

CERN/FC/5553
CERN/2978
Original: anglais
21 juin 2011

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

Suite à donner

Procédure de vote

PRENDRE NOTE	COMITÉ DES FINANCES 336 ^e réunion 22 juin 2011	-
PRENDRE NOTE	CONSEIL 159 ^e session 23 et 24 juin 2011	-

CAISSE DE PENSIONS

RAPPORT DU CONSEIL D'ADMINISTRATION DE LA CAISSE DE PENSIONS
CONCERNANT L'ANALYSE PAR L'ACTUAIRE DU TRAIN DE MESURES
FINALISÉ

RAPPORT DU CONSEIL D'ADMINISTRATION DE LA CAISSE DE PENSIONS CONCERNANT L'ANALYSE PAR L'ACTUAIRE DU TRAIN DE MESURES FINALISÉ

Le Conseil d'administration de la Caisse de pensions (CACP) a reçu le rapport de Pittet Associés (CERN/PFGB/ATC/4.2/Rév.3) concernant l'impact actuariel du train de mesures visant à rétablir la pleine capitalisation de la Caisse de pensions, et souhaite formuler les remarques suivantes :

- i) le CACP note que le modèle de référence utilisé dans le rapport prend en compte le coefficient de sous-indexation de 81,2 % adopté à la suite de l'étude actuarielle de la Caisse de 2007, et appliqué durant la période 2008-2010. Cela n'a pas d'incidence sur les projections lorsque l'on tient compte de l'ensemble des nouvelles mesures, mais l'impact de la sous-indexation en soi n'est pas fidèlement reflété : les diverses mesures de sous-indexation automatiques, c'est-à-dire celles déjà en vigueur et celles prévues dans le premier ensemble du train de mesures, ont un effet cumulé d'environ 20 % sur le taux de couverture après 30 ans. Cela aurait été clairement montré si le rapport s'était fondé sur un modèle de référence sans coefficient de sous-indexation ;
- ii) le CACP note par ailleurs que le taux de cotisation de 28,33 % proposé pour les nouveaux membres se révèle tout juste suffisant pour qu'un taux de couverture de 100 % soit atteint après 30 ans, si l'on tient compte du nouveau plan concernant les membres actifs et les futurs bénéficiaires et si l'on applique les hypothèses du Groupe de travail n° 2.
- iii) le CACP estime que, par prudence, il convient d'examiner de façon plus approfondie le taux de cotisation global (Organisation + personnel) pour les futurs recrutés en tenant compte de la mortalité ;
- iv) le CACP a déjà chargé le Comité actuariel et technique d'étudier, puis de proposer, de nouvelles tables de mortalité tenant compte le plus fidèlement possible de la tendance observée parmi la population des pensionnés du CERN et de l'ESO. L'utilisation de tables de mortalité actualisées devant vraisemblablement avoir un fort impact sur les simulations, le Conseil devrait se préparer à revoir dans un avenir proche le taux de cotisation total requis pour les futurs recrutés.



PITTET ASSOCIATES

Pension Fund Advisors

Impact of the package of measures towards restoring full funding

**THE PENSION FUND OF THE EUROPEAN ORGANISATION
FOR NUCLEAR RESEARCH**

May 2011

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1. GENERAL CONSIDERATIONS

1.1 Mandate

The Pension Fund of the European Organisation for Nuclear Research (hereafter the CERN PF or the Fund) provided us with a mandate to determine the impact of the application of the entire package of recovery measures towards restoring full funding of the Fund. This impact is measured through projective models, along with a comparison between the trend in the funding ratio before and after applying the proposed package. In particular, the projective models must determine whether or not a 100% funding is reached within 30 years, after having applied the different measures of the package.

The present report contains the main characteristics of the package, especially the different proposed measures, as well as the main features of the projective models used.

1.2 Documentation

We have based our projection on the following statements and documentation:

- Rules and regulations of the Fund from 01.01.1986, last updated on 01.01.2011;
- Actuarial report as at 1 January 2010, final version of 15 October 2010;
- List of active members and pension beneficiaries as at 1 January 2011, received by email on 25 January 2011;
- Net capital base as at 31 December 2010, received by email on 25 March 2011;
- Consulting actuary report as at 31 December 2010, final version of 27 April 2011;
- Individual data of cumulative loss of purchasing power for current beneficiaries, received by email on 28 April 2011;
- New proposition for the DB portion of the new pension plan of the Fund as of 1 January 2012, received by email on 26 April 2011;

- New proposition for the under-indexation mechanism as of 1 January 2012, received by email on 26 April 2011.

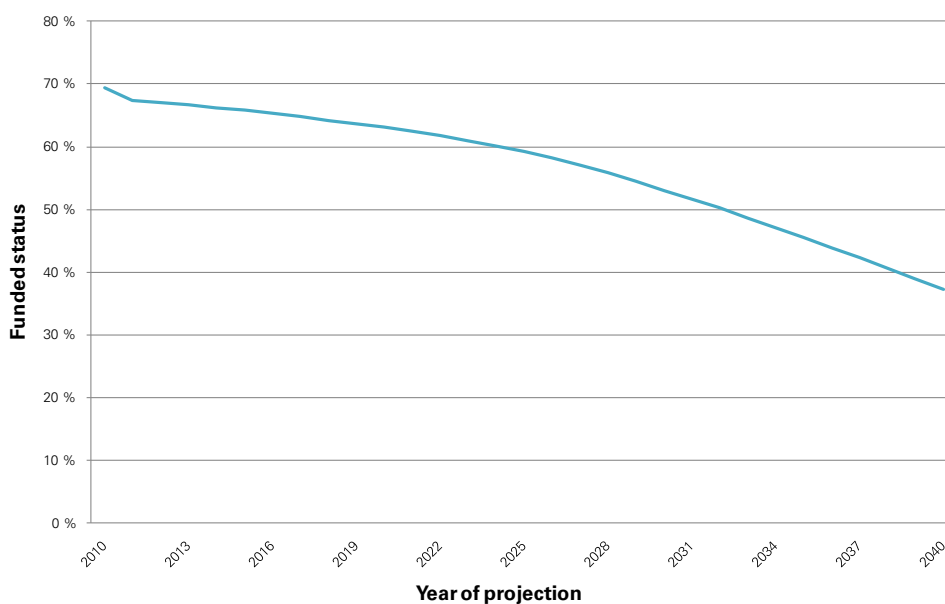
2. REFERENCE MODEL

2.1 Introductory remarks

The reference model corresponds to the basic projective model before having applied any measure of the recovery package. This model is an updated version of the reference model according to WG2 assumptions, which corresponds to the MM03a model referred to in our last actuarial report. The update process contains membership and beneficiaries updates as well as an application of the actual total assets level. It uses the 2007 under-indexation mechanism, which applied an adjustment factor of pensions for inflation of 81.2%. This mechanism was not included in the MM03a model of our last actuarial report, since no adjustment factor regarding the pensions paid had been applied. No further adjustments have been made according to the 2011 data (salary merit scale, retirement probabilities, turnover).

2.2 Projected funding ratio

The graph below shows the projected trend of the funding ratio, as obtained by applying the contribution rate (30.88%) and the rate of return (5.0%) of the model concerned. The initial funding ratio as at 1 January 2011 corresponds to the IAS 26 "WG2 assumptions" funding ratio as at 31 December 2010, which is equal to 69.4% as presented in our consulting actuary report as at 31 December 2010.



This graph confirms the negative projected trend observed in our actuarial report as at 1 January 2010. The table below shows the numerical values of the projected funding ratio and the level of the deficit at the end of the year:

Projection Year t	Funding ratio as at 31/12/t	Deficit/Surplus as at 31/12/t in MCHF	Projection Year t	Funding ratio as at 31/12/t	Deficit/Surplus as at 31/12/t in MCHF	Projection Year t	Funding ratio as at 31/12/t	Deficit/Surplus as at 31/12/t in MCHF
2011	67.33%	-1'870.4	2021	62.44%	-2'255.4	2031	51.68%	-3'264.6
2012	67.02%	-1'895.8	2022	61.73%	-2'315.0	2032	50.20%	-3'413.9
2013	66.64%	-1'925.7	2023	61.00%	-2'376.3	2033	48.61%	-3'575.9
2014	66.23%	-1'958.7	2024	60.15%	-2'451.0	2034	47.10%	-3'725.6
2015	65.79%	-1'992.5	2025	59.23%	-2'533.9	2035	45.46%	-3'893.2
2016	65.29%	-2'030.2	2026	58.15%	-2'633.6	2036	43.91%	-4'047.4
2017	64.77%	-2'070.2	2027	56.97%	-2'745.1	2037	42.26%	-4'216.8
2018	64.21%	-2'114.2	2028	55.85%	-2'852.3	2038	40.59%	-4'389.8
2019	63.64%	-2'159.6	2029	54.44%	-2'991.8	2039	38.88%	-4'568.7
2020	63.08%	-2'204.8	2030	53.05%	-3'130.0	2040	37.18%	-4'748.7

At the end of the year 2040, after 30 years of projection, the total deficit amounts to CHF 4.75 billion. This represents an underfunding of 62.8% of total liabilities. These results are consistent with those of the MM03a reference model, which showed a projected funding ratio of 30.3% after 30 years.

3. PACKAGE OF RECOVERY MEASURES

The different measures that are included in the recovery package are as follow:

3.1 Change in contributions

The total contribution rate for current active members of the Fund increases by 3.12 points, from 30.88% to 34.0%, maintaining a similar proportion between the Organizations and the active members (2/3 – 1/3).

Concerning the contribution rate for future active members, see paragraph 3.2 below.

CERN will pay a special contribution of 60 MCHF per annum. ESO has to pay a similar special contribution as well, which has been fixed at 1.3 MCHF in our model. For the purpose of this projection, these special contributions are paid over the entire period of projection (30 years), even after 100% funding is reached.

3.2 Changes concerning new members

According to the 26.04.2011 proposition, a newly defined benefits plan, the main characteristics of which are summarized in the following table, will be introduced for future members as of 1 January 2012, (the characteristics of the current pension plan are mentioned for comparison):

Parameter	Today	As of 1/1/2012
Retirement age	65 years	67 years
Contribution to	Reference salary	Reference salary
Contribution rate	34%	28.33%
Contribution sharing	1/3 to 2/3	40%-60%
Contribution employee	11.33%	11.33%
Contribution CERN	22.67%	17%
Accrual rate	2.0%, i.e. 35 years	1.85%, i.e. 37 years 10 months
Maximum pension	70%	70%
Pensionable salary	Last salary	Average of last 3 years salary position

These measures have been modelled in our projection for new entrants as of 1 January 2012, the other members remaining in the current pension plan.

3.3 Changes concerning beneficiaries

For current beneficiaries, the under-indexation of 81.2% is replaced by an automatically applied non-indexation, until the individual cumulative loss of purchasing power of 8% is reached.

For future beneficiaries (here, as of 01/01/2012), the current extraordinary measure of an automatically applied non-indexation is phased out in steps of 0.1% every month from January 2013 until August 2019. The current measure will be gradually exchanged with a potential under-indexation based on the funding ratio, according to the following formula:

Annual indexation of pensions = Funding Ratio x Geneva Cost-of-living index

with a maximum of 2% (long-term expected inflation) for the reference index.

In both mechanisms, the cumulative limit of the purchasing power loss is 8%, as in the current recovery measures.

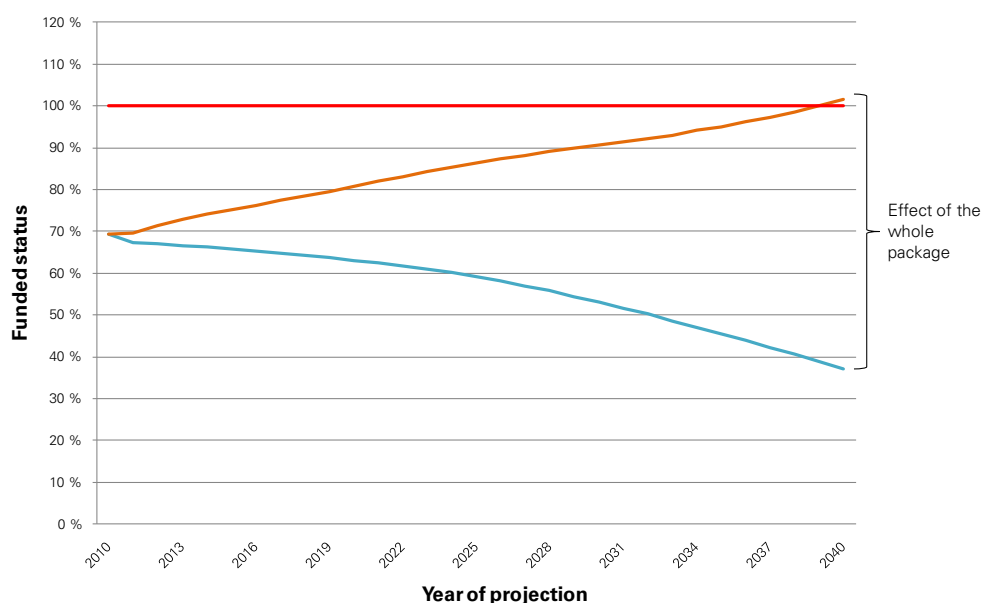
For the current beneficiaries, the simulation continues to follow the current automatic non-indexation mechanism on the whole period of projection.

In relation with this new mechanism, we have observed that the indexation of fixed sums in annex B of the rules could raise a problem: if these sums are affected by under-indexation, as written in article II 1.15 of the rules, on what basis would the amount of the effective indexation be determined? In our model, we have considered an automatic non-indexation for fixed sums used in new pensions, and afterwards an application of the under-indexation mechanism of fixed sums for currently paid pensions.

4. IMPACT OF RECOVERY MEASURES

4.1 Impact of the package as a whole

The graph below presents the projective trend of the funding ratio of the Fund after having applied the total package of recovery measures as explained in chapter 3. The projected funding ratio of the base model described in chapter 2 is also presented for comparison:



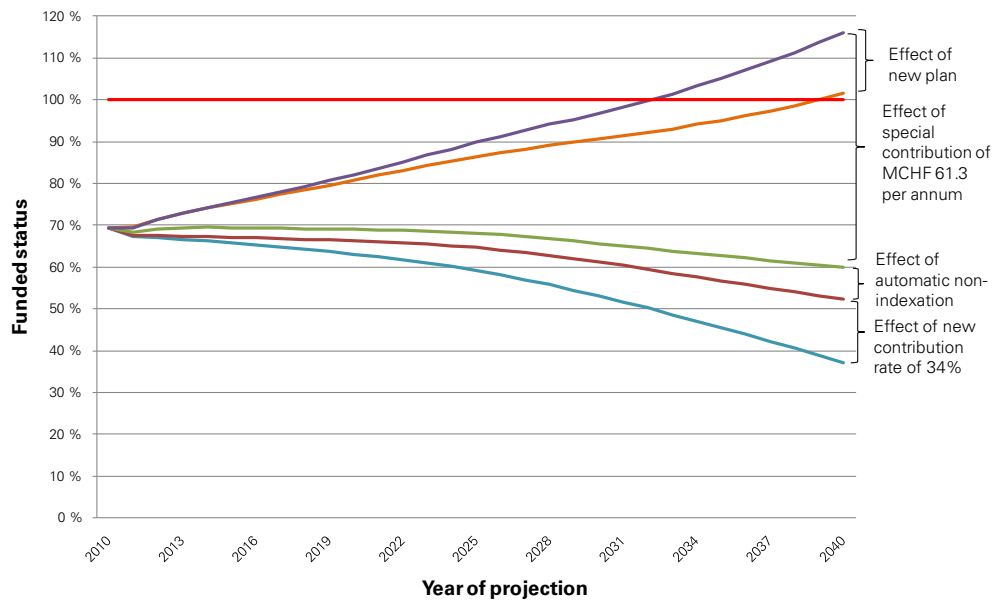
The table below shows the numerical values of the projected funding ratio and the level of the deficit/surplus at the end of the year after having applied the recovery measures:

Projection Year t	Funding ratio as at 31/12/t	Deficit/Surplus as at 31/12/t in MCHF	Projection Year t	Funding ratio as at 31/12/t	Deficit/Surplus as at 31/12/t in MCHF	Projection Year t	Funding ratio as at 31/12/t	Deficit/Surplus as at 31/12/t in MCHF
2011	69.51%	-1'723.7	2021	81.95%	-1'066.1	2031	91.41%	-565.7
2012	71.45%	-1'602.7	2022	83.09%	-1'006.5	2032	92.21%	-519.1
2013	72.86%	-1'525.1	2023	84.26%	-944.2	2033	93.05%	-469.1
2014	74.04%	-1'466.9	2024	85.33%	-887.8	2034	94.07%	-403.9
2015	75.16%	-1'411.8	2025	86.39%	-831.7	2035	95.01%	-343.5
2016	76.23%	-1'358.4	2026	87.29%	-785.9	2036	96.24%	-261.0
2017	77.34%	-1'303.1	2027	88.14%	-742.6	2037	97.35%	-185.1
2018	78.46%	-1'247.4	2028	89.12%	-688.9	2038	98.60%	-98.8
2019	79.59%	-1'190.1	2029	89.76%	-658.0	2039	99.98%	-1.3
2020	80.77%	-1'128.2	2030	90.54%	-616.2	2040	101.48%	106.0

As one can see in these projective results, the entire recovery package enables the Fund to reach 100% funding after 30 years. These results show that the introduction of the proposed recovery package leads to a positive trend for the projected funding ratio, with a strong increase in the projected funding ratio by ca. 64 points after 30 years.

4.2 Cumulative impact of the different measures

The graph below shows the different projected trends of the funding ratio, after having applied the different recovery measures included in the recovery package. The impacts of the different items are cumulative. The initial funding ratio as at 1 January 2011 is equal to the IAS 26 “WG2 assumptions” funding ratio as at 31 December 2010, and amounts to 69.4% as presented in our consulting actuary report as at 31 December 2010.



The graphical results show that the introduction of the measures for current members (new contribution rate, automatic non-indexation and special contribution) leads to a funding ratio of 116.1% after 30 years. The impact of introducing the proposed new plan (towards new active members and future beneficiaries as of 1 January 2012) is negative after 30 years, since one can observe a decrease in the projected funding ratio by ca. 15 points in terms of funding ratio. This decrease is due, on the one hand, to the new contribution rate of 28.33% for new members, which progressively replaces the “old” contribution rate of 34% in the projection, and, on the other hand, to the new under-indexation mechanism, which foresees a potential under-indexation instead of an automatic non-indexation. But even with this negative impact, the trend in the funding ratio remains positive and 100% funding is reached after 30 years.

5. CONCLUDING REMARKS

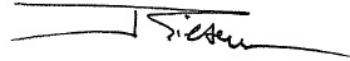
The developments and analyses of the previous chapter lead us to the following conclusions:

- The introduction of the proposed recovery package enables the Fund to reach a 100% funding within 30 years, along with a projected funding ratio of 101.5% after 30 years, based on the WG2 reference model. Longevity losses were reported in the past. These are taken into account in the balance sheet as at 31 December 2010, at the beginning of the projection period. Future longevity losses cannot be excluded. These are however not taken into account in our projections. EVK 2000 are used as a reference mortality table. Additionally, the method of Nolfi is used to reduce the EVK 2000 mortality rates in the simulation of the number of death cases during the projection but not to calculate the liabilities. The future increase in life expectancy is taken into account with the accrual of a longevity provision corresponding to 0.5% of the liabilities of the beneficiaries for each year since 2000. The use of an updated longevity table will be addressed later this year.
- The proposed 28.33% contribution rate for new members is just sufficient to reach a 100% funding after 30 years, considering an application of the new plan towards active members and future beneficiaries and using the WG2 assumptions. This rate is not the actuarial necessary contribution rate needed to finance the benefits of the new members in a fund that would have a funding ratio of 100%. It includes a part of recovery contribution that is needed to reach a funding ratio of 100%. This part will evolve over time depending on the effective funding ratio, the future average age of the active population post-2012, and the increase in life expectancy of this population, which will both impact the actuarial necessary contribution rate.

We make the usual reservations regarding information or facts that would not have been brought to our attention, and which are of such a nature that they would alter our conclusions.



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Geneva, 20 May 2011.

APPENDICES A

- A1 List of abbreviations
- A2 Result of the projections of the reference model
- A3 Results of the projections after application of the recovery package

List of abbreviations used in Appendices A2 and A3

CPA(t)	Actuarial liabilities towards active members at the end of year t.
RMP(t)	Mathematical reserves for pensions in payment and deferred pensions at the end of year t.
PL(t)	Longevity provision for increased life expectancy at the end of year t.
ENG(t)	Actuarial liabilities at the end of year t [CPA(t) + RMP(t) + PL(t)].
VE(t)	Variations in the actuarial liabilities at the end of year t.
TR(t)	Sum of reference salaries in year t.
FS(t)	Overall net provident assets at the end of year t.
DC(t)	Funded status at the end of year t [FS(t) / ENG(t)].
PV(t)	Pensions paid in year t.
VV(t)	Transfer values paid in year t.
FR(t)	Operating costs in year t.
DEP(t)	Total expenditure in year t.
COT(t)	Contributions received in year t.
Special cont	Total special contributions received in year t.
REV(t)	Return achieved in year t on the overall assets at the end of year t-1 and on the average cash flow (*) of year t.
REC(t)	Total income in year t.
EXC(t)	Difference between income and expenditure in year t (**) [EXC(t) = REC(t) – DEP(t)].
(*)	COT(t) – DEP(t).
(**)	Corresponds to the increase in overall assets in year t.

CPCERN

Appendix A2

With an under-indexation of 81.2%

Model MM03 a 01.01.2011

i = 4.50 % Technical interest rate in %
i' = 5.00 % Actual rate of return in %

FS(0) = 3857.6 millions of CHF

in millions of CHF

t	Year	CPA(t)	RMP(t)	PL(t)	ENG(t)	VE(t)	TR(t)	FS(t)	DC(t)	PV(t)	VV(t)	FR(t) 0.80%	DEP(t)	COT(t) 30.88%	Special Cont 0	REV(t)	REC(t)	EXC(t)
0	2010	1'583.8	3'784.2	189.2	5'557.3			3'857.6	69.4%									
1	2011	1'434.7	4'067.4	223.7	5'725.8	168.47	431.2	3'855.3	67.3%	298.0	22.1	3.4	323.6	133.1	0.0	188.2	321.3	- 2.3
2	2012	1'442.4	4'062.2	243.7	5'748.4	22.61	443.4	3'852.6	67.0%	307.7	16.4	3.5	327.7	136.9	0.0	188.1	325.0	- 2.7
3	2013	1'454.2	4'055.5	263.6	5'773.3	24.92	451.0	3'847.6	66.6%	313.8	14.7	3.6	332.1	139.3	0.0	187.9	327.1	- 5.0
4	2014	1'490.1	4'028.2	282.0	5'800.2	26.95	461.0	3'841.6	66.2%	319.0	13.3	3.7	336.0	142.4	0.0	187.6	330.0	- 6.0
5	2015	1'523.6	4'001.1	300.1	5'824.8	24.60	468.6	3'832.3	65.8%	323.0	14.4	3.7	341.2	144.7	0.0	187.2	331.9	- 9.3
6	2016	1'550.9	3'979.4	318.4	5'848.6	23.79	476.7	3'818.5	65.3%	326.8	17.1	3.8	347.7	147.2	0.0	186.7	333.9	- 13.8
7	2017	1'600.2	3'941.2	335.0	5'876.4	27.72	487.4	3'806.2	64.8%	330.4	14.5	3.9	348.8	150.5	0.0	186.0	336.5	- 12.3
8	2018	1'627.0	3'927.6	353.5	5'908.1	31.72	498.9	3'793.8	64.2%	333.9	13.9	4.0	351.8	154.1	0.0	185.4	339.5	- 12.3
9	2019	1'656.7	3'912.1	371.6	5'940.4	32.31	508.5	3'780.7	63.6%	337.3	13.6	4.1	354.9	157.0	0.0	184.8	341.8	- 13.1
10	2020	1'688.8	3'893.4	389.3	5'971.5	31.13	518.9	3'766.7	63.1%	340.7	13.5	4.2	358.4	160.2	0.0	184.1	344.4	- 14.0
11	2021	1'729.3	3'869.4	406.3	6'005.0	33.52	526.4	3'749.6	62.4%	343.6	15.2	4.2	363.0	162.5	0.0	183.4	345.9	- 17.1
12	2022	1'772.3	3'853.0	423.8	6'049.1	44.06	538.6	3'734.1	61.7%	346.2	14.0	4.3	364.4	166.3	0.0	182.6	348.9	- 15.5
13	2023	1'808.9	3'842.4	441.9	6'093.1	44.04	547.7	3'716.9	61.0%	348.9	14.9	4.4	368.2	169.1	0.0	181.8	350.9	- 17.3
14	2024	1'838.3	3'850.7	462.1	6'151.1	57.94	559.4	3'700.1	60.2%	351.6	14.4	4.5	370.5	172.7	0.0	181.0	353.7	- 16.8
15	2025	1'877.1	3'855.9	482.0	6'215.0	63.93	568.4	3'681.1	59.2%	354.8	15.2	4.5	374.6	175.5	0.0	180.1	355.6	- 19.0
16	2026	1'890.5	3'896.0	506.5	6'293.0	78.04	578.0	3'659.5	58.2%	358.8	15.7	4.6	379.2	178.5	0.0	179.1	357.6	- 21.6
17	2027	1'909.3	3'939.0	531.8	6'380.1	87.03	587.3	3'635.0	57.0%	363.1	16.0	4.7	383.8	181.4	0.0	178.0	359.3	- 24.5
18	2028	1'936.1	3'968.6	555.6	6'460.3	80.19	598.1	3'607.9	55.8%	367.3	16.4	4.8	388.5	184.7	0.0	176.7	361.4	- 27.1
19	2029	1'876.1	4'097.3	594.1	6'567.5	107.22	606.9	3'575.7	54.4%	372.6	17.4	4.9	395.0	187.4	0.0	175.3	362.7	- 32.3
20	2030	1'842.2	4'195.3	629.3	6'666.8	99.32	615.9	3'536.8	53.1%	380.2	17.4	4.9	402.6	190.2	0.0	173.5	363.7	- 38.9
21	2031	1'830.1	4'264.5	661.0	6'755.6	88.77	624.0	3'491.0	51.7%	386.3	18.8	5.0	410.0	192.7	0.0	171.5	364.2	- 45.8
22	2032	1'786.9	4'368.9	699.0	6'854.8	99.25	635.6	3'440.9	50.2%	391.4	19.0	5.1	415.4	196.3	0.0	169.1	365.4	- 50.0
23	2033	1'721.9	4'495.0	741.7	6'958.5	103.70	643.8	3'382.6	48.6%	398.8	19.6	5.2	423.6	198.8	0.0	166.5	365.3	- 58.3
24	2034	1'695.6	4'569.9	776.9	7'042.4	83.84	654.0	3'316.8	47.1%	404.7	21.3	5.2	431.3	202.0	0.0	163.5	365.4	- 65.9
25	2035	1'638.6	4'680.5	819.1	7'138.1	95.77	665.0	3'244.9	45.5%	410.1	21.9	5.3	437.3	205.4	0.0	160.1	365.5	- 71.8
26	2036	1'641.9	4'723.6	850.2	7'215.7	77.60	677.1	3'168.4	43.9%	415.3	21.4	5.4	442.1	209.1	0.0	156.5	365.6	- 76.6
27	2037	1'621.1	4'794.6	887.0	7'302.7	86.99	688.9	3'086.0	42.3%	418.9	23.3	5.5	447.7	212.7	0.0	152.6	365.3	- 82.4
28	2038	1'612.0	4'854.1	922.3	7'388.4	85.69	702.2	2'998.6	40.6%	423.2	23.9	5.6	452.7	216.9	0.0	148.5	365.3	- 87.3
29	2039	1'617.9	4'901.7	955.8	7'475.5	87.09	716.0	2'906.8	38.9%	426.5	24.8	5.7	457.1	221.1	0.0	144.1	365.2	- 91.9
30	2040	1'645.1	4'928.2	985.6	7'558.9	83.43	730.2	2'810.2	37.2%	430.2	25.5	5.8	461.5	225.5	0.0	139.5	365.0	- 96.5

Contribution rate:

30.88 %

Rate of return:

5.00 %

CPCERN

Appendix A3

Model M2012-16.05.2011

i = 4.50 % Technical interest rate in %
i' = 5.00 % Actual rate of return in %

FS(0) = 3857.6 millions of CHF

in millions of CHF

t	Year	CPA(t)	RMP(t)	PL(t)	ENG(t)	VE(t)	TR(t)	FS(t)	DC(t)	PV(t)	VV(t)	FR(t) 0.80%	DEP(t)	COT(t)	Special Cont 61	REV(t)	REC(t)	EXC(t)
0	2010	1'583.8	3'784.2	189.2	5'557.3			3'857.6	69.4%									
1	2011	1'428.5	4'005.0	220.3	5'653.7	96.44	431.1	3'930.0	69.5%	298.0	22.5	3.4	324.0	146.6	61.3	188.5	396.4	72.4
2	2012	1'435.2	3'941.2	236.5	5'612.9	-40.85	443.4	4'010.2	71.4%	303.0	16.6	3.5	323.1	149.8	61.3	192.2	403.3	80.2
3	2013	1'445.7	3'919.6	254.8	5'620.1	7.22	450.9	4'095.0	72.9%	304.4	15.1	3.6	323.1	150.3	61.3	196.2	407.9	84.8
4	2014	1'479.7	3'897.5	272.8	5'649.9	29.84	461.0	4'183.0	74.0%	308.7	13.7	3.7	326.1	152.4	61.3	200.5	414.1	88.1
5	2015	1'512.1	3'879.9	291.0	5'682.9	32.98	468.5	4'271.1	75.2%	313.1	14.7	3.7	331.6	153.6	61.3	204.8	419.6	88.1
6	2016	1'536.6	3'869.6	309.6	5'715.7	32.79	476.7	4'357.3	76.2%	317.6	17.3	3.8	338.7	154.6	61.3	209.0	424.9	86.2
7	2017	1'587.7	3'837.4	326.2	5'751.3	35.62	487.5	4'448.3	77.3%	321.8	15.1	3.9	340.8	157.1	61.3	213.3	431.8	90.9
8	2018	1'617.9	3'827.6	344.5	5'789.9	38.61	499.1	4'542.5	78.5%	325.9	14.9	4.0	344.8	159.9	61.3	217.8	439.0	94.3
9	2019	1'644.6	3'821.8	363.1	5'829.4	39.50	508.7	4'639.4	79.6%	329.9	15.0	4.1	349.0	162.1	61.3	222.5	445.9	96.9
10	2020	1'678.6	3'807.8	380.8	5'867.1	37.64	519.0	4'738.9	80.8%	334.1	15.3	4.2	353.5	164.5	61.3	227.3	453.1	99.5
11	2021	1'712.6	3'794.1	398.4	5'905.1	37.99	526.7	4'839.0	81.9%	337.7	17.5	4.2	359.5	166.1	61.3	232.2	459.6	100.1
12	2022	1'755.1	3'780.0	415.8	5'950.9	45.85	538.9	4'944.4	83.1%	341.1	16.7	4.3	362.2	169.1	61.3	237.2	467.6	105.4
13	2023	1'790.5	3'772.6	433.8	5'996.9	45.94	548.3	5'052.7	84.3%	344.4	17.9	4.4	366.7	171.2	61.3	242.4	474.9	108.3
14	2024	1'814.9	3'784.4	454.1	6'053.5	56.61	559.7	5'165.7	85.3%	347.8	17.7	4.5	370.0	173.9	61.3	247.8	483.0	113.0
15	2025	1'847.3	3'791.7	474.0	6'112.9	59.45	568.9	5'281.2	86.4%	351.8	18.8	4.6	375.1	175.9	61.3	253.4	490.6	115.5
16	2026	1'859.2	3'828.1	497.7	6'185.0	72.04	578.5	5'399.1	87.3%	356.1	19.7	4.6	380.4	177.9	61.3	259.1	498.3	117.8
17	2027	1'876.5	3'864.3	521.7	6'262.5	77.51	588.1	5'519.9	88.1%	360.4	20.2	4.7	385.3	179.9	61.3	264.9	506.1	120.8
18	2028	1'899.9	3'888.7	544.4	6'333.0	70.51	598.9	5'644.1	89.1%	364.5	20.9	4.8	390.2	182.3	61.3	270.9	514.4	124.2
19	2029	1'838.7	4'007.9	581.1	6'427.7	94.74	607.8	5'769.7	89.8%	370.0	21.7	4.9	396.6	183.9	61.3	277.0	522.2	125.6
20	2030	1'804.4	4'092.6	613.9	6'510.8	83.10	616.8	5'894.6	90.5%	377.4	22.5	4.9	404.8	185.4	61.3	283.1	529.7	124.9
21	2031	1'787.6	4'153.9	643.9	6'585.3	74.47	625.1	6'019.6	91.4%	383.1	24.1	5.0	412.2	186.7	61.3	289.2	537.2	125.0
22	2032	1'742.1	4'245.5	679.3	6'666.9	81.65	636.9	6'147.8	92.2%	388.1	24.3	5.1	417.6	189.2	61.3	295.3	545.8	128.2
23	2033	1'677.1	4'349.9	717.7	6'744.7	77.77	645.4	6'275.7	93.0%	394.9	25.4	5.2	425.5	190.5	61.3	301.6	553.3	127.8
24	2034	1'646.1	4'412.1	750.1	6'808.3	63.57	655.9	6'404.4	94.1%	400.3	27.2	5.2	432.8	192.4	61.3	307.8	561.6	128.8
25	2035	1'585.9	4'505.2	788.4	6'879.5	71.21	667.0	6'536.0	95.0%	405.2	28.0	5.3	438.6	194.7	61.3	314.2	570.2	131.6
26	2036	1'584.6	4'531.6	815.7	6'931.9	52.39	679.0	6'670.9	96.2%	410.2	28.6	5.4	444.2	197.1	61.3	320.7	579.1	134.9
27	2037	1'558.2	4'588.1	848.8	6'995.0	63.14	690.9	6'809.9	97.4%	413.6	30.3	5.5	449.5	199.8	61.3	327.4	588.4	139.0
28	2038	1'546.4	4'627.5	879.2	7'053.0	58.01	704.8	6'954.3	98.6%	417.6	31.0	5.6	454.2	202.9	61.3	334.3	598.5	144.4
29	2039	1'548.4	4'651.0	906.9	7'106.3	53.26	718.7	7'105.0	100.0%	420.6	32.0	5.7	458.3	206.3	61.3	341.5	609.0	150.7
30	2040	1'575.1	4'651.4	930.3	7'156.7	50.43	733.4	7'262.8	101.5%	423.8	32.7	5.9	462.3	209.8	61.3	349.0	620.1	157.8

Contribution rate existing members: 34.00 %
 Contribution rate new members: 28.33 %
 Rate of return: 5.00 %