



CERN Pension Fund Annual Information Meeting - 2021

14 October 2021
by webcast



Ossi Malmberg

Chair, Pension Fund
Governing Board



Doug Heron

Chief Executive Officer

Participant information



- Our presentation today will be in English. A simultaneous interpreting into French is also available for this webcast
- A recording of today's meeting will be available should you need to watch again later
- Participants have submitted questions in advance and these will be answered during the presentation
- We are unable to provide personal financial advice on pensions. Please refer to pensions.benefits@cern.ch for individual questions or if you have any feedback on today's presentation



Overview



- I. PFGB Chair's Welcome
- II. CEO Introduction
- III. Background
- IV. Membership Overview
- V. 2020 Annual Report & Financial Statements
- VI. Actuarial Review
- VII. Investment Report
- VIII. Benefits Service
- IX. Closing Remarks





I. PFGB Chair's Welcome

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PFGB Chair's Welcome



Our purpose

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 PFRRs).

As an international organisation, CERN has created its own social security system, including a pension scheme, the CERN Pension Fund.

The Fund, which is a defined-benefit scheme, is an integral part of CERN.

The scheme is based on member solidarity: no member has an individual balance and if benefits are less or more than best estimate of liability the fund shall absorb the difference.



PFGB Chair's Welcome



- The Pension Fund was not immune to the effects of Covid-19:
 - The membership experienced 169 deaths in 2020, 42% higher than 2019. Our thoughts are with the families of our former colleagues.
 - The PFMU, as with all CERN colleagues, had to adapt quickly and I wish to thank them for their outstanding work.
 - The funding level, despite extreme economic volatility, remains ahead of long-term expectation due to superior investment returns.
 - Managing the Pension Fund is a difficult balancing act. It calls for stable long-term thinking and prudence. The future is always uncertain but this is especially true following the pandemic.
 - Asset returns will be impacted by the shape of economic recovery and public finance policy and may be lower than they have been historically.



PFGB Chair's Welcome



PFGB activities since AIM 2020

- Overseeing the work of PFMU according to the Pension Fund Rules and Regulations (PFRRs) including the response to the challenges of the pandemic.
- Implementing changes to the PFRRs including the entitlement for beneficiaries to procure an additional pension for a spouse.
- Reporting to Council and Finance Committee on the funding level, benefit administration and preparations for the 2022 Actuarial Review.
- Responding to questions from Council Delegates including in relation to the funding level, the funding plan, contribution rates and related matters.
- Planning for a transition in CEO of the Fund, leading to the appointment of a new CEO in August 2021.





II. CEO Introduction

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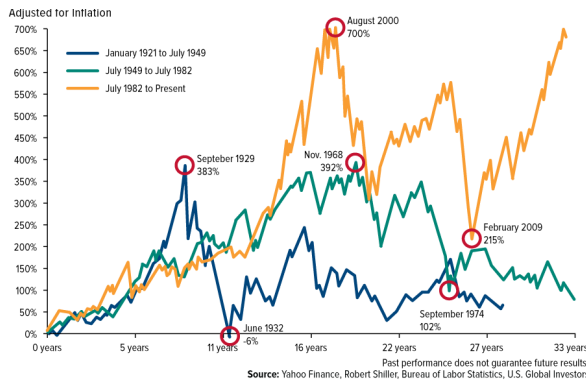
How do you manage a pension fund? The 5 steps

- 1 Make a promise to pay defined benefits up to 100 years in the future
- 2 Calculate how much you think that will require in assets in future
- 3 Fund the promise through regular contributions and asset returns
- 4 Administer and pay the benefits when they become due
- 5 Monitor funding level and risks; adjust the plan from time to time

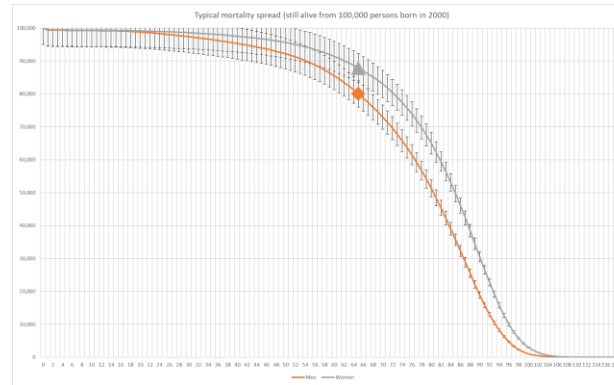
CEO Introduction

- Managing macro level risks and uncertainty with best estimates

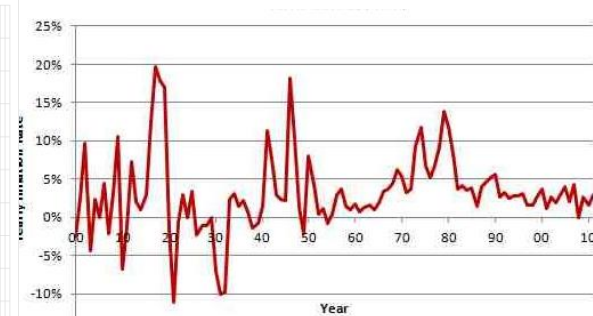
Asset return cycles



Longevity risk (mortality)



Inflation pressure



- Which are also required for fund specific assumptions. Such as:

dependent benefits

disability pension

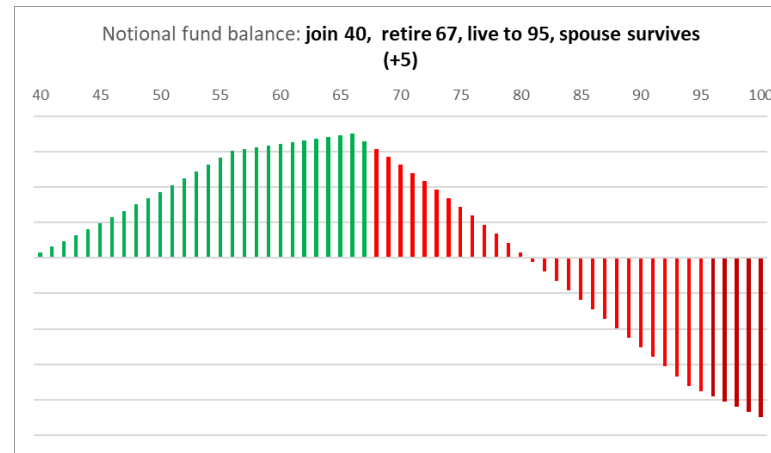
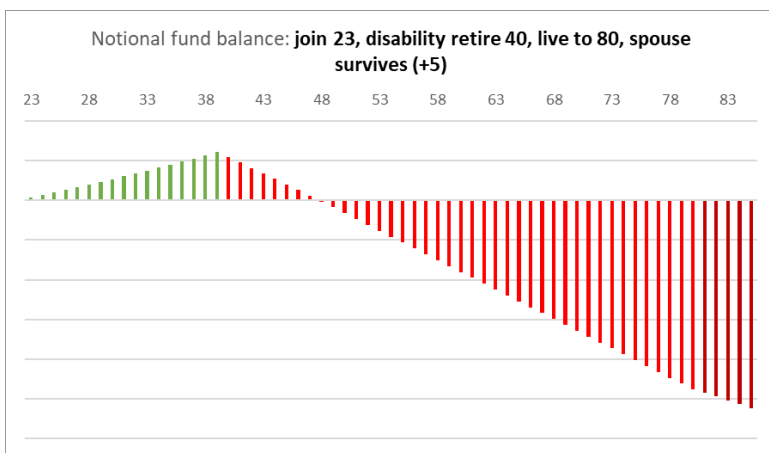
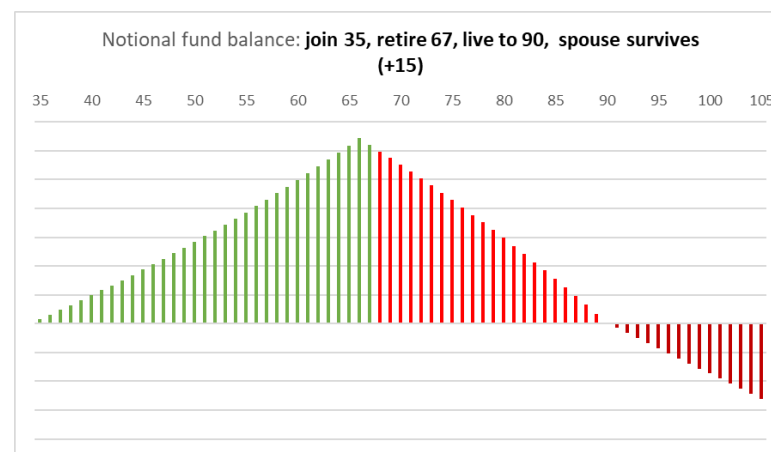
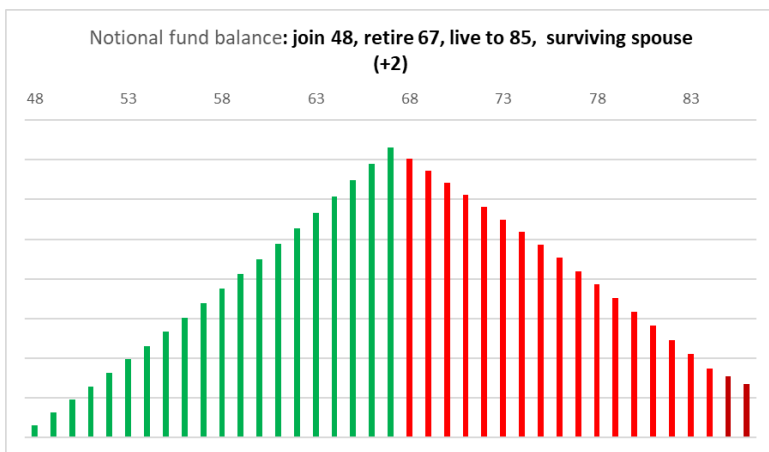
salary increases

workforce profile changes

CEO Introduction



All of our members have different journeys and so our benefit promises are unique to each beneficiary





III. Background

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Background



- Established in 1955
- Defined benefits plan: pensions are determined by the reference salary and the years of membership
- Pension Fund Rules and Regulations (updated 01.01.2021)
 - Define the governance, legal relationships, rights and obligations
 - An integral part of CERN; No separate legal entity
 - The assets of the Fund are held separately from those of CERN and are used solely for the purpose of the Fund as defined in the Rules



Pension Fund Governance Structure



Bodies	Mission
Pension Fund Governing Board (PFGB)	Entrusted by the Council with the oversight of the Fund (de-facto sub-committee of CERN Council)
Chief Executive Officer & the Pension Fund Management Unit (CEO & PFMU)	Day-to-day management of the Fund

Committees	Mission
Investment Committee (IC)	Sub-committee of the PFGB on investment matters
Actuarial and Technical Committee (ATC)	Sub-committee of the PFGB on actuarial and technical matters



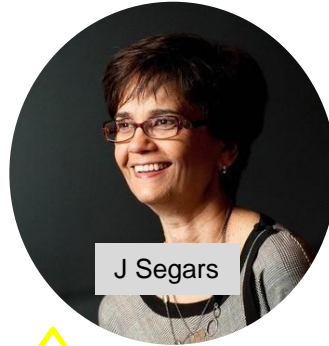
Pension Fund Governing Board



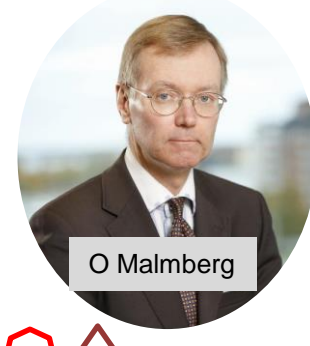
A Glindemann



I Mardirossian



J Segars



O Malmberg



M Klug



P Hristov



P Charpentier



A Hilka








R Bello



D Ryckbosch



-  PFGB Chair
-  ATC Chair
-  Vice Chair
-  IC Chair

-  Council (ESO / CERN)
-  CERN Management
-  Pensioners Association
-  Staff Association (E/C)
-  Professional



Key Partners



Actuary	Buck Consultants (London, United Kingdom)	<ul style="list-style-type: none">▪ Appointed by PFGB▪ Advises on funding level and fund level liability risks
Risk Consultant	ORTEC Finance AG (Pfäffikon, Switzerland)	<ul style="list-style-type: none">▪ Advises on investment risk
Performance Reporting	APEX (Dublin, Ireland)	<ul style="list-style-type: none">▪ Independent performance reporting
Global Custodian Bank	Northern Trust (London, United Kingdom)	<ul style="list-style-type: none">▪ Appointed by PFGB▪ Safekeeping of Fund's assets, performance reporting, investment admin
External Auditor	National Audit Office of Finland (Helsinki, Finland)	<ul style="list-style-type: none">▪ Appointed by the CERN Council▪ Certify the accounts and financial statements of the Fund▪ Carry out any in-depth audits required▪ Submit their report to the CERN Council
Internal Auditor	CERN Internal Audit Service (IAS)	<ul style="list-style-type: none">▪ Report to PFGB and CERN Audit Committee▪ Operate in accordance with IAS Charter



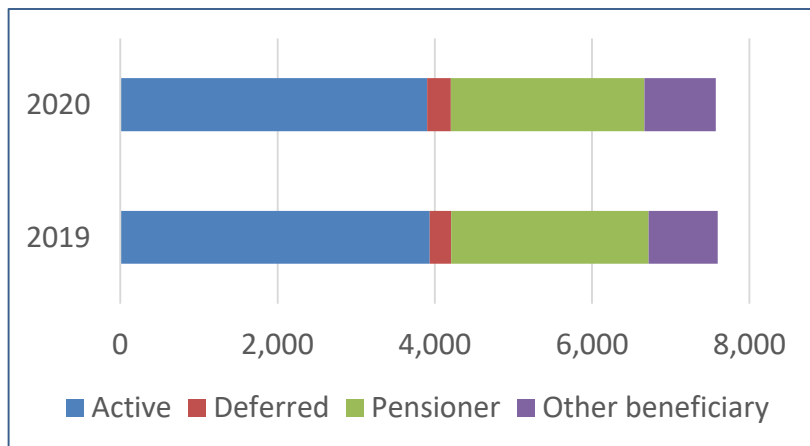


IV. Membership Overview

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Membership Overview



Beneficiaries aged over 100



Beneficiaries aged under 21



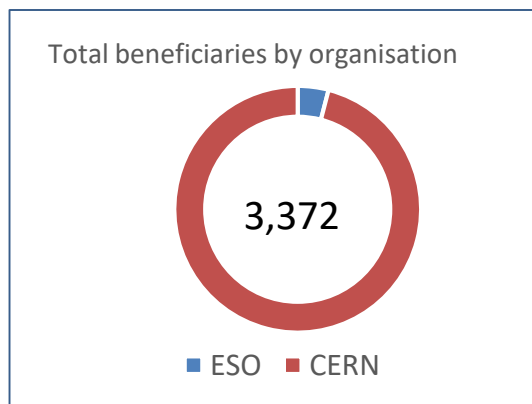
Countries with beneficiaries



Million CHF paid each month



Current beneficiaries with benefits for more than 50 years





V. 2020 Annual Report & Financial Statements

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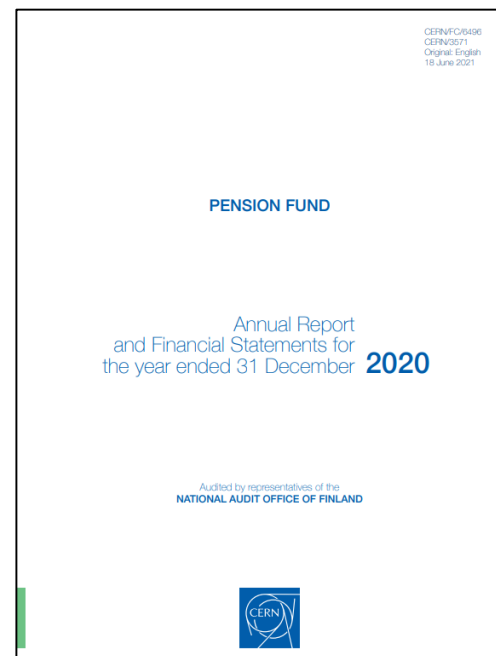
2020 Annual Report & Financial Statements



Available on request or via pensionfund.cern.ch/en/about-fund/annual-report-and-financial-statements

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

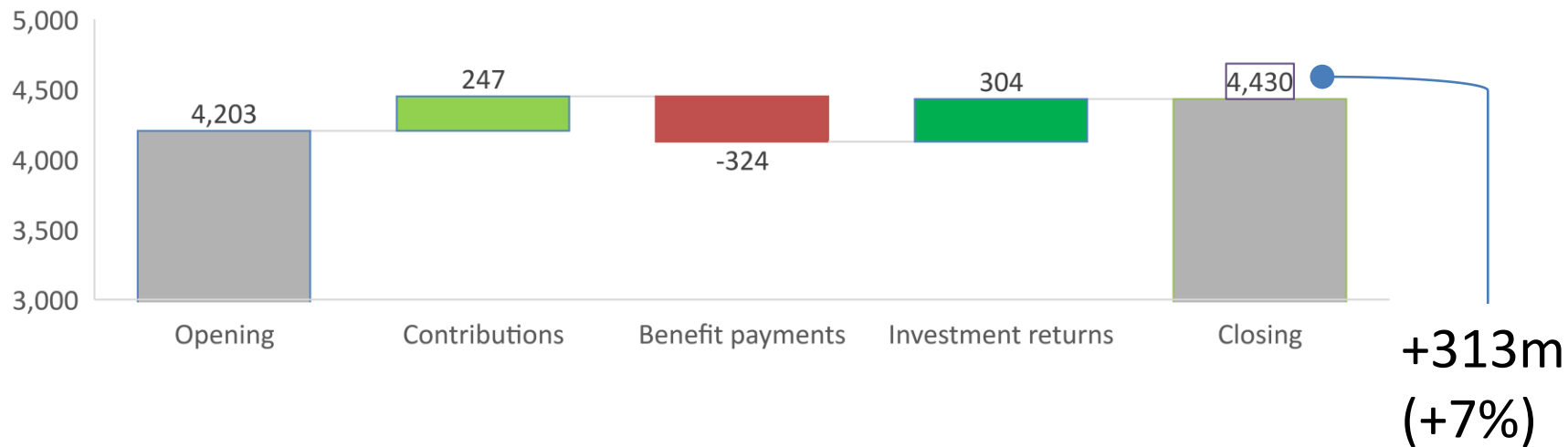
- Chair's Report
- Pension Fund Governing Board's Report
- Disclosure of external advisors and service providers
- Membership disclosures
- Financial statements and explanatory notes
- Actuarial Status of the fund
- Investment Report



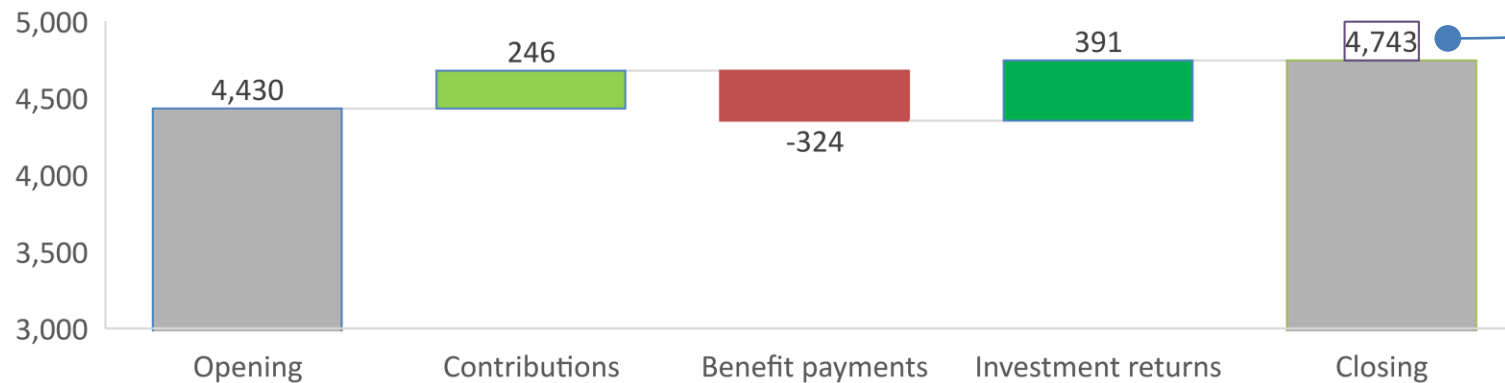
2020 Annual Report & Financial Statements (K CHF)



2019



2020





VI. Actuarial Review

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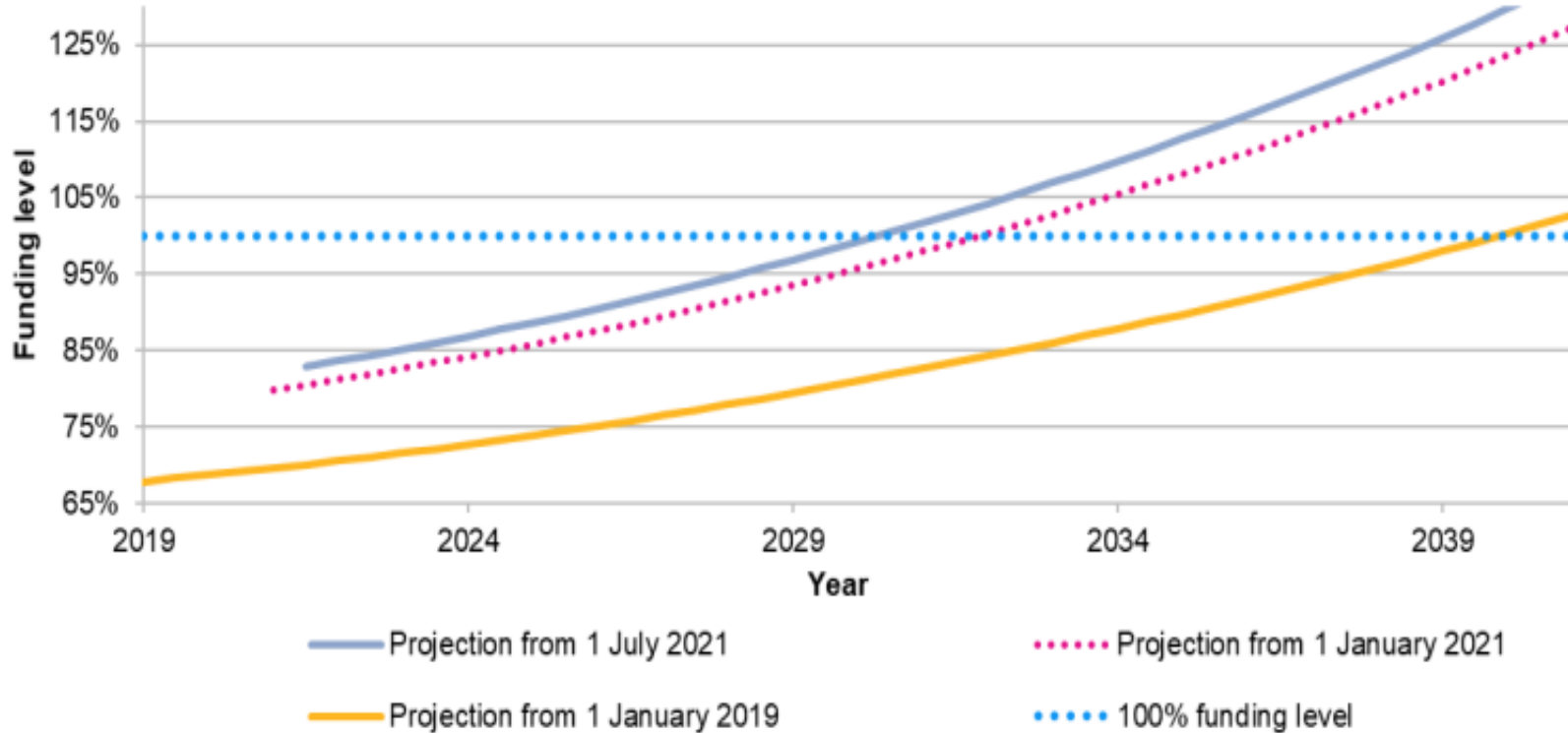
Actuarial review



- Full actuarial review carried out every 3 years (Triennial Actuarial Review)
- Actuarial update (Dashboard) prepared every 6 months
- Most recent triennial actuarial review carried out as at 1st January 2019
- Next triennial actuarial review will be carried out as at 1 January 2022
- Results are impacted by a number of assumptions including the discount rate, inflation, mortality, salary increases, early retirement, contract durations etc.
- The most important assumption is the discount rate (future return expectation)



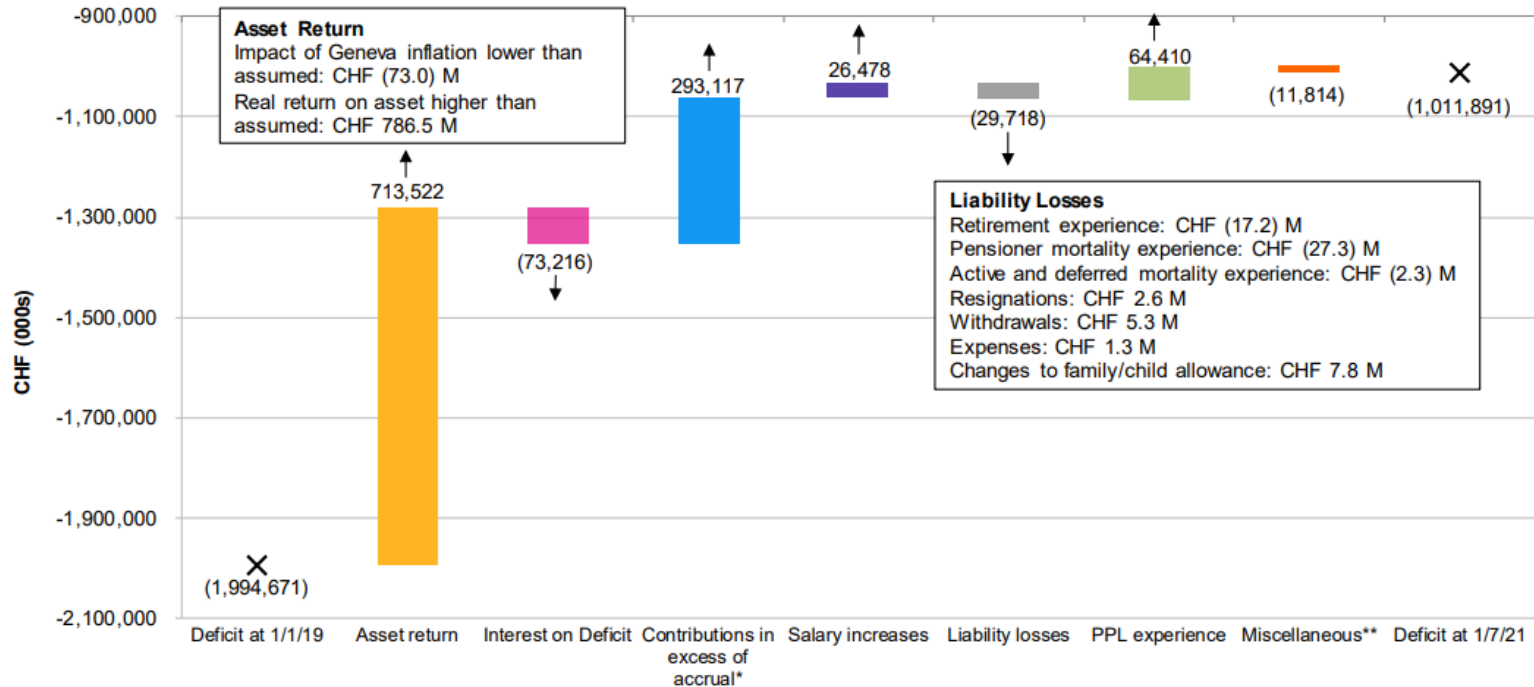
Actuarial review – projection of funding level



The assumptions used in this latest dashboard are from 1.1.2019
They pre-date the pandemic and are at the furthest point possible
from the triennial review period (every 3 years)



Analysis of Fund experience



The assumptions used in this latest dashboard are from 1.1.2019
They pre-date the pandemic and are at the furthest point possible
from the triennial review period (every 3 years)



VII. Investment Report

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Asset return objective



Our objective is to:

Meet or exceed the actuarial best estimate discount rate adjusted for Geneva inflation over the long term. Best estimate assumptions are used in the Fund's actuarial reviews.

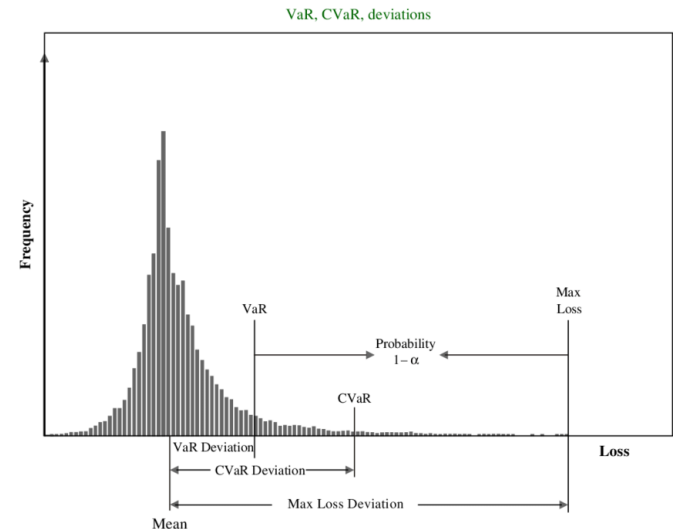
We achieve this by:

Investing across different asset classes: fixed income, equity, private equity, private debt, real assets, precious metals, hedge funds, and cash, under guidelines elaborated to address investment risks, reviewed by the Investment Committee and approved by the Governing Board.

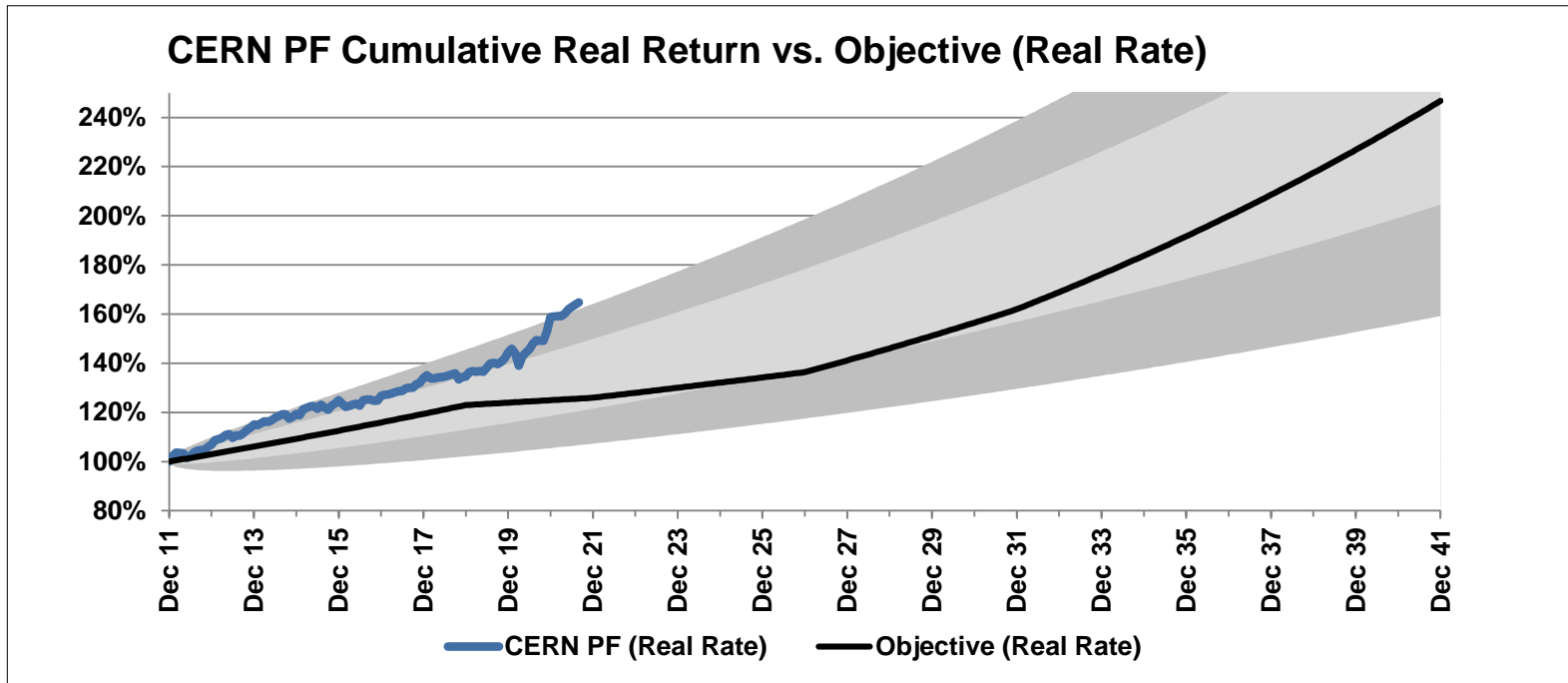


How do we measure and manage investment risk?

- Quantitative approach to measuring the risk of the portfolio and determining the risk tolerance.
- Risk is expressed in 5% CVaR – a measure that is appropriate for a Fund with a negative cash flow.
- Annual risk limit is currently set at -8%, this limit is reviewed annually by the Board.
- Determining the level of risk the Fund is exposed to at any given moment requires modelling of asset return distribution in different macroeconomic scenarios.



Asset return performance



The accumulated returns of the Fund since 31 December 2011 exceed the objective by 39.72 percentage points as at 31 August 2021.

The Fund's investments returns were 9.21% in 2020 and are 4.75% for 2021 to end of August.



Our Asset Allocation



- Asset allocation is determined several factors, including the risk tolerance (CVaR), liquidity requirements and available resources.

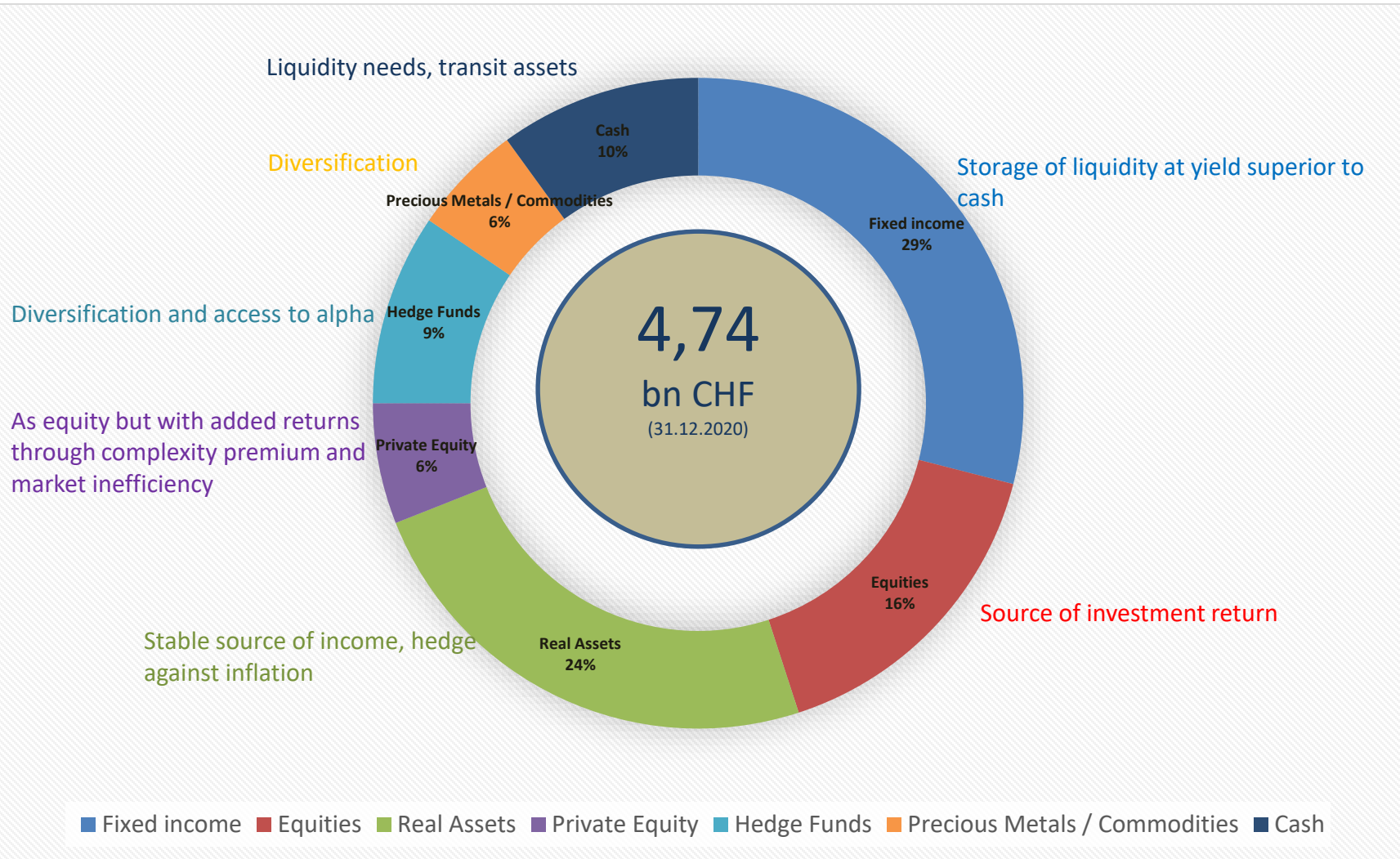
	SAA	Asset Allocation (%) as at 31 August 2021
Fixed Income	29.00%	24.64%
Government Bonds	10.00%	6.60%
Corporate Bonds	7.50%	7.41%
Index Linked Bonds	5.00%	3.66%
Emerging Market Debt	4.00%	3.62%
Private Debt	2.50%	1.11%
High Yield Bonds	0.00%	0.00%
Fixed Income Cash		2.23%
Equities	16.00%	19.34%
Cash Equities and Cash		24.64%
Equity Cash		-5.23%
Equity Hedges		-0.08%
Real Assets	24.00%	20.63%
Real Estate	19.00%	16.42%
Infrastructure	0.00%	2.63%
Cash Infrastructure		2.63%
Infrastructure Hedges		0.00%
Timber/Farmland	2.50%	1.58%
Private Equity	6.00%	9.25%
Hedge Funds	9.50%	8.55%
Precious Metals/Commodities	5.50%	2.67%
Cash Precious Metals/Commodities		2.30%
Precious Metals/Commodities Deriv.		0.37%
Cash (Inc. Overlay Cash)	10.00%	9.98%

Challenges:

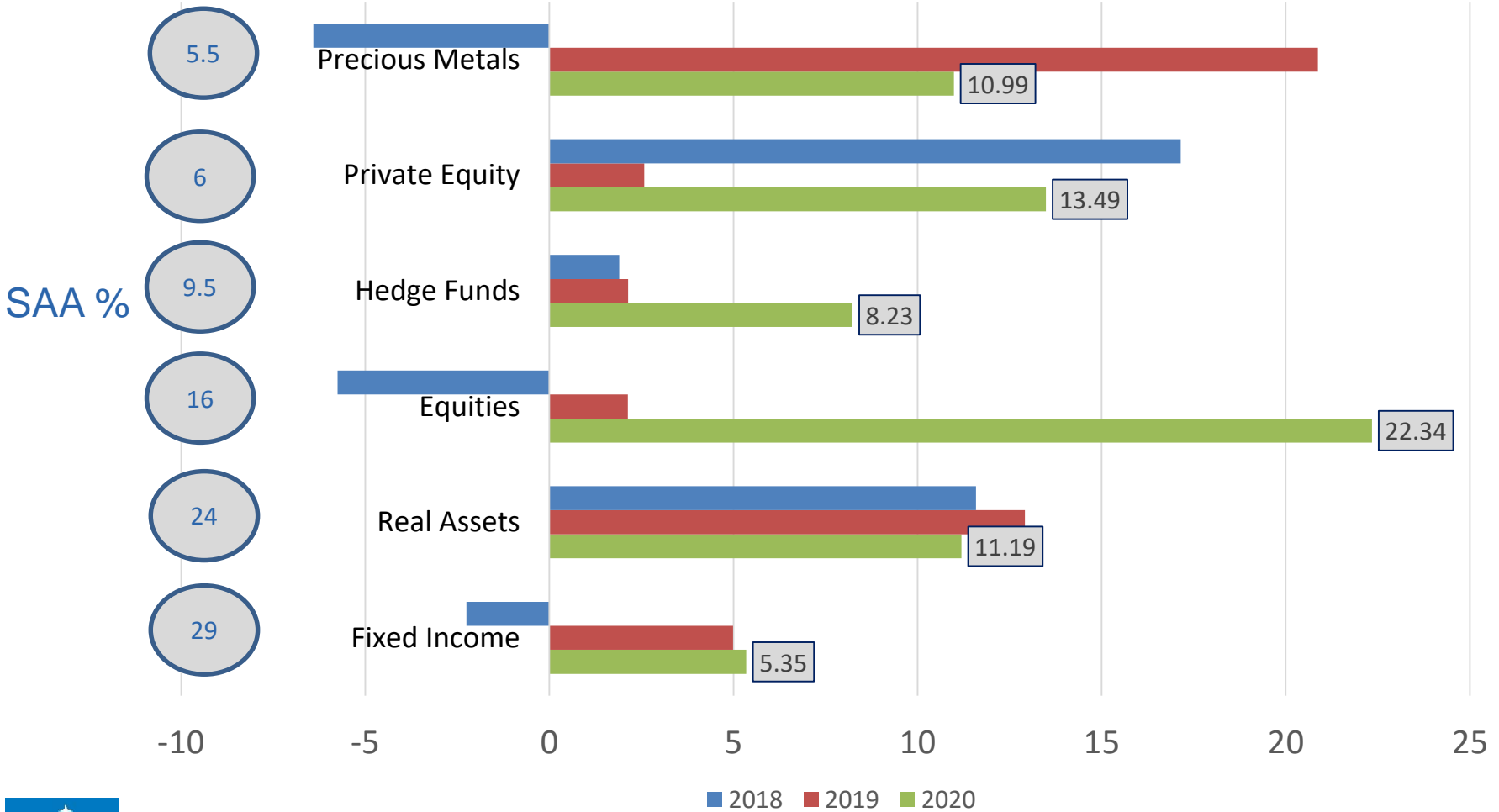
- Asset allocation alone cannot reconcile sometimes conflicting requirements:
 - Liquidity
 - Return expectations
 - Risk tolerance and risk tolerance horizon
 - Low/negative risk free rates
 - Illiquidity of alternative sources of return and absence of mark-to market for such investments.
- Good selection of individual investments is key.



Strategic Asset Allocation (including motive)



Returns by asset class



Our Real Estate assets held directly



Switzerland



Taverney



Prulay



Carl-Vogt

France



Opéra - Paris



Lauriston - Paris



ND des Victoires - Paris



Ferney-Voltaire



Malesherbes - Paris



Villiers - Paris

Germany



Mauerstrasse -
Berlin

United Kingdom



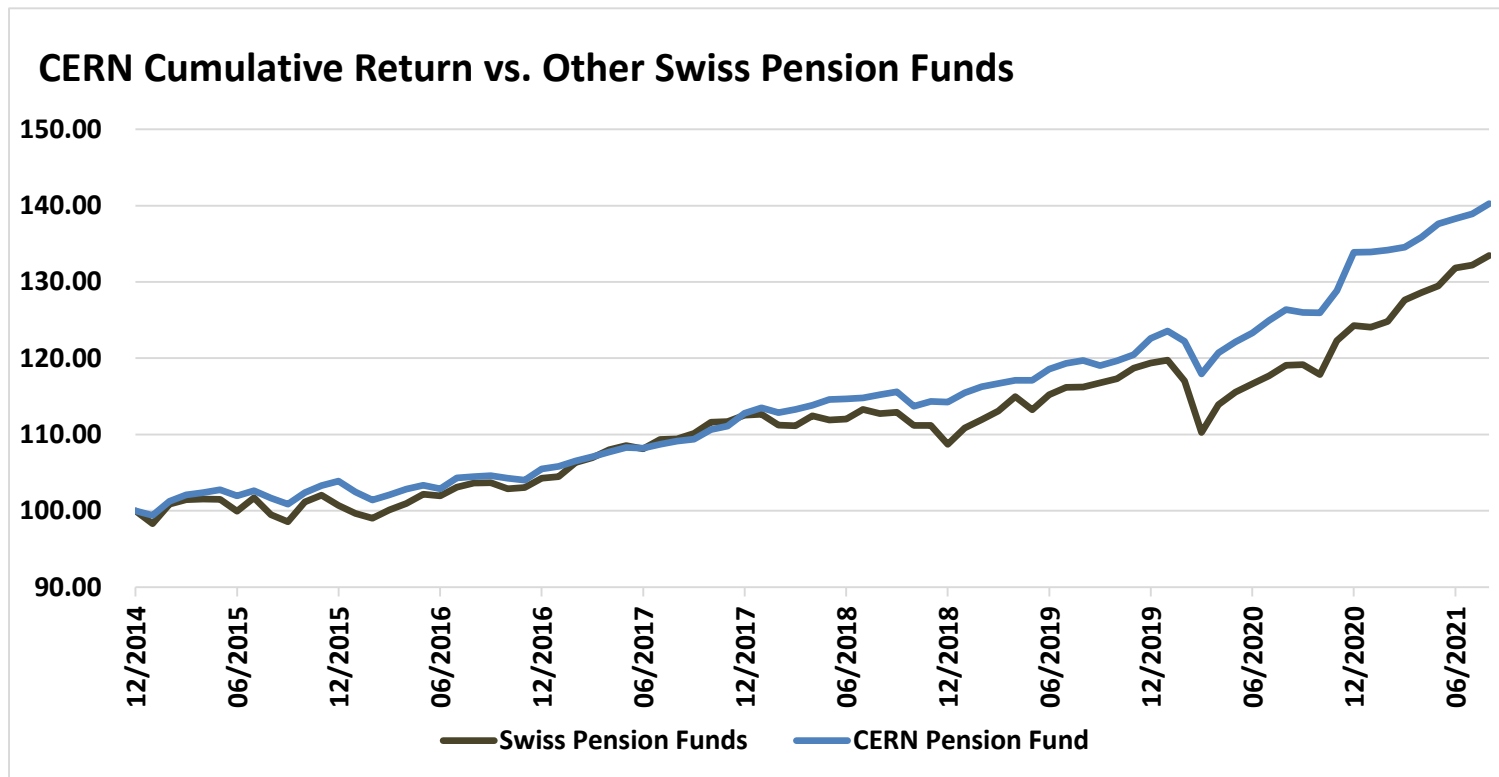
Dean Farrar - London



Queen Anne's Gate - London



Comparison against peer pension funds



5Y annualised return as at 31.08.2021

CERN	Swiss Pension Funds
6.07%	5.19%

Source: State Street GmbH, Northern Trust, Apex Fund Services, UBS



ESG – Environmental, Social and Governance



- These are the most common labels used for the factors investors consider in the framework of Responsible Investment
- The Fund has been active in recent years in the ESG domain and has used its influence to promote more responsible behaviour
- The Fund is currently preparing its first ESG policy which will be released early next year, leading to increased flow of information to fund members about our Responsible Investment activities



Investment Market Outlook

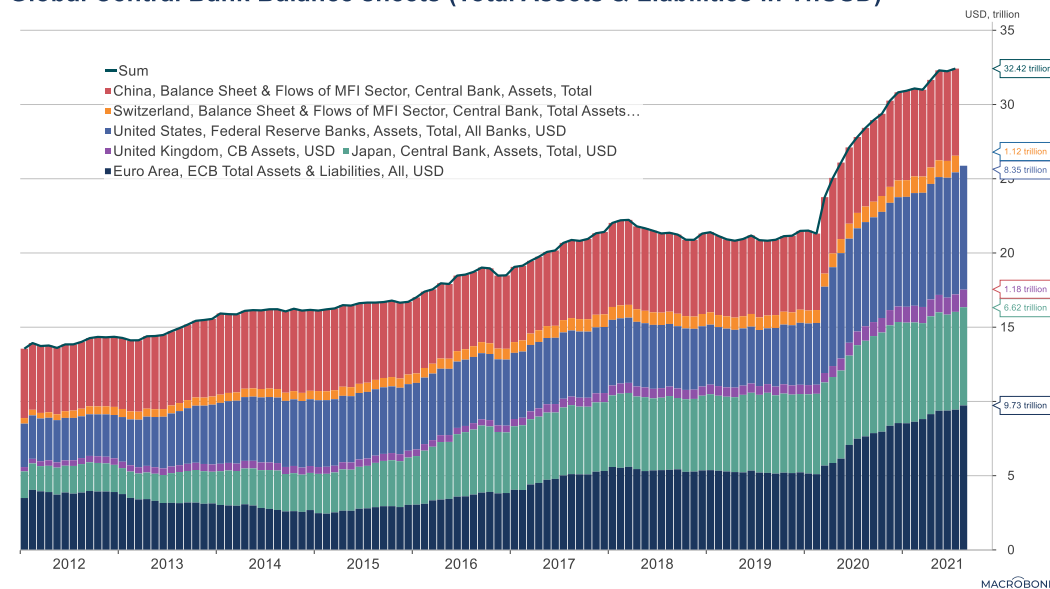


The response from Central Banks (injection of liquidity to markets) and Governments (furlough payments, tax relief) to the severe economic disruption of Covid-19 averted mass unemployment and a shock to the final markets.

In the short-term this has boosted asset prices but the long-term consequences are likely to mean limited prospects for significant real returns. Inflation remains a concern.

Our response is to continue to seek returns where we can, to diversify and to plan for moderately lower long term returns.

Global Central Bank Balance sheets (Total Assets & Liabilities in TnUSD)





VIII. Benefits Service

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How we served our members in 2020



169

Supporting families of members who passed away

3,200

Responding to email enquiries

356

Arranging transfers out to bank accounts or other pension schemes



We focus on what our members need from us



- Member and beneficiary feedback directly influences our priorities
- We engage with GAC and Staff Association constructively and often
- We have a bold development plan to make interactions with us even better
- More information on this will come later this year



What our members say



The pension fund presentation for new members is helpful and much appreciated.

The presentation on preparing for retirement provides practical information to help members

The benefits service provides important support to families when beneficiaries pass away

Thank you so much for the rapid reply and explanations. I can understand the logic of the calculations



What our members say



Thanks for meeting me on Zoom. The conversation was very helpful

Thanks for the exhaustive explanation. Our conversation really helped me.

The transfer option doesn't work for Spain. CERN provides Spanish community an option impossible to follow.

I would prefer to receive information by email. Is this possible?

Do I really need to provide a life certificate each year?

Why CHF and CH bank account when I don't live in Switzerland?





IX. Closing remarks

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Closing remarks



- The Pension Fund continues to perform well in difficult economic conditions with a funding level better than expected
- The outlook for short and medium term investment returns is impacted by the pandemic (and the Central Bank responses) which could impact our future funding level
- Thank you for attending our session today. We hope it was informative
- Please contact Benefits Services if you have any feedback or questions

