

CERN Pension Fund

Annual Information Meeting - 2023

26 October 2023

A warm welcome to our Annual Information Meeting



Our presentation today will be delivered in English. A simultaneous interpretation to French is available for this webcast and also via Zoom videoconference.



Members and Beneficiaries present or connected via Zoom videoconference will have the possibility to submit questions (for Zoom videoconference via the 'chat only).



A recording of today's meeting will be available for those unable to join us live.



We are unable to provide individual financial advice. Please contact pensions.benefits@cern.ch for individual questions or if you have any feedback on today's presentation.



Agenda for today

- PFGB Chair's Welcome
- 2 CEO Introduction
- Membership and Benefit Services
- 2022 Annual Report & Financial Statements
- Investment Report
- Opportunity for Questions
- 7 Closing Remarks



PFGB Chair's Welcome

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Ossi Malmberg

Chair
Pension Fund Governing Board



The purpose of the CERN Pension Fund

Our purpose is to insure our members and beneficiaries, together with their families, against the financial consequences of disability, old age and death.

(Article 1 1.01)

CERN Pension Fund

As an international organisation, CERN and ESO operate their own social security system, including a pension scheme, the CERN Pension Fund.

Defined benefits

Benefits paid are not affected by the market value of investments.

A solidarity scheme

No member has an individual balance, and all benefits are paid from a common fund.



Introduction by the Chair of the Governing Board

The Governing Board represents all stakeholders of the Pension Fund and works to ensure the purpose of the Fund is achieved. During 2022 the Board met on five occasions to consider a range of matters connected to its functions.

2022 was a year where the recovery after Covid was expected but instead we saw the events in Ukraine escalate and have a significant effect on investment markets. The Pension Fund, under the Board's oversight, navigated these events well with the financial effect contained within the risk limit and no operational issues.

Despite these significant external challenges, the Pension Fund continues to support its beneficiaries and in 2022 paid a total of 324 MCHF in benefits to more than 3,300 beneficiaries. Service performance levels remained excellent throughout the year.

The Funding Level has understandably fallen below the level at the Periodic Actuarial Review (PAR) as at 1 January 2022. The next PAR will take place as at 1 January 2025.

The Governing Board continues to hold a constructive dialogue with the Council and the Finance Committee concerning matters relating to Pension Fund risk, investment strategy, funding levels and operational performance.



Pension Fund Governing Board (at 30 September 2023)









Governing Board – rotation in mandates



Mandate ended 31 October 2022 After serving two 3-year terms

Representative for ESO Staff Association

Succeeded by Mr Alain Delorme



Mandate will end 31 December 2023 Chair since 25 September 2020

Appointed by CERN Council

Succeeded by Dr Florin-Dorian Buzatu



Mandate will end 31 December 2023

Member since 1 January 2021

Appointed by CERN Council

Succeeded by Prof Cristina Biino



CEO Introduction

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Doug Heron

Chief Executive Officer CERN Pension Fund

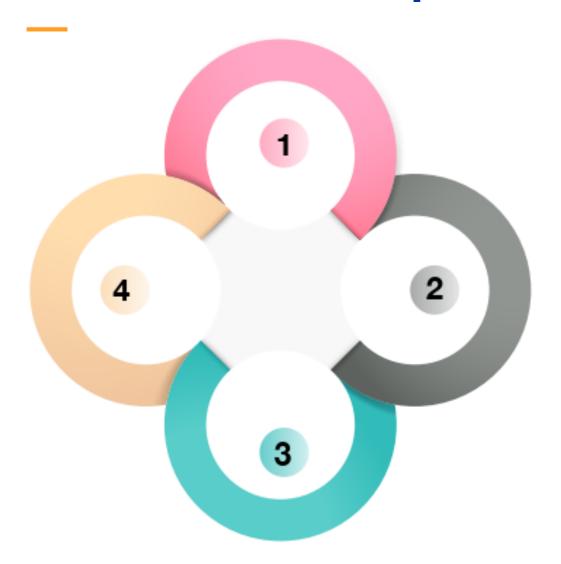


A reminder of how your membership works

Membership is automatic with eligible contracts of employment The PFMU creates / administers your file and is the point of contact for queries Becoming a Member Benefits accumulate according to service period *x* reference salary Become a beneficiary (if older than minimum retirement age) At the end of your Become a deferred beneficiary (and take benefits later) employment Accept a transfer value (non-optional below 5 years of service) Monthly pension benefits are payable until your death When you become a Benefits reviewed each year for indexation Beneficiary Survivor benefits payable according to eligibility Insurance against death or Benefits payable to you or your survivors for eligible family scenarios disability Provisions apply for cases of early retirement; purchase of additional benefits Special transactions You can acquire rights to survivor benefits for partnerships after employment



Governance Principles



- 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.



Governance Arrangements for the Pension Fund

CERN Council

The Supreme Authority: defines the Pension Fund and its arrangements; acts as ultimate oversight body and approves significant policies or changes.

For contributions and benefits, the Council acts on recommendations from the Director-General.

Governance principles

Set out how the Fund is governed.

Governing Board

Primary oversight body. Includes professional (independent) members and representatives from all key stakeholder groups. Meets quarterly to review performance of the Pension Fund.

Investment Committee / Actuarial and Technical Committee

Sub-committees to the PFGB. Include experts to provide advice and guidance in technical areas.

Chief Executive Officer

Legal representative of the Fund. Analogous to CERN Department Head. Responsible for the Management Unit and all delegated activities of the Fund.



The activities of managing the Pension Fund

Administering benefits

Maintaining records of eligibility

Liaising with members, beneficiaries or their survivors

Providing information and assisting with enquiries

Collecting contributions

Accounting for and collecting the contributions from members and CERN / ESO

Managing assets of the **Fund**

Establishing investment strategy and risk appetite

Making investments in asset classes

Monitoring performance and making interventions to achieve stable returns

Monitoring funding level

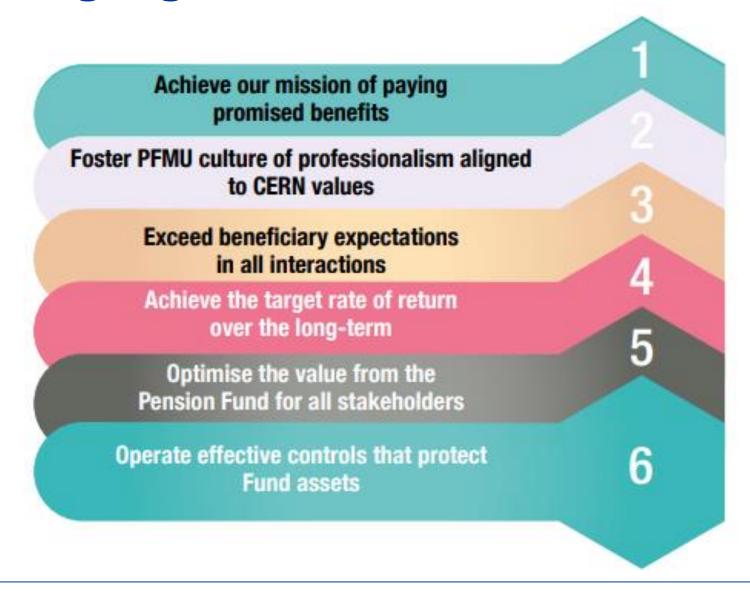
Working with the Actuary to ensure benefit promises (liabilities) are fully valued Reviewing ~100 different factors of liability risk to ensure a balanced view Completing Periodic Actuarial Reviews to establish and monitor the funding level

Following the rules of the Pension Fund

Governance / leadership Working with all stakeholders to ensure the Pension Fund is well managed Leading the PFMU team to ensure plans are set and goals achieved

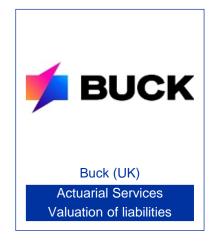


PFMU strategic goals

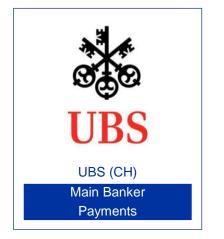




Strategic Partners during 2022

















Membership and Benefit Services

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Delivering our purpose in 2022

Our purpose is to insure our members and beneficiaries, together with their families, against the financial consequences of disability, old age and death.



Welcoming new members

550 new members. 4 085 total members.



Launched new benefit factsheets

Each new member and new beneficiary is issued with a 1-page key information sheet



Leaving the Fund

395 leavers (376 transfer values; 19 to deferred status)



Payment of monthly benefits

Paid 300 MCHF to 3'309 beneficiaries (100% accuracy)



New beneficiaries

Established 64 new beneficiaries



Performance against SLAs

11 / 13 services rated green. 2 amber (cause: high demand and external delays)



Caring for families

Supported the families of 138 beneficiaries who sadly passed away



Membership Overview

Beneficiaries aged 100 and over

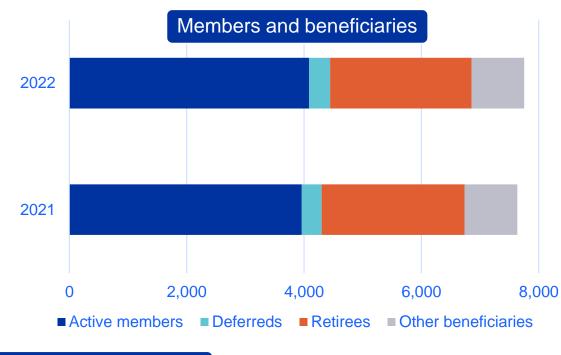
16 Beneficiaries aged under 21



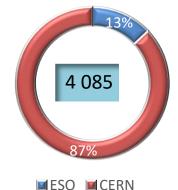
Countries with beneficiaries

Million CHF paid each month

Beneficiaries in payment > 50 years



Members by Organisation



Beneficiaries by Organisation (excl. deferred)





Listening to beneficiaries and members



Member and beneficiary feedback directly influences our priorities. We engage with GAC and Staff Association constructively and often.

The positive themes are: that benefits are valued and recognised to be valuable; the service from PFMU is efficient and easy to access.

The less positive themes are: that transfer values paid on leaving < 5 years of service feel too low; the mechanism (PPL) for annual indexation is a growing concern; payment arrangements (CH only) aren't flexible enough.

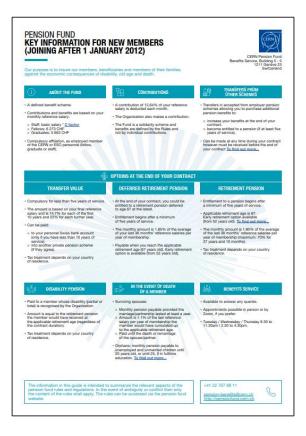


Recent progress – new factsheets









Providing easy access to key information.

Issued to each new member or beneficiary and available on our website



Current priorities – heading into 2024

Digital capability

Ensuring our digital capability meets member and beneficiary needs.

Reduced reliance on paper forms.

Giving beneficiaries and members easy access to their own records.

Further improvements to our website.

Payments outside of Switzerland

Adapting to ensure we are able to pay benefits in a convenient, secure and efficient way. Even where beneficiaries do not reside in Switzerland.

Factors and parameters

Reviewing selected factors and parameters (those values that determine payment of benefits and entitlements) to ensure they remain suitable.



Indexation and PPL (purchasing power loss)

Benefits are indexed to keep in line with changes to prices and cost of living What is PPL? PPL is the reduction in what we can buy with a given amount of money Each beneficiary has an individual accumulated PPL account Introduced in 2005 and updated in 2012 (as part of package of measures) Why was it introduced? Indexation not granted or is slowed down until individual PPL reaches 8% Equitable distribution of measures amongst stakeholders (different ceilings) Annual adjustment depends on retirement date i.e. before/after 1.1.2012 How is it calculated? Inflation reference is Geneva CVI and was 3.1% for the 2023 exercise Post 1.1.2012, Geneva CVI is adjusted by the accounting funding ratio Beneficiaries receive a letter each year with details on their personal situation and information on how the adjustment and PPL balance is calculated How to find out more? The Benefits Service is available to respond to questions As at 1.1.2023 around 400 beneficiaries received an annual adjustment of 1.1% Any interesting points? Given current levels of inflation, the number of beneficiaries receiving an annual adjustment in 2024 is expected to increase.



Benefits Service







pension-benefits@cern.ch

+41 22 767 8811

http://pensionfund.cern.ch

Building 5/5 (CERN)



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The format follows International Public Sector Accounting Standards (IPSAS) and pension fund best practice. Includes:

- Message from the PFGB Chair
- Pension Fund Governing Board's Report
- Management Commentary
- Membership disclosures
- Financial statements and explanatory notes
- Actuarial Status of the Fund
- Investment and ESG Report

Available on request or via our website



Enhanced format introduced in 2022:

Additional information on governance

During the year and following completion of a Working Group led by members of the PFGB, the Pension Fund set out an ambitious work plan to channel its focus and

- More transparency on our Environmental, Social & Governance work
- Increased accessibility to key information



16 RECURRING . 9 NEW . 12 CONTI

maximum) 55% of the deceased beneficiary's pension. An

introductory measure allowed beneficiaries who were already married on 1 January 2021 to submit a request to procure

an entitlement to all or part of a surviving spouse's pension.







included the introduction of a specific article setting out the

refund of overpayments. A number of technical changes were also included to align the Rules with existing practice

Transparency on implementation of ESG policy

ESG remains a key priority, integrated with our investment management approach:

- Update on progress of ESG policy implementation plan
- ESG report follows voluntary guidelines of TCFD (Task Force on Climate-Related Financial Disclosures)
- Governance, Strategy, Risk Management and metrics
- Results of two exploratory studies:
- Climate impact analysis
- Carbon footprint and transition pathway study





In 2022, global economic activity continued to expand but Policymakers in advanced and emerging economies raise at a slower pace. According to the IMF, global GDP rose by 3.2%, which represented a significant slowdown from the robust growth of 6.2% observed in 2021.

including the impact of a commodity supply shock, higher incomes, and the tightening of global financial conditions.

disrupting the supply of crucial commodity imports and impacting economic growth, particularly in the eurozone. Despite lower growth, labour market tightness persisted in numerous economies. On the other hand, the Chinese

The delayed impact of the very accommodative fiscal and nonetary policies that were implemented in 2020 and 2021, coupled with higher commodity prices, led to a rise in inflation to the highest level in many decades. The IMF estimated that global CPI inflation rose to 8.8% in 2022, the

headline figures in Europe and the UK also rose at record paces. Notably, elevated prices for commodities such as gas costs, particularly in Europe. Core inflation was also elevated collaboration with the Risk Consultant (Ortec Finance) and expectations were revised upwards.

programmes and significantly tightened monetary policy.

interest rates aggressively, with the Federal Reserve in the US hiking policy rates at the fastest pace since the 1980s.

strong inflationary pressure, with central banks hiking interest rates and financial conditions becoming much mor

RISK MANAGEMENT AND ASSET ALLOCATION

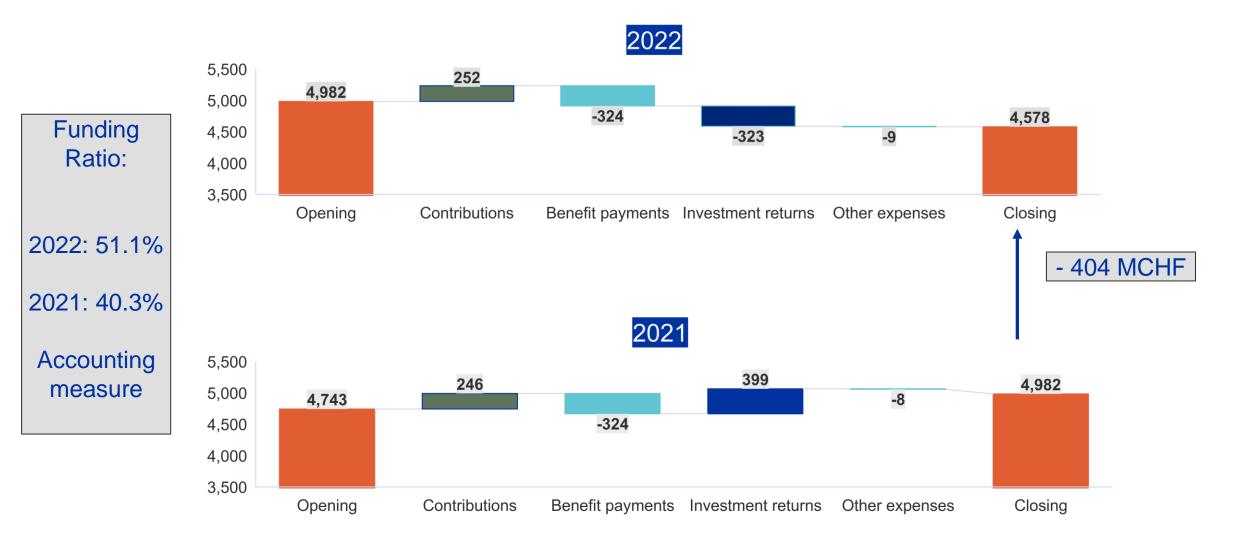
set out in the Statement of Investment Principles, which has been approved by the PFGB. It is based on an annual risk limit and an annual strategic asset allocation (SAA), and on managing the current asset allocation (CAA) in a manner compatible with both the risk limit and the investment return

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 stands at 2.60% per annum. The PFGB In the US, inflation accelerated to multi-decade highs, while set the same risk limit for 2022 as for 2021, namely a 5% Conditional Value-at-Risk (CVaR) limit of -8%.

and approved by the PFGB, is shown in Table 4 below.



2022 Annual Report & Financial Statements (M CHF)





Annual Report and Financial Statements

- Enhanced format in 2022 to provide transparency and accessibility to key information
- Provides key information to members and beneficiaries and informs all stakeholders
- According to IPSAS (International Public Sector Accounting Standards)

Net Assets

- Net Assets decreased to 4 578 MCHF
- Financial markets were challenging during 2022 and continue to be this year so far

Funding levels

- Funding ratio increased to 51.1% despite a fall in assets
- Accounting funding ratio is different to that of the periodic actuarial review due to different discount rates and different rates of long-term inflation
- Actuarial funding level fell from 77.1% (January 2022 / PAR 22) to 69.0%



Investment Report

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Investment markets – important note



The CERN Pension Fund pays defined-benefit pensions. Benefits are calculated according to your service period, reference salary and any applicable factors



Benefits are not affected by the funding level or investment performance



This report on investment activity, markets and performance is provided for insight and transparency



The investment activities are overseen by the Governing Board and its Investment Committee. More information is available in our Annual Report.



Managing our assets

What are the assets of The Pension Fund pays benefits from its financial resources: funds it has built up through contributions and investment returns. the Fund? The Pension Fund is only sustainable if we are able to earn returns, over the long-term, in Why do we invest? excess of the rate of inflation. This is known as positive real returns. To achieve or exceed a return in excess of the real discount rate (currently 2.6%) Do we have a target? To manage the portfolio within a Risk Limit of -/+ 8% using 5% Conditional Value at Risk The PFMU and advisers propose a Strategy and Risk Limit, for PFGB to approve. Who manages the The implementation of the strategy is delegated to PFMU, under oversight of PFGB. assets? PFMU takes advice or outsources some strategies, but most assets are internally managed Virtually all major events in the world affect financial markets, positively or negatively. Are there risks? Diversification within the assets is key to managing risk. A long-term view and approach is essential to managing through volatility.



Strategic Asset Allocation – asset classes



Precious metals

Store of value, diversification of risk



Private Equity and Venture Capital

Access to early-stage capital growth with a premium for complexity and risk



Hedge Funds

• Risk management; access to positive returns over benchmark through active management



Equities

• Access to capital growth and income from corporate profits



Real Assets

• Real estate, timber, infrastructure: Store of value, stable income and protection from inflation

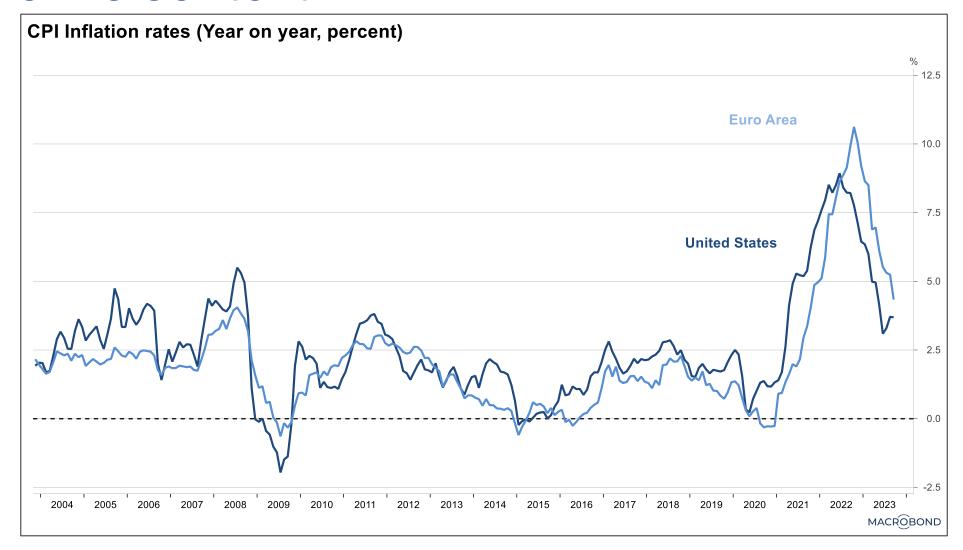


Fixed Income

• Benefit of liquidity, with premium over cash deposits for limited default risk

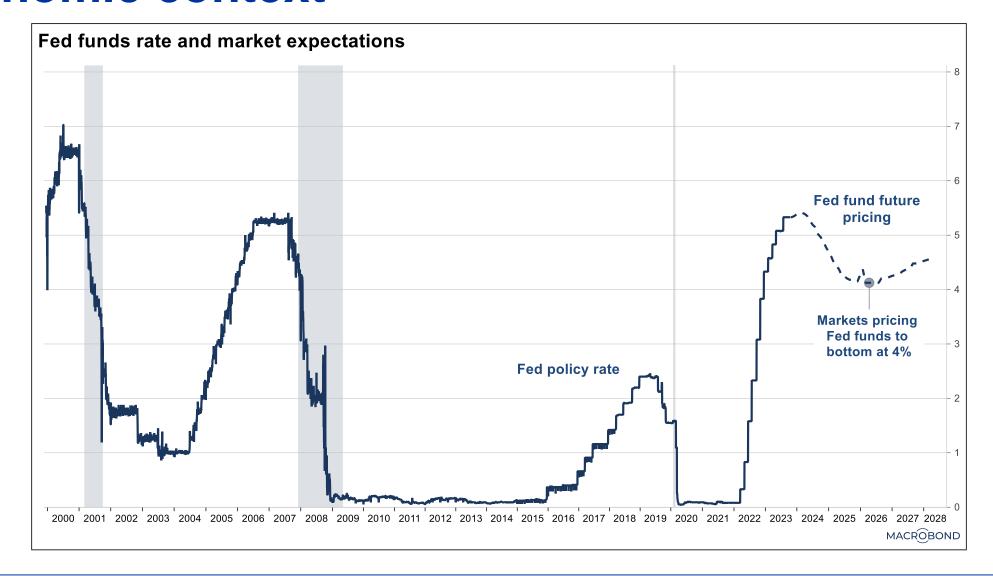


Economic context



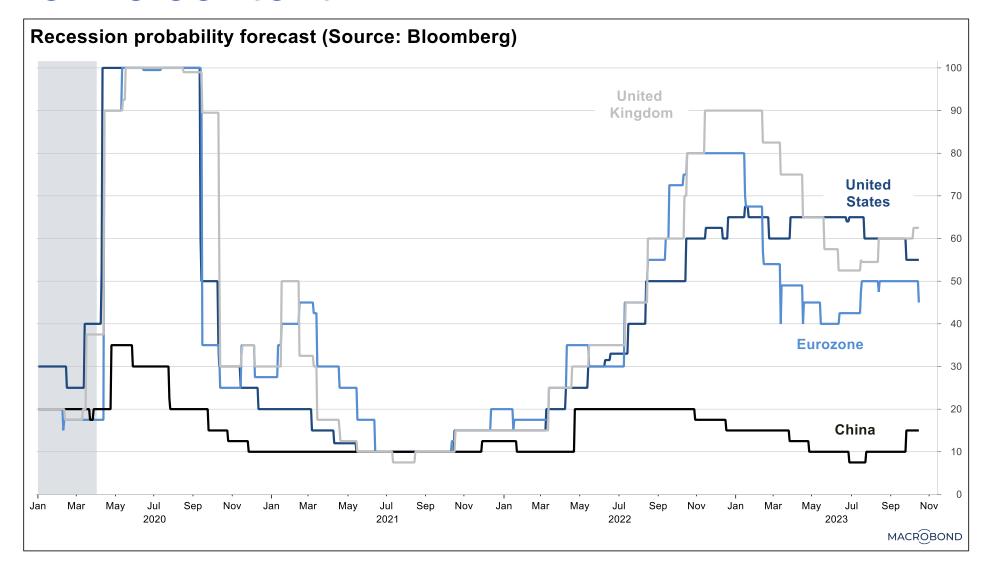


Economic context





Economic context





Investments in real estate – the portfolio









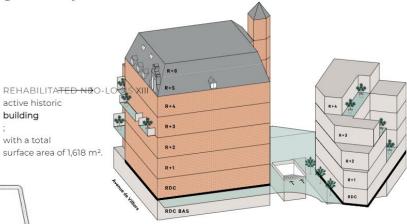


Investments in real estate – example of value-add

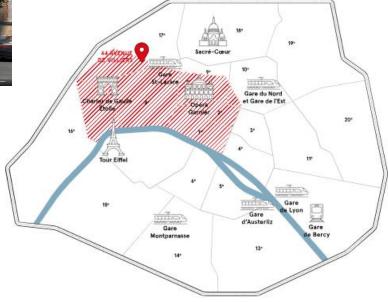


TWO BUILDINGS

around a green courtyard.



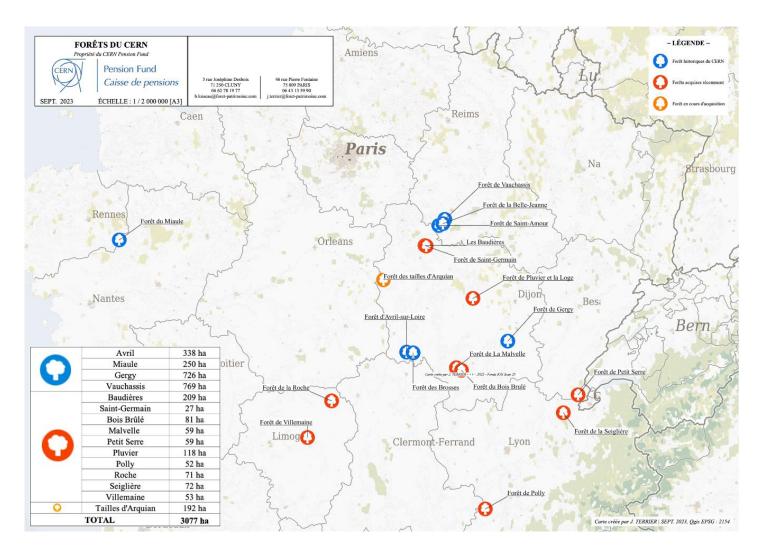
← CONTEMPORARY building rebuilt from scratch; with a total surface area of 715 m².





Investments in forestry – the direct portfolio

- More than 3,000 hectares (or half of the area encircled by the LHC)
- Timberland is circa 1% of Fund assets
- Offers a store of capital value and access to diversified, stable, long-term returns
- Sustainability and positive for the environment when managed under responsible ownership
- 8 different species but Oak is more than 80%. Used for wine casks, flooring, furniture

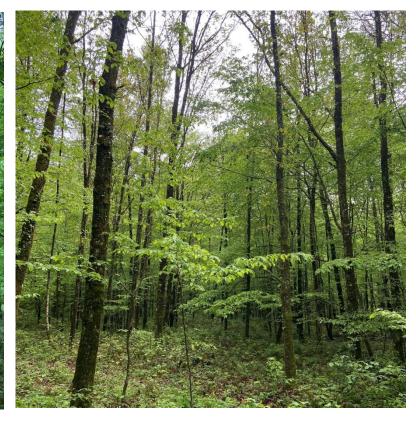




Investments in forestry – the direct portfolio









ESG – Environmental, Social and Governance matters



In 2021 the Fund has approved its first ever ESG policy after extensive consultation of our peers and our stakeholders



The Fund is focused on a small number of meaningful actions and avoids greenwashing or other actions that lack substance.



An ambitious first-phase ESG work plan was completed in 2022. This included a climate change scenario model, carbon foot-printing and temperature alignment analysis the portfolio



The results are reported in a dedicated section of the 2023 Annual Report. The Fund is currently in the process of establishing its second-phase ESG workplan



Investment markets – 2022 summary

Investment performance



- -6.41% (nominal) for full year 2022
- Compares to +6.59% for 2021

Risk limit



 PF operated within the approved risk limit (-8% + 2pp error margin) throughout 2022

Market outlook



higher for longer

- Real returns in general expected to be lower
- Higher credit pricing provides opportunities

PFMU response



 Asset allocation remains stable and follows the SAA. The PFMU monitor the portfolio closely and make interventions to manage risk or to exploit opportunities.

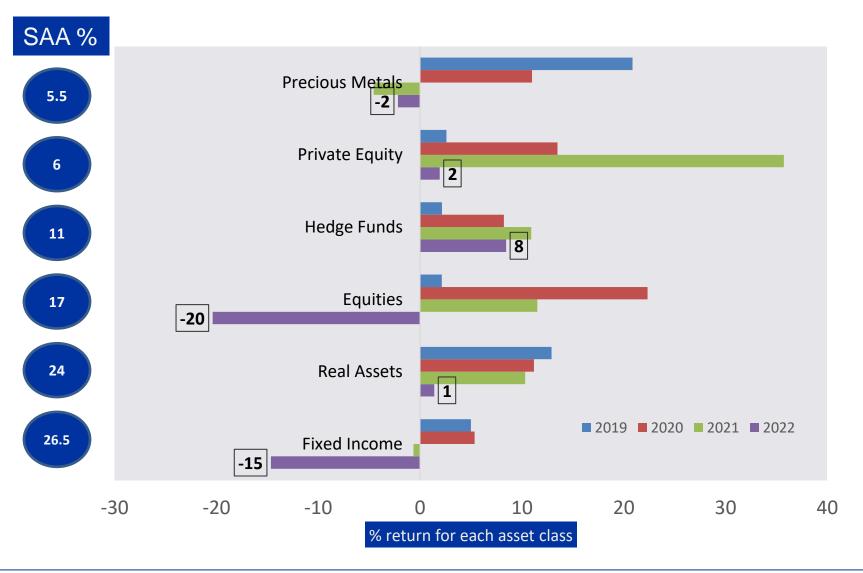
Market themes (brief)



i) Covid > monetary stimulus >
 inflationary pressures > rate rises; ii)
 Ukraine and other geo-political
 conflicts impact commodity pricing,
 trade and market confidence; iii) credit
 and equity valuations suffer



Returns by asset class – 2022 (excluding cash)



-6.41% nominal investment return net of fees in 2022

11.29 pp below the long-term *real* rate annualized target*

+23.56 pp cumulative *real* return outperformance since 2011

*Geneva inflation rate was 2.47% in 2022.



Opportunity for questions

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Closing remarks

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Closing remarks

Thank you for attending our session today - we hope that you found it to be informative.

The past two years have been exceptionally difficult in the world of investment markets and uncertainty will be a theme for the years ahead.

The Pension Fund is clear about its purpose and continues to focus on paying benefits, supporting families of beneficiaries and welcoming new members.

Please contact Benefits Services if you have feedback or questions.







