custodian

The decrease in Equities during the year includes 4,748 kCHF in relation to an increase in market valuations (183,236 kCHF decrease in 2022) and a decrease of 75,263 kCHF in respect of reduced allocation to equities (258,469 kCHF reduced allocation in 2022).

The exposure of equities to market risk is described under note 4.1. “Financial Risk Factors”.

12. INVESTMENT FUNDS

The fair value of Investment Funds, 1,822,134 kCHF as at 31 December 2023 (1,771,467 kCHF as at 31 December 2022) is as follows:

(in kCHF)	2023	2022
Alternative funds	692 841	637 466
Equity funds	537 224	514 752
Private Equity	356 985	382 760
Fixed Income funds	58 883	71 377
Real Estate funds	83 773	86 854
Private Debt	92 428	78 258
Total	**1 822 134**	**1 771 467**

13. INVESTMENT PROPERTY

The fair value of Investment Property, 693,388 kCHF as at 31 December 2023 (865,351 kCHF as at 31 December 2022) is as follows:

(in kCHF)	2023	2022
As at 1 January	**865 351**	**871 003**
Purchases	13 119	11 613
Net gain/(loss) for fair value adjustments (price)	(155 177)	10 841
Net gain/(loss) for fair value adjustments (foreign exchange)	(29 905)	(28 106)
As at 31 December	**693 388**	**865 351**

During the year, there were four purchases of Investment Property in France representing four parcels of forest land. (There were three purchases of parcels of forest land in France in 2022).

Included in Investment Property under the heading Net gain/(loss) for Fair value Adjustments (Price) totalling 155,177 kCHF are decreases of 86,343 kCHF for properties in France, 38,570 kCHF for Properties in Switzerland, 16,316 kCHF for the property in Germany and 13,948 kCHF for properties in the United Kingdom.

14. SUNDRY CREDITORS

Sundry creditors include rent guarantee deposits, rents received in advance, amounts due to members leaving the Fund and value added tax payable.

(in kCHF)	2023	2022
Members and Beneficiaries	7 879	7 398
Investment property deposits	2 431	2 334
Taxes payable	255	209
Investment property creditors	3 825	4 180
Deferred Income	455	441
Total	**14 845**	**14 562**

15. OTHER PAYABLES

Other Payables include transfer values to members leaving the Fund (totalling 2,027 kCHF) and amounts due mainly in respect of management and custody fees (totalling 2,829 kCHF).

(in kCHF)	2023	2022
Transfer Value Payments Outstanding	2 027	656
Payments Outstanding	2 829	2 268
Total	**4 856**	**2 924**

16. DIVIDENDS

(in kCHF)	2023	2022
Investment Funds	44 600	33 899
Equities	8 851	11 212
Total	**53 451**	**45 111**

Included under the heading Investment Funds are dividends totalling 39,092 kCHF (27,926 kCHF as at 31 December 2022) received from Private Equity investments.

17. INTEREST INCOME

(in kCHF)	2023	2022
Cash and Cash Equivalents	15 305	3 265
Bonds	17 931	22 888
Total	**33 236**	**26 153**

The increase in Interest Income under the heading "Cash and Cash Equivalent" during the year was largely as a result of an increase in interest rates paid on cash balances at the Custodian and other banks.

18. UNREALISED GAINS/(LOSSES) ON FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT & LOSS

The following table shows the amount of unrealised gains/(losses) on financial assets at fair value through profit and loss and discloses the gains and losses arising as a result of changes in price and changes in foreign exchange currency movements for the money market funds included within Cash and Cash Equivalents, Bonds, Equities, Investment Funds and Derivatives. The Fund hedges the foreign exchange exposure it has to assets denominated in non-Swiss franc currencies.

The unrealised gains/(losses) arising as a result of changes in price and changes in foreign exchange currency movements on derivative products are on a best estimate basis.

			2023			2022
(in kCHF)	Price	Currency	Total	Price	Currency	Total
Cash and Cash Equivalents	5 542	(16 794)	(11 252)	(80)	(5 838)	(5 917)
Bonds	24 199	(47 120)	(22 921)	(134 653)	(9 844)	(144 497)
Equities	22 489	(14 464)	8 025	(28 640)	(9 986)	(38 626)
Investment Funds	117 687	(133 751)	(16 064)	82 707	(25 023)	57 684
Derivatives	(1 784)	(947)	(2 731)	(4 436)	(99)	(4 535)
Total	**168 133**	**(213 075)**	**(44 943)**	**(85 101)**	**(50 790)**	**(135 891)**

19. REALISED GAINS/(LOSSES) ON FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT & LOSS

The following table shows the amount of realised gains/(losses) on financial assets at fair value through profit and loss and discloses the gains and losses arising as a result of changes in price and changes in foreign exchange currency movements for Bonds, Equities, Investment Funds and Derivatives. The Fund hedges the foreign exchange exposure it has to assets denominated in non-Swiss franc currencies.

			2023			2022
(in kCHF)	Price	Currency	Total	Price	Currency	Total
Cash and Cash Equivalents	753	(668)	85	5	49	54
Bonds	2 429	(2 688)	(259)	(36 548)	12 743	(23 805)
Equities	1 118	(4 395)	(3 277)	(150 486)	5 876	(144 610)
Investment Funds	24 139	(9 483)	14 656	(22 484)	5 948	(16 536)
Derivatives	(19 850)	(620)	(20 469)	1 149	791	1 939
Total	**8 590**	**(17 854)**	**(9 264)**	**(208 364)**	**25 408**	**(182 957)**

The realised gains/(losses) arising as a result of changes in price and changes in foreign exchange currency movements on derivative products are on a best estimate basis.

20. INVESTMENT PROPERTY INCOME AND GAINS/(LOSSES)

The following table shows Investment Property Income arising from both rental income and non-rental income:

(in kCHF)	2023	2022
Rental Income:		
Residential Property	12 931	12 549
Commercial Property	13 445	11 429
Non-Rental Income:		
Forests	536	457
Changes in fair value	(185 083)	(17 265)
Total	**(158 171)**	**7 171**

Losses of 155,177 kCHF for fair value price adjustments and losses of 29,905 kCHF for fair value adjustments as a result of foreign exchange movements, are included in “Changes in fair value” above. The corresponding amounts in 2022 were gains of 10,841 kCHF and losses of 28,106 kCHF respectively.

With regard to its Investment Property the Fund is a lessor of operating leases and as such is required to make the following disclosures in respect of future minimum lease payments.

(in kCHF)	2023	2022
Not later than 1 year	24 527	24 615
Between 1 and 5 years	80 413	79 761
Later than 5 years	15 754	15 624
Total	**120 694**	**120 000**

The Fund has leases that are contracted for remaining periods of between one and ten years. Some of the operating leases include break clauses.

21. FOREIGN EXCHANGE GAINS/(LOSSES)

(in kCHF)	2023	2022
Currency Overlay programme	176 229	19 450
Other exchange rate movements	(21 553)	(23 292)
Total	**154 676**	**(3 842)**

Foreign Exchange Gains/(Losses) includes gains of 176,229 kCHF (gains of 19,450 kCHF in 2022) relating to trades executed as part of the Currency Overlay programme that is used by the Fund to hedge its foreign exchange rate risk. This is largely due to the significant strengthening of the Swiss Franc against other currencies to which the Fund is exposed, during the period.

22. INVESTMENT MANAGEMENT FEES

22.1. RECORDED INVESTMENT MANAGEMENT FEES

The following table shows Investment Management Fees recognised in the Statement of Financial Performance.

(in kCHF)	2023	2022
Reported Investment Management Fees	58 973	58 708
Calculated Investment Management Fees	1 252	1 163
Total	**60 225**	**59 871**

The above Recorded Investment Management fees also include performance fees

22.2. NON-RECORDED INVESTMENT MANAGEMENT FEES

For less than 3% of Total Financial assets (less than 6% in 2022) there was insufficient information available regarding Investment Management Fees. As a result no Investment Management Fees have been disclosed for these assets that are all Private Equity/Debt funds. The total carrying value of these assets as at 31 December 2023 was 112,035 kCHF (211,695 kCHF as at 31 December 2022).

Carried interest payable in the future to the general partners of Private Equity funds has not been disclosed as there was insufficient information available.

23. INVESTMENT PROPERTY EXPENDITURE

(in kCHF)	2023	2022
Residential Property	5 585	7 413
Commercial Property	5 179	5 982
Forests	232	167
Total	**10 996**	**13 562**

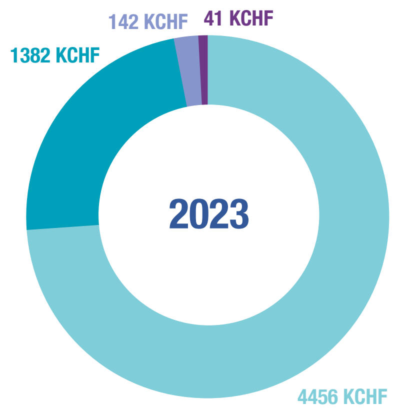
The above Investment Property Expenditure includes amounts totalling 5,715 kCHF due to renovation work on Residential and Commercial Property (8,314 kCHF as at 31 December 2022).

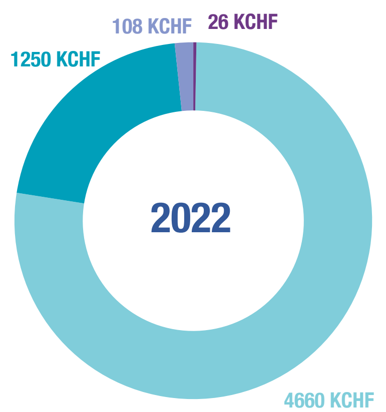
24. OTHER FINANCIAL EXPENSES

Other Financial Expenses were 1,035 kCHF for the period ending 31 December 2023 (2,532 kCHF in 2022) in relation to the interest paid by the Fund on cash collateral deposited by counterparts at the Custodian.

25. ADMINISTRATION COSTS

Administration costs of 6,021 kCHF in the period ending 31 December 2023 (6,044 kCHF for the period ending 31 December 2022) were as follows:





Personnel Costs
Operating Expenses
Supplies
Audit/Valuation costs relating to Investment Property

26. MEMBERSHIP ACTIVITIES

This heading shows the contributions of the members of the Fund and the participating Organisations and other amounts received, as well as the various benefits and other amounts paid during the period.

27. COMPENSATIONS

The Fund is compensated by CERN for the additional cost associated with Administrative Circular No. 22 A (Rev.1) “Award of additional periods of membership in the Pension Fund for long-term shift work”. Compensations received for the period ending 31 December 2023 were 663 kCHF and are included in the total amount of 952 kCHF. Compensations received for the period ending 31 December 2022 were 552 kCHF.

28. TRANSFER VALUES PAID TO MEMBERS

According to Article II 1.11 of the Fund’s Rules, members with less than ten years of service may, under certain circumstances, receive a transfer value directly into their bank account. Alternatively, members can select to have the transfer value paid to another pension scheme.

29. TRANSFER VALUES PAID TO OTHER SCHEMES

Upon leaving the Fund, members can choose to have a transfer value paid into another pension scheme.

30. AMOUNTS PENDING SELECTION FROM MEMBERS

Members who are entitled to a transfer value have one year to inform the Fund of their selection (Article II 1.11). Depending on the number of years of service, a member may elect to be paid a transfer value to another scheme or to the member. A member with at least five years of service may also elect to become a deferred beneficiary.

31. LITIGATIONS AND CLAIMS

As at 31 December 2023, there was one pending claim against CERN in respect of the Fund. Nothing is recognised in the Financial Statements as, in the opinion of the Organization and the Fund, the legal position is well substantiated and documented.

32. RELATED-PARTY TRANSACTIONS

Parties are considered to be related if one party has the ability to control the other party or exercise significant influence over the other party in making financial or operational decisions.

Related parties of the Fund during the period were:

I. Professional members appointed by the CERN Council to act as experts in the PFGB and professional members appointed by the PFGB to the IC and ATC. These professional members provide advice on governance, investment and actuarial issues respectively. Fees in 2023 totalled 72 kCHF (95 kCHF in 2022);
II. Key personnel are the Chair of the PFGB, Chair of the IC, Chair of the ATC and the Chief Executive Officer

of the Fund. The aggregate remuneration paid to the remaining key personnel includes salaries, allowances and other entitlements paid in accordance with the Staff Rules and Regulations;

III. CERN, the Organization, contributes a significant portion of the Fund's financing. While the Fund is an autonomous operating entity without separate legal identity, for the purposes of IPSAS 20 disclosure requirements, CERN is considered a related party. Although the Fund meets the cost of its operating expenses, CERN provides free of charge some central support services and office accommodation.

During the year the Fund paid the following amounts to CERN:

- Finance and Administrative Processes department: 295 kCHF for IT support and maintenance (213 kCHF in 2022).
- Industry, Procurement and Knowledge Transfer department: 85 kCHF for procurement services (81 kCHF in 2022).
- Internal Audit Service: 114 kCHF for internal audit services (118 kCHF in 2022).
- Legal Service: 102 kCHF (90 kCHF in 2022).

In 2023 the Fund did not grant any loan or pay any other remuneration (except for the above mentioned amounts) to the key management personnel or to their close family members.

EVENTS AFTER THE REPORTING DATE

At its meeting in December 2023 the CERN Council approved amendments to the Rules and Regulations of the Pension Fund concerning factors pertaining to the purchase of additional periods of membership and anticipated (early) retirement. These updates are effective as from 1 February and 1 July 2024 respectively. The actuarial present value of promised retirement benefits at 31 December 2023, as presented in these Financial Statements, takes into account these amendments.

EXTRACT OF THE ACTUARY'S REPORT TO THE PENSION FUND FOR FINANCIAL YEAR-END 2023

IAS 26 SUMMARY

The actuarial present value of benefit obligations for IAS 26 reflects the benefits promised by the Pension Fund based on membership rendered before the valuation date and projected salaries on a going concern basis. Actuarial assumptions for this purpose are ratified by the PFGB as best estimates of the variables that will determine the ultimate cost of providing benefits, and the discount rate for IAS 26 reflects the time-value of money based on the Aon Swiss AA corporate bond yield curve as of 31 December 2023. The following table shows the funding level under IAS 26.

Financial Year *Currency CHF x 1000*	**Current Financial Year 31-Dec-23**	**Previous Financial Year 31-Dec-22**
Amounts at Year-End According to IAS 26 Assumptions		
Total assets of the Fund	4,460,361	4,578,372
Actuarial present value of benefit obligations	(10,138,017)	(8,966,633)
Surplus / (Deficit) of the Fund at year-end	(5,677,656)	(4,388,261)
Funded status at year-end	44.00%	51.10%
Benefit obligation in respect of members	(5,038,813)	(4,336,954)
Benefit obligation in respect of beneficiaries	(5,099,204)	(4,629,679)
Actuarial present value of benefit obligations	(10,138,017)	(8,966,633)
Key Financial Assumptions for IAS 26 Valuations		
Single Equivalent Discount Rate at End of Year	1.33%	2.03%
Average Salary Increase Rate at End of Year[1]	2.80%	2.80%
Inflation Rate at End of Year	1.25%	1.25%

[1] The average salary increase rate includes an increase linked to career change (average 1.55%) and an increase linked to inflation (1.25%)

AON

CHANGE IN IAS 26 FUNDING LEVEL OVER THE CURRENT YEAR

The funding level decreased to 44.0% at 31 December 2023 (previously 51.1% at 31 December 2022). The deficit increased by CHF 1,289.4 million during the year.

The main reasons for an improvement in the funding level were:

1. Special contributions of CHF 61.4 million were paid into the Fund during the year.
2. Membership changes and other experience on actuarial present value of benefit obligations different from assumed resulted in CHF 188.5 million decrease to the obligations.

The main reasons for a deterioration in the funding level were:

3. Normal contributions paid into the Fund were CHF 56.2 million lower than the IAS 26 value of benefits earned during the year.
4. Plan changes resulting from a change to the early retirement factors increased the actuarial present value of benefit obligations by CHF 4.8 million.
5. Interest on the present value of benefit obligations was CHF 185.3 million during the year.
6. The asset performance was an investment loss of CHF 53.5 million.
7. The actuarial assumptions used to measure actuarial present value of benefit obligations have changed, resulting in CHF 1,239.5 million increase to the obligations

ANALYSIS OF CHANGES TO IAS 26 ASSUMPTIONS

The following table shows the impact on the IAS 26 actuarial present value of benefit obligations of changing key assumptions from the assumptions used at the prior year-end.

Financial Year *Currency : CHF x 1000*	**Assumption at 31-Dec-22**	**Assumption at 31-Dec-23**	**(Increase) / Decrease to Obligations**
Discount Rate	2.03%	1.33%	(1,239,468)

SENSITIVITY OF IAS 26 ACTUARIAL PRESENT VALUE OF BENEFIT OBLIGATIONS TO CHANGES IN KEY ASSUMPTIONS

The sensitivity of the IAS 26 actuarial present value of benefit obligations at 31 December 2023 to changes in the key assumptions is as follows.

Currency : CHF x 1000	**Actuarial Present Value of Benefit Obligations at Year-End**	**(Increase) / Decrease in Obligations**	**Impact due to change**
Baseline	(10,138,017)		
Discount Rate + 0.5%	(9,223,649)	914,368	-9.00%
Discount Rate - 0.5%	(11,201,471)	(1,063,454)	10.50%
Inflation Rate + 0.5%	(11,120,203)	(982,186)	9.70%
Inflation Rate - 0.5%	(9,319,141)	818,876	-8.10%
Salary Increase linked to career change + 0.5%	(10,413,921)	(275,904)	2.70%
Salary Increase linked to career change - 0.5%	(9,882,245)	255,772	-2.50%

The above sensitivity analyses are based on a change in one assumption while holding all other assumptions constant (except the sensitivities analysis related to the inflation rate). In practice, this is unlikely to occur as changes in some of the assumptions may be correlated.

The salary increase rate assumption includes both an increase linked to career change and an increase linked to inflation. The sensitivity on inflation rate includes a change in all inflation-related assumptions (salary increase rate, pension increase rate).

When calculating the sensitivity of the actuarial present value of benefit obligations to significant assumptions, the same method has been applied as when calculating the amount recognised in the statement of financial position.

BEST ESTIMATE SUMMARY

The actuarial present value of benefit obligations for the Best Estimate valuation reflects the benefits promised by the Pension Fund based on membership rendered before the valuation date and projected salaries on a going concern basis. Actuarial assumptions for this purpose are ratified by the PFGB as best estimates of the variables that will determine the ultimate cost of providing benefits, and the discount rate represents the expected future return on the Fund's assets with respect to its long-term investment strategy. The following table shows the funding level under Best Estimate assumptions.

Financial Year *Currency : CHF x 1000*	**Current Financial Year 31-Dec-23**	**Previous Financial Year 31-Dec-22**
Amounts at Year-End According to Best Estimate Assumptions		
Total assets of the Fund	4,460,361	4,578,372
Actuarial present value of benefit obligations	(6,619,973)	(6,620,177)
Surplus / (Deficit) of the Fund at year-end	(2,159,612)	(2,041,805)
Funded status at year-end	67.40%	69.20%
Benefit obligation in respect of members	(2,731,264)	(2,771,160)
Benefit obligation in respect of beneficiaries	(3,888,709)	(3,849,017)
Actuarial present value of benefit obligations	(6,619,973)	(6,620,177)
Key Financial Assumptions for Best Estimate Valuations		
Discount Rate at End of Year[1]	3.85%	3.85%
Average Salary Increase Rate at End of Year[2]	2.80%	2.80%
Inflation Rate at End of Year	1.25%	1.25%

1 The discount rate assumption includes a real expected future return component (2.60%) and an inflation component (1.25%)
2 The average salary increase rate includes an increase linked to career change (average 1.55%) and an increase linked to inflation (1.25%)

CHANGE IN BEST ESTIMATE FUNDING LEVEL OVER THE CURRENT YEAR

The funding level decreased to 67.4% at 31 December 2023 (previously 69.2% at 31 December 2022). The deficit increased by CHF 117.8 million during the year.
The main reasons for an improvement in the funding level were:

1. Normal contributions paid into the Fund were CHF 39.5 million greater than the Best Estimate value of benefits earned during the year.
2. Special contributions of CHF 61.4 million were paid into the Fund during the year.
3. Membership changes and other experience on actuarial present value of benefit obligations different from assumed resulted in CHF 97.9 million decrease to the Fund obligations.

The main reasons for a deterioration in the funding level were:

4. Plan changes resulting from a change to the early retirement factors increased the actuarial present value of benefit obligations CHF 2.0 million.
5. Interest on the actuarial present value of benefit obligations was CHF 261.1 million during the year.
6. The asset performance was an investment loss of CHF 53.5 million.

ANALYSIS OF CHANGES TO BEST ESTIMATE ASSUMPTIONS

There were no changes to the assumptions used in calculation of the Best Estimate actuarial present value of benefit obligations compared to those used at the prior year-end.

SENSITIVITY OF BEST ESTIMATE ACTUARIAL PRESENT VALUE OF BENEFIT OBLIGATIONS TO CHANGES IN KEY ASSUMPTIONS

The sensitivity of the Best Estimate actuarial present value of benefit obligations at 31 December 2023 to changes in the key assumptions is as follows.

Currency : CHF x 1000	**Actuarial Present Value of Benefit Obligations at Year-End**	**(Increase) / Decrease in Obligations**	**Impact due to change**
Baseline	(6,619,973)		
Discount Rate + 0.5%	(6,159,537)	460,436	-7.0%
Discount Rate - 0.5%	(7,141,548)	(521,575)	7.9%
Inflation Rate + 0.5%	(6,589,123)	30,850	-0.5%
Inflation Rate - 0.5%	(6,674,093)	(54,120)	0.8%
Salary Increase linked to career change + 0.5%	(6,751,018)	(131,045)	2.0%
Salary Increase linked to career change - 0.5%	(6,497,528)	122,445	-1.8%

The above sensitivity analyses are based on a change in one assumption while holding all other assumptions constant (except the sensitivity analysis related to the inflation rate). In practice, this is unlikely to occur as changes in some of the assumptions may be correlated.

The discount rate assumption includes both a real expected future return component and an inflation component, and the salary increase rate assumption includes both an increase linked to career change and an increase linked to inflation. The sensitivity on inflation rate includes a change in all inflation-related assumptions (discount rate, salary increase rate, pension increase rate).

When calculating the sensitivity of the actuarial present value of benefit obligations to significant assumptions, the same method has been applied as when calculating the amount recognised in the statement of financial position.

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