CERN
Introduction to the CERN pension fund and new rules from 1st January 2012

Conference of the Staff Associations of International Organizations
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(UNIDO Vienna)
Outline

• Pension schemes
• The CERN Pension fund
  ❑ Why a CERN PF?
  ❑ Structure and function
  ❑ Principle and rights
  ❑ Benefits
  ❑ Full funding
• CERN Pension fund numbers
Pension schemes (1)

Capitalized scheme

1st generation accumulated capital: income = contributions + capital gain: “capital investment management”

Budgetised scheme

Payments are made from the cash-flow: income = contributions: “contract between generations”
Pension schemes (2)

Defined contributions
The total amount of contributions paid into the scheme at the moment of retirement determines the benefits paid out. It acts like a savings account:
“Guarantee on contributions”
- *The pension level depends on performance of investment portfolio*
- *The staff member shoulders all the risk*

Defined benefits
The level of benefits is defined upfront and the contributions are calculated to insure that the Fund will be able to pay them:
“Guarantee on pensions”
- *Risk shared between staff member and sponsor*
CERN Pension Fund

CERN PF is based on a defined-benefit scheme

- Level of pension depends on member’s:
  - last salary/last 3 years positions
  - years of membership
  - age (reduction factors below age of retirement)

CERN PF is a capitalized scheme

- Funding are contributions & return on investments
- No legal obligation to reach full funding, but a Council decision following new governance in 2007: “the fund must be fully funded”
Why a CERN Pension Fund?

CERN is an International Organisation (Nation + employer)

- Must be independent of Member states
- Must guarantee equal treatment between all staff members, independently of origin. This applies in particular to the pension rights
- Staff members are no longer part of a national social insurance scheme
Structure and Function

- Status (art. I 2.01)
  - CERN PF is integral part of CERN
  - Under supreme authority of CERN Council
  - Administration + management independent of CERN/ESO

- Assets (art. I 2.02)
  - Deposited and held in fund separately from CERN/ESO
  - To be used exclusively for paying benefits to PF members

- Bodies (art. I 2.03)
  - Governing Board
  - Investment Committee/Actuarial Technical Committee
  - Administrator (also called CEO)
  - Consulting actuaries, medical practitioners, auditors
Governing Board

- Functions (art. I 2.04)
  - Apply policy of CERN Council
  - Supervise and monitor management of Fund
  - Define investment policy of assets
  - Submit proposals/opinions to CC and FC concerning PF

- Composition (art. I 2.05, since 1 Nov. 2007) **Mandate ≤ 6 yrs**
  - Two nominated by CERN Council
  - One nominated by ESO Council
  - One nominated by DG of CERN
  - Two nominated by CERN Staff Association
  - One nominated by ESO Staff Association
  - One nominated by CERN/ESO pensioners
  - Two professional experts nominated by CERN Council

Employer reps.

Employee reps.
Resources and Guarantee

- Resources of the Fund (art. I 3.01)
  - Contributions Organizations (CERN+ESO)
  - Contribution members (CERN + ESO)
  - Income investment assets
  - Gifts + legacies

- Guarantee of benefits (art. I 3.03)
  - Respective Organizations as long as they exist
  - Dissolution of CERN:
    - Creation of Foundation under Swiss law to guarantee the rights acquired at date of dissolution
    - Implement steps for integration into national social security schemes of MS which guarantee equivalence
Founding principles

- Solidarity
  - Between couples and single people
  - Between people with children and without
  - Between high and low earners (C factor = 1.3416…1.2059)
  - Between all members and beneficiaries

- Mutual insurance
  - Risks shared by all members of the scheme to ensure that everybody is entitled to the right benefits

- Equality of treatment
  - Men and women have equal rights (surviving spouse pension, retirement age)
CERN pensioners rights

- Defined benefit scheme
- Acquired rights (art. III 1.02) (for members < 01.01.12)
  - Right of benefits applicable to those to which staff was subject before introduction of new rules, or, to new rules if they are more favourable
- Protection beneficiaries’ purchasing power (art. II 1.15)
  - Until 2005: ad hoc adjustments for inflation (full or partial) granted to retirees (−8.1% between 1984 and 2005)
  - Since 2006: Geneva consumer price index multiplied by factor taking into account funding ratio of the Fund
    → method defined in Annex C (maximum individual loss 8%)
CERN Pension Fund

CERN PF is based on a defined-benefit scheme

- Level of pension depends on member’s:
  - last salary/(last 3 years positions)
  - years of membership
  - age (reduction factors below age of retirement)

CERN PF is a capitalized scheme

- Funding are contributions & return on investments
- No legal obligation to reach full funding, but a Council decision following new governance in 2007: “the fund must be fully funded”
Benefits (1)

- Retirement pension (art. II 2.01, 2.02)
  2% *(1.85% for new staff after 01-01-2012)* per year, max. 70% of last reference salary *(last 3 years position)*, times C factor (art. II 1.03, appendix A)

- Anticipated retirement pension (art. II 2.04): age ≥ 50
  → reduction factor: < 1 July 1987, ≥ 1 July 1987 (art. II 2.05)
Benefits (2)

- Transfer value (art. II 1.13): allows transfer of (part of) accumulated sums paid into CERN PF to another scheme (obligatory for < 5yrs)
- Deferred pension (art. II 2.02)
- Incapacity and unsuitability pension (art. II 3 and 4)
- Pension for surviving spouse (art. II 5):
  - 55% of full pension (less if large age difference, etc.)
- Orphans’ pension (art. II 6)
- Allowances: family, dependent child (art. II 7.01), fixed sum for surviving spouse (Annex B)

Possibility to stay in the HIS and LTC
**Full Funding**

Definition: funding ratio $\geq 100%$

- at any time
- to be able to cover all liabilities (5.8 BCHF)

Immediate full funding achieved only by a rapid injection of capital into the Fund: +2.0 BCHF

- CERN PF total assets: 3.8 BCHF

**Actual funding** : $\sim 70 \%$ ; **Assets** : 3.8 BCHF
How to achieve Full Funding?

Could be done by:

- reducing PF outflow with changes
  - in benefits of beneficiaries
  - in benefits of current Fund members
  - affecting future Fund members (present + new scheme)

- increasing PF intake with higher
  - financial return on assets
  - contributions
**PF liability** (31.12.2012)

Liabilities: 5’820
Assets: 3’822
Funding Ration: 65.9%

Membership: 6’943
Actives: 3’450
Beneficiaries: 3’493
PF liabilities

- Important increase in liabilities towards beneficiaries over the last 10 years
- Slight decrease in the total liabilities in 2010
- Strong decrease in assets for the year 2008, stabilization in 2009 and 2010
Historical Membership & Contribution Rate

- Contributions unchanged at 21% for 26 years
- During this period, numerous improvements granted
- Contributions increased after retirees > 1000 and active population matured

2012
- Staff: (New) 11.3% (12.6%)
- Org: 22.7% (19.0%)
- Total: 34.0% (31.6%)
Fully funded CERN pension fund

Staff contribution:
- +44M CHF/y
- -300M CHF/y

CERN contribution:
- +88M CHF/y

Paid pensions:
- +160M CHF/y

Return on investment:
- 100%
- 75%
- 50%
- 25%
- 0%

Pension Fund Assets:
- 5’800M CHF

Pension Fund Assets:
- +44M CHF/y
- +88M CHF/y
- +160M CHF/y

+44M CHF/y
+88M CHF/y
+160M CHF/y

+88M CHF/y
+160M CHF/y

+88M CHF/y
+160M CHF/y

100%
75%
50%
25%
0%

ON
ON
ON
ON
ON
CERN pension fund 31.12.12

Staff contribution
+44M CHF/y

CERN contribution
+60M CHF/y
+88M CHF/y

Special contribution
+114M CHF/y

Paid pensions
-300M CHF/y

Pension Fund Assets
3’800M CHF

-46M CHF

Return on investment
100% ON
75% ON
50% ON
25% ON
0% ON

CERN pension fund
CERN Staff Association
**Fund & capital performance**

- **Funding Ratio**
  - Income/liabilities at any time: FR=100%=capital constant
  - Less than 100%: eat up capital “negative cash flow”
  - Between 100% and 110%: permits stable management
  - Above 110%: can increase pension indexation and/or decrease contributions
- **Need to calculate obligations**
  - Hypothesis on mortality, capital performance, simulations: actuarial studies
## PF of the IO world

<table>
<thead>
<tr>
<th>Org.</th>
<th>When</th>
<th>Type of pension plan</th>
<th>Contributions</th>
<th>Full pension</th>
<th>Years to full pension</th>
<th>Age limit</th>
<th>Annual adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPO</td>
<td>Before Jan.09</td>
<td>DB</td>
<td>share = 1/3 + 2/3 27.3% = 9.1% + 18.2%</td>
<td>70% of Last salary</td>
<td>35yr</td>
<td>60yr</td>
<td>As salaries</td>
</tr>
<tr>
<td></td>
<td>From Jan.09</td>
<td>Mixed DB, DC</td>
<td>share = 1/3 + 2/3 21.0% = 7.0% + 14.0%</td>
<td>70% of Last salary</td>
<td>35yr</td>
<td>60yr</td>
<td>As salaries</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6.3% = 2.1% + 4.2%</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>EIB</td>
<td>Before Jan.09</td>
<td>DB</td>
<td>share = 1/3 + 2/3 30.0% = 10.0% + 20.0%</td>
<td>70% of Last salary</td>
<td>30yr</td>
<td>60yr</td>
<td>As COL</td>
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<td></td>
<td>From Jan.09</td>
<td>DB</td>
<td>share = 1/3 + 2/3 30.0% = 10.0% + 20.0%</td>
<td>70% of Average salaries of last 10 years</td>
<td>35yr</td>
<td>65yr</td>
<td>As COL</td>
</tr>
<tr>
<td>WTO</td>
<td>Before Jan.10</td>
<td>DB</td>
<td>share = 1/3 + 2/3 22.5% = 7.5% + 15.0%</td>
<td>70% of Last salary</td>
<td>35yr</td>
<td>62yr</td>
<td>As COL</td>
</tr>
<tr>
<td></td>
<td>From Jan.10</td>
<td>DB</td>
<td>share = 1/3 + 2/3 23.7% = 7.9% + 15.8%</td>
<td>70% of Last salary</td>
<td>35yr</td>
<td>65yr</td>
<td>As COL</td>
</tr>
<tr>
<td>ESA</td>
<td>Before July.10</td>
<td>DB</td>
<td>share = 1/3 + 2/3 25.1% = 8.4% + 16.7%</td>
<td>70% of Last salary</td>
<td>35yr</td>
<td>60yr</td>
<td>As salaries</td>
</tr>
<tr>
<td></td>
<td>From July.10</td>
<td>DB</td>
<td>share = 40% + 60% 23.3% = 9.3% + 14.0%</td>
<td>70% of Last salary</td>
<td>35yr</td>
<td>63yr</td>
<td>As COL</td>
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<tr>
<td>EUMETSAT</td>
<td>Before Jan.11</td>
<td>DB</td>
<td>share = 1/3 + 2/3 27.0% = 9.0% + 18.0%</td>
<td>70% of Last salary</td>
<td>35yr</td>
<td>60yr</td>
<td>As salaries</td>
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<td>63yr</td>
<td>As COL</td>
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<tr>
<td>CERN / ESO</td>
<td>Before Jan.12</td>
<td>DB</td>
<td>share = 1/3 + 2/3 34.0% = 11.3% + 22.7%</td>
<td>70% of Average positions of last 3 years</td>
<td>37yr10m</td>
<td>67yr</td>
<td>-8% then as COL</td>
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<tr>
<td></td>
<td>From Jan.12</td>
<td>DB</td>
<td>share = 40% + 60% 31.6% = 12.6% + 19%</td>
<td>70% of Average positions of last 3 years</td>
<td>37yr10m</td>
<td>67yr</td>
<td>-8% then as COL</td>
</tr>
</tbody>
</table>
Thank you for your attention
I am available for any questions or further information

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