# **Transition Plan**

# for the **Mars Netherlands** pension schemes that are executed by the **Mars Pension Fund**

as legally required for changing the pension scheme due to the Wet Toekomst Pensioenen (Wtp)

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# **Summary**

The Dutch pension system is undergoing a significant transformation due to the implementation of the Wet toekomst pensioenen (Wtp). This transition plan outlines how Mars in the Netherlands, in collaboration with her Works Councils (jointly referred to as Social Partners), adapts her pension benefits to the new framework.

# **Transition agreement**

The Social Partners of Mars in the Netherlands have chosen the **Solidarity Contribution Plan (SPR)** with a **total contribution level of 30%** due to its ability of collective risk sharing and collective investment strategy with potential for higher long-term returns. The SPR plan includes a **Solidarity Reserve** for protection of the pension benefit phase. The transition plan includes:

- **Conversion of accrued pensions**: Existing pension entitlements from both the Final Pay Plan and ARP/ASP Plan will be transferred into the new system.
- **Compensation method**: Active members will be compensated for the change to the new plan including the change to a flat-rate contribution and the loss of guarantees.
- **Funding of the transition**: Different Target Funding Ratios (TFR) have been determined for the asset distribution at the transition date.
- **Corporate Commitments**: Mars commits to funding key elements of the transition (TFR1, TFR2A and TFR3) to ensure a balanced transition.
- **Survivors' pension:** the SPR plan includes a partner's pension of 50% of the pensionable salary and an orphan's pension of 20% of the pensionable salary on a risk basis.
- Transition date: The transition date to the new scheme is 1 January 2027.

### Conclusion

Social Partners have defined objectives and measures to validate whether the transition is balanced. The outcome is that the transition plan is balanced across all members (active, deferred and retired). The objective that members in the new pension plan have at least the same or a better expected pension result as in the current pension plan is the most important objective and is fully met. Together with the outcome of the other objectives as described in <a href="Chapter 9">Chapter 9</a> we conclude that the overall transition is fair, transparent, and well-structured.

On the website of Mars Pension different summaries (in Dutch and English) for the different member groups are published.



# Introduction

A lot has changed in Dutch society in recent decades. Demographics, the economy, and the labor market have changed. People are getting older, and the group of pensioners has become even larger than the working population. In addition, people are less likely to work for one employer for their entire working lives, and more likely to change jobs or start as self-employed workers. It is important that the pension system is in line with the changing society. Together with employees' and employers' organizations, the Dutch government has concluded a pension agreement with new agreements on pensions and state pensions. This has resulted in the Wet Toekomst Pensioenen (hereafter: Wtp). The basic principle of the new law remains that pensions are accrued jointly and that financial risks are shared with each other. Wtp aims to make the system more balanced, flexible, personal, and transparent.

The Wtp is effective from 1 July 2023. From that moment, there is a transition period to arrive at a new pension scheme and its implementation. All Dutch pension schemes must comply with the new legislation by 1 January 2028 at the latest. A consequence of the new law is that current 'pension accrual schemes' (defined benefits) are no longer possible. Only defined contribution schemes are allowed in the new fiscal pension legislation.

To be able to realize the transition to the new pension system, Mars and the Works Councils have made agreements on:

- 1. the new pension scheme
- 2. the transition of accrued pension entitlements to the new pension scheme
- 3. compensation
- 4. risk benefits
- 5. execution.

Pursuant to Section 150d of the Pensions Act, these agreements and considerations have been laid down in this Transition Plan. Because of this Transition Plan, the Mars Pension Fund (hereafter: MPF) will be requested to implement the new pension agreement. The aim of this Transition Plan is to inform stakeholders about the new pension scheme and the way in which Mars and the Works Councils have considered the interests of all stakeholders in their deliberations. It is the shared vision of Mars and the Works Councils that this plan leads to a balanced transition for all stakeholders.

In addition, this Transition Plan is intended to serve as input for MPF, so that the pension fund can assess the extent to which it is able and willing to administer this pension scheme and under what conditions. The pension fund assesses the Transition Plan in terms of feasibility and balanced interests before accepting the assignment of Mars and the Works Councils. Chapter 9 provides a more detailed description of the assessment of balance, which elaborates on the concept and criteria against which the assessment is made.

The transition date to the new scheme is 1 January 2027.

Appendix A <u>Definitions</u> includes a glossary of terms used in the Transition Plan.



# 1. Process

The transition to a new pension scheme is a comprehensive process and requires consultation and consent from various parties. The development of a new pension agreement not only looks at an appropriate pension scheme for the members for the long term, but it will also take into account how the new pension scheme compares to the current pension scheme. The process is explained in more detail below. Attention is also paid to the way in which the various parties are involved in the design, judgement and decision-making.

# 1.1 Outline of the decision-making process

As of 2021, Mars has started the preparations for the Wtp. Sessions have been organized with various stakeholders and developments in the legislation have been monitored. Relevant topics have been submitted to the consultative bodies involved (see 1.2) to jointly arrive at the best design.

With this Transition Plan, Mars and the Works Councils request MPF to implement the new pension scheme from 1 January 2027. In addition, the request is made to MPF for converting the pension entitlements and rights that have already been accrued into the new pension scheme(easing-in). Acceptance of assignment also means that a new Administrative and Financial agreement (hereinafter: AFA) must be concluded as of 1 January 2027.

# 1.2 Consultative bodies involved

Consultative body	Stakeholders	Purpose
Project Team/ Workstreams	Key stakeholders: Company and pension fund	Involved in preparation and consultation process regarding topics, before consideration and decision making by Pension Board and/or Social Partners
Social Partners (Company: OneMars Benefit Steering- Committee and Works Councils)	Representatives of Mars	Involved in the design of the new pension scheme, request for conversion, selecting pension provider
Mars Inc governance bodies	Mars Corporate	Involved in endorsement process in which support of the decision / approval takes place
Mars Pension Fund governance bodies	Pension Board, Supervisory Council, Accountability Council	Oversight and advise during different phases of the process
Right to be heard Committee	Representatives of deferred members and pensioners	Have the right to be heard on proposed decisions

Table 1



# 1.3 Applied assumptions

The calculations in this paragraph are based on assumptions as shared in the <u>appendices A</u> to  $\underline{D}$ . Reality will deviate from these assumptions:

- The stochastic analysis is based on the DNB economic scenario P and Q-set Q1 2024 (as of 31 December 2023). Experience has showed that the results are highly vulnerable to P and Q-set scenarios. Results will differ in other scenario set calculations.
- In these calculations we assume conversion will take place on TFR2A and TFR2B levels (discussed in <a href="Chapter 5">Chapter 5</a>) as calculated per individual. In these calculations we have not corrected for the effect that actual distribution of the collective TFR2A and TFR2B level could take place on standard method (as mentioned as the default in Wtp) instead of individually calculated TFR2A and TFR2B. Conversion based on the standard method will differ from the methodology used. The proposal for the conversion methodology was submitted to DNB and not approved. Further research is necessary to explore whether the standard method with the redistribution of 5% of the buffer will deliver comparable results.
- The calculation of TFR3 (compensation) is based on preliminary constructed life cycles translated from the risk preference survey of MPF. Results will differ in case of other life cycles or another investment strategy.
- The last update on the standard method with respect to the treatment of DC plans is not yet included in the calculations (published 24 December 2024, Regeling van de Minister van Sociale Zaken en Werkgelegenheid van 17 december 2024, nr. 2024-0000934444, houdende wijziging van bijlage 2a bij de Regeling Pensioenwet en Wet verplichte beroepspensioenregeling in verband met een aanpassing van de standaardregel voor fondsen met een DC-regeling).



# 2. Frameworks, principles and conditions

# 2.1 Current pension scheme including supplementary schemes and exceptions

The current pension schemes of Mars are executed by Mars Pension Fund (MPF). In the pension schemes of Mars, old age pension (which starts from the agreed standard retirement age, currently 68), partner's pension and orphan's pension (which starts upon the death of the member) is accrued. In addition to these pensions, there are additional coverages regarding disability.

Mars also has pension plans that are not executed by MPF. These plans are not part of this Transition Plan. The companies involved in this Transition Plan are Mars Netherlands BV, Mars Food Europe CV, Wrigley Europe BV, Direct2Pet Europe BV and Champion Europe BV (for the last company, this is pending formal approval to join the current ARP/ASP plan).

# 2.1.1 Final Pay Plan

The Final Pay Plan is a closed collective defined benefit (DB) plan, members of this plan are (former) associates employed at the companies involved in this Transition Plan before 1 January 2004.

In the current Final Pay Plan of Mars, pension is accrued between the pensionable salary and the offset based on a final pay system, where the financing and commitment takes place based on a collective defined benefit (DB).

- Base pension plan: The pensionable salary is capped at the top-up limit. The pensionable salary minus the offset is the pension base for the Final Pay Plan. The accrual percentage is equal to 1.657% of this pension base per service year.
- Top-up pension plan: On top of this base pension plan, pension is also accrued between the top-up limit and the fiscal maximum pensionable salary based on 1.657% per service year.

Old age pension starts on the retirement date and is paid until the death of the pensioner.

The partner's pension is equal to 70% of the old age pension. In case of death of an associate before retirement, it is assumed that the membership would have continued unchanged to the retirement date. Partner's pension is paid until the partner's death.

An orphan's pension is equal to 20% of the partner's pensions. Orphan's pension is paid till 18 years and possibly till 27 years meeting certain conditions. For full orphans, the amount of orphan's pension is doubled.

The accrued pension entitlements of inactive members in this pension scheme can be indexed. This is a conditional indexation based on the financial position of MPF, and no reserve has been set up for this. The indexation is financed by investment returns. The indexation ambition is equal to 75% of the price inflation (Consumer Price Index, CPI), with a maximum of 3%. If the indexation granted falls short on the indexation ambition, this could lead to a future "catch-up indexation".

# Additional old age pension and partner's pension

The additional old age pension and partner's pension are fixed amounts that are awarded from the conversion of the entitlements from previous pension plans into the new final pay pension plans in 2006, 2014, 2015 and 2018. For active members the additional pensions due to the conversion in 2006 and 2014 are adjusted every year unconditionally by the wage index. The additional pensions



due to the conversion in 2015 and 2018 of active members will be conditionally adjusted by the wage index and the adjustment depends on the financial position of MPF.

# 2.1.2 ARP/ASP Plan

The ARP/ASP Pension Plan members are (former) associates employed at the companies involved in this Transition Plan as of 1 January 2004.

# **Associate Retirement Plan (ARP)**

Under this plan, a fixed contribution is added to a pension capital account each salary period on the associate's behalf. The determination of the contribution to be added takes place using the contribution giving period salary, the offset (franchise) and the age-dependent contribution rate applicable at the end of the 4-weekly salary period concerned. These contributions are paid by the Company and are invested by the pension fund.

# **Associate Selection Plan (ASP)**

The ASP is a module according to the principles of a defined contribution plan. Each member has an ASP account for which the contributions are invested according to life cycles. At the end of a period, the member is obliged to pay a contribution to the fund. This contribution is determined based on the contribution base and the fixed contribution percentage at the end of each 4-weekly salary period. The member has the option to pay a voluntary extra contribution. If the voluntary extra contribution is chosen, the Company adds the same extra contribution to the ASP account of the member. This addition by the employer is called the Company match.

In the event of death during employment, the capital in the ASP account will be added to the fund's resources.

# Survivor's pension in case of death

The partner's pension is insured on a risk basis, based on the final pay salary definition. If a member dies before the retirement date, the partner is entitled to a partner's pension as if the member is still employed at the time of death. For the years before 1 January 2015, the partner's pension is equal to 1.33% of the final pension base for risk cover per service year at year-end 2014. From 1 January 2015, the partner's pension is equal to 1.16% of the final pension base for risk cover per service year until the retirement date. Partner's pension is paid until the partner's death.

An orphan's pension is equal to 20% of the partner's pensions. Orphan's pension is paid till 18 years and possibly till 27 years meeting certain conditions. For full orphans, the amount of orphan's pension is doubled.

After the start of partner's pension and orphan's pension, a conditional indexation based on the financial position of MPF is applicable. This indexation is financed by the investment returns of the pension fund.

In case of death after the retirement date, the surviving partner or children are only entitled to partner's pension or orphan's pension if these survivor benefits have been purchased at retirement date.

# Pension purchases with ARP/ASP capital

From the retirement date, members of the current ARP/ASP plan are entitled to use the capital in the ARP/ASP account to purchase old age pension, partner's pension and orphan's pension from MPF or another pension provider. The member can use the capital to determine how much old age pension and partner's pension is purchased. The standard amount of orphan's pension is equal to 14% of the old age pension per child. The amount of purchased pension is determined by the choice of a fixed or variable pension, the amount of capital that can be used for the purchase of pension and the



purchase rates and possibilities at the time of the purchase. ARP/ASP members can buy a fixed annuity with the ARP capital at MPF. Capital of the ASP account can only be used to purchase an annuity at an external pension provider. The member also has the choice to buy an annuity from an external provider with the complete ARP/ASP capital.

# 2.1.3 Additional coverages

# **Disability pension**

In case of full occupational disability (which means that an associate has been declared incapacitated for work between 80% and 100%), the member is entitled to a disability pension, which is a supplement to the statutory provisions:

- If the member is entitled to a benefit under the IVA (income provision for fully disabled persons), the amount of the supplementary disability benefit is equal to 75% of the pensionable salary for disability pension above the WIA benefit limit.
- If the member is entitled to a benefit under the WGA (resumption of work for partially disabled persons), the amount of the supplementary disability benefit is equal to 70% of the pensionable salary for disability pension above the WIA benefit limit.

If an associate becomes partially occupationally disabled before the retirement date, the disability pension is a percentage of the disability pension in the event of total incapacity for work based on the WGA benefit.

The disability pension is conditionally indexed.

# Waiver of premiums in case of disability

In case of disability (both full and partial), the pension accrual for the members in the pension scheme at Mars will continue based on the disability pension base and includes increases in the contribution according to the contribution table of the plan.

# 2.2 Contribution

The contribution to the current Final Pay Plan is related to the financial position of MPF.

In the current ARP/ASP plan the contribution is age related (see Table 2). The contribution in the ARP plan is fully paid by the Company. The contribution in the ASP is divided into a mandatory part for the associate, a voluntary part for the associate and the company match. The current contribution rates in Table 2 do not include administration costs and risk premiums.

Age	Contribution ARP plan by Mars	Contribution ASP plan (mandatory associate contribution)	Contribution ASP plan – maximum voluntary associate contribution	Contribution ASP plan – Company match
18 – 20	7.5%	3.9%	1.4%	1.4%
20 – 24	8.3%	3.9%	1.7%	1.7%
25 – 29	9.4%	3.9%	2.1%	2.1%
30 – 34	11.0%	3.9%	2.3%	2.3%
35 – 39	12.3%	3.9%	2.8%	2.8%
40 – 44	14.2%	3.9%	3.1%	3.1%
45 – 49	15.8%	3.9%	3.6%	3.6%
50 – 54	17.8%	3.9%	4.1%	4.1%



Age	Contribution ARP plan by Mars	Contribution ASP plan (mandatory associate contribution)	Contribution ASP plan – maximum voluntary associate contribution	Contribution ASP plan – Company match
55 – 59	19.8%	3.9%	4.8%	4.8%
60 – 64	21.7%	3.9%	5.7%	5.7%
65 – 68	23.7%	3.9%	5.7%	5.7%

Table 2

# 3. Choice of contract

# 3.1 Type of contract

After careful consideration, Mars and the Works Councils have chosen to design the new pension scheme in accordance with the Solidarity contribution plan (hereafter: SPR).

The choice for this scheme was made based on the following considerations. The idea of care and the sharing of risks are important to Mars and the Works Councils. A SPR consists of a collective investment policy and a solidarity reserve. The use of the solidarity reserve reduces the risk of a reduction in the expected pension benefits, which leads to more stability in the benefit phase. In addition, the collective investment policy and the solidarity reserve not only provide more solidarity but also provide more investment opportunities that may lead to better investment results.

# 3.2 Contribution and ambition

In the new SPR pension scheme a total contribution of 30% will be applied, with an extra surcharge for administration fees and risk premiums as in the current plans. The default contribution for new joiners in the SPR pension scheme is split into a mandatory contribution and a voluntary contribution plus a company match. Current members of the ARP/ASP plan will have the same contribution split as the default for new joiners. For current members of the Final Pay plan the contribution will be fully paid by the Company.

Associate groups	Contribution type	Company	Associate
Default Contribution split:	Mandatory contribution	15%	5%
-New joiners in the plan	Voluntary contribution		Up to 5%
-Current ARP/ASP plan associates	Company match	Up to 5%	
	Total contribution	Up to 20%	Up to 10%
Current Final Pay plan associates	Total contribution	30%	0%

Table 3

Mars has several ambitions for a balanced transition. These ambitions are meant as a general guideline for the transition:

- 1. The transition to the new pension arrangement is explainable and limited in complexity.
- 2. The objective (no guarantee) of the transition is that members in the new pension plan have at least the same or a better expected pension result as in the current pension plan. This



includes adequate compensation for the negative aspects resulting from the move to a flat rate DC and for the negative aspects of losing guaranteeing components resulting from conversion to the new DC plan. Preferably all plan members have a somewhat similar positive effect, or any difference in effect is plausible and balanced.

- 3. The new pension plan has, in relation to the current pension plan, a stable benefit payment phase, with a low probability of pension reductions and (relatively) small percentage reductions in case of a pension reduction.
- 4. Reasonable and plausible Net Profit results.

Please note that the numbers above do not reflect any specific priority.



### Pension ambition

In Wtp, it is mandatory that a SPR plan has a pension ambition which must be evaluated every 5 years. Based on the design of the new pension plan, calculations have been performed, and the results were discussed with Social Partners to define a proper pension ambition.

Social Partners have chosen the real weighted replacement ratio as basis for defining the pension ambition. The reasoning for this choice is that real weighted replacement ratio is already used in the transition plan as basis for evaluating the transition effects. This ensures consistency and ease of communication.

The main assumptions used:

- A 25-year-old strawman who joins the new scheme on 1 January 2027
- Pensionable salary EUR 42,000, pension base EUR 22,900
- Same assumptions as in the transition plan, for instance the DNB economic scenario P-set Q1 2024 (31-12-2023).

The calculations show real weighted replacement ratios between 29% and 228% with a median of 69%. The median is also referred to as the 'expected scenario' next to the pessimistic and optimistic scenarios.

Social Partners want to define a realistic pension ambition which considers the volatility of the pension ambition (29% - 228%) given the volatility of the parameters used and the high quality of the new pension scheme (fiscal maximum contribution and maximum pension base).

They have concluded that the best way is to define a range for the pension ambition of 55% - 70% of the real weighted replacement ratio. This range is in line with the median of 69%, takes into account the volatility of the assumptions and the high quality of the new pension scheme.

Please note that in practice, different measures are used as basis for the pension ambition, for example the average pension base over the period of service, the pension base on the retirement date etc. Furthermore, these measures can be defined as the nominal pension benefit on the pension date without taking the full retirement period and inflation into account. This should be considered if a comparison is made between different pension ambitions. For example, the difference between a real and nominal pension benefit at retirement date can be c. 25% to 30%.

# 3.3 Solidarity reserve

An important part of the choice for a SPR is the possibility of setting up a solidarity reserve. The solidarity reserve can help absorb risks that are difficult for the individual member to bear. Examples are risks resulting from economic developments that may have a negative impact on the pension benefits and non-tradable risks such as longevity risk. In the benefit phase, members can hardly absorb decreases in their pension benefits. The solidarity reserve is there to reduce the downside risk for current and future beneficiaries.

# Design solidarity reserve

- Purpose: the solidarity reserve has two purposes:
  - 1. To provide an additional benefit payment to prevent or partly prevent nominal reductions if the regular benefit payment for a pensioner is less than the benefit payment in the year before
  - 2. To prevent or partly prevent negative personal pension capital that might result due to the removal of the loan restriction.



- **Initial level**: Mars has chosen for an initial deposit of the solidarity reserve of 1% of total fund assets. At the Funding Ratio Level of TFR4, the solidarity reserve is filled up to the maximum level of 5% of total fund assets.
- **Structural funding**: in addition to the initial level, the reserve is supplemented by 2.5% of the excess investment return of all members.
- **Cap**: the reserve is capped at 5% of the funds' assets. If the reserve reaches the maximum level of 5%, the investment returns will be distributed amongst members.
- **Limitation in use**: each calendar year 25% of the actual reserve at its maximum level of 5% (this is 1,25%-pt of the fund's assets) can be used to maintain sufficient means for future retirees.

The intention is to have a reserve that meets its purpose, with no more financial means than needed and is expected to be stable over time.

# 3.4 Survivor's pension

A Survivor's pension consists of 3 components: a partner's pension before retirement date, partner's pension after retirement date, and orphan's pension. When moving to a new Wtp scheme, only a survivor's pension on a risk basis is possible. This means that there is only coverage during active employment. The survivor's pension in the ARP/ASP plan is already insured on a risk basis. The survivor's pension in the Final Pay plan is on an accrual basis. Mars and the Works Councils have agreed to insure the partner's pension at 50% of the entire pensionable salary. This coverage is independent of age and years of service. The coverage of the partner's pension is continued for 6 months after employment in case of unemployment.

Mars has decided to apply a coverage of 20% of the pensionable salary for the orphan's pension with doubling for full orphans. The maximum age for the orphan's pension is 25 years.

At retirement, members can opt for buying a survivors' pension from their pension capital.

# 3.5 Additional coverages

The additional coverages for disability pension and waiver of premiums in case of disability are unchanged.



# 4. Conversion: Dealing with accrued entitlements

# 4.1 Request for conversion

Social Partners request MPF to convert the accrued pension entitlements from the current pension plan into the new pension plan through a collective value transfer. In the legislation this is referred to as "easing-in or 'invaren' in Dutch.

# 4.2 Arguments for conversion

Conversion is the default in the Wtp legislation and is the preferred option from the Social Partners.

After the accrued entitlements have been transferred to the new pension system, a clear situation arises for the members. All pensions, the pensions already accrued before the transition moment and the pensions accrued afterwards can be found in the personal pension capital, which benefits transparency. This also simplifies communication from the Employer and MPF towards the members regarding their pension.

With the transfer of the surplus of the MPF pension assets into the personal pension capitals, the members will have an increase in the expected pension level. By transferring the pension entitlements, the underlying capital can also benefit from the advantages of the new pension system. As pension capital will benefit more directly from market developments, both positively and negatively. In the current system, pension entitlements benefit only partially from positive market returns due to a cap on pension increases. In the new system, pension increases driven by market performance will no longer be subject to a cap. In the event of unfavorable market developments, the pension capital in the new system will also be affected directly. During the benefit phase, reductions in pension benefits are mitigated by the solidarity reserve.

Also in the current system, pension entitlements are not guaranteed, and reductions are possible. However, the current Final Pay plan includes an additional payment obligation for the sponsor whereby Mars is obliged to put additional contribution into the pension fund in case of unfavorable market developments. Despite the expiry of the additional payment obligation, it is expected that there will still be a better pension result. See <a href="Chapter 7">Chapter 7</a> for the transition effects.

In addition, members' pension capital is invested based on the risk profile of their age cohort. As a result, the risk/return ratio is better aligned to achieve the optimal pension result.

If the pension entitlements would not be transferred, these entitlements would remain in a closed fund, where no new contribution inflow will take place, and the number of members will only decrease, and several schemes will have to be administered in parallel. Also, the costs per member for the continuation of the old schemes will increase in the future. This is not a sustainable and cost-effective option.

Conversion of the current pension entitlements provides the opportunity to carry out the transition to the new pension system in a balanced manner. The capital that is freed up in this way can be used to balance the effects of the transition to the new pension system for the various groups of members. As a result, adverse effects can be mitigated.

Therefore, Mars and the Works Councils see no reason to deviate from this standard. Priority rules for the distribution of pension assets have been drawn up (see Chapter 5).



# 5. Design of the contract and distribution of pension assets

# 5.1 Objective, quantitative measures for assessing the acceptability of the results

Mars and the Works Councils have agreed on several objectives that serve as a guideline in the transition to the new pension scheme (see also <u>Chapter 3.2</u>). Based on these objectives, it is assessed whether the transition is balanced and meets the standards using different qualitative or quantitative measures:

1. **Objective 1:** the transition to the new pension arrangement is explainable and limited in complexity.

**Measure**: the new pension arrangement is better to understand for and easier to communicate to all members.

2. Objective 2: the objective of the transition is that members in the new pension plan have at least the same or a better expected pension result as in the current pension plan. This includes adequate compensation for the negative aspects resulting from the move to a flat rate DC and for the negative aspects of losing guaranteeing components resulting from conversion to the new DC plan. Preferably all plan members have a somewhat similar positive effect, or any difference in effect is plausible and balanced.

**Measure**: the real weighted benefit after conversion to the new plan is equal or higher to the real weighted benefit in the current plan in the expected scenario (50th percentile). The <u>real</u> weighted benefit is the real value of the pension benefit corrected for inflation during the whole benefit phase and corrected for the probability of being alive. The measure will be used for both the Final Pay and ARP/ASP plan.

**3. Objective 3:** the new pension plan has, in relation to the current pension plan, a stable benefit payment phase, with a low probability of pension reductions and (relatively) small percentage reductions in case of a pension reduction.

**Measure:** the probability and magnitude of pension benefit increases and decreases over different time periods for both the Final Pay plan and the new plan.

4. Objective 4: reasonable and plausible Net Profit results

**Measure:** Net Profit calculations (Netto Profijt berekeningen)

# 5.2 Priority rules in asset distribution (Dynamic Allocation Key)

The principle of the Dynamic Allocation Key is that accrued benefits of all members of MPF should be safeguarded. Once all members have received the full value of the pension promise regarding accrued benefits, other priorities can be fulfilled. The next important priority is the compensation regarding future pension accrual for the active members.

Based on these priorities, the Target Funding Ratio is calculated. This is the funding ratio that is (minimally) needed for a responsible, explainable and balanced transfer of accrued benefits to the new pension system.

This reasoning has resulted in the following 5 Target Funding Ratios (TFR) a detailed description is included in <u>paragraph 5.2.1</u> until <u>5.2.6</u>:

1. TFR1: minimum level where conversion is considered as in the balanced interest of MPF members. It is in line with legislation and aims at achieving a financially equivalent situation



regarding accrued benefits for both the Final Pay plan and the ARP/ASP plan members plus a minimum level of 1% of total assets for the solidarity reserve to have a starting level of the solidarity reserve

2. TFR2A: TFR2 is the value of accrued pension rights including future indexation equal to 75% of CPI with a maximum of 3% for Final Pay plan members and the DC value of TFR1 for ARP/ASP members. It is specifically defined for MPF to mark the funding level at which the full value of the current pension promise regarding accrued benefits for all the members can be fulfilled.

Through a Company decision, TFR2 is split into two separate Funding Ratios, TFR2A and TFR2B. The reason for the split is that the Company guarantee only applies to half of the future indexation of the Final Pay plan. TFR2A includes this half of the future indexation and is guaranteed by the Company. In TFR2 there is no additional value for the ARP/ASP plan as no future indexation is part of this plan.

- 3. TFR3: Adequate compensation for <u>active members</u> in both the Final Pay and the ARP/ASP plan. In the Final Pay plan, TFR2A is the basis for the compensation which is guaranteed by the Company. The level of compensation depends on the actual Funding Ratio.
- 4. TFR2B: For the Final Pay Plan, TFR2B is the Funding Ratio where the value of the accrued pension rights including future indexation (75% of CPI, maximum of 3%) plus adequate compensation is financed. For the ARP/ASP plan it includes the DC value and the adequate compensation.
- 5. TFR4: TFR2B plus additional funding of the solidarity reserve up to max 5% of the plan assets. At this level, all important priorities can be realized.

Above TFR4 Mars explicitly reserves the right to explore the extent to which capital above TFR4 can flow back to the Company. If no capital flows back to the Company, the assets will be used for a proportional equal increase of the individual capitals at TFR4-level of all members (both Final Pay and ARP/ASP members).

The different Target Funding Ratios:

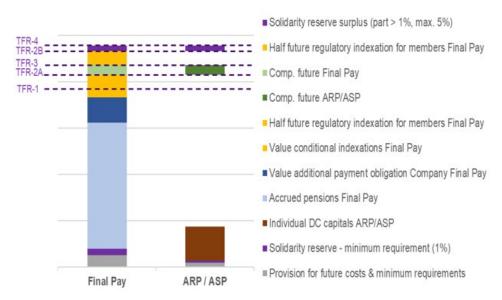


Figure 1

The different Target Funding Ratios are described in detail below.



# 5.2.1 TFR1

TFR1 defines the minimum level of Funding Ratio needed for a responsible, explainable and balanced transition and is defined such that for the members of the Final Pay plan and the ARP/ASP plan:

- The pension benefit for each pensioner before and after transition remains at least the same
- The accrued pensions on the "UPO" remains at least the same just before and just after transition for all members
- The results in terms of Profit (50th percentile) just after the transition are at least the same as just before the transition for all members.
- Individual DC-capitals for former ARP/ASP plan members are at least the same as the value of the ARP/ASP accounts.

This includes the following elements for the new pension plan:

- Provision for future administration costs and continuation of future pension build-up for disabled members
- The legally mandatory provisions: general reserve and operational reserve
- Individual DC-capitals for former Final Pay plan members that include:
  - o Value of the accrued DB pensions
  - Value of conditional indexation in the current Final Pay plan depending on the level of TFR1 and assuming the indexation policy for non-active members in the Final Pay plan for all accrued DB pensions
  - Value of past service and indexation for both active and inactive members per 1
     January 2027 if this is not given just before the moment of transition
  - Value of additional payment obligations of the Company.
- Individual DC-capitals for former ARP/ASP plan members that include the value of the ARP/ASP accounts
- A minimum level of 1% of total assets for the solidarity reserve to have a starting level of the reserve

Based on the indexation policy and the funding level in the current Final Pay plan, future pension increases of accrued pensions are to be expected. Also, the current payment obligation of the Company has an increasing effect on the expected future benefit level. These are also part of the TFR1.

There is no prioritization among the elements within TFR1; all must be included to ensure a balanced transition. These elements enable clear communication to all members in both pension plans, demonstrating that the value of their accrued pensions after the transition will be at least equal to their current pension value. Additionally, the 1% solidarity reserve provides members with a modest benefit post-transition. The Company also benefits, as the removal of the additional payment obligation is funded by the pension fund assets, eliminating the need for Company compensation.

If the actual Funding Ratio at the time of the transition is above TFR1, the value of the conditional indexation in the current Final Pay plan is higher than at the level of TFR1. Therefore, a higher Funding Ratio is needed for a balanced transition.

The unconditional indexation of the additional pensions of active members in the Final Pay plan (refer to 2.1.1) is not included in the TFR1 but will be part of the compensation regarding future accrual of active members in the Final Pay plan in TFR3.



For the ARP/ASP members this level contains the value of the ARP/ASP accounts.

# 5.2.2 TFR2A

For the Final Pay plan members this level is equal to an Actuarial Accrued Liability (AAL) based on the regular actuarial assumptions of MPF (including the current risk-free interest rate according to DNB), but including for all members 50% of the value of full future indexation, on the accrued benefits, based on the indexation policy for inactive members (75% of price index with a maximum of 3%).

For the ARP/ASP members this level contains the value of the ARP/ASP accounts (no difference with TFR1).

This includes also the elements for the new pension plan as mentioned under TFR1. Substantiation that until the level of TFR2A it is balanced to increase the assets of the Final Pay plan members:

- 50% future indexation for inactive members according to the Company guarantee.

# 5.2.3 TFR3

For <u>active</u> members of the Final Pay plan, TFR3 is equal to TFR2A (including 50% of the value of full future indexation for inactive members: 75% of price index with a maximum of 3%) plus compensation for the loss of future accrual. For any Funding Ratio below TFR2B, the full value of full future indexation is not attained and will be compensated through the Company guarantee. At the level of the Funding Ratio at TFR2B, the full value is attained and TFR3 will only include the compensation regarding the loss of future accrual for active members.

For inactive members of the Final Pay plan, TFR3 is equal to the value in TFR2A.

For the ARP/ASP plan, TFR3 is TFR1 plus compensation regarding the loss of future accrual of active members.

The compensation regarding the loss of future accrual of active members in the Final Pay plan includes:

- abolition of the average contribution method for active members in the Final Pay plan (transfer to flat rate DC)
- unconditional wage indexation of additional pensions
- transfer from Final Pay to DC (no more past service adjustments due to salary increases)
- change in definition of the pension base (the new plan probably has a lower offset and a higher pensionable salary according to the definitions in the ARP/ASP plan)
- any other differences between the current Final Pay plan and the new pension plan.

The compensation regarding loss of future accrual of active members in the ARP/ASP plan includes:

- abolition of the average contribution method for active members in the ARP/ASP plan (transfer to flat rate DC)
- the ARP return guarantee (at least 0% return and for active members use of accumulated historical additional returns to increase the actual return to CPI + 3% with a maximum of 13%).

For the ARP/ASP plan, TFR2 is equal to TFR1. Given the Company guarantee of TFR3, the compensation for the ARP/ASP plan is independent of the Funding Ratio.



# 5.2.4 TFR2B

TFR2B is the Funding Ratio at which both the full value of the pension promise regarding accrued benefits for all the members has been fulfilled in the new pension system and the compensation for the loss of future accrual of active members.

For the Final Pay plan members this level is equal to an Actuarial Accrued Liability (AAL) based on the regular actuarial assumptions of MPF (including the current risk-free interest rate according to DNB), but including for all members the value of full future indexation for inactive members (75% of price index with a maximum of 3%) and the compensation for the future accrual of active members

For the ARP/ASP members this level contains the value of the ARP/ASP accounts (included in TFR1) and the compensation for the future accrual of active members.

This includes also the provisions and reserves for the new pension plan as mentioned under TFR1.

Substantiation that until the level of TFR2B it is balanced to increase the assets of the Final Pay plan members:

- the future indexation for inactive members according to the plan rules
- at the level of TFR2B it can be explained that inactive members in the Final Pay plan have had no negative consequences from a low contribution funding ratio until the moment of transition
- at the level of TFR2B it can be explained that inactive members in the Final Pay plan have had no negative consequences from a (potential, but likely) negative nominal ARP-buffer. If TFR2 can be provided no additional Company payments are necessary to compensate for a negative nominal ARP-buffer
- compensation for the future accrual of active members (both Final Pay and ARP/ASP plan) as mentioned in the new legislation
- in the current Administrative & Financial Agreement there is not only an additional payment obligation for the Company in case of a low Funding Ratio, but there is also the possibility of a contribution reduction in case of a high Funding Ratio. When the full pension ambition regarding accrued benefits plus future indexation is provided, it is therefore balanced to use additional assets in favor of the Company (the Company is responsible for financing adequate compensation).

# 5.2.5 TFR4

TFR4 is equal to TFR2B plus funding of the solidarity reserve to a desired level of maximum 5% of the assets for optimal working.

Substantiation that above the level of TFR2B it is balanced to further fill the solidarity reserve: the solidarity reserve is meant to provide a higher protection of the nominal values due to volatile (negative) returns in the new plan. At the level of TFR4 all the important priorities of the members and the Company are financed. All members of MPF (both Final Pay plan members and ARP/ASP plan members) will benefit from further filling the solidarity reserve.

# **5.2.6 Above TFR4**

Above TFR 4 Mars explicitly reserves the right to explore the extent to which capital above TFR4 can flow back to the Company. If no capital flows back to the Company, the assets will be used for an equal increase of the individual capitals at TFR4-level of all members (both Final Pay and ARP/ASP members).

Please note that the above-mentioned funding ratios are not given but are dependent on financial markets circumstances, the scenario sets of the Dutch Central Bank (DNB) and other external factors.



# 5.2.7 Priority rules

At the transition date, the actual funding ratio will lead to the distribution of the total assets of MPF over the different reserves, compensations and personal pension capitals. In Table 4 this distribution is monitored over a range of different funding levels.

Given the split of TFR2 into TFR2A and TFR2B, a distinction is made between two situations at the transition date: a funding ratio below or equal to 126.8% or a funding ratio above 126.8%.

# Funding ratio equal or below 126.8% (<=TFR3)

At this level, the funding ratio is equal or below TFR3. If the funding ratio is equal to 126.8% (TFR3), no additional funding of the Company is required. A funding ratio below 126.8% (TFR3) results in additional funding of the Company up to TFR2A and TFR3.

Target Funding Ratio	Current capital including provisions	Minimum required solvency ratio (MVEV, legally required)	Reserve operating costs (ROC, legally required)	Solidarity reserve (SR)	Real technical provision Final Pay plan	Compen- sation Final Pay plan	Compen- sation ARP/ASP	Company guarantee including compen- sation (to 126.8%)
<b>TFR1</b> 112.6%	109.0%	1.0%	1.5%	1.1%	6.8%	2.9%	4.3%	14.2%
113%	109.0%	1.0%	1.5%	1.1%	6.8%	2.9%	4.3%	13.8%
114%	109.0%	1.0%	1.5%	1.1%	6.8%	2.9%	4.3%	12.8%
115%	109.0%	1.0%	1.5%	1.2%	6.8%	2.9%	4.3%	11.8%
116%	109.0%	1.0%	1.5%	1.2%	6.8%	2.9%	4.3%	10.8%
117%	109.0%	1.0%	1.5%	1.2%	6.8%	2.9%	4.3%	9.8%
118%	109.0%	1.0%	1.5%	1.2%	6.8%	2.9%	4.3%	8.8%
119%	109.0%	1.0%	1.5%	1.2%	6.8%	2.9%	4.3%	7.8%
<b>TFR2A</b> 119.5%	109.0%	1.0%	1.5%	1.2%	6.8%	2.9%	4.3%	7.3%
120%	109.0%	1.0%	1.5%	1.2%	6.8%	2.9%	4.3%	6.8%
121%	109.0%	1.0%	1.5%	1.2%	6.8%	2.9%	4.3%	5.8%
122%	109.0%	1.0%	1.5%	1.2%	6.8%	2.9%	4.3%	4.8%
123%	109.0%	1.0%	1.5%	1.2%	6.8%	2.9%	4.3%	3.8%
124%	109.0%	1.0%	1.5%	1.2%	6.8%	2.9%	4.3%	2.8%
125%	109.0%	1.0%	1.5%	1.3%	6.8%	2.9%	4.3%	1.8%
126%	109.0%	1.0%	1.5%	1.3%	6.8%	2.9%	4.3%	0.8%
<b>TFR3</b> 126.8%	109.0%	1.0%	1.5%	1.3%	6.8%	2.9%	4.3%	0.0%

Table 4

# Notes on Table 4:

- At TFR1 level the sum of: Current capital including provisions, Minimum required solvency ratio
  and Reserve operating costs add up to the Target Funding Ratio (112.6%). Further components:
  Real technical provision Final Pay plan, Compensation Final Pay plan and Compensation
  ARP/ASP are financed by the company guarantee (total 14.2%).
- At TFR2A level the sum of: Current capital including provisions, Minimum required solvency ratio, Reserve operating costs and Real technical provision Final Pay plan add up to the Target Funding Ratio (119.5%). Further components: Compensation Final Pay plan and Compensation ARP/ASP are financed by the company guarantee (total 7.3%).



- At TFR3 level the converted capital for the Final Pay and ARP/ASP plan members is equal to 126.8% -/- MVEV -/- ROC -/- SR + Compensation for the plans (2.9% and 4.3% respectively).
- The highest level of compensation applies to Funding Ratios up to or below TFR2A. At higher
  Funding Ratios, TFR3 will shrink as the ease-in capital will grow and the necessary compensation
  will decrease. For the ARP/ASP plan, TFR2 is equal to TFR1 so TFR3 will not be influenced by
  the level of TFR2 or TFR2A.
- At this moment it is not allowed to finance the cost reserve for the ARP/ASP plan from the accumulated capital. Therefore, the cost reserve for the ARP/ASP plan will be financed from the Pension Fund assets at conversion.
- Please note that due to rounding, some rounded numbers do not add up exactly.
- The description of the column names is given under Table 5.

# Funding level above 126.8% (>TFR3)

From this level, the funding of (part of) TFR2B is possible. As TFR2B grows, TFR3 for the Final Pay plan will decrease because the individual ease-in capital will increase, and less compensation is necessary. For the ARP/ASP plan, the compensation in TFR3 does not change as the ease incapitals do not change (for this plan, TFR1 is equal to TFR2). At the TFR2B level, full compensation is attained.

Target Funding Ratio	Current capital including provisions	Minimum required solvency ratio (MVEV, legally required)	Reserve operating costs (ROC, legally required)	Solidarity reserve (SR)	Real technical provision Final Pay plan	Compen- sation Final Pay plan	Compensation
<b>TFR3</b> 126.8%	109.0%	1.0%	1.5%	1.3%	6.8%	2.9%	4.3%
127%	109.0%	1.0%	1.5%	1.3%	7.0%	2.9%	4.3%
128%	109.0%	1.0%	1.5%	1.3%	8.1%	2.8%	4.3%
129%	109.0%	1.0%	1.5%	1.3%	9.3%	2.6%	4.3%
130%	109.0%	1.0%	1.5%	1.3%	10.4%	2.5%	4.3%
131%	109.0%	1.0%	1.5%	1.3%	11.5%	2.4%	4.3%
132%	109.0%	1.0%	1.5%	1.3%	12.7%	2.2%	4.3%
<b>TFR2B</b> 132.9%	109.0%	1.0%	1.5%	1.3%	13.7%	2.1%	4.3%
133%	109.0%	1.0%	1.5%	1.4%	13.7%	2.1%	4.3%
134%	109.0%	1.0%	1.5%	2.4%	13.7%	2.1%	4.3%
135%	109.0%	1.0%	1.5%	3.4%	13.7%	2.1%	4.3%
136%	109.0%	1.0%	1.5%	4.4%	13.7%	2.1%	4.3%
137%	109.0%	1.0%	1.5%	5.4%	13.7%	2.1%	4.3%
138%	109.0%	1.0%	1.5%	6.4%	13.7%	2.1%	4.3%
TFR4 138.5%	109.0%	1.0%	1.5%	6.9%	13.7%	2.1%	4.3%

Table 5

Description of the column names for Table 4 and Table 5:

- **Target Funding Ratio**: the funding ratio at the moment of transition as a percentage of the technical provision (the liabilities of MPF).
- Current capital including provisions: current accrued rights and capital (including the value
  of the additional contribution obligation of the Company and conditional indexation of the Final
  Pay plan, as referred to under TFR1)



- Minimum required solvency ratio (MVEV, legally required): 1% of the technical provision
- Reserve operating costs (ROC, legally required): 1.5% of the technical provision
- **Solidarity reserve (SR)**: up to TFR4, 1% of the total assets. TFR4 and above, increased to maximum of 5% of the total assets
- Real technical provisions Final Pay plan: percentage of the provision, this is the value of future indexation for the Final Pay plan (minimum (TFR2A -/- TFR1), maximum (TFR2B -/-TFR1 -/- compensation)
- **Compensation Final Pay plan**: compensation Final Pay plan (15th percentile) as a percentage of the provision (see also Percentile compensation method)
- **Compensation ARP/ASP**: compensation ARP/ASP plan (Gross Proft ("Bruto Profijt") + 15th percentile for MUP-buffer) as a percentage of the provision
- **Company guarantee including compensation**: additional Company funding including the compensation for the Final Pay plan and ARP/ASP plan.

# 5.2.8 Target funding ratio and procedure in case of 'under coverage'

At TFR4 (138.5%), all the defined priorities are met, and the solidarity reserve is filled up to the maximum level (5% of assets, which is 6.9% of the liabilities at this funding ratio). The same applies to TFR2B (132.9%) although the solidarity reserve is smaller (1% of assets which is 1.3% of the liabilities at this funding ratio). In case of lower Funding Ratios, additional Company funding is necessary to meet the priorities set.



# 6. Compensation

# 6.1 Usefulness and necessity of compensation

The transition to the new pension system is based on the principle that members should not have a negative impact on their pension prospects. To assess whether this is indeed the case, various calculations mentioned have been made.

- For Final Pay plan members, the compensation is based on the real weighted replacement ratio during benefit pay phase. Therefore, the compensation also includes the effect of the change in pension benefit development after retirement. This real weighted replacement ratio is used because the benefit payment developments in the Final Pay plan is capped at 75% CPI with 3% maximum, while there is no cap at all in the new SPR plan. By using the real weighted average replacement ratio, we consider the different benefit payment developments in current versus new pension plan.
- For ARP/ASP members the compensation is based on the replacement ratio at the retirement age (68) because there is no benefit pay phase in the current ARP/ASP plan.

The compensation assumes that conversion will take place on TFR2B levels as calculated per individual. In <a href="Chapter 7">Chapter 7</a> (Transition effects), the base scenario is TFR2B.

# Options for compensation methods

With the conversion, the total assets are distributed to the personal pension capital based on an individual calculation for each member based on the actual pension plan, the actuarial liability, the conditional indexation and current guarantees, closely linked to the Dynamic Allocation Key. Mars has considered different compensation methods:

- <u>Certainty equivalent</u>: the compensation is calculated such that the certainty equivalent of the uncertain future pension in the new plan (including compensation) is equal to the certainty equivalent in the current plan. Per individual member, the average pension is calculated with continuation of the current pension plan in 2.000 possible economic situations. The average is adjusted downwards based on the risk appetite. The weights of low results are higher if a member is more risk averse. The risk appetite is measured per age cohort, based on the risk preference survey of MPF. The same is done assuming conversion of the accrued pensions and future pension build-up in the new pension plan. For each individual, it is calculated how much converted capital is needed such that the risk-adjusted average pension in the new plan is equal to the risk-adjusted average pension in the current plan. The downside of this method is the complexity of the method. Moreover, the method did not fit well with the Mars pension plans.
- Based on percentile (Final Pay): the compensation is determined to ensure that the pension result in the SPR plan is equal to or higher than the current plan including future accrual until retirement age 68. This is measured by the real weighted replacement ratio. Per individual member, the pension is calculated with continuation of the current pension plan in 2.000 possible economic situations. The same is done assuming conversion of the accrued pensions and future pension build-up in the new pension plan. A specific percentile is selected for both situations to compare the pension outcomes of the new plan against those of the current plan. This method is straightforward, making it simple to comprehend and communicate.
- Gross Profit (Bruto Profijt, only for ARP/ASP): an alternative compensation method for the ARP/ASP members. It aims to compensate for the difference of the discounted value of future contributions by Mars, with a minimum of zero. Per individual member, the present value of all



future pension contributions is calculated in the situation with continuation of the current plan and in the new plan. The compensation is equal to the difference between these two. The result of the Gross Profit calculation is the legally minimum required compensation level.

• Gross Profit Plus (Bruto Profijt Plus, only for ARP/ASP): in addition to the Gross Profit method (described above), the members of the ARP/ASP plan will receive additional compensation for the abolishment of the ARP buffer.

Social partners have thoroughly reviewed the different compensation methods. They have ruled out the certainty equivalent method because of the complexity of this method. In the evaluation of the percentile method, an important consideration was that this method is relatively easy to understand and explain. A percentile below the median value (50<sup>th</sup> percentile) was chosen to compensate for the additional risk for the members in the new pension plan. The current market practice for company pension funds with an average pay pension plan is 20<sup>th</sup> to 25<sup>th</sup> percentile. Given the guarantees provided by MPF in the current Final Pay pension plan, the 15<sup>th</sup> percentile is chosen.

The percentile method was applied to the Final Pay plan. For the ARP/ASP plan, the market practice for such a defined contribution scheme is the Gross Profit method. But the ARP plan includes a guarantee which should be valued and added to the compensation. This was done using the percentile method for the ARP plan. The Gross Profit Plus method is a combination of both the percentile and the Gross Profit method.

# **6.2** Percentile compensation method

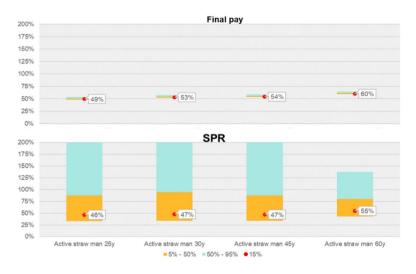
# Final Pay plan

For the active members in the Final Pay plan the percentile compensation method will be applied with a percentile of 15%. This compensation method relates the real weighted replacement ratios in the old and new plan in the 15<sup>th</sup> percentile with one another. If the real weighted replacement ratio in the new plan is lower than in the current Final Pay plan, compensation is determined such that the real weighted replacement ratio is at least equal to the level in the current Final Pay plan.

# <u>Compensation – 15<sup>th</sup> percentile</u>

When we examine the <u>replacement ratio at the retirement date</u> at the 15<sup>th</sup> percentile in the Figure 2 we observe that it is lower in the SPR scheme compared to the Final Pay scheme for all ages. Please note that the greater majority of the scenarios (around 85%), the SPR scheme delivers a much higher replacement ratio. It is important to emphasize that the compensation is based on the <u>real weighted replacement ratio</u>, which considers the entire benefit phase. This provides a more accurate representation of the overall retirement outcome. By accounting for the full pension period, the compensation reflects the total value over time, leading to a higher replacement ratio compared to the current scheme in the Figure 2.





### Figure 2

Figure 2 shows that the spread of the real weighted replacement ratio for the current final pay scheme is small due to the in-service obligation on the one hand and the caps on the allowances on the other. In the SPR scheme, the spread of the outcomes is large, because the risk in the new scheme is more with the members. The red dots show at which level in the interval the 15% percentile is located. If the 15% percentile in SPR comes out lower than the current scheme, compensation will be derived to equalize the outcomes.

Figure 3 shows the percentage compensation as a percentage of pension base for the 15th percentile. Figure 3 is based on the average active member per age group. Assumed is, that on the date of transition, all associates as of age 62 are retired. The calculation of the compensation is based on a retirement age of 68.

The drop at age group 49 can be explained by a specific population characteristic around that age: the average pension base of age group 49 is significantly higher in comparison with the age cohort 45-55. When analyzing the relationship between the pension base and pension accrual, a noticeable spike occurs in the 49-year-old age group.



# Figure 3

Other proposed compensation methods for the Final Pay plan are percentile compensation methods with percentiles higher or lower than the chosen percentile. However, compensation above the 25th percentile or below the 15th percentile are not in line with the market practice.



# 6.3 Gross Profit (Plus) compensation method

# ARP/ASP plan

For the active members in the ARP/ASP plan the Gross Profit (Bruto Profijt) method will be applied with an additional compensation such that the ARP-buffer methodology value is included. The Gross Profit compensation method is specific for the ARP/ASP plan. This compensation method aims to compensate for the difference of the discounted value of future contribution by Mars, with a minimum of zero. This difference is calculated deterministically. The Gross Profit is – by legislation – the minimum level of compensation for defined contribution plans.

The ARP buffer aims to offer an increase based on price inflation (CPI), plus an additional 3%, but only if the buffer is sufficiently filled to support it. The Gross Profit compensation method only addresses differences in contribution levels. This method does not account for the ARP buffer, which is designed to provide interest addition to the ARP capital.

Figure 4 below displays the percentile compensation as percentage of pension base for the Gross Profit. Figure 4 is based on the average active member per age group. The highest compensation is around age cohort 50. This is because the contribution level in the ARP/ASP plan is higher than in the SPR plan above age 50. Gross Profit does not include the ARP buffer.

# 120% 100% 80% 60% 40% 20% 0% 27 32 37 42 47 52 57 62 67 —Gross profit

# Compensation as % of pension base

Figure 4

# ARP buffer:

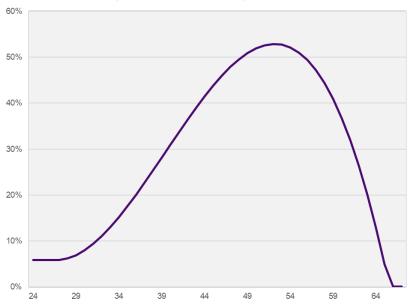
The active members of the ARP/ASP plan will receive an additional compensation for the abolishment of the ARP buffer methodology. This additional compensation is determined by the 15th percentile replacement ratio. Gross Profit compensation is based on the difference in contribution levels. This is the legal minimum compensation level. To ensure the full scheme is compensated the ARP buffer is added for the ARP/ASP plan in the Gross Profit Plus method. This compensation method accounts for both compensation of the difference in contribution and the value of the ARP buffer.

# 15th percentile

Figure 5 illustrates the compensation determined for the ARP buffer, based on the average active member for each age group. The effect of the ARP buffer on the pension outcome per individual at the 15th percentile are displayed below. As members come near to retirement, the buffer's value converges to zero since its added benefit decreases over time (after age 55).



# Compensation as % of pension base



# Figure 5

Figure 6 illustrates the compensation facilitated by the Gross Profit Plus compensation method, based on the average active member for each age group. The effect of the ARP buffer on the pension outcome per individual at the 15th percentile are displayed. The compensation is the highest around the age of 50, because both the ARP buffer and Gross Profit are both at its peak around this age group.

# Compensation as % of pension base

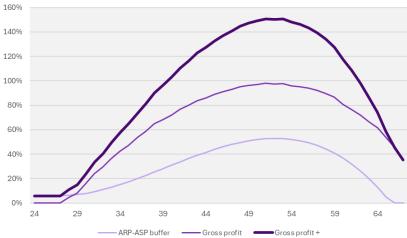


Figure 6



# 7. Transition effects

# 7.1 Introduction and measures

The insights into the transition effects were determined by making calculations of the new and current pension schemes and comparing them with each other. The Final Pay plan and the ARP/ASP plan were calculated and assessed separately. To validate whether the transition is balanced and meets the objectives defined by the Social Partners, calculations have been made in which the new SPR pension scheme is compared with the situation in which the current pension schemes would continue unchanged. The impact of the transition is calculated using different measures for each objective:

1. **Objective 1**: the transition to the new pension arrangement is explainable and limited in complexity.

**Measure**: the new pension arrangement is better to understand for and easier to communicate to all members.

2. Objective 2: the objective of the transition is that members in the new pension plan have at least the same or a better expected pension result as in the current pension plan. This includes an adequate compensation for the negative aspects resulting from the move to a flat rate DC and for the negative aspects of losing guaranteeing components resulting from conversion to the new DC plan. Preferably all plan members have a somewhat similar positive effect, or any difference in effect is plausible and balanced.

**Measure**: the real weighted benefit after conversion to the new plan is equal or higher to the real weighted benefit in the current plan in the expected scenario (50th percentile). The <u>real</u> weighted benefit is the real value of the pension benefit corrected for inflation during the whole benefit phase and corrected for the probability of being alive. The measure will be used for both the Final Pay and ARP/ASP plan.

3. **Objective 3:** the new pension plan has, in relation to the current Final Pay plan, a stable benefit payment phase, with a low probability of pension reductions and (relatively) small percentage reductions in case of a pension reduction.

**Measure:** the probability and magnitude of pension benefit increases and decreases over different time periods for both the Final Pay and the new plan.

4. **Objective 4:** reasonable and plausible Net Profit results.

**Measure:** Net Profit calculations (Netto Profit berekeningen)

The quantitative measures for the objectives 2 and 4 have been calculated using different scenarios for Funding Ratio and the interest rate. The different scenarios are used to analyze the transition effects of different economic scenarios and for the development of the bandwidths. A bandwidth is defined as a combination of a minimum and maximum change of measure (for example the real weighted benefit change between the new and current pension plan for objective 2) per objective and per age group (cohort). The bandwidth should be set in such a way that the corresponding objective as set by Social Partners is attained at the transition date. In the period to the actual transition date, bandwidths should be evaluated periodically to ensure that the objectives set by the Social Partners will still be attainable given the actual economic situation. The last evaluation is performed 3 to 6 months before the actual transition date. If actual measures fall outside the bandwidth, Social Partners should evaluate if and what actions are necessary.



The base scenario for the funding ratio is TFR2B (Funding Ratio of 132.9%). The two other scenarios correspond to the defined Dynamic Allocation Key (DAK) as described in Chapter 5. The lower scenario is TFR 2A (119.5%), the higher scenario is TFR4 (138.5%).

With respect to the interest rate, next to the base scenario (included in the DNB P-set Q1 2024), the interest rate on time t=0 will be 'shocked' 100 basis points (BPS, 100 BPS is 1%) higher or lower than in the base scenario. The long-term interest rate will remain the same. The higher or lower interest rate at the start will be smoothed out over time. Below the general effects of both interest shock scenarios are described.

A shock of +100 BPS on the interest rate will have the following effects on the two current plans: Final Pay plan:

- The TFR2B capitals at moment of transition. A higher discount factor makes indexation less expensive. This results in a lower TFR2B level for the Final Pay members.
- A higher interest rate has also an effect on the results of the current Final Pay plan. Overall, a
  higher interest rate is beneficial for MPF (higher funding ratio), resulting in higher future
  indexations.

# ARP/ASP plan:

- The costs of purchasing a pension at pension age are lower when the interest rate is higher.
   This affects both the current and the new plan.
- The fund returns will be affected by a higher interest rate and will result in a higher value of the ARP buffer.

A shock of -/- 100 BPS on the interest rate will have the following effects on the two current plans:

# Final Pay plan:

- The TFR2B capitals at moment of transition: A lower discount factor will make the promised indexation more expensive. This results in a higher TFR2B level for the Final Pay members.
- This lower interest rate has also an effect on the results of the current Final Pay plan, if it would be continued. Overall, a lower interest rate is unfavorable for the fund (lower funding ratio), which results in (possible) lower indexations.

# ARP/ASP plan:

- The costs of purchasing a pension at pension age are higher when the interest rate is lower. This affects both the current and the new plan.
- The funds returns will be affected by a lower interest rate and will result in a lower value of the ARP buffer.

The sensitivity analysis will be performed on each measure of the objectives 2 and 4 and for the different member groups (active, deferred and retired, ARP/ASP has no retired members in MPF) The base scenario funding ratio (TFR2B) will be combined with the base and the two shocked (+ and -/-100 BPS) interest rate scenarios. The 3 funding ratio scenarios (TFR2A, TFR2B and TFR4) are compared using the base interest rate scenario. This results per objective in 9 scenario outcomes for the Final Pay plan and 6 for the ARP/ASP plan. The scenario outcomes are both shown in graphs and tables per age group (cohort). These tables are the basis for setting the bandwidths.

# 7.2 Complexity of the new Pension Arrangement

**Objective 1**: the transition to the new pension arrangement is explainable and limited in complexity.

**Measure:** A new pension arrangement is better to understand for and easier to communicate to all members.

The new pension plan has a uniform pension system (Defined Contribution) for all members. Both the accrual period and the payout period are combined. This makes the new pension plan much easier to



understand with respect to the current situation of two different pension systems (Final Pay and ARP/ASP) and for the ARP/ASP plan members the option of whether to buy an annuity at MPF from the accrued ARP capital (the ASP capital cannot be used to buy an annuity at MPF). Moreover, there is a uniform contribution scheme (no age-dependent actuarial contributions), and all the defined age groups of members benefit in the same way of the returns on the assets of MPF. With the new pension scheme, all current transitional arrangements will end, and the value will be considered with the conversion. The objective of a better explainable new pension scheme which is limited in complexity with respect to the current pension schemes, has been realized.

# 7.3 Expected pensions

**Objective 2:** the objective of the transition is that members in the new pension plan have at least the same or a better expected pension result as in the current pension plan. This includes adequate compensation for the negative aspects resulting from the move to a flat rate DC and for the negative aspects of losing guaranteeing components resulting from conversion to the new DC plan. Preferably all plan members have a somewhat similar positive effect, or any difference in effect is plausible and balanced.

**Measure:** the real weighted benefit after conversion to the new plan is equal or higher to the real weighted benefit in the current plan in the expected scenario (50th percentile). The real weighted benefit is the value of the pension benefit corrected for inflation during the whole benefit phase and corrected for the probability of being alive. The measure will be used for both the Final Pay and ARP/ASP plan.

With reference to Appendix E for the presentation of the calculations and the analysis of the results, this paragraph we will give an outline of the most important results.

# 7.3.1 Base scenario

### Final pay plan

In <u>Appendix E</u>, the transition effects are shown for the <u>active</u>, <u>deferred</u> and <u>retired members</u> for the expected (50<sup>th</sup> percentile), optimistic (95<sup>th</sup> percentile) and pessimistic (5<sup>th</sup> percentile) scenario. The combined effects are shown in Figure 7.

# **Transition effects Final Pay plan**

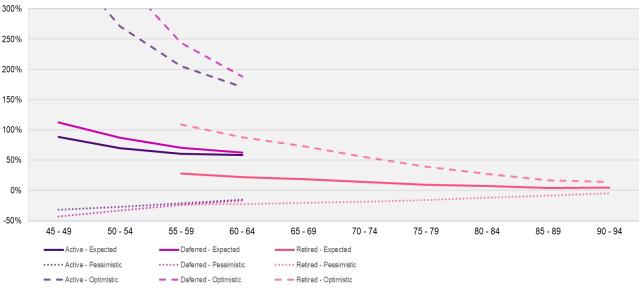


Figure 7



### Active members:

- Conversion at TFR2B results in an increase of capital at the moment of transition, because all
  future indexation is translated into the converted capital and additional compensation is
  determined for active members.
- After the transition, the new lifecycle contains a higher-risk investment policy (in relation to the current investment policy of MPF). This results in a higher expected return, and this return is not capped on the indexation ambition.
- Both effects combined result in a strong positive transition effect for the expected and optimistic scenario. On the other hand, the loss of guarantees from the current plan and the changed investment policy results in a negative transition effect in a pessimistic scenario.
- In the expected scenario, all members have a positive transition effect of almost 60% or higher.
- In the optimistic scenario, the cap on the indexation (75% of CPI) in the current Final Pay plan results in lower indexations than the achieved returns in the new plan. This result in a positive transition effect.
- In the pessimistic scenario, returns will be in general less than the indexation given under the current plan, especially given the current funding ratio. This results in a negative transition effect.

### Deferred members:

- For the deferred members, generally the same explanations apply as for active members.
- A key distinction is that for active members, the new DC premiums contribute to additional
  capital growth alongside the converted capital. This reduces the impact of investment
  scenarios, since part of the effect applies to future contributions only. In contrast, deferred
  members do not experience this effect, leading to a wider range of transition outcomes
  between optimistic and pessimistic scenarios compared to the expected scenario.

### Retired members:

- In general, the transition effect is smaller for older members due to the lower life expectancy.
   The spread between the positive and negative scenario is much smaller and narrows with the increasing age.
- Just as for active and deferred members, in the optimistic scenario the cap on the indexation
  in the current plan will be lower than the achieved return in the SPR plan resulting in a
  positive transition effect. In the pessimistic scenario, returns in the SPR plan can be less than
  the indexation that would be given under the current plan. But both effects are mitigated
  through the more defensive investment policy and the solidarity reserve
- Comparing early retirees with deferred members in the same age cohort, we observe stronger
  effects for deferred members. This is primarily due to the collective benefit phase for retirees,
  as they allocate less to risky assets compared to deferred members in the same age cohort.
  Therefore, deferred members inherently take on more risk.

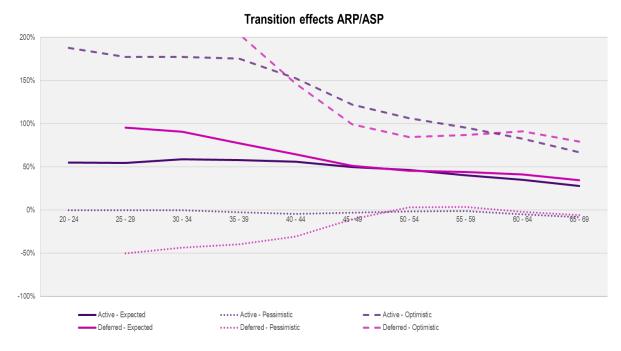
Figure 7 shows that for all members, in the expected scenario the real weighted benefit after conversion to the new plan is higher compared to the real weighted benefit in the current plan. Moreover, for the majority of the members the real weighted benefit is significantly higher. Active and deferred members have a somewhat comparable positive effect, for retired members the positive



effect is smaller. This is plausible, because the retired members take less risk in the collective benefit phase. The higher risk for active and deferred members leads to a higher transition effect in the expected scenario but has a risk of a negative transition effect in the pessimistic scenario and a reward in the positive transition effect in the optimistic scenario.

# ARP/ASP plan

In <u>Appendix E</u>, the transition effects are shown for the <u>active</u> and <u>deferred</u> members for the expected (50<sup>th</sup> percentile), optimistic (95<sup>th</sup> percentile) and pessimistic (5<sup>th</sup> percentile) scenario. The ARP/ASP plan has no retired members. The combined effects are shown in Figure 8.



# Figure 8

As mentioned before, for Objective 2 we compare in the expected scenario the real weighted benefit after conversion to the new plan with the real weighted benefit in the current plan. In the real weighted benefit, the pension payments after retirement are considered.

In the current ARP/ASP plan, members need to buy a pension benefit by an external party for the ASP capital. For the ARP capital there are two options: buying an annuity including the current indexation policy in MPF (the retirees will be "the same" as a Final Pay retiree) or buying a pension benefit at an external party. In practice, all the members who retired until now, have bought a pension benefit at an external party. In the new plan, buying in MPF is mandatory.

For the comparison of real weighted benefit, we have assumed that under the current plan, all members purchase a fixed pension benefit externally upon retirement. Over time, this fixed pension benefit will be a diminishing benefit in real terms because there's no adjustment for inflation. In the new SPR plan, the returns will determine the development of the pension benefit.

### Active members:

- The life cycle under Wtp is more risk taking than the combination of the current ASP life cycle in combination with the investment policy of MPF for ARP.
- In the expected and optimistic scenario this will result in a better result compared to the current plan. The return ambition of the ARP plan is CPI + 3% with a minimum of 0% and a maximum of 13%. The actual return depends on the past return of MPF and the ARP buffer.



- In the optimistic scenario, younger members benefit extra from the higher contribution level and the abolishment of the borrowing restriction (resulting in a riskier life cycle) in the SPR plan.
- In the pessimistic scenario the riskier life cycle will result in a lower result than the current plan. This is strengthened by the ARP part of the current plan, where a guarantee of return of 0% applies. This effect is more noticeable for the older members due to the difference in time until retirement. But this results in barely any losses from the transition to the new plan, because in the new plan the pension benefits are part of the benefit phase (with fund returns and solidarity reserve) compared to the fixed pension benefit in the current plan (no inflation adjustments). For younger members, the higher contribution level in the SPR plan subdues the negative effect.
- Active members benefit from the compensation for the difference in contribution level and on top of the compensation for the abolishment of the ARP-buffer, which they receive directly upon transition.

### Deferred members:

- Relative to active members, deferred members benefit more in positive scenarios and
  experience higher losses in negative scenarios. The primary reason for this is that active
  members continue to accrue capital through contributions which has a stabilizing effect. For
  deferred members the higher risk exposure has therefore a more prominent effect.
- This effect is relative to the accumulated capital in the period the member was active.
- For younger deferred members, in all the three scenarios the transition effect is more prominent because the time horizon to pension date is longer.

Figure 8 shows that for the active and deferred members, the real weighted benefit after conversion to the new plan is higher to the real weighted benefit in the current plan in the expected scenario. This even applies to the pessimistic scenario for the active members. Active and deferred members have a somewhat comparable positive and negative effect, the differences occur due to lack of contribution for the deferred members.

# 7.3.2 Interest rate shock

In Appendix E, the explanation and calculation results of the transition effects are shown for the active, deferred and retired members for the expected, optimistic and pessimistic scenario. The ARP/ASP plan has no retired members.

For the general effects regarding an interest rate shock, we refer to the introduction of this chapter. In this paragraph we give a summary of the most important results.

# Final Pay plan

- A change in interest rate will influence the TFR2B capital (lower conversion capital), which
  has a bigger impact for younger members. Resulting in a negative effect for all members and
  all scenarios compared to the basic scenario.
- In the optimistic scenario, the effect of an interest rate change is higher than in the other scenarios which is explained by cumulative returns on returns in an optimistic scenario.
- A shock of + 100 BPS will negatively impact the transition effect of all members in comparison with the base scenario, especially active members.
- A shock of -/- 100 BPS will positively impact the transition effect of all members in comparison with the base scenario, especially deferred members.



# ARP/ASP plan

- For the ARP/ASP members the TFR2B capital remains the same, there is however a difference in compensation (with respect to the ARP buffer).
- For active members, the effect of the interest rate shock is less significant. The new accrual
  has a damping effect of the market fluctuations, resulting in only minor (neglectable)
  differences.
- For deferred members, the interest rate has impact on the interest rate hedging in the new pension scheme.
- A shock of + 100 BPS has a slightly negative impact on the transition effect of the deferred members.
- A shock of -/- 100 BPS has merely no effect.

# Interest sensitivity

The sensitivity analysis with respect to the interest rate shock shows that mainly the TFR2B capitals in the Final Pay plan and to the compensation in the ARP/ASP plan are affected.

A shock of + 100 BPS will negatively impact the transition effects of all members of the Final Pay plan in comparison with the base scenario, especially active members. For the ARP/ASP plan, this effect is much smaller and refers only to deferred members. A shock of -/- 100 BPS has a positive effect on the Final Pay plan (especially deferred members) and merely no effect on the ARP/ASP plan.

# 7.3.3 Funding ratio shock

In <u>Appendix E</u>, the explanation and calculation results of the transition effects are shown for the active, deferred and retired members for the expected, optimistic and pessimistic scenario. The ARP/ASP plan has no retired members.

The base scenario for the funding ratio is TFR 2B (Funding Ratio of 132.9%). The two other scenarios are Target Funding Ratios from the defined Dynamic Allocation Key (DAK) as described in Chapter 5. The lower scenario is TFR 2A (119.5%), the higher scenario is TFR4 (138.5%).

# Lower Funding ratio: TFR2A (119.5%)

# Final Pay plan

- Active members will receive their full converted capital due to the guarantee of the Company.
   So, if the Funding Ratio is equal to the TFR2A, these members will receive their TFR3 capital with the conversion.
- Deferred and retired members will receive the TFR2A converted capital, there is no guarantee
  of the Company for TFR2B. The difference in the real weighted benefit between TFR2A and
  TFR2B is smaller at the higher ages. In the expected scenario, for deferred members the real
  weighted benefit is 10% to 30% lower, and for retired members the real weighted benefit is up
  to 9% lower compared to their real weighted benefit in the base scenario. The difference in
  transition effects is the largest in the optimistic scenario.

# ARP/ASP plan

- Active members will receive their full converted capital due to the guarantee of the Company.
   So, if the Funding Ratio is equal to the TFR2A, these members will receive their TFR3 capital with the conversion.
- There is no difference in converted capital for the deferred members between TFR2A and TFR2B.



 The lower funding ratio has no effect on the active and deferred members of the ARP/ASP plan.

#### Higher Funding ratio: TFR4 (138.5%)

If the funding ratio is equal to TFR4, the solidarity reserve is fully filled (5% of the assets). The retired members in the Final Pay plan will have the most benefit: in the pessimistic scenarios a maximum initial filling will provide protection for a potential cut of pension benefit.

All the other members of the Final Pay plan and the ARP/ASP plan will also benefit but this benefit is low because the probability is high that when they retire the filling of the solidarity reserve up to the maximum of 5% of the assets is already paid out to retired members and the solidarity reserve is empty in a (very) pessimistic scenario. The younger the member, the lower the benefit effect of a fully filled solidarity reserve.

#### **Funding ratio sensitivity**

The sensitivity analysis with respect to the funding ratio shows that the lower funding ratio (TFR2A) will negatively impact the transition effects of deferred and the retired members of the Final Pay plan. For the active members of both the Final Pay and the ARP/ASP plan, the guarantee of the Company neutralizes this effect. Deferred members of the ARP/ASP are not impacted.

A higher funding ratio will merely result in the full filling of the solidarity reserves, which benefits the retired members most.

#### 7.3.4 Bandwidths

Upfront, social partners have made an estimate for the bandwidths for the base scenario. This proved to be difficult given the significant differences between the current and new pension plans. A comparison with other pension funds was complex given the specific characteristics of MPF. After the calculations for the base scenario, the bandwidths were reviewed and adapted. The calculations have produced valuable information with respect to the volatility of the results and explanation for the driving parameters. Subsequently, the reviewed bandwidths were evaluated given the calculations of the other scenarios (with respect to funding rations and interest rates). Social partners have concluded that the bandwidths are robust.

#### Final pay plan

	Pessimistic scenario									
	Active m	nembers	Deferred	members	Retired r	members				
Age cohort (years)	Lower border	Upper border	Lower border	Upper border	Lower border	Upper border				
45 – 49	-55%	-30%	-55%	-25%	-	-				
50 - 54	-45%	-25%	-45%	-20%	-	-				
55 - 59	-35%	-20%	-35%	-15%	-30%	-20%				
60 – 64	-25%	-15%	-25%	-10%	-30%	-20%				
65 – 69	-	-	-	-	-25%	-15%				
70 – 74	-	-	-	-	-25%	-15%				
<b>75 – 79</b>	-	-	-	-	-20%	-10%				
80 – 84	-	-	-	-	-20%	-10%				
85 – 89	-	-	-	-	-10%	-5%				
90 – 94	-	-	-	-	-10%	-5%				

Table 6



Expected scenario									
	Active m	nembers	Deferred	members	Retired r	members			
Age	Lower border	Upper border	Lower border	Upper border	Lower border	Upper border			
(years) 45 – 49	35%	100%	60%	190%	-	-			
50 – 54	35%	85%	50%	140%	-	-			
55 – 59	40%	70%	50%	100%	20%	40%			
60 – 64	45%	65%	55%	80%	15%	35%			
65 – 69	-	-	-	-	10%	30%			
70 – 74	-	-	-	-	5%	20%			
<b>75 – 79</b>	-	-	-	-	5%	15%			
80 – 84	-	-	-	-	5%	10%			
85 – 89	-	-	-	-	2%	8%			
90 – 94	-	-	-	-	3%	8%			

Table 7

Optimistic scenario									
	Active m	nembers	Deferred	members	Retired r	members			
Age cohort (years)	Lower border	Upper border	Lower border	Upper border	Lower border	Upper border			
45 - 49	230%	425%	400%	750%	-	-			
50 - 54	190%	300%	300%	500%	-	-			
55 - 59	170%	250%	225%	350%	90%	130%			
60 - 64	150%	200%	200%	250%	75%	100%			
65 – 69	-	-	-	-	60%	90%			
70 - 74	-	-	-	-	45%	70%			
<b>75 – 79</b>	-	-	-	-	30%	50%			
80 - 84	-	-	-	-	20%	30%			
85 - 89	-	-	-	-	15%	20%			
90 - 94	-	-	-	-	10%	20%			

Table 8

#### **ASP/ARP Plan**

	Pessimistic scenario									
	Active m	nembers	Deferred	members						
Age cohort	Lower border	Upper Lower border		Upper						
(years)	Dorder	Dorder	Dorder	Dorder						
20 – 24	-5%	0%	-60%	-50%						
25 – 29	-5%	0%	-55%	-45%						
30 – 34	-5%	0%	-50%	-40%						
35 – 39	-5%	0%	-40%	-35%						
40 – 44	-5%	0%	-350	-25%						
45 – 49	-5%	0%	-15%	-10%						
50 – 54	-5%	0%	-10%	5%						
<b>55 – 59</b>	-5%	0%	-5%	5%						
60 – 64	-5%	0%	-5%	0%						
65 – 69	-5%	0%	-5%	0%						

Table 9



Expected scenario									
	Active n	nembers	Deferred	members					
Age cohort (years)	Lower border	Upper border	Lower border	Upper border					
20 – 24	55%	60%	90%	110%					
25 – 29	55%	60%	85%	105%					
30 – 34	55%	60%	80%	100%					
35 – 39	55%	60%	70%	90%					
40 – 44	55%	60%	60%	75%					
45 – 49	50%	55%	50%	60%					
50 – 54	45%	50%	45%	50%					
55 – 59	40%	45%	40%	50%					
60 – 64	35%	40%	35%	45%					
65 – 69	30%	35%	30%	40%					

Table 10

	Optimistic scenario									
	Active m	nembers	Deferred	members						
Age cohort (years)	Lower border	Upper border	Lower border	Upper border						
20 – 24	185%	200%	240%	290%						
25 – 29	180%	190%	230%	280%						
30 – 34	175%	190%	230%	260%						
35 – 39	170%	185%	190%	220%						
40 – 44	150%	170%	140%	160%						
45 – 49	120%	130%	100%	110%						
50 – 54	100%	120%	90%	100%						
<b>55 – 59</b>	95%	110%	85%	95%						
60 – 64	80%	90%	85%	95%						
65 – 69	70%	80%	75%	85%						

Table 11

#### 7.3.5 Conclusion

For all members in both plans, in the expected scenario the real weighted benefit after conversion to the new plan is higher compared to the real weighted benefit in the current plan. The effects are reasonable comparable, differences are explainable and due to the difference in investment risk (retired members versus active and deferred members and the dampening effect of contributions (active versus deferred members).

A shock of + 100 BPS will merely affect the Final Pay plan members as their accrual and conversion capital is sensitive for interest rate changes.

A lower funding ratio will negatively impact the transition effects of deferred and the retired members of the Final Pay plan. This is a consequence of the current Company guarantee which only refers to active members.

#### 7.4 Benefit payment phase

**Objective 3:** the new pension plan has, with respect to the current pension plan, a stable benefit payment phase, with a perspective of future pension increase and low probability of pension reductions and (relatively) small percentage reductions in case of a pension reduction.



**Measure:** The probability and magnitude of pension benefit increases and decreases over different time periods for both the Final Pay and ARP/ASP plan.

In the Final Pay plan, accrued pensions cannot be cut given the Company guarantee. In the benefit phase, the accrued pension entitlements of retired (and deferred) members can be indexed. This is a conditional indexation based on the financial position of MPF, and no reserve has been set up for this. The indexation is financed by investment returns. The indexation ambition is equal to 75% of the price inflation (Consumer Price Index, CPI), with a maximum of 3%. If the indexation granted falls short on the indexation ambition, this could lead to a future "catch-up indexation".

In the new pension plan, no Company guarantee applies. In the benefit phase, pensions can be both increased and decreased based on the realized investment returns. Investment returns are spread to prevent large shocks, and the solidarity reserve can be used to (partly) compensate nominal pension cuts in any year.

In this paragraph a comparison is made between the new and Final Pay pension plan on the expected development of the pension in the benefit payment phase.

In the current ARP/ASP plan, members need to buy a pension benefit from an external party for the ASP capital. For the ARP capital there are two options: buying an annuity including the current indexation policy in MPF (the retirees will be "the same" as a Final Pay retiree) or buying a pension benefit at an external party. In practice, all the members who retired until now, have bought a pension benefit at an external party. In the new plan, buying in MPF is mandatory. Given these facts, a true comparison between the current and new benefit for ARP/ASP plan is not possible.

Please refer to Appendix E for the presentation of the calculations and the analysis of the results. This paragraph we will give an outline of the most important results.

The comparison is made for two retired strawmen (68 and 80 years) in the base scenario with the funding ratio of TFR2B (Funding Ratio of 132.9%). The probability and magnitude of pension benefit increases and decreases are combined in one table: a probability is calculated for a predefined point in time (t=1, t=5, etc.) given a predefined range of cumulative increase or decrease from the moment of transition (t=0).

#### 7.4.1 Strawman 68 years

The results for the strawman in the Final Pay plan are:

P	robability of benefit decrease/increase	t=0	t=1	t=5	t=10	t=15	t=20
	Cumulative increased more than 35	0%	0%	0%	0%	4%	37%
	Cumulative increased between 30% and 35%	0%	0%	0%	0%	14%	21%
	Cumulative increased between 25% and 30%	0%	0%	0%	2%	24%	17%
	Cumulative increased between 20% and 25%	0%	0%	0%	17%	25%	10%
	Cumulative increased between 15% and 20%	0%	0%	0%	36%	15%	6%
Final Day	Cumulative increased between 10% and 15%	0%	0%	27%	25%	8%	4%
Final Pay (FTK)	Cumulative increased between 5% and 10%	0%	0%	60%	14%	7%	3%
(1 114)	Cumulative increased between 0% and 5%	100%	100%	13%	6%	3%	2%
	Cumulative decreased between 0% and 5%	0%	0%	0%	0%	0%	0%
	Cumulative decreased between 5% and 10%	0%	0%	0%	0%	0%	0%
	Cumulative decreased between 10% and 15%	0%	0%	0%	0%	0%	0%
	Cumulative decreased between 15% and 20%	0%	0%	0%	0%	0%	0%
	Cumulative decreased more than 20%	0%	0%	0%	0%	0%	0%

Table 12



Explanation of the marked 25%: at moment t=10, the age of the strawmen is 78 years (68 years plus 10), in 25% of the scenario's, the cumulative increase of the pension benefit (compared to t=0, moment of transition) is between the 10% and 15%.

As stated above, there are no pension cuts in the Final Pay plan. The yearly increases depend on the financial position of MPF and are capped at 75% of CPI with a maximum of 3%. T

The results for the strawman in the new pension plan are:

P	robability of benefit decrease/increase	t=0	t=1	t=5	t=10	t=15	t=20
	Cumulative increased more than 35	0%	0%	39%	64%	73%	77%
	Cumulative increased between 30% and 35%	0%	0%	15%	6%	3%	2%
	Cumulative increased between 25% and 30%	0%	1%	16%	6%	4%	2%
	Cumulative increased between 20% and 25%	100%	99%	20%	7%	5%	4%
	Cumulative increased between 15% and 20%	0%	0%	3%	2%	2%	2%
	Cumulative increased between 10% and 15%	0%	0%	2%	2%	1%	1%
SPR	Cumulative increased between 5% and 10%	0%	0%	2%	3%	2%	1%
	Cumulative increased between 0% and 5%	0%	0%	1%	2%	2%	2%
	Cumulative decreased between 0% and 5%	0%	0%	1%	2%	1%	1%
	Cumulative decreased between 5% and 10%	0%	0%	1%	2%	1%	1%
	Cumulative decreased between 10% and 15%	0%	0%	0%	1%	1%	1%
	Cumulative decreased between 15% and 20%	0%	0%	0%	1%	1%	1%
	Cumulative decreased more than 20%	0%	0%	0%	2%	4%	5%

Table 13

On the t=0 transition moment, the pension benefit has an increase between 20% and 25%. This can be explained by the effect of the conversion The Final Pay benefit is converted to a capital at transition date, which increases the initial pension benefit with approximately 23% for a 68-year-old (the so-called "transition bonus"). This is without the compensation under TFR3 because this strawman is retired on transition date but includes the full future indexation under TFR2B.

Over time, this pension benefit can both orincrease or decrease, based on the realized investment returns. In Table 13, a number of decreases is shown. Furthermore, the increase on t=0 is shown (transition bonus). In the new plan, there's no cap on increases.

Explanation of the marked 2%: at moment t=10, the strawmen is 78 years old, in 2% of the scenario's the pension benefit has cumulative decreased between 5% and 10% compared to the benefit of the Final Pay plan on t=0.

In the new scheme, the benefits are especially in the first years much higher than in current Final Pay plan. This is explained by the transition bonus (TFR2B). In later years, in the new scheme there's a (small) probability that the benefit decreases compared to current scheme. At the same time, the new scheme also has a considerable probability of offering (much) higher increases than the benefit the straw man would get in the current scheme as the indexation of the current plan is capped at 75% of CPI with a maximum of 3% which is no longer the case in the new plan. Please note that higher benefit during the first retirement period may be perceived as more valuable by the retiree.



#### 7.4.2 Strawman 80 years

The analysis for the 80-years strawman is done in the same way:

Probability	of benefit decrease/increase	t=0	t=1	t=5	t=10
	Cumulative increased more than 35	0%	0%	0%	0%
	Cumulative increased between 30% and 35%	0%	0%	0%	0%
	Cumulative increased between 25% and 30%	0%	0%	0%	2%
	Cumulative increased between 20% and 25%	0%	0%	0%	17%
	Cumulative increased between 15% and 20%	0%	0%	0%	36%
E: 15	Cumulative increased between 10% and 15%	0%	0%	27%	25%
Final Pay (FTK)	Cumulative increased between 5% and 10%	0%	0%	60%	14%
(1 111)	Cumulative increased between 0% and 5%	100%	100%	13%	6%
	Cumulative decreased between 0% and 5%	0%	0%	0%	0%
	Cumulative decreased between 5% and 10%	0%	0%	0%	0%
	Cumulative decreased between 10% and 15%	0%	0%	0%	0%
	Cumulative decreased between 15% and 20%	0%	0%	0%	0%
	Cumulative decreased more than 20%	0%	0%	0%	0%

Table 14

Probability (	of benefit decrease/increase	t=0	t=1	t=5	t=10
	Cumulative increased more than 35	0%	0%	10%	48%
	Cumulative increased between 30% and 35%	0%	0%	11%	7%
	Cumulative increased between 25% and 30%	0%	0%	14%	8%
	Cumulative increased between 20% and 25%	0%	0%	16%	7%
	Cumulative increased between 15% and 20%	0%	0%	18%	7%
	Cumulative increased between 10% and 15%	100%	100%	20%	8%
SPR	Cumulative increased between 5% and 10%	0%	0%	3%	2%
	Cumulative increased between 0% and 5%	0%	0%	2%	2%
	Cumulative decreased between 0% and 5%	0%	0%	2%	3%
	Cumulative decreased between 5% and 10%	0%	0%	1%	2%
	Cumulative decreased between 10% and 15%		0%	1%	2%
	Cumulative decreased between 15% and 20%	0%	0%	1%	1%
	Cumulative decreased more than 20%	0%	0%	1%	3%

Table 15

For an 80-years-old, the transition bonus is approximately 12%. Accordingly, in Table 15, on t=0, a pension benefit increase between 10% and 15% is shown. In principle, the same conclusions apply as for the strawman of 68-year. The difference is that the value of a higher pension benefit in the first retirement period is even more valuable for an 80-years-old.

In the Final Pay plan, accrued pensions cannot be cut given the Company guarantee and conditional indexation (capped to 75% of CPI with a maximum of 3%) applies. In the new pension plan, no Company guarantee applies. In the benefit phase, pensions can be both increased and decreased based on the realized investment returns. Investment returns are spread to prevent large shocks, and the solidarity reserve can be used to (partly) compensate nominal pension cuts in any year.



#### 7.4.3 Conclusion

The comparison shows, that in the first years, the new pension plan offers a (much) higher pension benefit because of the ease-in capital. In the later years, a decrease in pension benefit is possible (around 10% probability for a decrease up 20%) but the probability of a substantial cumulative increase is also considerable.

Retired members will value a higher pension benefit during the first retirement period more than a higher pension benefit later in time. Moreover, the exchange between a higher increase and possible decrease in the later retirement period, seems reasonable.

In conclusion, we can say that the new pension plan has, in relation to the current Final Pay plan, a stable benefit payment phase, with a low probability of pension reductions and (relatively) small percentage reductions in case of a pension reduction.

#### 7.5 Net Profit

Objective 4: Net Profit

**Measure:** Net Profit calculations (Netto Profijt berekeningen)

Net Profit is intended to determine the value of the pension benefit. The starting point of this methodology is that a pension contract can be seen as a financial option, the characteristics of the contract have value. With Net Profit calculations the effects of redistribution of the value of these characteristics (at the transition from the current to the new scheme, for example the abolishment of the 'doorsneesystematiek', indexation policy, solidarity reserve etc.) can be illustrated.

#### Net Profit = value of benefit payments -/- value contributions

Net Profit will not give any insights in the pension benefits under the new scheme and/or insights in the risk in optimistic and pessimistic scenarios. Net Profit is calculated with a different – risk neutral – scenario set (Q-set). The P and Q-set are quarterly published by the DNB.

Net Profit is a mandatory component when considering a new pension scheme. The calculations need to be done with the published Q-set with 10,000 scenarios.

The main differences between Net Profit and real weighted benefit are described below:

Measurem ent	Net profit	Real weighted expect benefit
Туре	Valuation benchmark (market value of the benefits reduced by the market value of contributions)	Projection benchmark (achieved pension benefits, weighted over the retirement period)
Economic scenario set	Q-set risk neutral	P-set "real world"
Description	Gives insights in redistribution of assets	Give insights in the effects of "good" and "bad" weather

#### Table 16

Net Profit results can be contradictory with real weighted benefit results. For instance, a more offensive / defensive investment will lead to different real weighted benefit but will not or barely change the outcome of Net Profit. The reason is that in Q-set, the return on assets is the same as the return on bonds.

The interpretation of Net Profit within a pension scheme:

- Positive: the market value of the pension benefits is higher than the value of the contributions
- Negative: the market value of the pension benefits is lower than the value of the contributions.



In the calculations in this paragraph, a comparison of the Net Profit is made <u>between</u> the current and new pension scheme. The interpretation of the difference in Net Profit between the two schemes:

- Positive: the Net Profit in the new scheme is higher than in the old scheme
- Negative: The Net Profit in the new scheme is lower than in the old scheme.

Net Profit can be defined as:

#### Net Profit = Net Profit new scheme-/- Net Profit current scheme

Which can be broken down into:

#### Net Profit = (A-B) - (C-D) = (A-C) - (B-D)

Where:

- A = Market value benefits of the new scheme (SPR)
- B = Market value contribution of the new scheme (SPR)
- C = Market value benefits of the current scheme (Final Pay or ARP/ASP)
- D = Market value contribution of the current scheme (Final Pay or ARP/ASP).

In the last step of the calculation, the <u>Delta Net Profit</u> is calculated. The Delta Net Profit is equal to the difference between the Net Profit of the new scheme and the current scheme, divided by the market value of the current scheme.

#### Delta Net Profit = ((A-B) - (C-D)) / C

Conclusions with respect to the balanced interests, should not be solely based on the insights of the Delta Net Profit but combined with insights in the real weighted benefits and other objectives.

Please refer to Appendix F for the presentation of the calculations and the analysis of the results. this paragraph we will give an outline of the most important results.

#### 7.5.1 Base scenario

#### Final pay plan

On Appendix F, the Net Profit effects are shown for the active, deferred and retired members. The combined effects are shown in Figure 9.



# Delta Net Profit 20% 18% 16% 14% 12% 10% 8% 6% 4% 2% 0% 40 - 44 45 - 49 50 - 54 55 - 59 60 - 64 65 - 69 70 - 74 75 - 79 80 - 84 85 - 89 90 - 94 95 - 99 Active Deferred Retired

#### Figure 9

#### Retired members:

- The Net Profit effect for the retired members is positive. For these members, only the market value of the benefits of the new scheme and the current scheme are relevant as there is no future contribution.
- The positive effect is caused by the expected difference in indexation (current scheme) and expected change in the pension payment in the new scheme. Under the new scheme all members will receive 75% of the projected CPI curve, with a maximum of 3%, as additional conversion capital under TFR2B. This is the maximum estimated indexation in the current scheme. However, there are numerous scenarios where this maximum indexation target will not be achieved in the current scheme. Therefore, Delta Net Profit results positive for retired members.

#### Deferred members:

- In accordance with the retired members, only the market value of the benefits of the new scheme and the current scheme are relevant as there are no future contributions.
- The positive Net Profit can be explained similarly as the retirees.
- Additionally, the slightly lower Delta Net Profit for deferred members compared to retirees is
  primarily because retirees are directly protected against benefit reductions through the
  solidarity reserve, where deferred members are only protected from their retirement age. As a
  result, they derive value from the reserve but must wait until their retirement date for this
  value.

#### Active members:

- For older members the same logic applies as for deferred and retired members the
  indexation of 75% of CPI, with a maximum of 3% granted at converting under TFR2B. Older
  members have already accrued a substantial pension. The value obtained from the
  guaranteed indexation at transition date is significantly higher than for younger members. This
  results in a positive Net Profit with respect to the market value of the benefits: the market
  value of the benefits from the new scheme is higher than under the current scheme.
- For younger members, the guaranteed indexation applies to a smaller entitlement, resulting in a lower absolute value. The back service effect from future accrual is here more significant, offering much higher value to the new accrual in the current scheme compared to the new scheme. This leads to a negative Delta Net Profit of the market value of the benefits for younger members.



- Over time, the Final Pay population decreases and becomes older. This results in a higher market value of the contributions due back service effects. This has a substantial reducing effect on the Net Profit of the current Final Pay plan. It results in an increase of the Delta Net Profit (new scheme compared to current scheme).
- In the first few years, the fund's financial position will provide a full contribution reduction. This is evidenced by the only minimal difference between the Delta Net Profit for pension benefits alone and the total Delta Net Profit, for the older members (see <a href="Appendix F">Appendix F</a>). It is only after a few years that contribution costs start to become evident. As the fund depletes and contribution costs rise—partly due to the expensive back service effect—the Delta Net Profit of the current scheme declines, resulting in positive Delta Net Profit, particularly for younger members.

The overall Delta Net Profit is quite comparable for the three groups, except for the young active members. The main reason for this exception is the back service "cost" that have substantial reducing impact on the Net Profit of the Final Pay plan. Please note that due to the relatively small group of active members, therefore cohort effects may lead to volatile fluctuations.



#### ARP/ASP plan

In <u>Appendix F</u>, the transition effects are shown for the <u>active</u> and <u>deferred members</u>. The ARP/ASP plan has no retired members. The combined effects are shown in Figure 10.

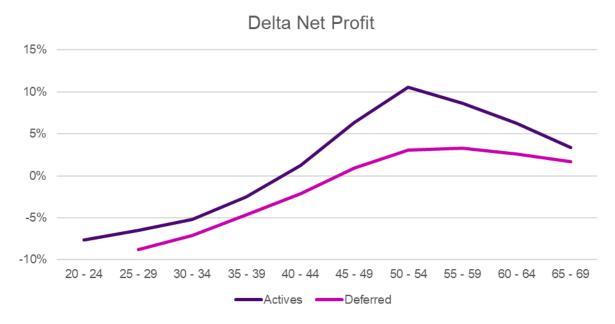


Figure 10

#### Active members:

- Younger members face a negative delta in Net Profit. This is primarily due to the guarantees
  offered under the current scheme, along with the time horizon in which they will be able to
  take advantage of these guarantees (guarantee of 0%, ambition of CPI+3% with a maximum
  of 13%).
- The increase in Delta Net Profit as the age grows, can be explained by the compensation at the time of the conversion from the Gross Profit Plus method, which closely resembles the compensation method as a percentage of the pension base (see section 6.3) and the added value of the solidarity reserve at a later age.

#### Deferred members:

- The negative Net Profit of the young deferred can be mainly explained by the ARP interest rate which guarantees a 0% return (if the buffer allows it).
- This argumentation is less explanatory for the older population, mainly because the time in the ARP/ASP plan of which they benefit from the guarantees is shorter.
- The positive effect of the older members is mainly due to the pension benefit phase. In the current scheme, for ARP/ASP the purchase of the fixed pension benefit is assumed and a variable pension benefit in the new scheme. In scenarios where interest rates rise sharply, the variable pension benefit increase significantly. As these extreme scenario's weight heavily in Delta Net Profit calculations, buying a fixed pension benefit will lead to a loss in Net Profit.
- The solidarity reserve is initially funded at 1%. In adverse scenarios, it can offer protection
  especially during the early years after retirement. Therefore, it adds value for members near
  retirement.



The Delta Net Profit is reasonably comparable for the active and deferred members of the ARP/ASP scheme. For the younger members, the guarantees of the ARP plan result in a negative Delta Net Profit. For the older members, the compensation at the conversion in combination with value from the solidarity reserve results in a positive Delta Net Profit.

#### 7.5.2 Interest rate shocks

In <u>Appendix F</u>, the explanation and calculation results of the transition effects are shown for the active, deferred and retired members for the expected, optimistic and pessimistic scenario. The ARP/ASP plan has no retired members.

For the general effects regarding an interest rate shock, we refer to the introduction of this chapter. In this paragraph we give a summary of the most important results.

#### **Final Pay**

- For retired members, an interest shock of + 100 basis points (BPS) has a very small effect. A shock of -/- 100 basis points will increase the converted capitals and increase the Delta Net Profit.
- For deferred members, a shock of + 100 BPS results in a higher Delta Net Profit. In the new scheme, benefits are higher in the first years with respect to the current scheme. Given the higher interest, the present value of the new scheme is higher. A shock of -/- 100 BPS reduces the value of the future indexation in the current scheme and leads to a higher conversion capital, resulting in a higher Delta Net Profit.
- For active members, a shock of + 100 BPS, decreases the market value of the benefits due to the lower present value of future indexations and accruals in the current scheme. In the new scheme, members immediately receive the value of the transition bonus along with the compensation, which enhances their market value of the benefits. The market value of the contribution of the current scheme will decrease due to rising interest rates resulting in higher contribution discounts. On balance the Delta Net Profit remains positive.
- Active members, shock of -/- 100 BPS: the primary driver of value is the new accrual along with the back service effect. When focusing solely on Net Profit from the market value of benefits, we see an improvement in the Net Profit of the current scheme. Due to the lower interest rate, the value of future accruals increases compared to the full indexation guarantee granted at the transition. It results in a lower Delta Net Profit compared to the basic variant. Considering future contribution costs, a rise in Delta Net Profit is observed. Due to the lower interest rate, the costs of new accrual increase. Less future contribution reductions can be facilitated. This leads to a higher market value of the contributions cost and reduces the total Net Profit of the current scheme. Consequently, this results in an increase in the Delta Net Profit.

#### ARP/ASP plan

- A shock of + 100 BPS results in a significant increase in Delta Net Profit for the deferred members. This result is driven by the value of the ARP buffer. The ARP buffer guarantee creates a negative value for all deferred members in the risk-neutral world, where the interest rate is initially positively shocked and increases significantly over time on average. The shock does not influence the new scheme as the initial conversion capital is not dependent on the interest rate. As the Net Profit under the current scheme reduces and Net Profit for the new scheme is constant, the Delta Net Profit increases.
- For active members, the same reasoning applies. The only difference is that the value of the ARP buffer is positive for active members.
- For both active and deferred members, a shock of -/- 100 BPS will increase the value of the ARP buffer and increase the Net Profit of the current ASP/ARP plan. The Net Profit of the new plan does not change, so the delta Net Profit will decrease.



#### Interest sensitivity

For active members in the Final Pay plan, the interest rate affects the conversion capital and the value of the market value of the contribution in the current plan. A shock of -/- 100 basis points has the highest impact on the total Delta Net Profit, + 100 BPS a small effect. The interest rate sensitivity for both deferred and retired members is relatively low.

For the ASP/ARP scheme, the interest rate sensitivity only refers to the ARP buffer. Just as in the case of the Final Pay plan, a negative shock has the highest impact.

#### 7.5.3 Funding ratio shock

In Appendix F, the explanation and calculation results of the transition effects are shown for the active, deferred and retired members for the expected, optimistic and pessimistic scenario. The ARP/ASP plan has no retired members.

The base scenario for the funding ratio is TFR 2B (Funding Ratio of 132.9%). The two other scenarios are Target Funding Ratios from the defined Dynamic Allocation Key (DAK) as described in Chapter 5. The lower scenario is TFR 2A (119.5%), the higher scenario is TFR4 (138.5%).

#### Lower Funding ratio: TFR 2A (119.5%)

#### Final Pay plan

- If the Funding Ratio is equal to TFR2A the retired members will receive less conversion
  capital: not the full but only half of the indexation ambition is granted at the transition date.
  This will result in a lower Net Profit for the new scheme, which lowers the Delta Net Profit.
  This effect will grow with an increasing retirement period.
- The same refers to deferred members, the Delta Net Profit will change from a positive to a negative effect.
- For active members, a lower conversion capital would result in a lower market value of the
  benefits and a reduction in the Delta Net Profit. However, the guarantee to compensate up to
  TFR3 level, has a significantly positive impact on the Net Profit of the new scheme. In the
  current scheme, the lower funding ratio reduces the indexation potential. As a result, we
  observe a positive Delta Net Profit for active members.
- If the market value of the contribution is included, the Delta Net Profit for the younger members increases. This can be explained by less contribution reductions in the current scheme. This results in an increase in the market value of future contributions, which reduces the Net Profit under the current scheme. This has a positive effect on the Delta Net Profit.

#### ARP/ASP plan

 The funding ratio does not affect the conversion capital effect of active and deferred members.

#### Higher Funding ratio: TFR4 (138.5%)

When the funding ratio is equal to TFR4, the solidarity reserve is fully filled (5% of the assets). The retired members in the Final Pay plan will have the most benefit: in the pessimistic scenarios a maximum initial filling will provide protection for a potential cut of the pension benefit. The same applies to the deferred members (Final Pay and ARP/ASP plan) but their benefit is smaller as they have not reached the retirement date yet.

For the active members in the Final Pay plan, a higher solidarity reserve can give a better protection in the future and therefore a higher market value of the benefits. But the Delta Net Profit is lower,



which can be mainly explained by the change in Net Profit of the Final Pay plan. A higher funding ratio will result in contribution reductions and will increase the Net Profit. Delta Net Profit will decrease.

For active members of the ARP/ASP plan, the solidarity reserve increases the Net Profit in the new plan due to the damping effect of the future accrual. This effect is smaller than for the deferred members as there is not future accrual.

#### Funding ratio sensitivity

For the Final Pay plan, the funding ratio determines the conversion capital for deferred and retired members. The sensitivity for a lower funding ratio is considerable for these groups (less Delta Net Profit). Active members are compensated at TFR3 level and experience a higher Delta Net Profit as the lower funding ratio reduces the indexation potential of the current scheme. The ARP/ASP plan has no sensitivity for the lower funding ratio.

A higher funding ratio is favorable for all members because the solidarity reserve is filled to a higher level.

#### 7.5.4 Bandwidths

Upfront, social partners have made an estimate for the bandwidths for the base scenario. This proved to be difficult given the significant differences between the current and new pension plans. A comparison with other pension funds was complex given the specific characteristics of MPF. After the calculations for the base scenario, the bandwidths were reviewed and adapted. The calculations have produced valuable information with respect to the volatility of the results and explanation for the driving parameters. Subsequently, the reviewed bandwidths were evaluated given the calculations of the other scenarios (with respect to funding rations and interest rates). Social partners have concluded that the bandwidths are robust.

#### Final pay plan

	Active members		Deferred members		Retired r	members
Age cohort (years)	Lower border	Upper border	Lower border	Upper border	Lower border	Upper border
45 - 49	10%	55%	-5%	10%	-	-
50 - 54	5%	30%	-5%	10%	-	-
55 - 59	5%	20%	-5%	10%	0%	15%
60 - 64	5%	20%	-5%	10%	0%	15%
65 - 69	-	-	-	-	0%	15%
70 – 74	-	-	-	-	0%	15%
75 – 79	-	-	-	-	0%	10%
80 – 84	-	-	-	-	0%	10%
85 – 89	-	-	-	-	0%	10%
90 – 94	-	-	-	-	0%	10%
95 - 99	-	-	-	-	0%	10%

Table 17

The wide bandwidth for several age cohorts is explained by, among other things, the low number of members in an age cohort. Outlier members, due to for instance a value transfer, have significant impact on the age cohorts.



#### ASP/ARP Plan

	Active members		Deferred members	
Age cohort (years)	Lower border	Upper border	Lower border	Upper border
20 – 24	-10%	-5%	-	-
25 – 29	-10%	-5%	-25%	5%
30 - 34	-10%	-5%	-20%	5%
35 – 39	-10%	10%	-15%	5%
40 - 44	-5%	10%	-10%	5%
45 – 49	0%	10%	-5%	10%
50 – 54	0%	15%	-5%	10%
55 – 59	0%	15%	0%	10%
60 - 64	0%	15%	0%	10%
65 – 69	0%	10%	0%	10%

Table 18

#### 7.5.5 Conclusion

For all members, except for the younger members, the delta Net Profit results are positive and reasonable comparable. For younger members, the back service effect in the Final Pay plan and the guarantees in the ARP plan, result in a negative delta Net Profit. Given the delta Net Profit methodology, the potential benefit of a higher investment returns in the SPR is not valued whereas younger members are well positioned to realize this value.

A shock of -/- 100 BPS enlarges the value of the current ARP guarantees and leads to a decrease in Net Profit. As mentioned above, the delta Net Profit methodology, does not value the potential benefit of a higher investment returns. For members of the Final Pay scheme, the interest rate sensitivity is low due to the compensation of opposite effects in the current and new scheme.

A lower funding level decreases the delta Net Profit for the deferred and retired members of the final pay which is fully attributable to the current Company guarantee.

#### 7.6 Survivor's pension for existing plan members

**Retirees:** there is no change for the current retirees, the choice for the level of survivor's pension at their retirement date remains unchanged.

**Final Pay Members:** active members and inactive members will maintain the proportion of their Survivor's pension that has been accrued: With easing-in, a proportion of the pension capital is to be kept apart, meant for financing future assurance of 'past service survivor's pension'. The partner who was the beneficiary of the survivor's pension on an accrual basis before the transition remains the beneficiary for the entitlement to the partner's pension accrued up to the transition date.

**ARP / ASP Members:** the current survivor's pension on a risk basis will expire and the new survivor's pension on a risk basis is insured based in the new pension scheme for active members. Since the coverage is on a risk basis before, there is no coverage for deferred members before and after the transition.



# 8. Summary and conclusion of balanced interests

Social Partners have defined objectives and measures to validate whether the transition is balanced. The description of the measures and the evaluation of the results of the calculations are extensively discussed <a href="Chapter 7">Chapter 7</a>. In this chapter, a summary of the results is discussed and the general evaluation of balanced interest over the 4 objectives set.

1. **Objective 1**: the transition to the new pension arrangement is explainable and limited in complexity.

**Measure**: the new pension arrangement is better to understand for and easier to communicate to all members.

Evaluation: Social Partner conclude that the objective of a better explainable new pension scheme which is limited in complexity with respect to the current pension schemes, has been realized.

2. Objective 2: the objective of the transition is that members in the new pension plan have at least the same or a better expected pension result as in the current pension plan. This includes an adequate compensation for the negative aspects resulting from the move to a flat rate DC and for the negative aspects of losing guaranteeing components resulting from conversion to the new DC plan. Preferably all plan members have a somewhat similar positive effect, or any difference in effect is plausible and balanced.

**Measure**: the real weighted benefit after conversion to the new plan is equal or higher to the real weighted benefit in the current plan in the expected scenario (50th percentile). The <u>real</u> weighted benefit is the real value of the pension benefit corrected for inflation during the whole benefit phase and corrected for the probability of being alive. The measure will be used for both the Final Pay and ARP/ASP plan.

#### Evaluation:

- Final Pay plan (base scenario): in the expected scenario the real weighted benefit after conversion to the new plan is higher compared to the real weighted benefit in the current plan. Moreover, for the majority of the members the real weighted benefit is significantly higher. Active and deferred members have a somewhat comparable positive effect, for retired members the positive effect is smaller. This is plausible, because the retired members take less risk with their investment policy in the collective benefit phase. The higher risk for active and deferred members leads to a higher transition effect in the expected scenario but has a risk of a negative transition effect in the pessimistic scenario and a reward in the positive transition effect in the optimistic scenario.
- ARP/ASP plan (base scenario): for the active and deferred members, the real
  weighted benefit after conversion to the new plan is higher than the real weighted
  benefit in the current plan in the expected scenario. This even applies to the
  pessimistic scenario for the active members. Active and deferred members have a
  somewhat comparable positive and negative effect, the differences occur due to lack
  of contribution for the deferred members.
- Interest rate sensitivity: The sensitivity analysis with respect to the interest rate shock shows that mainly the TFR2B capitals in the Final Pay plan and the compensation in the ARP/ASP plan are affected. A shock of + 100 BPS will



negatively impact the transition effects of all members of the Final Pay plan in comparison with the base scenario, especially active members. For the ARP/ASP plan, this effect is much smaller and refers only to deferred members. A shock of -/-100 BPS has a positive effect on the Final Pay plan (especially deferred members) and merely no effect on the ARP/ASP plan.

- Funding ratio sensitivity: a lower funding ratio (TFR2A) will negatively impact the
  transition effects of deferred and the retired members of the Final Pay plan. For the
  active members of both the Final Pay and the ARP/ASP plan, the Company
  guarantee neutralizes this effect. Deferred members of the ARP/ASP are not
  impacted. A higher funding ratio will merely result in the full filling of the solidarity
  reserves, which benefits the retired members most.
- Overall: for all members in both plans, in the expected scenario the real weighted benefit after conversion to the new plan is higher compared to the real weighted benefit in the current plan. The effects are reasonable comparable, differences are explainable and due to the difference in investment risk (retired members versus active and deferred members and the dampening effect of contributions (active versus deferred members).

A shock of + 100 BPS will merely affect the Final Pay plan members as their accrual and conversion capital is sensitive for interest rate changes.

A lower funding ratio will negatively impact the transition effects of deferred and the retired members of the Final Pay plan. This is a consequence of the current Company guarantee which only refers to active members.

Social Partners conclude that objective 2 is realized.

3. **Objective 3:** the new pension plan has, in relation to the current Final Pay plan, a stable benefit payment phase, with a low probability of pension reductions and (relatively) small percentage reductions in case of a pension reduction.

**Measure:** the probability and magnitude of pension benefit increases and decreases over different time periods for both the Final Pay and the new plan.

#### **Evaluation:**

• In the Final Pay plan, accrued pensions cannot be cut given the Company guarantee and conditional indexation (capped to 75% of CPI with a maximum of 3%) applies. In the new pension plan, no Company guarantee applies. In the benefit phase, pensions can both be increased and decreased based on the realized investment returns. Investment returns are spread to prevent large shocks, and the solidarity reserve can be used to (partly) compensate nominal pension cuts in any year.

The comparison shows, that in the first years, the new pension plan offers a (much) higher pension benefit because of the ease-in capital. In the later years, a decrease in pension benefit is possible (around 10% probability for a decrease up 20%) but the probability of a substantial cumulative increase is also considerable.

Retired members will value a higher benefit during the first retirement period more than a higher benefit later in time. Moreover, the exchange between a higher increase and possible decrease in the later retirement period, seems reasonable.

Social Partners conclude that new pension plan offers a (much) higher pension benefit because of the ease-in capital in the first retirement period. In the later retirement period the exchange between a higher increase and possible



decrease in the later retirement period, seems reasonable. Based on the assumption that retired members will value a higher benefit during the first retirement period more than a higher benefit later in time, Social Partners accept a higher benefit at the start, and a considerable probability of an increase and the relatively low probability of decrease in later periods.

4. **Objective 4:** reasonable and plausible Net Profit results.

Measure: Net Profit calculations (Netto Profijt berekeningen)

#### **Evaluation:**

- Final Pay plan (base scenario): the overall delta Net Profit is positive and quite
  comparable for the three groups, except for the young active members. The main
  reason for this exception is the back service "cost" that have substantial reducing
  impact on the Net Profit of the Final Pay plan. Please note that due to the relatively
  small group of active members, cohort effects may lead to volatile fluctuations.
- ARP/ASP plan (base scenario): The delta Net Profit is reasonably comparable for the active and deferred members of the ARP/ASP scheme. For the younger active members, the guarantees of the ARP plan result in a negative delta Net Profit. For the older members, the compensation at the conversion in combination with value from the solidarity reserve results in a positive delta Net Profit.
- Interest rate sensitivity: For active members in the Final Pay plan, the interest rate affects the conversion capital and the value of the market value of the contribution in the current plan. A shock of -/- 100 basis points has the highest impact on the total delta Net Profit, + 100 BPS a small effect. The interest rate sensitivity for both deferred and retired members is relatively low. For the ASP/ARP scheme, the interest rate sensitivity only refers to the ARP buffer. Just as in the case of the Final Pay plan, a negative shock has the highest impact.
- Funding ratio sensitivity: for the Final Pay plan, the funding ratio determines the
  conversion capital for deferred and retired members. The sensitivity for a lower
  funding ratio is considerable for these groups (less delta Net Profit). Active members
  are compensated to TFR3 level and experience a higher delta Net Profit as the lower
  funding ratio reduces the indexation potential of the current scheme. The ARP/ASP
  plan has no sensitivity for the lower funding ratio. A higher funding ratio is favorable
  for all members because the solidarity reserve is filled to a higher level.
- Overall: for all members, except for the younger members, the delta Net Profit results
  are positive and reasonable comparable. For younger members, the back service
  effect in the Final Pay plan and the guarantees in the ARP plan, result in a negative
  delta Net Profit. Given the delta Net Profit methodology, the potential benefit of a
  higher investment returns in the SPR is not valued whereas younger members are
  well positioned to realize this value.

A shock of -/- 100 BPS enlarges the value of the current ARP guarantees and leads to a decrease in Net Profit. As mentioned above, the delta Net Profit methodology, does not value the potential benefit of a higher investment returns. For members of the Final Pay scheme, the interest rate sensitivity is low due to the compensation of opposite effects in the current and new scheme.

A lower funding level decreases the delta Net Profit for the deferred and retired members of the final pay which is fully attributable to the current Company guarantee.



Social Partners conclude that the delta Net Profit results are reasonable and plausible. The results for younger active members are negative as the value of the current guarantees are higher valued using the Net Profit methodology. But the potential benefit of a higher investment returns in the SPR is not valued whereas younger members are well positioned to realize this value. Moreover, the number of young active members in the Final Pay plan is relatively small and the expected larger probability of future voluntary leave is not considered.

In this chapter, Social Partners have evaluated the defined objectives and measures and the results of the calculations with respect to these measures. The conclusion is that the objectives are largely met. In the weighting of the objectives, Objective 2 (same or a better expected pension result) has the highest weight for Social Partners and this objective is fully met. Objective 3 has the second priority, is not fully met (less stability of the pension benefit), but the results are acceptable for Social Partners given the preference of retired members. Third in line are the Net Profit results (objective 3): although younger active members have lower delta Net Profit results, Social Partners feel that the potential benefit of higher investment returns should be considered in the evaluation of this results. Taking this into account plus the probability of future leave (given the long future service time), the results are acceptable. Objective 1 (better to understand for and easier to communicate new pension scheme) is fully met with a uniform DC pension scheme for all members with a combined accrual and benefit phase.

Social Partners conclude that the transition is balanced for all members.



### 9. Accountability process

#### 9.1 Responsibilities

In paragraph 1.2, the consultative bodies and their responsibilities have already been mentioned:

Consultative body	Stakeholders	Purpose
Project Team/ Workstreams	Key stakeholders: Company and pension fund	Involved in preparation and consultation process regarding topics, before consideration and decision making by Pension Board and/or Social Partners
Social Partners (Company: OneMars Benefit Steering- Committee and Works Councils)	Representatives of Mars	Involved in the design of the new pension scheme, request for conversion, selecting pension provider
Mars Inc governance bodies	Mars Corporate	Involved in endorsement process in which support of the decision / approval takes place
Mars Pension Fund governance bodies	Pension Board, Supervisory Council, Accountability Council	Oversight and advise during different phases of the process
Right to be Heard Committee	Representatives of deferred members and pensioners	Have the right to be heard on proposed decisions

Table 19

#### 9.2 Outline of the decision-making process

#### 9.2.1 Project Team

The Project Team was the operational body in the process of changing the pension plan. Based on the input of Social Partners, the Team drafted the blueprint of the new pension plan, created an overview of all the necessary actions to be taken and made a planning to execute the actions. The main goal was the delivery of the transition plan. In between, a vast number of calculations were executed and discussed to support the Social Partners evaluating the transition effects from the current to the new plan and to support the drafting of the paper to the Mars Inc governance bodies.

#### 9.2.2 Works council involvement

Due to the complex nature of the Wtp and the importance of the transition into Wtp for Mars' associates, Mars engaged in informal conversations with the chair and secretary of the works council of Mars Nederland BV over the course of the 2nd half of 2023.

As the first outlines of the plans were being created, informal meetings were set-up with an ad-hoc Wtp committee that was formed of members of both the works council of Mars Nederland BV and Mars Food Europe CV. To ensure sufficient expertise, the committee added additional Mars associates as extra members that were not part of either works council but that had special knowledge and interest in the Wtp transitions. Furthermore, they selected on external advisor to support them on this topic.

On March 14<sup>th</sup>, 2024, first outlines of the proposed future benefit were shared with the Wtp committee as the project team informally socialized her plans for a Solidary Contribution Plan (SPR), the new pension base and contribution level, and initial ideas about compensation.

After further informal meetings, Mars formally debriefed the full works councils of both Mars Nederland BV and Mars Food Europe CV on the proposed plans on May 28th, 2024, and submitted the formal request for consent for their review. This request included the proposed decisions:



- 1. The set-up of a SPR per January 1st, 2027, for future contributions
- 2. A proposed total contribution of 30% (excl. costs)
- 3. Conversion of accrued rights of both actives and inactives into the new pension arrangement
- 4. Continued execution of the new SPR by the Mars Pension Fund (MPF).

Over the course of the 2nd half of 2024, the committee and members of the project team met in a series of meetings to discuss:

- Details of the proposed benefit also in comparison to the current benefits
- Transition effects per different strawmen and later for members per age cohort, mainly through real weighted benefit calculations (see <a href="Chapter 7">Chapter 7</a> of this transition plan).
- Calculations as provided by WTW on the real weighted benefit, the proposed compensation and the analysis on the use and benefit of the solidarity reserve.
- The proposed Dynamic Allocation Key for the purpose of dividing pension fund assets and its priority rules for a range of possible funding ratio levels.

Additionally, more than 100 formal questions were raised by the works councils and answered by the project team.

On the 5<sup>th</sup> of December 2024, the works council of Mars Nederland BV gave her consent on the proposed changes. On the 10<sup>th</sup> of December 2024 also the works council of Mars Food Europe CV gave their consent.

As the project team was still working on final details in (a) the Transition Plan, (b) Net Profit calculations, and (c) the corporate commitment from Mars pending global endorsement of the proposed plans, it was agreed that these details would still be provided to the works council later, post their consent, but before the finalization of the final Transition Plan.

#### 9.2.3 Mars Inc governance bodies

In the last quarter of 2024, a paper was issued by the Project Team to the Mars Inc governance bodies. This paper included an actual description of the design of the new pension plan, a substantiation of the design and an overview of the financial implications. The paper was discussed in the Mars Inc governance bodies, amended on several points and approved in December.

#### 9.2.4 Mars Pension Fund governance bodies

According to Wtp, Social Partners draft a transition plan which is sent by the Company to the pension fund (MPF). Subsequently, MPF will draft an implementation plan based on the transition plan and submit this plan to DNB. MPF was represented in the Project Team and the Pension Board was involved in the design of the new pension plan and commented on preliminary versions of the transition plan to guarantee a smooth handover of the transition plan. The final transition plan was delivered in February 2025. The Pension Board has started to draft the implementation plan which will be evaluated by the Supervisory Council and Accountability Council before delivery to DNB.

The decision process with respect to The Right to be heard committee is described in a separate paragraph below.

#### 9.3 Interpretation of the legal right to be heard ("hoorrecht")

The Mars Seniorenclub (MSC) is a non-Profit association that organizes social activities for retired associates of Mars Nederland BV and their partners. In 2024 the MSC had 979 members. As the Mars Pension Fund (MPF) had a total of 1370 beneficiaries (status 1 January 2024), the MSC could represent more than the required minimum of 10% of the retirees of the MPF.

In recognition that the Wtp would impact both active and inactive members of MPF, Mars pro-actively reached out to the MSC in 2023 to explore if the MSC was interested to exercise the Right to be



heard. The board of MSC confirmed their intention to exercise the Right to be heard in February 2024, and for this purpose the MSC adapted their articles of association, which were approved by the MSC members during the MSC annual meeting on 3 April 2024. Furthermore, they also decided to admit retirees of Mars Food Europe CV as members to the MSC. During their annual meeting, the MSC appointed the Right to be heard committee ('Hoorrechtcommissie', hereafter Committee) on behalf of all beneficiaries of Mars Pension Fund (retirees and deferred members).

In April and May 2024, several conversations between the Committee, representatives of the Company and the Wtp project manager took place. During these meetings the proposals for the new pension plan design and transition were shared with the Committee as well as strawmen calculations for the retirees and deferred members.

Based on the information provided, the Committee provided at the end of May 2024 the preliminary findings and conclusions on the proposals for the new pension plan design and transition, which is included in the request of consent to the Works Councils of Veghel and Oud-Beijerland. In June 2024 the MSC organized an extra meeting to present the preliminary findings and conclusions by Committee to the MSC for endorsement. The Committee confirmed their final findings and conclusions at the end of June 2024.

Summary of conclusions of the Right to be heard committee and the feedback from the Social Partners to these conclusions:

1. Granting the value of future indexation and the value of the abolished additional contribution obligation

The pension benefits increase upon transition to the new system. While this is a positive development, it is important to note that it does not represent an enhancement of the promise but rather compensates for what would otherwise be a deterioration. Nevertheless, we value this approach as it facilitates the transition, which benefits all parties involved by improving execution efficiency and providing better investment opportunities in the future.

Feedback Social Partners: the value of the full future indexation and the value of the abolishment of the additional contribution is included in the Dynamic Allocation Key as described in the transition plan but is not fully covered by the corporate commitment (see #4). The indexation and additional contribution obligation of the Company part of TFR1 is 100% guaranteed, but only 50% of these elements in TFR2 (TFR2A is covered, TFR2B needs to be funded by pension fund assets only).

2. Choice of the Solidarity contribution plan

We are very pleased with the proposed selection of the Solidarity contribution plan (SPR). This choice enables materially better investment opportunities compared to the Flexible contribution plan (FPR). Over the long term, this will result in improved returns, and thereby better pensions, benefiting both active and inactive members without additional costs to the employer. Naturally, this choice comes with some complexity, and we appreciate that the Company and pension fund are taking responsibility in this regard. It is complexity that is rewarded and even provides a competitive advantage.

Feedback Social Partners: the conclusion of the Committee is line with the argumentation of the Social Partners on the choice for the SPR.

3. Initial Filling of the Solidarity Reserve

We appreciate the proposed additional initial contribution to the Solidarity Reserve as a buffer against pension reductions.

Feedback Social Partners: in the current proposal there is an initial filling of 1% defined as the minimum level of the solidarity reserve at the start of the transition. This will provide the



retirees a minimum protection level for the pension benefit payments of retirees. Additional filling at the start of transition up to the maximum level of the solidarity reserve of 5% needs to be funded by pension fund assets only.

4. Corporate Commitment to Additional Contributions (up to 'TFR 4')

We value the employer's intention to make additional contributions should the funding ratio at the time of transition unexpectedly prove inadequate. It is reassuring that the current funding ratio is strong, and the investment policy is relatively conservative, reducing the risk of additional contributions. Moreover, it is favourable for the Company that no contribution is currently being paid for the final pay plan.

Feedback Socials Partners: the initial proposed corporate commitment by the Company has been updated, the corporate commitment includes a guarantee by the Company of the following elements of the Dynamic Allocation Key: 100% of TFR1, 100% of TFR3 and 50% of TFR2.

5. Compensation for the change in contribution system

The compensation for changes to the contribution system represents a cost for the Company. However, given the considerations mentioned above, financing this compensation from fund assets appears balanced. Nonetheless, we believe the indexation up to the moment of transition should be carried out as outlined in a separate letter. We see this explicitly as a materially correct execution of the existing indexation policy.

Feedback Social Partners: The indexation granted to retirees is line with the current indexation policy in the AFA. The Social Partners are not proposing to change current policies to provide additional indexation in the period before the transition date. The Social Partners do agree with the proposal to grant indexation to the members on the transition date (1 January 2027) before conversion to the new SPR pension plan.

#### 9.4 Reflection on the process

The introduction of the Wtp was a major change of the Dutch Pension Law. After an extensive period of negotiations between government, employers' organizations and trade unions, a new pension platform was introduced based on Defined Contribution with three different type of pension plans: Solidarity Contribution plan (SPR), Flexible Contribution plan (FPR) and a premium benefit agreement ("premie uitkeringsovereenkomst"). Especially the SPR is new type of pension plans with several characteristics which are new for the Dutch pension market. All Dutch pension plans should be compliant with the Wtp on 1 January 2028 ultimately.

As a first step, Social Partners have evaluated which type of pension plan would suit best. The idea of care and the sharing of risks are important for Social Partners. An SPR consists of a collective investment policy and a solidarity reserve. The use of the solidarity reserve reduces the risk of a reduction in the expected pension benefits, which leads to more stability in the benefit phase. In addition, the collective investment policy and the solidarity reserve not only provide more solidarity but also provide more investment opportunities that may lead to better investment results.

The second step is the transition from the current pension schemes to the new scheme. With respect to other Dutch pension plans operated by pension funds, the current Mars pension scheme has several special characteristics:

- MPF executes the closed Final Pay plan (Defined Benefit, DB) and the ARP/ASP plan (Defined Contribution, DC)
- A financial Company guarantee on the Final Pay plan DB (with respect to pension accrual)
   and the ARP/ASP plan (with respect to minimum yearly investment return)



A detailed level of several Funding Ratios laid down in the Dynamic Allocation Key (DAK).

In Wtp, there's no pension accrual and no guarantees apply. As Social Partners have a strong preference for conversion, an important question is how to compensate the members for the loss of guarantees and how to apply the DAK in the method of conversion on the planned transition date (1 January 2027).

The Project Team has proposed (and shared with the stakeholders) a conversion method based on TFR2A and TFR2B levels (discussed in <a href="Chapter 5">Chapter 5</a>) and calculated per individual. In this method, there's no correction of the calculations for the effect that actual distribution of the collective TFR2A and TFR2B level could take place on standard method (as mentioned as the default in Wtp) instead of individually calculated TFR2A and TFR2B. Conversion on standard method will differ from the methodology used. The last update on the standard method with respect to the treatment of DC plans is not yet included in the calculations (published 24 December 2024).

Given the conversion method, three compensation methods were evaluated to compensate both for the loss of Company guarantees and the mandatory compensation for the change in future accrual / contributions. Based on market practice, numerous calculations and ease of applicability and communication, the percentile method (Final Pay plan) and a combination of the percentile and Gross Profit method (ARP/ASP) plan were selected.

Finally, the set of objectives for the transition of the Social Partners were evaluated for the different schemes and member groups to assess if the transition leads to balanced interests.

The process turned out to be quite intensive, as the new legislation is very different leading to new pension plans (especially SPR) and challenging questions came up in the transition from the current to the new pension scheme. However, the stakeholders worked closely together, came up with good solutions, had good discussions and succeeded in reaching an agreement on the new pension plan.



# A. Definitions

Terminology	Explanation
Contribution percentages	Total contribution (= Company + associate contribution in the personal pension capital of a member in the DC plan, expressed as percentage of Pension base. The contribution percentages do <b>not include</b> administration cost loadings and risk insurance premiums.
MPF	Mars Pension Fund executor of both the Final Pay plan and the ARP/ASP plan.
Offset	Social security threshold (franchise), being the first part of the salary that is not part of Pension base because of State pension.
Pension base	Pensionable salary minus Offset. In the new pension plan the salary of Pensionable salary is equal to the pensionable salary definition of the current ARP/ASP plan. In the new pension plan the Offset is equal to the fiscal minimum social security offset. For the pension base, the pensionable salary is capped at the amount referred to in Article 18ga of the Wet op de Loonbelasting 1964 (as of 1 January 2025: € 137,800).
TFR	TFR stands for Target Funding Ratio. This is the funding ratio level on the transition date 1-1-2027, that is required to distribute the assets of the Fund according to the allocation rules in the DAK. The levels are ordered as TFR1, TFR2A, TFR3, TFR2B and TFR4 with each TFR level there are different corresponding allocation rules that are further elaborated in paragraph 5.2.
Replacement ratio	For active members: Pension benefit from Mars Pension Fund as a percentage of Pension base at retirement date. The Pension base is based on the Pensionable salary and Offset in the new pension plan. For inactive members Final Pay: Pension benefit in the new pension plan as a percentage of the current pension benefit.  For inactive ARP ASP members: Pension benefit as percentage of current DC capital.
Solidarity reserve	The solidarity reserve is part of the total pension assets, a collective buffer. Pension assets and benefits can be supplemented from the solidarity reserve to prevent a nominal decrease in benefit level for retirees due to negative investment returns, providing more stable pension benefits to retirees.
SPR	Solidarity Defined Contribution plan (Solidaire Premie Regeling), being the new pension plan that will be applicable in Wtp
Real benefit	The pension benefit corrected for the inflation
Real weighted benefit	The real value of the pension benefit during the whole benefit phase corrected for the probability of being alive.
Real weighted replacement ratio	For active members: cumulated expected pension benefits as a percentage of the pension base on the retirement date, taking into account inflation and mortality. The pension base is based on the pensionable salary and the Offset in the new pension plan.



	For inactive members Final Pay: cumulated expected pension benefits in SPR as a percentage of the current pension benefit, taking into account inflation and mortality.
	For inactive ARP ASP members: cumulated expected pension benefits as percentage of current DC capital, taking into account inflation and mortality.
Real benefit on retirement date	The first real value of the pension benefit

Table 20

#### **Definition Real benefit**

Real pension benefit that the member would receive on the calculation date (1 January 2027) within the solidarity-based contribution plan

The pension benefit is corrected for inflation. The benefit after one-year yields € 25,000. The inflation during this year was 2%. Therefore, in real term the benefits yield € 24,510.

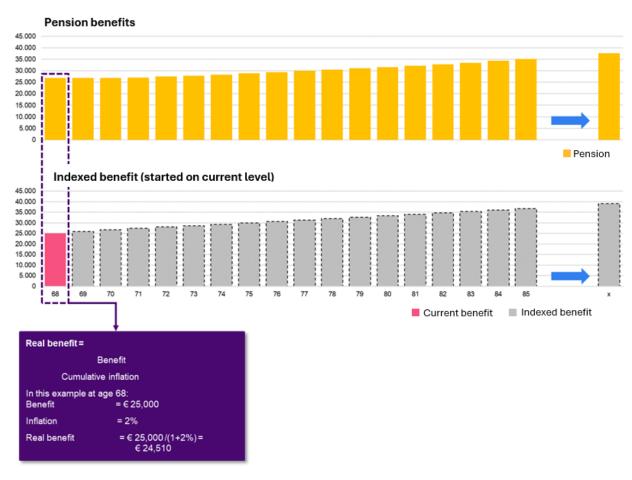


Figure 11



#### **Definition Real weighted benefit**

This concerns the survivor-weighted pension result over the entire benefit period.

The stream of benefits is corrected for inflation. After which we account for the probability of survival for the entire benefit phase.

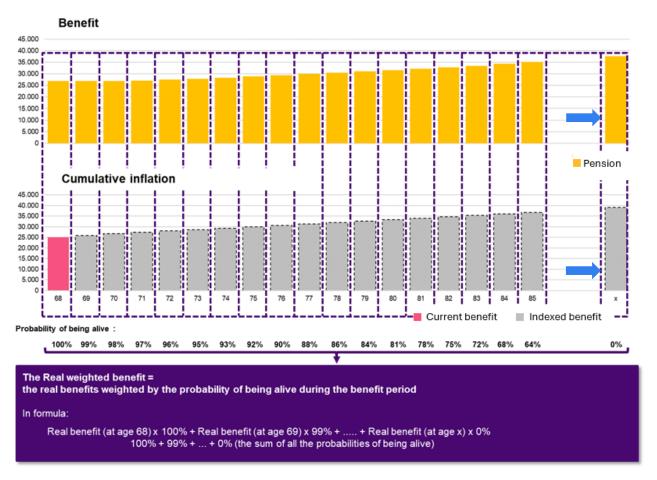


Figure 12

#### **Transition effects**

#### Additional explanation - Real weighted benefit based on an example

In the example is a fictitious example of transition effects for person A.



In the formula for the real weighted benefit between the two plans, the only difference is the real benefit for each age. A relative higher benefit early in the retirement phase will result in a higher real weighted benefit, because of the decreasing survival probability. So, a transition effect of X% will not result in a X% higher real benefit every payment year.

A transition effect of 50% in the expected scenario means that the real weighted benefit of the SPR is 50% higher than under the current plan. Meaning, the real benefit in the new plan will be higher than the current plan.



A transition effect of 120% in the optimistic scenario means that the real weighted benefit of the SPR is 120% higher than under the current plan in the top 5% scenarios. Meaning, the real benefit in the new plan will be a lot higher than the current plan.

A transition effect of -10% in the pessimistic scenario means that the real weighted benefit of the SPR is 10% lower than under the current plan in the last 5% scenarios. So, the real benefit in the new plan will be lower than the current plan.



## **B.** Wtp calculations

#### **Contributions**

Contribution levels (including member contribution and company match)						
Contribution percentage ARP plan	18 up to 20:	7.5%	45 up to 49:	15.8%		
	20 up to 24:	8.3%	50 up to 54:	17.8%		
	25 up to 29:	9.4%	55 up to 59:	19.8%		
	30 up to 34:	11.0%	60 up to 64:	21.7%		
	35 up to 39:	12.3%	65 up to 67:	23.7%		
	40 up to 44:	14.2%				
Contribution percentage ASP plan	18 up to 20:	6.7%	45 up to 49:	11.1%		
	20 up to 24:	7.3%	50 up to 54:	12.1%		
	25 up to 29:	8.1%	55 up to 59:	13.5%		
	30 up to 34:	8.5%	60 up to 64:	15.3%		
	35 up to 39:	9.5%	65 up to 67:	16.9%		
	40 up to 44:	10.1%				
Contribution percentage SPR	Flat rate:	30% of the	e pension base			

#### Table 21

It is assumed under ARP/ASP that members take advantage of the full top-up savings opportunity. (receive full company match under FTK).

#### Assumptions for the calculations from 1-1-2027 onwards

Demographic and economic assumptions			
Calculation method	Stochastic, DNB P- set 0	Q1 2024	
	(31-12-2023)		
	2,000 simulations		
Date of transition to new plan (calculation date)	1 January 2027		
Price inflation	Stochastic, DNB P-set C	2024	
Wage inflation	Price inflation + 0.4%		
Career (as from 1/1/2027)	ARP/ASP	Final Pay Plan	
	21 up to 49: 2.0%	21 up to 49: 1.0%	
	50 up to 67: 1.0%	50 up to 67: 0.5%	
Mortality probabilities	AG2022 + MPF specific experience ratings		
Male / female	67% / 33%		
Conversion of capital at retirement	Old age pension + 70% partner's pension		
Age-difference member / partner	Partner has opposite gender than member with		
	three years age difference (man older than		
	woman)		
Investment returns and market interest rates			
Departure probability Not included (i.e. 0%)			
Retirement age	68		

Table 22

Solidarity premium scheme (SPR)



Solidarity premium scheme (SPR)	
Contribution in DC plan	30% of pension base
·	(administration costs and risk insurance
	premiums are not included)
Social security offset (franchise)	€ 19,100
	(= fiscal minimum 2024, corrected for inflation till
	2027)
Interest rate hedge	10% - 90%   53 – 68 years
Return portfolio	150% - 51%   48 – 68 years
Borrowing restriction	Max. 150% equity
Discount rate (Projection return)	Risk free interest rate curve
Benefit payment phase	Collective
Dispersion period	4 years (memoryless)
Reserve	Solidarity Reserve
	Objective of the solidarity reserve is:
	<ul><li>(a) to supplement benefit payments to</li></ul>
	prevent from nominal reductions; and
	(b) to prevent negative SPR capitals
D : 2011	resulting from lifting the loan restriction.
Reserve: initial deposit	1% of total fund assets
	(in TFR2 and TFR3 calculation run)
Reserve: filling rules	2.5% of the excess return
Reserve: withdrawal	Maximum 25% of the current volume of the
	reserve per year to protect the benefits
Reserve: maximum	5% of total fund assets

Table 23

#### Pension Base

The calculation of the current Final Pay plan is based on the pensionable salary definition of the current Final Pay plan. We assume an increase in that pensionable salary with the individual members' target bonus (actual payout till maximum of 100%), as provided by Mars, if not known (for example for strawmen calculations) then the mean of 5.1% is used in case of change to the new SPR.

The offset in the current Final Pay plan is EUR 25,667 (2024), which is EUR 27,864 as per 1 January 2027. This (high) offset will only be used in the calculation of the current Final Pay plan. We use the reduced offset (fiscal minimum level) in case of change to the new SPR.

#### Investment mix

For the calculations of the Final Pay plan, we assume the investment policy that was applicable before the adjustment to Wtp-implementation.

For both current ASP plan and the new SPR scheme a lifecycle is used to determine the return on the capitals in the projection calculations.



#### Life Cycle current ASP plan



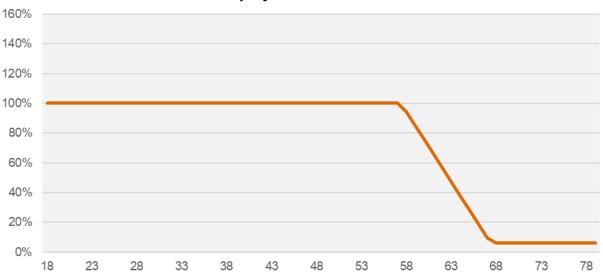


Figure 13

#### Life Cycle new SPR Scheme

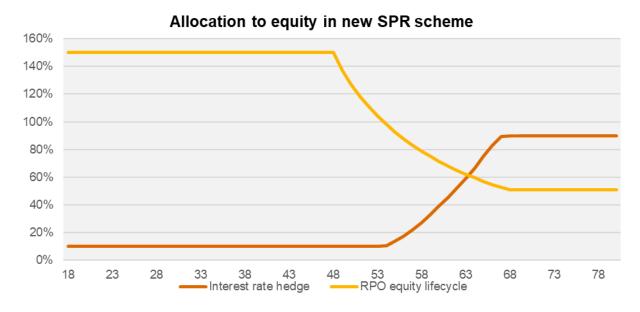


Figure 14

Currently included in the above Life cycle for SPR, a more offensive lifecycle due to abolishment borrowing restriction in SPR and based on the recent member risk preference survey.

Under the new pension legislation, it is possible to invest "more than 100%" of your pension capital, with a maximum of 150%, the so-called abolishment of the borrowing restriction. This results in a higher expected upward potential for younger members at the costs of higher investment risks.



# C. Compensation methodology

Compensation calculated on an individual basis	Final Pay plan members: on individual basis
or per age group	ARP/ASP members: on individual basis
Compensation at once or spread over a number	At once via a once-only funding in the personal
of years	DC capitals of pension plan members (TFR3)
Calculation method for calculating the compensation per individual	<ul> <li>(a) For the Final Pay Plan members, the 15th percentile replacement ratio of the 2,000 DNB P-set scenarios of the new plan versus the 15% percentile replacement ratio in current plan</li> <li>(b) For the ARP/ASP members a compensation method based on "Bruto Profijt" is determined. This is the difference in discounted contribution, calculated on a deterministic way. Additionally, a 15th percentile compensation for the abolishment of the ARP buffer.</li> </ul>
Moment of determining the amount of	(a) Final Pay plan members: Weighted
compensation	average replacement ratio during the
	whole benefit phase. The compensation
	is based on retirement age 68.
Table 04	(b) ARP/ASP plan members: Replacement ratio at retirement age 68.

Table 24



## D. Strawmen

#### Final Pay plan

Straw men	Age	Status	Pensionable salary in Final Pay Plan (in €)	Pensionable salary under Wtp (in €)	Past Service Years (at moment of converting)	Old age pension	Extra pension benefit
1	46	Active	49,000	50,000	24	8,000	4,000
2	51	Active	86,000	96,000	28	27,000	12,000
3	55	Active	104,000	122,000	25	31,000	12,000
4	60	Active	69,000	75,000	33	23,000	17,000
5	46	Deferred	-	-	24	8,000	4,000
6	51	Deferred	-	-	28	27,000	12,000
7	55	Deferred	-	-	25	31,000	12,000
8	60	Deferred	-	-	33	23,000	17,000

Table 25

#### ARP/ASP

Straw men	Age	Status	Pensionable salary (in €)	Accrued capital (in €)	Conversion capital as percentage of nominal pension value (TFR2A funding ratio)
1	25	Active	46,000	0	-
2	30	Active	62,100	7,935	100%
3	45	Active	85,100	101,430	100%
4	60	Active	144,900	275,885	100%
5	30	Deferred	62,100*	7,935	100%
6	45	Deferred	85,100*	101,430	100%
7	60	Deferred	144,900*	275,885	100%

Table 26



<sup>\*</sup> Fictive salary in case needed to calculate replacement ratio.

# E. Transition effects – expected pensions and benefit payment phase

#### Disclaimer and general attention points

WTW has prepared this material for Mars ("you") to assist you with any decisions you may take regarding the design of the new NL pension plan. It is provided subject to the terms of our agreement with you.

This material is provided to you solely for your use, for the purpose indicated. It may not be provided to any other party without WTW's prior written permission, except as may be required by law. In the absence of our express written agreement to the contrary, WTW and its affiliates and their respective directors, officers and employees accept no responsibility and will not be liable for any consequences howsoever arising from any third party's use of or reliance on this material or any of its contents. This material can be shared with Mars NL pension fund and with the Mars NL works council and its pension related advisors.

The calculations in this presentation are based on assumptions as shared in the assumption documentation of October 2024. Reality will deviate from these assumptions.

- The stochastic analysis is based on the DNB economic scenario P-set Q1 2024 (31-12-2023).
   Note, experience has showed that the results are highly vulnerable to this P-set scenario.
   Results will differ in other scenario set calculations.
- In these calculations we assume conversion will take place on TFR2A and TFR2B levels as calculated per individual. In these calculations we have not corrected for the effect that actual distribution of the collective TFR2A and TFR2B level could take place on standard method instead of individually calculated TFR2A and TFR2B. We expect that conversion on standard method will result in somewhat higher compensations for younger associates and lower compensations for older associates. The net effect is expected to be a higher total compensation. Please note that the proposal for the conversion methodology has been submitted to DNB.
- The calculation of TFR3 (compensation) is based on preliminary constructed life cycles translated from the risk preference survey of Mars Pension Fund (MPF). Results will differ in case of other life cycles or another investment strategy.



#### Dynamic Allocation Key

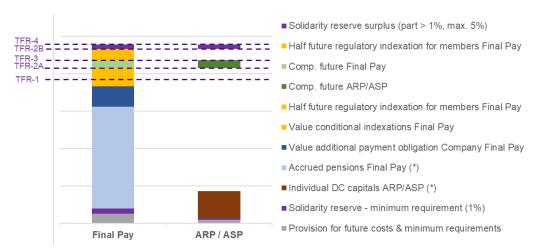


Figure 15

TFR	Level
TFR1	112.6%
TFR2A	119.5%
TFR3	126.8%
TFR2B	132.9%
TFR4	138.5%

Table 27



#### 1. Transition effects TFR 2B level

#### 1.a Final Pay plan members

Transition effects Final Pay plan

Transition effects per age cohort per group. Tables and graphs show the percentage transition effects. The effect is the relative difference in real weighted benefit between the new SPR plan and the current Final Pay plan or ARP/ASP plan. The assumed level for these pictures is the TFR 2B level.

The transition effects are shown for

- 'expected' (median) scenario
- 'pessimistic' (5% percentile) scenario
- 'optimistic' (95% percentile)scenario

Example: 50% transition effect means that the real weighted benefit of the new SPR plan is 50% higher than that of the current Final Pay plan, a more detailed explanation can be found in de <a href="Appendix A">Appendix A</a>

Real weighted benefit is the pension benefit during the payout phase corrected for inflation conditional expected life-time. A more detailed explanation can be found in de <a href="Appendix A">Appendix A</a>.

#### Active – Final Pay Real weighted benefit

Cohort	Pessimistic	Expected	Optimistic
20 - 24	-	-	-
25 - 29	-	-	-
30 - 34	-	-	-
35 - 39	-	-	-
40 - 44	-	-	-
45 - 49	-32%	88%	390%
50 - 54	-28%	70%	271%
55 - 59	-21%	61%	205%
60 - 64	-15%	58%	171%
65 - 69	-	-	-
70 - 74	-	-	-
75 - 79	-	-	-
80 - 84	-	-	-
85 - 89	-	-	-
90 - 94	-	_	-

Table 28



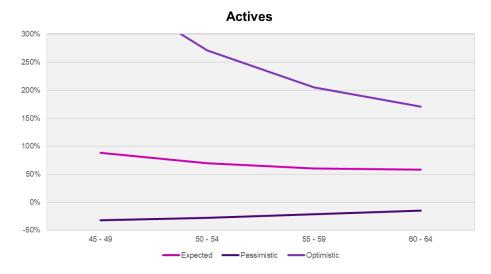


Figure 16

#### **Explanation**

- + In the optimistic scenario the cap on de indexation (75% CPI) in the current Final Pay plan results in lower indexations than the achieved return. This result in a large transition effect.
- In the pessimistic scenario returns can be less than indexation that would be given under the current plan. Especially given the current funding ratio, which will be a good buffer in pessimistic scenarios.
- 1. Conversion at TFR2B results in an increase of capital at the moment of transition, because all future indexation is translated into the converting capital (TFR2A+TFR2B) + for active members an additional compensation is determined (TFR3).
- 2. After the transition the new lifecycle contains a higher-risk investment policy\*. This results in a higher expected return, and this return is not capped on the indexation ambition.
- 1 and 2 combined results in a strong positive transition effect for the expected and optimistic scenario. On the other hand, results 2 in a negative transition effect in a pessimistic scenario.

#### Deferred - Final Pay

#### Real weighted benefit

Cohort	Pessimistic	Expected	Optimistic
20 - 24	-	-	-
25 - 29	-	-	-
30 - 34			-
35 - 39	-	-	-
40 - 44	-	-	-
45 - 49	-43%	112%	528%
50 - 54	-33%	87%	354%
55 - 59	-24%	71%	244%
60 - 64	-17%	62%	188%
65 - 69	-	-	-
70 - 74	-	-	-
75 - 79	-	-	-
80 - 84	-	-	-
85 - 89	-	-	-
90 - 94	-	-	-

Table 29



<sup>\*</sup> Current plan has no age dependent investment policy; the current policy is approximately equal to the new life cycle from age 60. Before 60 the SPR life cycle is riskier than the current.

# Deferred 300% 250% 200% 150% 100% 50% 0% -50% 45 - 49 50 - 54 55 - 59 60 - 64 Expected — Pessimistic — Optimistic

Figure 17

# **Explanation**

For the deferred the same explanations hold as for the actives.

In addition, the transition effects for deferred members are more severe than for active members, optimistic is higher and pessimistic is lower. This is because the effects of a scenario are fully reflected in the conversion capital, were for active members future accrual are only affected by the effects in a scenario from the moment the accrual occurs. Therefore, the effects of a scenario are dampened for active members.

The expected scenario, in case of conversion at TFR2B, is positive and therefore the same applies to it as to an optimistic scenario with respect to differences between active and deferred members.

Retired – Final Pay

Real weighted benefit

Cohort	Pessimistic	Expected	Optimistic
20 - 24	-	-	-
25 - 29	-	-	-
30 - 34	-	-	-
35 - 39	-	-	-
40 - 44	-	-	-
45 - 49	-	-	-
50 - 54	-	-	-
55 - 59	-23%	28%	112%
60 - 64	-23%	22%	88%
65 - 69	-21%	18%	73%
70 - 74	-19%	14%	55%
75 - 79	-16%	9%	39%
80 - 84	-12%	7%	27%
85 - 89	-9%	4%	17%
90 - 94	-4%	5%	14%

Table 30



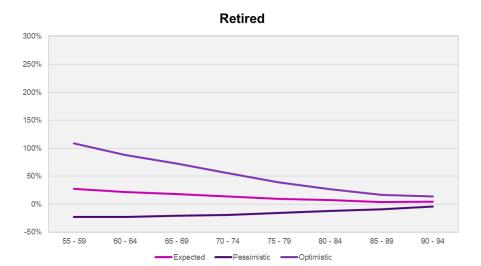


Figure 18

#### **Explanation**

First the transition effect is smaller for older people due to the lower life expectancy of the older members.

Second the same effect as for the actives:

- + In the optimistic scenario the cap on de indexation will be lower than the achieved return. This will result in a great transition effect.
- In the pessimistic scenario returns can be less than indexation that would be given under the current plan.

Comparing early retirees with inactive members in the same age cohort, we observe stronger effects for deferred members. This is primarily due to the collective benefit phase for retirees, as they allocate less to risky assets compared to deferred members in the same age cohort. Therefore, deferred members inherently take on more risk.

# Transition effects - Final Pay *Real weighted benefit*

# **Transition effects Final Pay plan**

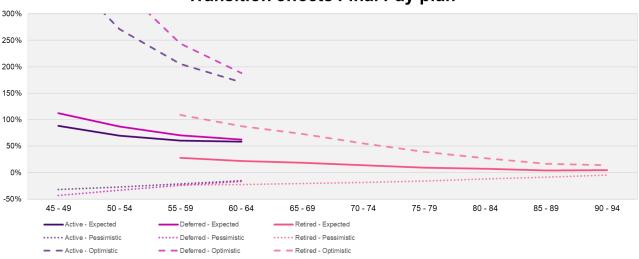


Figure 19



# 1.b ARP/ASP members

Active - ARP/ASP

# Real weighted benefit

Cohort	Pessimistic	Expected	Optimistic
20 - 24	0%	55%	188%
25 - 29	0%	55%	177%
30 - 34	0%	59%	178%
35 - 39	-3%	58%	175%
40 - 44	-4%	56%	153%
45 - 49	-3%	50%	122%
50 - 54	-2%	47%	107%
55 - 59	-1%	41%	95%
60 - 64	-5%	35%	82%
65 - 69	-8%	28%	67%
70 - 74	-	-	-
75 - 79	-	-	-
80 - 84	-	-	-
85 - 89	-	-	-
90 - 94	-	-	-

Table 31

# **Actives**

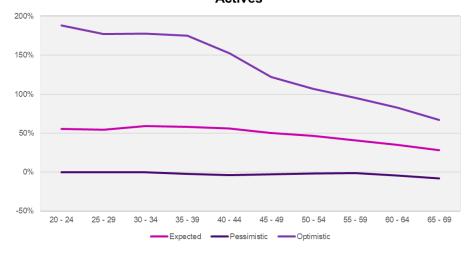


Figure 20



#### **Explanation**

The life cycle under Wtp is more risk taking than the combination of the current ASP life cycle in combination with the ARP.

- + In the optimistic scenario this will result in a better return, than current plan. The ARP plan is dependent on the fund return of the past and the inflation plus 3%, and with a maximum of 13%.
- In the pessimistic scenario this will result in a worser return than with the current plan. Also due to the ARP part of the current plan, with a guarantee of return of 0%. This effect is more noticeable for the older population due to the difference in time until retirement.

Actives benefit from the compensation for the difference in premium contribution and on top of that for the abolishment of the ARP-buffer, which they receive directly upon transition.

The assumption is that under the current plan, all members purchase a fixed pension benefit externally upon retirement. Over time, this will be a diminishing benefit in real terms. Even in the pessimistic scenario this result in barely any losses from the transition to the new SPR.

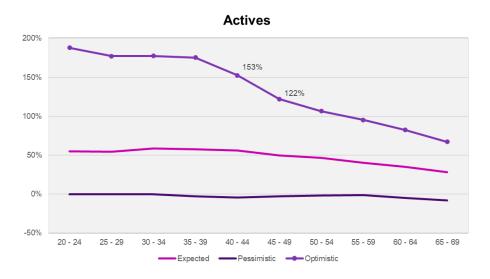


Figure 21

# Explanation between age cohorts

The main differences between the younger and older members are:

- The current contribution for the young members is lower than the 30%, the fact that these members will receive that "extra" contribution earlier with the current life cycle will result in a good upwards protentional. (common knowledge is that by investing the longer the horizon the better the (expected) results) The fact that when these young members will get older and will receive a lower level of contribution cannot smooth this effect out.
- Another effect is that until the age of 48 the borrowing constraint is abolished. This will result in a
  good upwards potential, and this is good visible in this figure with only points instead of a line
  between the cohorts for the optimistic scenario. In the pessimistic scenario this negative effect is
  subdued by the additions of contribution.



#### Deferred - ARP/ASP

#### Real weighted benefit

Cohort	Pessimistic	Expected	Optimistic
20 - 24	-	-	-
25 - 29	-50%	96%	261%
30 - 34	-43%	91%	246%
35 - 39	-40%	77%	204%
40 - 44	-31%	65%	146%
45 - 49	-10%	51%	99%
50 - 54	3%	46%	85%
55 - 59	4%	44%	87%
60 - 64	-2%	41%	91%
65 - 69	-6%	35%	79%
70 - 74	-	-	-
75 - 79	-	-	-
80 - 84	-	-	-
85 - 89	-	-	-
90 - 94	-	-	-

Table 32

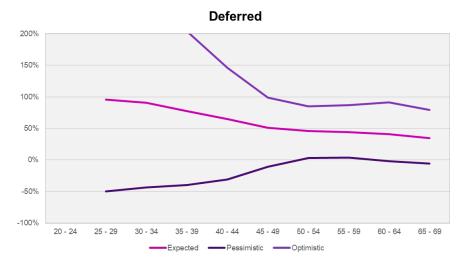


Figure 22

#### **Explanation**

The life cycle under Wtp is more risk taking than the combination of the current ASP life cycle in combination with the ARP.

- + The optimistic scenario gives a similar positive result as for an active. For the deferred this optimistic scenario will give a better transition effect because these capitals are not smoothed with the future contribution.
- The transition effects in the pessimistic scenario are more negative than an active member, because an active member has a damping effect of future contribution.

Relative to active members, inactive members benefit more in favorable scenarios and experience greater losses in adverse ones. The primary reason for this is that active members continue to build up future entitlements, which has a stabilizing effect. For deferred members the greater risk exposure has therefore a more prominent effect.

This effect is relative to its accumulated capital in the period the member was active.



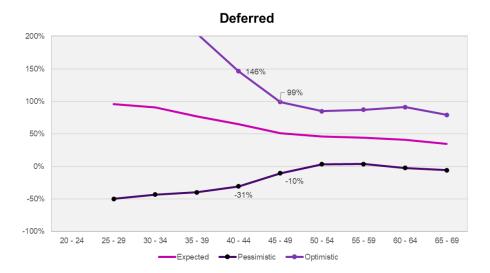


Figure 23

#### **Explanation between age cohorts**

The main difference between the younger and older members:

The effect is that until the age of 48 the borrowing constraint is abolished. This will result in a good upwards potential, and this is good visible in this figure with only points instead of a line between the cohorts for the optimistic scenario. In the pessimistic scenario this negative effect is not subdued by the additions of contribution as by the actives. Therefore, the effect is also visible for the pessimistic scenario for the deferred.

Retired – ARP/ASP Real weighted benefit

# **Explanation**

Within the ARP/ASP plan there are no retirees.

For the ASP capital the members need to buy a pension benefit by an external party.

For the ARP capital there are two options:

- Buying in the fund, then the retirees will be "the same" as a Final Pay retiree.
- · Buying a pension benefit by an external party.

In practice, all members buy a pension benefit by an external party.



# Transition effects - ARP/ASP

# Real weighted benefit

# 

Figure 24



# 2. Transition effects - interest rate sensitivity

#### 2.a TFR 2B level +100BPS

Interest rate +100BPS

For these effects another scenario set is used (still Q1 2024), where the interest rate on time t=0 100BPS higher is than the basis scenario. The long-term interest rate will remain the same. This effect, of higher interest rate will be smoothed out over time.

- +100BPS on the interest rate will have the following effects on the Final Pay plan:
  - The TFR2A+2B capitals at moment of transition. A higher discount factor makes indexation less expensive. This results in an approximately 15% lower TFR2A+2B level for the Final Pay members.
  - A higher interest rate has also an effect on the results of the current Final Pay plan.
     Overall, a higher interest rate is beneficial for MPF (higher funding ratio), resulting in higher future indexations.
- +100BPS on the interest rate will have the following effects on ARP/ASP:
  - The costs of purchasing a pension at pension age are lower when the interest rate is higher. This affects both the current and the new plan.
  - The funds returns will be affected by a higher interest rate and will result in a higher value of the ARP buffer.

# Final Pay Real weighted benefit



# **Actives**

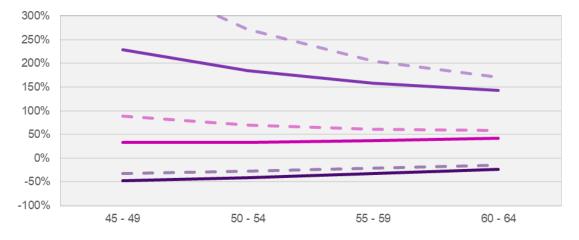


Figure 25



# Retired

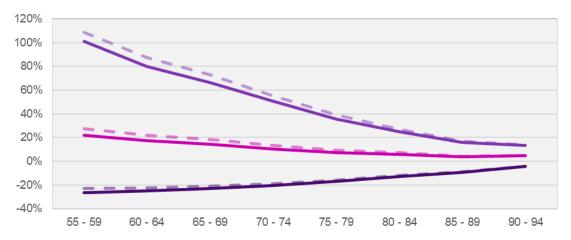


Figure 26

# **Deferred**

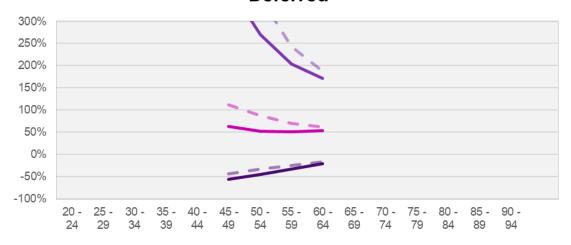


Figure 27

# **Explanation**

- As mentioned before, a higher interest rate will result in a lower TFR2A+2B capital. This effect is larger for younger members. Resulting in a negative effect for all members and all scenarios compared to the basic scenario.
- The difference between dashed and the line is bigger for the optimistic scenario, than the pessimistic. This effect is explained by cumulative returns on returns in an optimistic scenario.

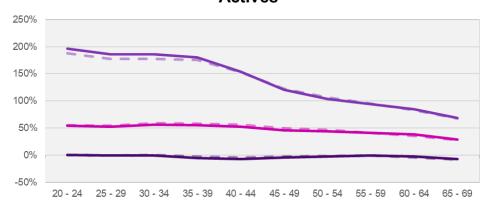


#### ARP/ASP

#### Real weighted benefit



# **Actives**



#### Figure 28

# **Deferred**

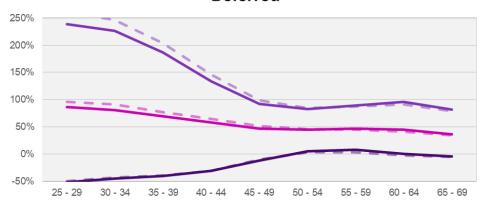


Figure 29

#### Explanation

- For the ARP/ASP members the TFR2A+2B capital remains the same, there is however a difference in compensation.
- Deferred members close to retirement see a modest gain compared to TFR2B levels. The higher interest rate
  hedging in the new SPR scheme compared to the ARP-ASP scheme benefits this group. A positive interest
  rate shock allows more pension to be purchased with the same capital. This effect, present in both schemes.
  It results in a modest increasing effect, due to the more aggressive lifecycle in the new SPR scheme.
- Young deferred members experience a small decrease compared to the TFR2B level. In general interest
  rates are negatively correlated with equity return. The initial interest rate shock has a suppressing effect on
  the return on equity, which becomes more prominent in the optimistic scenario. Over time, both interest rates
  and equity returns tend to converge to their regular levels, which limits the overall impact of the initial shock.
- For active members, the effect of the interest rate shock is less significant. The new accrual has a damping effect of the market fluctuations, resulting in only minor (neglectable) differences.

There are no retirees in the ARP/ASP



#### 2.b TFR2B level -100BPS

Interest rate -100BPS

For these effects another scenario set is used (still Q1 2024), where the interest rate on time t=0 100BPS lower is than the basis scenario. The long-term interest rate will remain the same. This effect, of lower interest rate will be smoothed out over time.

- -100BPS on the interest rate will have the following effects on the Final Pay plan:
  - The TFR2A+2B capitals at moment of transition: A lower discount factor will make the promised indexation more expensive. This results in an approximately 20% higher TFR2 level for the Final Pay members.
  - This lower interest rate has also an effect on the results of the current Final Pay plan, if it would be continued. Overall is a lower interest rate unfavorable for the fund (lower funding ratio), which result in (possible) lower indexations.
- -100BPS on the interest rate will have the following effects on ARP/ASP:
  - The costs of purchasing a pension at pension age are higher when the interest rate is lower. This affects both the current and the new plan.
  - The funds returns will be affected by a lower interest rate and will result in a lower compensation for the ARP buffer.

# Final Pay Real weighted benefit



# **Actives**

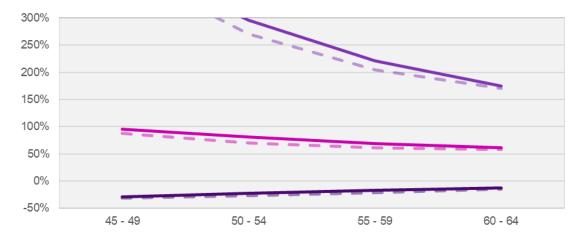


Figure 30



# Retired

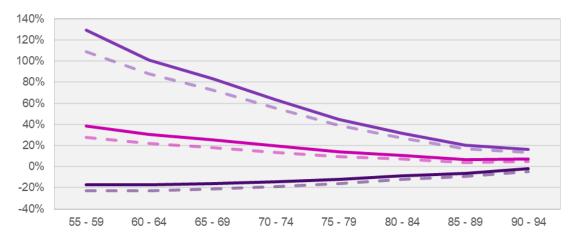


Figure 31

# **Deferred**

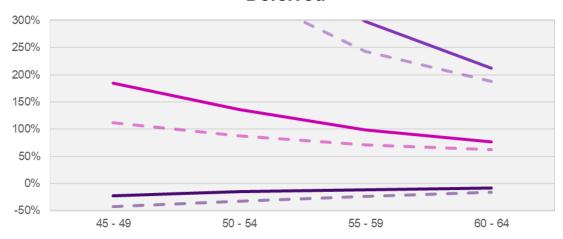


Figure 32

# Explanation

- As mentioned before, a lower interest rate will result in a higher required TFR2A+2B capital. This effect is larger for younger members. Resulting in a positive effect for all members and all scenarios compared to the basic scenario.
- The difference between dashed and the line is bigger for the optimistic scenario, than the pessimistic. This effect is explained by cumulative returns on returns in an optimistic scenario.



# ARP/ASP

# Real weighted benefit



# **Actives**

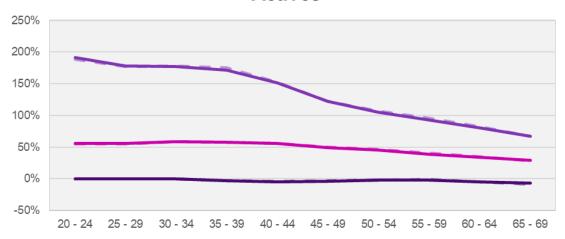


Figure 33

# **Deferred**

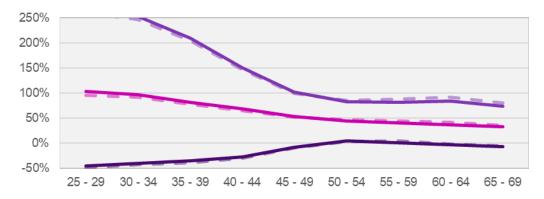


Figure 34



# **Deferred**

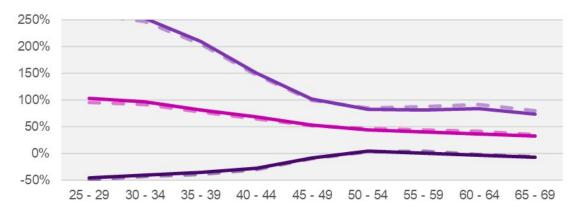


Figure 35

#### **Explanation**

- For the ARP/ASP members the TFR2A+2B capital remains the same, there is however a difference in compensation.
- Deferred members close to retirement see a modest loss compared to TFR2B levels. The higher interest
  rate hedging in the new SPR scheme compared to the ARP-ASP scheme limits this group. A negative
  interest rate shock allows for less pension to be purchased with the same capital. This effect, present in
  both schemes. It results in a modest decreasing effect, due to the more aggressive lifecycle in the new
  SPR scheme.
- Young deferred members experience a small increase compared to the TFR2B level. In general interest rates are negatively correlated with equity return. The initial interest rate shock has an enhancing effect on the return on equity. Over time, both interest rates and equity returns tend to converge to their regular levels, which limits the overall impact of the initial shock.
- For active members, the effect of the interest rate shock is less significant. The new accrual has a damping effect of the market fluctuations, resulting in only minor (neglectable) differences.

There are no retirees in the ARP/ASP



# Interest rate sensitivities

Final Pay – Actives
Real weighted benefit

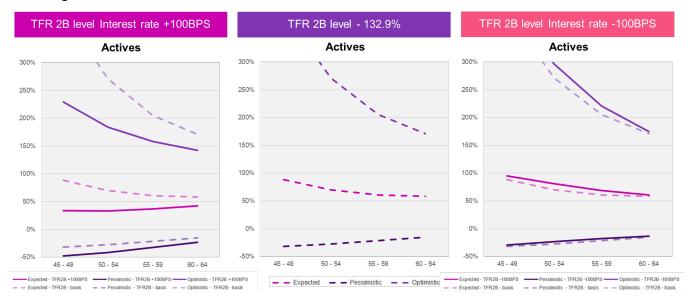


Figure 36

51	TFR 2B level in	terest rate + 1	00BPS		TFR	2B level		TFR 2B level interest rate - 100BPS			
Cohort	Pessimistic	Expected	Optimistic	Cohort	Pessimistic	Expected	Optimistic	Cohort	Pessimistic	Expected	Optimistic
20 - 24	=	-	=	20 - 24	-	2	-	20 - 24			-
25 - 29				25 - 29				25 - 29			
30 - 34	-	-	+	30 - 34	-	-		30 - 34	-	-	-
35 - 39				35 - 39				35 - 39			
40 - 44	-	-	-	40 - 44	-	-	-	40 - 44	-	-	-
45 - 49	-48%	34%	229%	45 - 49	-32%	88%	390%	45 - 49	-30%	95%	407%
50 - 54	-41%	33%	184%	50 - 54	-28%	70%	271%	50 - 54	-23%	81%	295%
55 - 59	-32%	37%	158%	55 - 59	-21%	61%	205%	55 - 59	-18%	69%	220%
60 - 64	-23%	42%	142%	60 - 64	-15%	58%	171%	60 - 64	-13%	61%	174%
65 - 69				65 - 69				65 - 69			
70 - 74	-	-	-	70 - 74	-	-	ω)	70 - 74	-	-	-
75 - 79				75 - 79				75 - 79			
80 - 84	-	-	٥	80 - 84	-	12	-	80 - 84	-	-	-
85 - 89				85 - 89				85 - 89			
90 - 94	-		+	90 - 94	ie.	-	-	90 - 94	*	-	+

Table 33



# Final Pay – Deferred Real weighted benefit

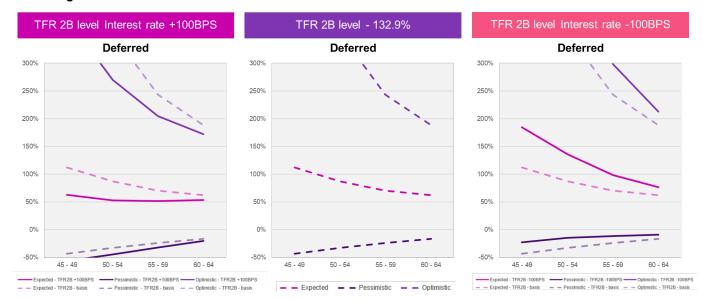


Figure 37

-	TFR 2B level in	terest rate + 10	00BPS		TFR	2B level		TFR 2B level interest rate - 100BPS			
Cohort	Pessimistic	Expected	Optimistic	Cohort	Pessimistic	Expected	Optimistic	Cohort	Pessimistic	Expected	Optimistic
20 - 24	-	-	-	20 - 24	-	-	-	20 - 24	-	-	-
25 - 29				25 - 29				25 - 29			
30 - 34	-	-	-	30 - 34	-	-	-	30 - 34	-	-	-
35 - 39				35 - 39		-		35 - 39			
40 - 44	-	-	-	40 - 44	-	-	-	40 - 44	-	-	-
45 - 49	-56%	63%	382%	45 - 49	-43%	112%	528%	45 - 49	-23%	185%	743%
50 - 54	-45%	53%	270%	50 - 54	-33%	87%	354%	50 - 54	-15%	136%	468%
55 - 59	-32%	51%	205%	55 - 59	-24%	71%	244%	55 - 59	-11%	98%	298%
60 - 64	-21%	53%	172%	60 - 64	-17%	62%	188%	60 - 64	-9%	76%	213%
65 - 69				65 - 69				65 - 69			
70 - 74	-	-	-	70 - 74	-	-	-	70 - 74	-	-	-
75 - 79				75 - 79				75 - 79			
80 - 84	-	-	-	80 - 84	-	-	-	80 - 84	-	-	-
85 - 89				85 - 89				85 - 89			
90 - 94	-	-	-	90 - 94	-	-	-	90 - 94	-	-	-

Table 34



# Final Pay – Retired Real weighted benefit

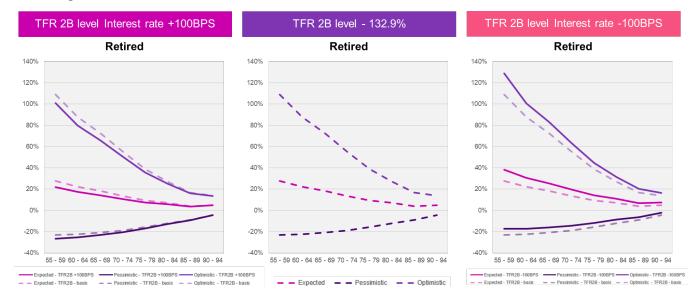


Figure 38

1	TFR 2B level in	terest rate + 10	00BPS		TFR	2B level		TFR 2B level interest rate - 100BPS			
Cohort	Pessimistic	Expected	Optimistic	Cohort	Pessimistic	Expected	Optimistic	Cohort	Pessimistic	Expected	Optimistic
20 - 24	-	-	-	20 - 24	-	-	-	20 - 24	-	-	-
25 - 29		-		25 - 29				25 - 29			
30 - 34	-	-	-	30 - 34	-	-	-	30 - 34	-		-
35 - 39				35 - 39				35 - 39			
40 - 44	-	-	-	40 - 44	-	-	-	40 - 44	-	-	-
45 - 49				45 - 49				45 - 49			
50 - 54	-	-	-	50 - 54	-	-	-	50 - 54	-	-	-
55 - 59	-27%	22%	101%	55 - 59	-23%	28%	112%	55 - 59	-17%	38%	129%
60 - 64	-25%	17%	80%	60 - 64	-23%	22%	88%	60 - 64	-17%	31%	101%
65 - 69	-23%	14%	66%	65 - 69	-21%	18%	73%	65 - 69	-16%	26%	83%
70 - 74	-21%	11%	50%	70 - 74	-19%	14%	55%	70 - 74	-15%	19%	63%
75 - 79	-17%	7%	36%	75 - 79	-16%	9%	39%	75 - 79	-12%	14%	45%
80 - 84	-13%	6%	25%	80 – 84	-12%	7%	27%	80 - 84	-9%	11%	31%
85 - 89	-9%	4%	16%	85 – 89	-9%	4%	17%	85 - 89	-6%	7%	20%
90 - 94	-4%	5%	14%	90 – 94	-4%	5%	14%	90 - 94	-2%	7%	16%

Table 35



# ARP/ASP - Actives

# Real weighted benefit

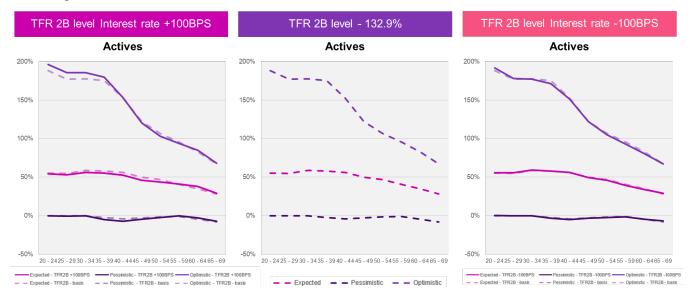


Figure 39

) s	TFR 2B level in	terest rate + 1	00BPS		TFR	2B level		TFR 2B level interest rate - 100BPS			
Cohort	Pessimistic	Expected	Optimistic	Cohort	Pessimistic	Expected	Optimistic	Cohort	Pessimistic	Expected	Optimistic
20 - 24	0%	54%	196%	20 - 24	0%	55%	188%	20 - 24	0%	56%	192%
25 - 29	-1%	53%	186%	25 - 29	0%	55%	177%	25 - 29	0%	56%	178%
30 - 34	-1%	56%	186%	30 - 34	0%	59%	178%	30 - 34	0%	59%	177%
35 - 39	-5%	55%	180%	35 - 39	-3%	58%	175%	35 - 39	-3%	58%	171%
40 - 44	-7%	52%	153%	40 - 44	-4%	56%	153%	40 - 44	-5%	56%	151%
45 - 49	-5%	46%	120%	45 - 49	-3%	50%	122%	45 - 49	-4%	49%	122%
50 - 54	-2%	44%	103%	50 - 54	-2%	47%	107%	50 - 54	-2%	46%	105%
55 - 59	0%	41%	94%	55 - 59	-1%	41%	95%	55 - 59	-2%	39%	93%
60 - 64	-3%	38%	85%	60 - 64	-5%	35%	82%	60 - 64	-5%	34%	80%
65 - 69	-7%	29%	68%	65 - 69	-8%	28%	67%	65 - 69	-7%	29%	67%
70 - 74	-	-	-	70 - 74	-	-	-	70 - 74	-		-
75 - 79				75 - 79				75 - 79			
80 - 84	-	-	=	80 - 84	_	-	-	80 - 84	-	-	-
85 - 89				85 - 89				85 - 89			
90 - 94	-	-	-	90 - 94	-	1-	-	90 - 94	-	-	+

Table 36



# ARP/ASP – Deferred **Real weighted benefit**

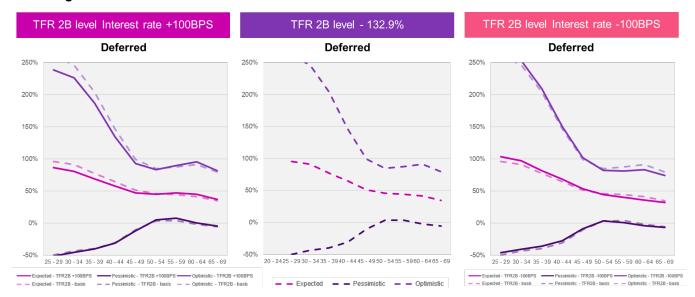


Figure 40

<u>)</u>	TFR 2B level in	terest rate + 1	00BPS		TFR	2B level			TFR 2B level in	terest rate - 1	00BPS
Cohort	Pessimistic	Expected	Optimistic	Cohort	Pessimistic	Expected	Optimistic	Cohort	Pessimistic	Expected	Optimistic
20 - 24	-	-	-	20 - 24	-	-	-	20 - 24	-	-	-
25 - 29	-52%	86%	238%	25 - 29	-50%	96%	261%	25 - 29	-46%	103%	268%
30 - 34	-46%	81%	226%	30 - 34	-43%	91%	246%	30 - 34	-41%	97%	253%
35 - 39	-40%	69%	187%	35 - 39	-40%	77%	204%	35 - 39	-36%	81%	209%
40 - 44	-31%	58%	134%	40 - 44	-31%	65%	146%	40 - 44	-28%	68%	150%
45 - 49	-12%	47%	92%	45 - 49	-10%	51%	99%	45 - 49	-9%	53%	102%
50 - 54	5%	45%	83%	50 - 54	3%	46%	85%	50 - 54	3%	44%	82%
55 - 59	7%	47%	90%	55 - 59	4%	44%	87%	55 - 59	1%	40%	81%
60 - 64	0%	45%	96%	60 - 64	-2%	41%	91%	60 - 64	-4%	36%	83%
65 - 69	-5%	37%	81%	65 - 69	-6%	35%	79%	65 - 69	-7%	32%	74%
70 - 74	-	-	-	70 - 74	-	1-		70 - 74	-	-	-
75 - 79				75 - 79				75 - 79			
80 - 84	-	-	-	80 - 84	2	-	-	80 - 84	-	-	-
85 - 89				85 - 89				85 - 89			
90 - 94	-	-	-	90 - 94	-	-	-	90 - 94	-	-	+

Table 37



# 3. Transition effects – Funding ratio sensitivity

# 3.a TFR 2A vs TFR 2B

Final Pay

# Real weighted benefit



# **Actives**

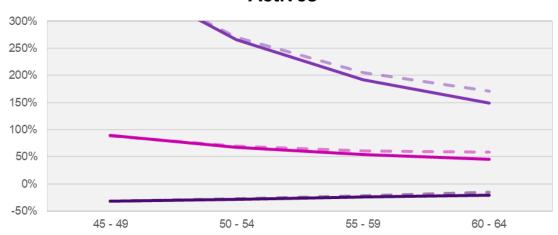


Figure 41

# Retired

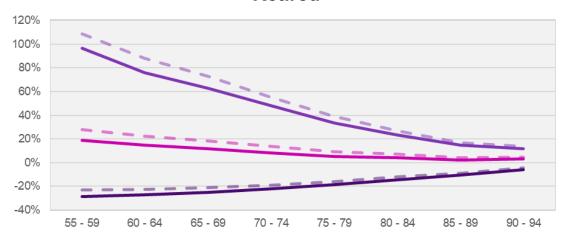


Figure 42



# **Deferred**

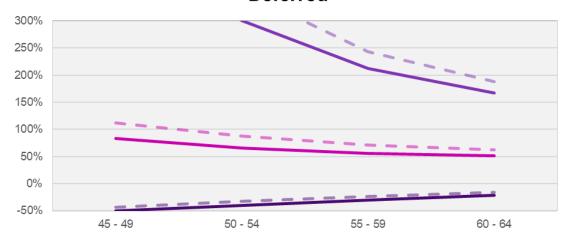


Figure 43

# Explanation

- For actives, the Funding Ratio of TFR2A will result in a guarantee of the employer of the needed compensation based on the agreed method. So even if the FR is equal to the TFR2A, these members will receive their TFR3 capital at conversion.
- There is a small difference for the older members between the results of the TFR3 and the dashed line TFR2B. This can be explained by a) Especially for the older actives the capital they will receive under TFR2B will be more than is needed to have equality in the 15% percentile. b) there is a small effect of a lesser funded fund, and solidarity reserve.
- For the deferred and the retired members there is no compensation method and thus no guarantee of the employer. The difference between TFR2A and TFR2B for retired and deferred decreases with age. The difference in transition effects is the largest in the optimistic scenario.



#### ARP/ASP

#### Real weighted benefit



# **Actives**

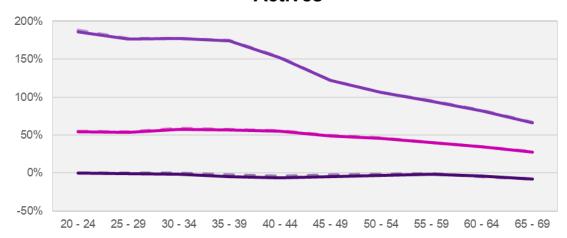


Figure 44

# **Deferred**

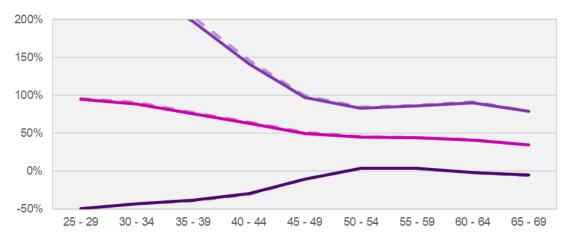


Figure 45

# Explanation

- There is no difference in conversion capital for the deferred between TFR2A and TFR2B.
- For actives, the Funding Ratio of TFR2A will result in a guarantee of the employer of the needed compensation based on the agreed method. So even if the FR is equal to the TFR2A, these members will receive their TFR3 capital at conversion.

There are no retirees in the ARP/ASP



# 3.b Funding ratio TFR4 vs TFR 2B

# Final Pay

# Real weighted benefit



# **Actives**

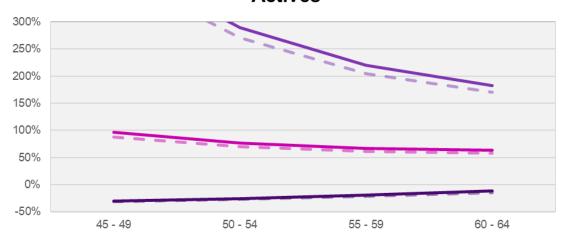


Figure 46

# Retired

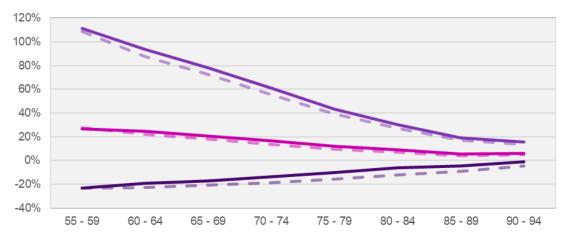


Figure 47



# **Deferred**

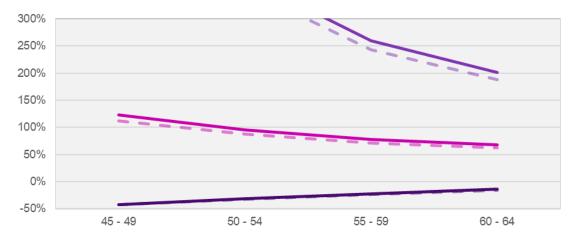


Figure 48

# **Explanation**

The effect of a full solidarity reserve is marginal. The retired members will have the greatest effect; in the pessimistic scenario's the initial filling will provide a protection in lowering the pension benefit. The younger will have a less effect because the probability is high that when they retire the extra filling is already paid out to other members (and the solidarity reserve is empty).

There are no retirees in the ARP/ASP

#### ARP/ASP

#### Real weighted benefit



# **Actives**

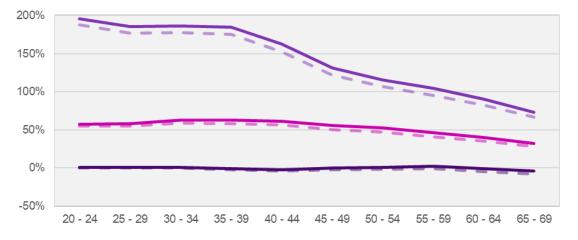


Figure 49



# **Deferred**

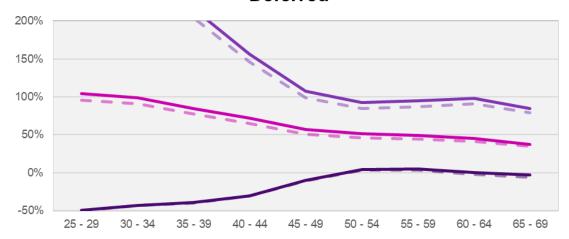


Figure 50

# **Explanation**

• By TFR4 the solidarity reserve is fully filled (5%) → The younger will have a less effect because the probability is high that when they retire the extra filling is already paid out to other members (and the solidarity reserve is empty).

# **Funding ratio sensitivities**

Final Pay – Actives

Real weighted benefit

\* By a Funding Ratio of TFR2A the easing-in capitals of actives will be increased by their needed compensation, guaranteed by the employer.

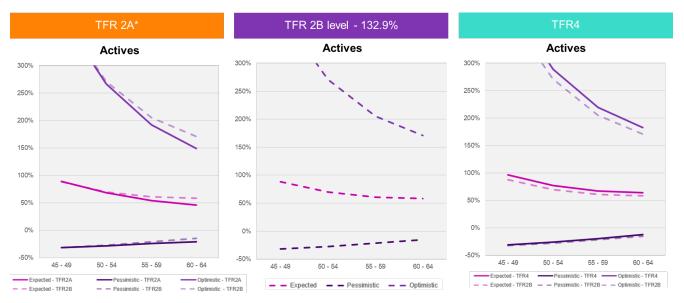


Figure 51



	T	FR 2A*			TFR	2B level				TFR4	
Cohort	Pessimistic	Expected	Optimistic	Cohort	Pessimistic	Expected	Optimistic	Cohort	Pessimistic	Expected	Optimistic
20 - 24	-	-	-	20 - 24	-	-	-	20 - 24	-	-	-
25 - 29				25 - 29		-		25 - 29			
30 - 34	-	-	-	30 - 34			-	30 - 34	-	-	-
35 - 39				35 - 39				35 - 39			
40 - 44	-	-	-	40 - 44	-	-	-	40 - 44	-	-	-
45 - 49	-32%	89%	390%	45 - 49	-32%	88%	390%	45 - 49	-31%	96%	413%
50 - 54	-28%	68%	266%	50 - 54	-28%	70%	271%	50 - 54	-26%	77%	289%
55 - 59	-24%	54%	192%	55 - 59	-21%	61%	205%	55 - 59	-19%	67%	220%
60 - 64	-21%	46%	149%	60 - 64	-15%	58%	171%	60 - 64	-12%	64%	183%
65 - 69				65 - 69				65 - 69			
70 - 74		-	-	70 - 74	-	-	-	70 - 74	-	-	
75 - 79				75 - 79				75 - 79			
80 - 84	-	-	-	80 - 84	-	-	-	80 - 84	-	-	-
85 - 89				85 - 89				85 - 89			-
90 - 94	-	-	-	90 - 94	-	-	-	90 - 94	-	-	-

Table 38
Final Pay – Deferred

# Real weighted benefit

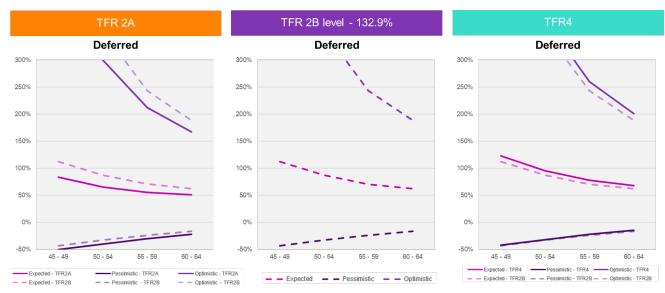


Figure 52

	Ţ	FR 2A			TFR	2B level		TFR4			
Cohort	Pessimistic	Expected	Optimistic	Cohort	Pessimistic	Expected	Optimistic	Cohort	Pessimistic	Expected	Optimistic
20 - 24	-	-	-	20 - 24	-	-	-	20 - 24	-	-	-
25 - 29				25 - 29	-	-		25 - 29			-
30 - 34	-	-	-	30 - 34	-	-	-	30 - 34	-	-	-
35 - 39				35 - 39	-	-		35 - 39			-
40 - 44	-	-	-	40 - 44		-	-	40 - 44	-	-	-
45 - 49	-51%	83%	443%	45 - 49	-43%	112%	528%	45 - 49	-43%	122%	560%
50 - 54	-40%	66%	300%	50 - 54	-33%	87%	354%	50 - 54	-32%	96%	376%
55 - 59	-31%	55%	212%	55 - 59	-24%	71%	244%	55 - 59	-22%	78%	260%
60 - 64	-22%	51%	167%	60 - 64	-17%	62%	188%	60 - 64	-14%	68%	201%
65 - 69				65 - 69				65 - 69			-
70 - 74	-	-	-	70 - 74		-	-	70 - 74	-	-	-
75 - 79				75 - 79	-	-		75 - 79			-
80 - 84	-	-	-	80 - 84	-	-	-	80 - 84	-	-	-
85 - 89				85 - 89				85 - 89			-
90 - 94	-	-	-	90 - 94	-	-	-	90 - 94	-	-	-

Table 39



# Final Pay – Retired Real weighted benefit

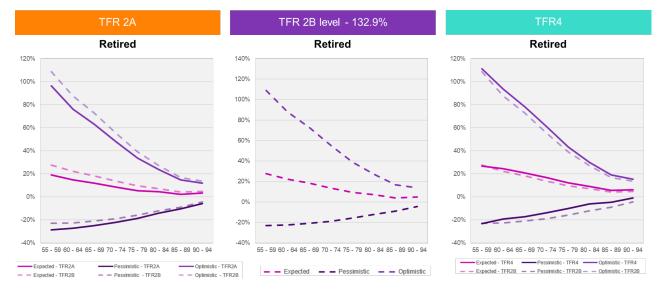


Figure 53

	Т	FR 2A			TFR	2B level		TFR4			
Cohort	Pessimistic	Expected	Optimistic	Cohort	Pessimistic	Expected	Optimistic	Cohort	Pessimistic	Expected	Optimistic
20 - 24				20 - 24	-	-	-	20 - 24	-		
25 - 29				25 - 29				25 - 29			
30 - 34	-		-	30 - 34	-	-	-	30 - 34	-		
35 - 39				35 - 39				35 - 39			
40 - 44	-	-	-	40 - 44	-	-	-	40 - 44	-	-	-
45 - 49				45 - 49				45 - 49			
50 - 54	-		-	50 - 54	-	-	-	50 - 54	-	-	-
55 - 59	-29%	19%	96%	55 - 59	-23%	28%	112%	55 - 59	-23%	27%	111%
60 - 64	-27%	15%	76%	60 - 64	-23%	22%	88%	60 - 64	-19%	25%	93%
65 - 69	-25%	12%	63%	65 - 69	-21%	18%	73%	65 - 69	-17%	21%	78%
70 - 74	-22%	8%	48%	70 - 74	-19%	14%	55%	70 - 74	-14%	17%	61%
75 - 79	-19%	5%	33%	75 - 79	-16%	9%	39%	75 - 79	-10%	12%	43%
80 - 84	-14%	4%	23%	80 – 84	-12%	7%	27%	80 - 84	-6%	9%	30%
85 - 89	-10%	2%	15%	85 – 89	-9%	4%	17%	85 - 89	-5%	6%	19%
90 - 94	-6%	3%	12%	90 – 94	-4%	5%	14%	90 - 94	-1%	6%	15%

Table 40



# ARP/ASP - Actives

# Real weighted benefit

\* By a Funding Ratio of TFR2A the easing-in capitals of actives will be increased by their needed compensation, guaranteed by the employer.

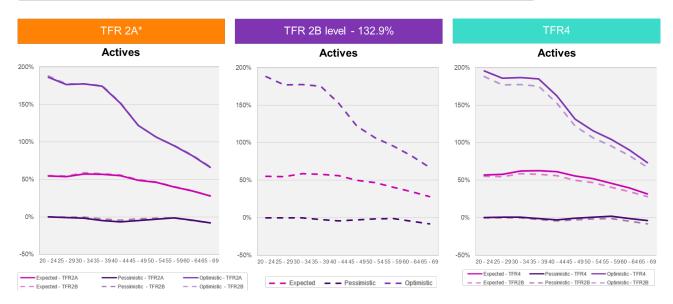


Figure 54

	Т	FR 2A*			TFR	2B level				TFR4	
Cohort	Pessimistic	Expected	Optimistic	Cohort	Pessimistic	Expected	Optimistic	Cohort	Pessimistic	Expected	Optimistic
20 - 24	0%	55%	186%	20 - 24	0%	55%	188%	20 - 24	0%	57%	196%
25 - 29	-1%	54%	177%	25 - 29	0%	55%	177%	25 - 29	1%	58%	186%
30 - 34	-2%	57%	177%	30 - 34	0%	59%	178%	30 - 34	1%	62%	187%
35 - 39	-5%	57%	174%	35 - 39	-3%	58%	175%	35 - 39	-1%	63%	185%
40 - 44	-7%	55%	152%	40 - 44	-4%	56%	153%	40 - 44	-3%	61%	163%
45 - 49	-5%	49%	122%	45 - 49	-3%	50%	122%	45 - 49	-1%	56%	131%
50 - 54	-3%	46%	107%	50 - 54	-2%	47%	107%	50 - 54	1%	52%	116%
55 - 59	-1%	40%	95%	55 - 59	-1%	41%	95%	55 - 59	2%	46%	104%
60 - 64	-4%	35%	82%	60 - 64	-5%	35%	82%	60 - 64	-1%	40%	90%
65 - 69	-8%	28%	66%	65 - 69	-8%	28%	67%	65 - 69	-4%	32%	73%
70 - 74	-	-	-	70 - 74	-	-	-	70 - 74	-	-	-
75 - 79				75 - 79	-			75 - 79			-
80 - 84		-		80 - 84	-	-	-	80 - 84	-	-	-
85 - 89				85 - 89	-	-		85 - 89			-
90 - 94	-	-	-	90 - 94	-	-	-	90 - 94	-	-	-

Table 41



# ARP/ASP - Deferred

# Real weighted benefit

\* For a deferred member of the ARP/ASP plan there is no difference in easing-in capital by TFR2A and TFR2B.

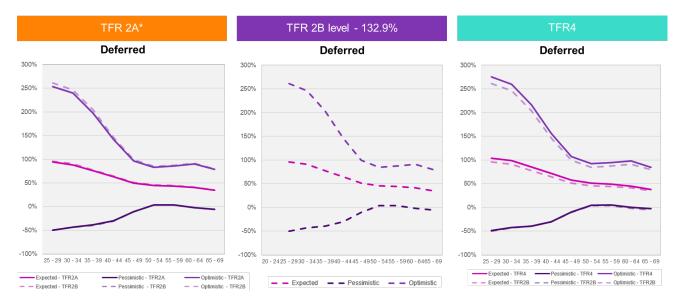


Figure 55

	TI	FR 2A*			TFR	2B level				TFR4	
Cohort	Pessimistic	Expected	Optimistic	Cohort	Pessimistic	Expected	Optimistic	Cohort	Pessimistic	Expected	Optimistic
20 - 24	-	-	-	20 - 24	-	-	-	20 - 24	-	-	-
25 - 29	-50%	94%	254%	25 - 29	-50%	96%	261%	25 - 29	-49%	104%	276%
30 - 34	-44%	88%	240%	30 - 34	-43%	91%	246%	30 - 34	-43%	99%	260%
35 - 39	-38%	76%	198%	35 - 39	-40%	77%	204%	35 - 39	-39%	85%	216%
40 - 44	-30%	63%	142%	40 - 44	-31%	65%	146%	40 - 44	-31%	72%	157%
45 - 49	-11%	50%	97%	45 - 49	-10%	51%	99%	45 - 49	-10%	57%	107%
50 - 54	3%	45%	83%	50 - 54	3%	46%	85%	50 - 54	4%	51%	92%
55 - 59	4%	44%	86%	55 - 59	4%	44%	87%	55 - 59	5%	49%	95%
60 - 64	-2%	41%	90%	60 - 64	-2%	41%	91%	60 - 64	0%	45%	98%
65 - 69	-6%	35%	79%	65 - 69	-6%	35%	79%	65 - 69	-3%	38%	85%
70 - 74	-	-	-	70 - 74	-	-	-	70 - 74	-		-
75 - 79				75 - 79	-	-		75 - 79			
80 - 84	-	-	-	80 - 84	-	-	-	80 - 84	-		
85 - 89		-		85 - 89	-	-		85 - 89			
90 - 94	-	-	-	90 - 94	-	-	-	90 - 94	-	-	-

Table 42



# 4. Bandwidth

For the relative difference in real weighted benefit, all the calculated bandwidths per scenario (pessimistic, expected, optimistic) and variant (see below) are combined in one table to assess whether they fall within the defined bandwidth by the social partners.

For the lower border the minimum value is taken of the following variants:

- Basic variant TFR2B
- TFR2B Interest rate +100BPS
- TFR2B Interest rate -/-100BPS
- TFR2A
- TFR4

e.g. pessimistic scenario 45-49: minimum ( -32%, -48%, -30%, -31%, -32%) = -48%

The upper border has the same method, with the maximum value of these variants.

	Pessimisti	c scenario	Expected	scenario	Optimistic	c scenario
Age cohort (years)	Lower border	Upper border	Lower border	Upper border	Lower border	Upper border
45 – 49	-48%	-30%	34%	96%	229%	413%
50 – 54	-41%	-23%	33%	81%	184%	295%

Table 43

	TFR	R 2B level	
Cohort	Pessimistic	Expected	Optimistic
45 - 49	-32%	88%	390%
50 - 54	-28%	70%	271%
	TFR 2B level in	terest rate + 100BP	S
Cohort	Pessimistic	Expected	Optimistic
45 - 49	-48%	34%	229%
50 - 54	-41%	33%	184%
	TFR 2B level in	terest rate - 100BP	S
Cohort	Pessimistic	Expected	Optimistic
45 - 49	-30%	95%	407%
50 - 54	-23%	81%	295%
		TFR4	
Cohort	Pessimistic	Expected	Optimistic
45 - 49	-31%	96%	413%
50 - 54	-26%	77%	289%
	Т	FR 2A*	
Cohort	Pessimistic	Expected	Optimistic
45 - 49	-32%	89%	390%
50 - 54	-28%	68%	266%

Table 44



# Final Pay

		Pessi	mistic so	cenario					Expe	cted sce	nario					Optin	nistic sc	enario		
	Active r	nembers		erred nbers		tired nbers		Active r	members		erred nbers		tired nbers		Active r	members		erred nbers		tired nbers
Age cohort (years)	Lower bounder	Upper bounder	Lower	Upper r bounder	Lower bounder	Upper bounder	Age cohort (years)	Lower bounder	Upper bounder	Lower bounder	Upper bounder	Lower bounder	Upper bounder	Age cohort (years)	Lower bounder	Upper bounder	Lower bounder	Upper bounder	Lower bounder	Uppe
45 – 49	-48%	-30%	-56%	-23%	-	-	45 – 49	34%	96%	63%	185%	-	-	45 - 49	229%	413%	382%	743%	-	-
<b>50 – 54</b>	-41%	-23%	-45%	-15%	-	-	50 - 54	33%	81%	53%	136%	-	-	50 - 54	184%	295%	270%	468%	-	-
<b>55 – 59</b>	-32%	-18%	-32%	-11%	-29%	-17%	55 - 59	37%	69%	51%	98%	19%	38%	55 - 59	158%	220%	205%	298%	96%	1299
60 - 64	-23%	-12%	-21%	-9%	-27%	-17%	60 - 64	42%	64%	53%	76%	15%	31%	60 - 64	142%	183%	172%	213%	76%	1019
65 - 69	-	-	-	-	-25%	-16%	65 - 69	-	-	-	-	12%	26%	65 - 69	-	-	-	-	63%	83%
70 – 74	-	-	-	-	-22%	-14%	70 - 74	-	-	-	-	8%	19%	70 - 74	-	-	-	-	48%	63%
<b>75 – 79</b>	-	-	-	-	-19%	-10%	75 - 79	-	-	-	-	5%	14%	<b>75 – 79</b>	-	-	-	-	33%	45%
80 – 84	-	-	-	-	-14%	-6%	80 - 84	-	-	-	-	4%	11%	80 - 84	-	-	-	-	23%	31%
85 – 89	-	-	-	-	-10%	-5%	85 - 89	-	-	-	-	2%	7%	85 - 89	-	-	-	-	15%	20%
90 – 94	-	-	-	-	-6%	-1%	90 – 94	-	-	-	-	3%	7%	90 - 94	-	-	-	-	12%	16%

# Table 45

The wide bandwidth for several age cohort is explained by, among other things, small cohorts. Outlier members, due to for instance a value transfer, have significant impact on small age cohorts.

#### ARP/ASP

	Pessimistic scenario										
	Active n	nembers	Deferred	members							
Age cohort (years)	Lower bounder	Upper bounder	Lower bounder	Upper bounder							
20 – 24	0%	0%	-	-							
25 – 29	-1%	1%	-52%	-46%							
30 – 34	-2%	1%	-46%	-41%							
35 – 39	-5%	-1%	-40%	-36%							
40 – 44	-7%	-3%	-31%	-28%							
45 – 49	-5%	-1%	-12%	-9%							
50 – 54	-3%	1%	3%	5%							
55 – 59	-2%	2%	1%	7%							
60 – 64	-5%	-1%	-4%	0%							
65 – 69	-8%	-4%	-7%	-3%							

	Expected scenario									
	Active m	nembers	Deferred	members						
Age cohort (years)	Lower bounder	Upper bounder	Lower bounder	Upper bounder						
20 – 24	54%	57%	-	-						
25 – 29	53%	58%	86%	104%						
30 – 34	56%	62%	81%	99%						
35 – 39	55%	63%	69%	85%						
40 – 44	52%	61%	58%	72%						
45 – 49	46%	56%	47%	57%						
50 – 54	44%	52%	44%	51%						
55 – 59	39%	46%	40%	49%						
60 – 64	34%	40%	36%	45%						
65 - 69	28%	32%	32%	38%						

Optimistic scenario											
Active members   Deferred me											
	Active II	Icilineia	Deferred filefilbers								
Age cohort	Lower	Upper	Lower	Upper							
	bounder	bounder	bounder	bounder							
(years)											
20 – 24	186%	196%	-	-							
25 – 29	177%	186%	238%	276%							
30 – 34	177%	187%	226%	260%							
35 – 39	171%	185%	187%	216%							
40 – 44	151%	163%	134%	157%							
45 – 49	120%	131%	92%	107%							
50 – 54	103%	116%	82%	92%							
55 – 59	93%	104%	81%	95%							
60 – 64	80%	90%	83%	98%							
65 – 69	66%	73%	74%	85%							

Table 46



# 5. Probability of discount

Probability of discount - basis scenario TFR2B

#### Final Pay plan - 68 years old

Due to the current guarantees, such as the commitment to pay to prevent reductions (bijstortverplichting), the probability of reduction / discount is zero.

To make this visible there is one straw man, who is 68 years old at moment of transition. If the transition would not take place, the pension benefit will increase over time.

Explanation example: 25%

At moment t=10, straw men is 78 years old, in 25% of the scenario's the cumulative increase of the pension benefit (compared to t=0, moment of transition) is between the 10% and 15%.

<b>Probability</b>	of benefit decrease/increase	t=0	t=1	t=5	t=10	t=15	t=20
	Cumulative increased more than 35	0%	0%	0%	0%	4%	37%
	Cumulative increased between 30% and 35%	0%	0%	0%	0%	14%	21%
	Cumulative increased between 25% and 30%	0%	0%	0%	2%	24%	17%
	Cumulative increased between 20% and 25%	0%	0%	0%	17%	25%	10%
	Cumulative increased between 15% and 20%	0%	0%	0%	36%	15%	6%
	Cumulative increased between 10% and 15%	0%	0%	27% (	25%	8%	4%
Final Pay (FTK)	Cumulative increased between 5% and 10%	0%	0%	60%	14%	7%	3%
(1 110)	Cumulative increased between 0% and 5%	100%	100%	13%	6%	3%	2%
	Cumulative decreased between 0% and 5%	0%	0%	0%	0%	0%	0%
	Cumulative decreased between 5% and 10%	0%	0%	0%	0%	0%	0%
	Cumulative decreased between 10% and 15%	0%	0%	0%	0%	0%	0%
	Cumulative decreased between 15% and 20%	0%	0%	0%	0%	0%	0%
	Cumulative decreased more than 20%	0%	0%	0%	0%	0%	0%

#### Table 47

Probability of discount – basis scenario TFR2B

#### SPR - 68 years old

For the probability of discount for the SPR the same straw man is used.

On t=0, transition moment the pension benefit has an increase between 20% and 25%. This can be explained by the effect of conversion. The Final Pay benefit is converted to an conversion capital, which increases the initial benefit with approximately 23% for a 68-year-old. This is without compensation, because this straw man is retired on transition date.

Over time, this pension benefit can both increase and decrease.

Explanation example: 2%

At moment t=10, the straw men is 78 years old, in 2% of the scenario's the pension benefit has cumulative decreased between 5% and 10% compared to what it would get as first benefit of the Final Pay plan.



<b>Probability</b>	of benefit decrease/increase	t=0	t=1	t=5	t=10	t=15	t=20
	Cumulative increased more than 35	0%	0%	39%	64%	73%	77%
	Cumulative increased between 30% and 35%	0%	0%	15%	6%	3%	2%
	Cumulative increased between 25% and 30%	0%	1%	16%	6%	4%	2%
	Cumulative increased between 20% and 25%	100%	99%	20%	7%	5%	4%
	Cumulative increased between 15% and 20%	0%	0%	3%	2%	2%	2%
	Cumulative increased between 10% and 15%	0%	0%	2%	2%	1%	1%
SPR	Cumulative increased between 5% and 10%	0%	0%	2%	3%	2%	1%
	Cumulative increased between 0% and 5%	0%	0%	1%	2%	2%	2%
	Cumulative decreased between 0% and 5%	0%	0%	1%	2%	1%	1%
	Cumulative decreased between 5% and 10%	0%	0%	1%	2%	1%	1%
	Cumulative decreased between 10% and 15%	0%	0%	0%	1%	1%	1%
	Cumulative decreased between 15% and 20%	0%	0%	0%	1%	1%	1%
	Cumulative decreased more than 20%	0%	0%	0%	2%	4%	5%

# Table 48

# Probability of discount

Basis scenario TFR2B – 68 years old - Conclusions

- Over time the SPR has a probability that the benefit decreases compared to the benefit the straw man would get in the current scheme.
- Within the new scheme, the benefits are especially in the first years much higher than current Final Pay plan. This is explained by the conversion bonus (TFR2B).
- Please note that higher benefit during the first retirement period may be perceived as more valuable by the retiree.



Probability	of benefit decrease/increase	t=0	t=1	t=5	t=10	t=15	t=20
	Cumulative increased more than 35	0%	0%	0%	0%	4%	37%
	Cumulative increased between 30% and 35%	0%	0%	0%	0%	14%	21%
	Cumulative increased between 25% and 30%	0%	0%	0%	2%	24%	17%
	Cumulative increased between 20% and 25%	0%	0%	0%	17%	25%	10%
	Cumulative increased between 15% and 20%	0%	0%	0%	36%	15%	6%
Final Pay	Cumulative increased between 10% and 15%	0%	0%	27%	25%	8%	4%
(FTK)	Cumulative increased between 5% and 10%	0%	0%	60%	14%	7%	3%
(1 114)	Cumulative increased between 0% and 5%	100%	100%	13%	6%	3%	2%
	Cumulative decreased between 0% and 5%	0%	0%	0%	0%	0%	0%
	Cumulative decreased between 5% and 10%	0%	0%	0%	0%	0%	0%
	Cumulative decreased between 10% and 15%	0%	0%	0%	0%	0%	0%
	Cumulative decreased between 15% and 20%	0%	0%	0%	0%	0%	0%
	Cumulative decreased more than 20%	0%	0%	0%	0%	0%	0%
Probability	of benefit decrease/increase	t=0	t=1	t=5	t=10	t=15	t=20
Probability	of benefit decrease/increase Cumulative increased more than 35	t=0 0%	t=1 0%	t=5 39%	t=10 64%	t=15 73%	t=20 77%
Probability	Cumulative increased more than 35 Cumulative increased between 30% and 35%						
Probability	Cumulative increased more than 35 Cumulative increased between 30% and 35% Cumulative increased between 25% and 30%	0%	0%	39%	64%	73%	77%
Probability	Cumulative increased more than 35 Cumulative increased between 30% and 35% Cumulative increased between 25% and 30% Cumulative increased between 20% and 25%	0% 0%	0% 0% 1%	39% 15%	64% 6%	73% 3%	77% 2%
Probability	Cumulative increased more than 35 Cumulative increased between 30% and 35% Cumulative increased between 25% and 30% Cumulative increased between 20% and 25% Cumulative increased between 15% and 20%	0% 0% 0%	0% 0% 1%	39% 15% 16%	64% 6% 6%	73% 3% 4%	77% 2% 2%
	Cumulative increased more than 35 Cumulative increased between 30% and 35% Cumulative increased between 25% and 30% Cumulative increased between 20% and 25% Cumulative increased between 15% and 20% Cumulative increased between 10% and 15%	0% 0% 0% 100%	0% 0% 1% 99%	39% 15% 16% 20%	64% 6% 6% 7%	73% 3% 4% 5%	77% 2% 2% 4%
Probability SPR	Cumulative increased more than 35 Cumulative increased between 30% and 35% Cumulative increased between 25% and 30% Cumulative increased between 20% and 25% Cumulative increased between 15% and 20% Cumulative increased between 10% and 15% Cumulative increased between 5% and 10%	0% 0% 0% 100% 0%	0% 0% 1% 99% 0%	39% 15% 16% 20% 3%	64% 6% 6% 7% 2%	73% 3% 4% 5% 2%	77% 2% 2% 4% 2%
	Cumulative increased more than 35 Cumulative increased between 30% and 35% Cumulative increased between 25% and 30% Cumulative increased between 20% and 25% Cumulative increased between 15% and 20% Cumulative increased between 10% and 15% Cumulative increased between 5% and 10% Cumulative increased between 0% and 5%	0% 0% 0% 100% 0%	0% 0% 1% 99% 0%	39% 15% 16% 20% 3% 2%	64% 6% 6% 7% 2% 2%	73% 3% 4% 5% 2% 1%	77% 2% 2% 4% 2% 1%
	Cumulative increased more than 35 Cumulative increased between 30% and 35% Cumulative increased between 25% and 30% Cumulative increased between 20% and 25% Cumulative increased between 15% and 20% Cumulative increased between 10% and 15% Cumulative increased between 5% and 10% Cumulative increased between 0% and 5% Cumulative decreased between 0% and 5%	0% 0% 0% 100% 0% 0%	0% 0% 1% 99% 0% 0%	39% 15% 16% 20% 3% 2% 2%	64% 6% 6% 7% 2% 2% 3%	73% 3% 4% 5% 2% 1% 2%	77% 2% 2% 4% 2% 1%
	Cumulative increased more than 35 Cumulative increased between 30% and 35% Cumulative increased between 25% and 30% Cumulative increased between 20% and 25% Cumulative increased between 15% and 20% Cumulative increased between 10% and 15% Cumulative increased between 5% and 10% Cumulative increased between 0% and 5% Cumulative decreased between 0% and 5% Cumulative decreased between 5% and 10%	0% 0% 0% 100% 0% 0% 0%	0% 0% 1% 99% 0% 0% 0%	39% 15% 16% 20% 3% 2% 2% 1%	64% 6% 6% 7% 2% 2% 3% 2%	73% 3% 4% 5% 2% 1% 2% 2%	77% 2% 2% 4% 2% 1% 1% 2%
	Cumulative increased more than 35 Cumulative increased between 30% and 35% Cumulative increased between 25% and 30% Cumulative increased between 20% and 25% Cumulative increased between 15% and 20% Cumulative increased between 10% and 15% Cumulative increased between 5% and 10% Cumulative increased between 0% and 5% Cumulative decreased between 0% and 5% Cumulative decreased between 5% and 10% Cumulative decreased between 10% and 15%	0% 0% 0% 100% 0% 0% 0%	0% 0% 1% 99% 0% 0% 0%	39% 15% 16% 20% 3% 2% 2% 1%	64% 6% 6% 7% 2% 2% 3% 2%	73% 3% 4% 5% 2% 1% 2% 2%	77% 2% 2% 4% 2% 1% 1% 2%
	Cumulative increased more than 35 Cumulative increased between 30% and 35% Cumulative increased between 25% and 30% Cumulative increased between 20% and 25% Cumulative increased between 15% and 20% Cumulative increased between 10% and 15% Cumulative increased between 5% and 10% Cumulative increased between 0% and 5% Cumulative decreased between 0% and 5% Cumulative decreased between 5% and 10%	0% 0% 0% 100% 0% 0% 0% 0%	0% 0% 1% 99% 0% 0% 0% 0%	39% 15% 16% 20% 3% 2% 2% 1% 1%	64% 6% 6% 7% 2% 2% 3% 2% 2%	73% 3% 4% 5% 2% 1% 2% 1% 1%	77% 2% 2% 4% 2% 1% 1% 1% 2%

#### Table 49

Probability of discount – basis scenario TFR2B

# Final Pay plan - 80 years old

Due to the current guarantees, such as the commitment to pay to prevent reductions (bijstortverplichting), the probability of reduction / discount is zero.

To make this visible there is one straw man, who is 80 years old at moment of transition. If the transition would not take place, the pension benefit will increase over time.

Explanation example: 25%

At moment t=10, straw men is 90 years old, in 25% of the scenario's the cumulative increase of the pension benefit (compared to t=0, moment of transition) is between the 10% and 15%.



<b>Probability</b>	of benefit decrease/increase	t=0	t=1	t=5	t=10
	Cumulative increased more than 35	0%	0%	0%	0%
	Cumulative increased between 30% and 35%	0%	0%	0%	0%
	Cumulative increased between 25% and 30%	0%	0%	0%	2%
	Cumulative increased between 20% and 25%	0%	0%	0%	17%
	Cumulative increased between 15% and 20%	0%	0%	0%	36%
	Cumulative increased between 10% and 15%	0%	0%	27%	25%
Final Pay (FTK)	Cumulative increased between 5% and 10%	0%	0%	60%	14%
(1 110)	Cumulative increased between 0% and 5%	100%	100%	13%	6%
	Cumulative decreased between 0% and 5%	0%	0%	0%	0%
	Cumulative decreased between 5% and 10%	0%	0%	0%	0%
	Cumulative decreased between 10% and 15%	0%	0%	0%	0%
	Cumulative decreased between 15% and 20%	0%	0%	0%	0%
	Cumulative decreased more than 20%	0%	0%	0%	0%

#### Table 50

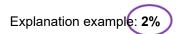
Probability of discount – basis scenario TFR2B

#### SPR - 80 years old

For the probability of discount for the SPR the same straw man is used.

On t=0, transition moment the pension benefit has an increase between 10% and 15%. This can be explained by the effect of conversion. The Final Pay benefit is converted to an conversion capital, which increases the initial benefit with approximately 12% for an 80-year-old. This is without compensation, because this straw man is retired on transition date.

Over time, this pension benefit can both increase and decrease.



At moment t=10, the straw men are 90 years old, in 2% of the scenario's the pension benefit has cumulatively decreased between 5% and 10% compared to what it would get as first benefit of the Final Pay plan.



Probability	of benefit decrease/increase	t=0	t=1	t=5	t=10
	Cumulative increased more than 35	0%	0%	10%	48%
	Cumulative increased between 30% and 35%	0%	0%	11%	7%
	Cumulative increased between 25% and 30%	0%	0%	14%	8%
	Cumulative increased between 20% and 25%	0%	0%	16%	7%
	Cumulative increased between 15% and 20%	0%	0%	18%	7%
	Cumulative increased between 10% and 15%	100%	100%	20%	8%
SPR	Cumulative increased between 5% and 10%	0%	0%	3%	2%
	Cumulative increased between 0% and 5%	0%	0%	2%	2%
	Cumulative decreased between 0% and 5%	0%	0%	2%	3%
	Cumulative decreased between 5% and 10%	0%	0%	1%(	2%
	Cumulative decreased between 10% and 15%	0%	0%	1%	2%
	Cumulative decreased between 15% and 20%	0%	0%	1%	1%
	Cumulative decreased more than 20%	0%	0%	1%	3%

## Table 51

## Probability of discount

Basis scenario TFR2B - 80 years old - Conclusion

- Over time the SPR has a probability that the benefit decreases compared to the benefit the straw man would get in the current scheme.
- Within the new scheme, the benefits are especially in the first years much higher than current Final Pay plan. This is explained by the conversion bonus (TFR2B).
- Please note that higher benefit during the first retirement period may be perceived as more valuable by the retiree.



<b>Probability</b>	of benefit decrease/increase	t=0	t=1	t=5	t=10
	Cumulative increased more than 35	0%	0%	0%	0%
	Cumulative increased between 30% and 35%	0%	0%	0%	0%
	Cumulative increased between 25% and 30%	0%	0%	0%	2%
	Cumulative increased between 20% and 25%	0%	0%	0%	17%
	Cumulative increased between 15% and 20%	0%	0%	0%	36%
Final Pay	Cumulative increased between 10% and 15%	0%	0%	27%	25%
(FTK)	Cumulative increased between 5% and 10%	0%	0%	60%	14%
(1 114)	Cumulative increased between 0% and 5%	100%	100%	13%	6%
	Cumulative decreased between 0% and 5%	0%	0%	0%	0%
	Cumulative decreased between 5% and 10%	0%	0%	0%	0%
	Cumulative decreased between 10% and 15%	0%	0%	0%	0%
	Cumulative decreased between 15% and 20%	0%	0%	0%	0%
	Cumulative decreased more than 20%	0%	0%	0%	0%
D I I. 1114	-f hamafit alasmana (imamana	4-0	4-4	4-E	4-40
Probability	of benefit decrease/increase	t=0	t=1	t=5	t=10
Probability	Cumulative increased more than 35	0%	0%	10%	48%
Probability					
Probability	Cumulative increased more than 35	0%	0%	10%	48%
Probability	Cumulative increased more than 35 Cumulative increased between 30% and 35%	0% 0%	0% 0%	10% 11%	48% 7%
Probability	Cumulative increased more than 35 Cumulative increased between 30% and 35% Cumulative increased between 25% and 30%	0% 0% 0%	0% 0% 0%	10% 11% 14%	48% 7% 8%
Probability	Cumulative increased more than 35 Cumulative increased between 30% and 35% Cumulative increased between 25% and 30% Cumulative increased between 20% and 25%	0% 0% 0% 0%	0% 0% 0% 0%	10% 11% 14% 16% 18%	48% 7% 8% 7%
SPR	Cumulative increased more than 35 Cumulative increased between 30% and 35% Cumulative increased between 25% and 30% Cumulative increased between 20% and 25% Cumulative increased between 15% and 20%	0% 0% 0% 0%	0% 0% 0% 0%	10% 11% 14% 16% 18%	48% 7% 8% 7% 7%
	Cumulative increased more than 35 Cumulative increased between 30% and 35% Cumulative increased between 25% and 30% Cumulative increased between 20% and 25% Cumulative increased between 15% and 20% Cumulative increased between 10% and 15%	0% 0% 0% 0% 0% 100%	0% 0% 0% 0% 0% 100%	10% 11% 14% 16% 18% 20%	48% 7% 8% 7% 7% 8%
	Cumulative increased more than 35 Cumulative increased between 30% and 35% Cumulative increased between 25% and 30% Cumulative increased between 20% and 25% Cumulative increased between 15% and 20% Cumulative increased between 10% and 15% Cumulative increased between 5% and 10%	0% 0% 0% 0% 0% 100%	0% 0% 0% 0% 0% 100%	10% 11% 14% 16% 18% 20% 3%	48% 7% 8% 7% 7% 8% 2%
	Cumulative increased more than 35 Cumulative increased between 30% and 35% Cumulative increased between 25% and 30% Cumulative increased between 20% and 25% Cumulative increased between 15% and 20% Cumulative increased between 10% and 15% Cumulative increased between 5% and 10% Cumulative increased between 0% and 5%	0% 0% 0% 0% 0% 100% 0%	0% 0% 0% 0% 0% 100% 0%	10% 11% 14% 16% 18% 20% 3% 2%	48% 7% 8% 7% 7% 8% 2% 2%
	Cumulative increased more than 35 Cumulative increased between 30% and 35% Cumulative increased between 25% and 30% Cumulative increased between 20% and 25% Cumulative increased between 15% and 20% Cumulative increased between 10% and 15% Cumulative increased between 5% and 10% Cumulative increased between 0% and 5% Cumulative decreased between 0% and 5%	0% 0% 0% 0% 0% 100% 0% 0%	0% 0% 0% 0% 0% 100% 0% 0%	10% 11% 14% 16% 18% 20% 3% 2%	48% 7% 8% 7% 7% 8% 2% 2% 3%
	Cumulative increased more than 35 Cumulative increased between 30% and 35% Cumulative increased between 25% and 30% Cumulative increased between 20% and 25% Cumulative increased between 15% and 20% Cumulative increased between 10% and 15% Cumulative increased between 5% and 10% Cumulative increased between 0% and 5% Cumulative decreased between 0% and 5% Cumulative decreased between 5% and 10%	0% 0% 0% 0% 0% 100% 0% 0%	0% 0% 0% 0% 0% 100% 0% 0% 0%	10% 11% 14% 16% 18% 20% 3% 2% 2% 1%	48% 7% 8% 7% 7% 8% 2% 2% 3% 2%

Table 52



# F. Transition effects – Net Profit

## Disclaimer and general attention points

WTW has prepared this material for Mars ("you") to assist you with any decisions you may take regarding the design of the new NL pension plan. It is provided subject to the terms of our agreement with you.

This material is provided to you solely for your use, for the purpose indicated. It may not be provided to any other party without WTW's prior written permission, except as may be required by law. In the absence of our express written agreement to the contrary, WTW and its affiliates and their respective directors, officers and employees accept no responsibility and will not be liable for any consequences howsoever arising from any third party's use of or reliance on this material or any of its contents. This material can be shared with Mars NL pension fund and with the Mars NL works council and its pension related advisors.

The calculations in this presentation are based on assumptions as shared in the assumption documentation of October 2024. Reality will deviate from these assumptions.

- The stochastic analysis is based on the DNB economic scenario Q-set Q1 2024 (31-12-2023). Note, experience has showed that the results are highly vulnerable to this Q-set scenario. Results will differ in other scenario set calculations.
- In these calculations we assume conversion will take place on TFR2A and TFR2B levels as calculated per individual. In these calculations we have not corrected for the effect that actual distribution of the collective TFR2A and TFR2B level could take place on standard method instead of individually calculated TFR2A and TFR2B. We expect that conversion with the standard method will result in somewhat higher compensations for younger associates and lower compensations for older associates. The net effect is expected to be a higher total compensation. Please note that the proposal for the conversion methodology has been submitted to DNB.
- The calculation of TFR3 (compensation) is based on preliminary constructed life cycles translated from the risk preference survey of Mars Pension Fund (MPF). Results will differ in case of other life cycles or another investment strategy.
- The last update on the standard method with respect to the treatment of DC plans is not yet included in the calculations (published 24 december 2024, Regeling van de Minister van Sociale Zaken en Werkgelegenheid van 17 december 2024, nr. 2024-0000934444, houdende wijziging van bijlage 2a bij de Regeling Pensioenwet en Wet verplichte beroepspensioenregeling in verband met een aanpassing van de standaardregel voor fondsen met een DC-regeling).



#### 1. Introduction

Net Profit vs real weighted expect benefits

Measure- ment	Net Profit	Real weighted expect benefit
Туре	Valuation benchmark (market value of the benefits reduced by the market value of contributions)	Projection benchmark (achieved pension benefits, weighted over the retirement period)
Economic scenario set	Q-set risk neutral	P-set "real world"
Description	Gives insights in redistribution of assets	Give insights in the effects of "good" and "bad" weather

#### Table 53

These different measurements and use of different economical sets could give different balance assessment.

The Q-set in comparison to the P-set is corrected for risk, this makes the set risk neutral. In the risk-neutral world, also known as the Q-measure, an investor is not rewarded for taking on additional risk.

Net Profit – method

Net Profit is intended to determine the value of the pension benefit

- A pension contract can be seen as a financial option, in which the conditions (for instance conditional indexation) also have value.
- With Net Profit calculations the effects of *redistribution* (such as abolishment doorsneesystematiek, indexation policy, solidarity reserve ect.) can be Illustrated.

## Net profit = value of benefit payments -/- value contributions

Net Profit will <u>not</u> give any insights in the pension benefits under the new scheme and/or insights in the risk in good or bad weather.

Net Profit is calculated with a different – risk neutral – scenario (Q-set) set.

- This set is also quarterly published by the DNB.
- Important characteristic of this set is that the return on assets is the same as the return on bonds
  - A more offensive / defensive investment policy will principally not lead to a different

    Net Profit

Net Profit is a mandatory component when considering a new pension scheme. These calculations need to be done with the published Q-set with 10,000 scenarios.

- Net Profit results can be contradictory with expected pension benefits
  - For instants, a riskier investment policy will lead to different expected pension benefit but will not or barely change the outcome of Net Profit.



## Net Profit within a pension scheme

- Positive: The market value of the pension benefits is higher than the value of the contributions
- Negative: The market value of the pension benefits is lower than the value of the contributions
- Example redistribution: average contribution (doorsneepremie) distribution between young and old

## Net Profit by comparison between two pension schemes (delta Net Profit)

- Positive: The Net Profit in the new scheme is higher than in the old scheme
- Negative: The Net Profit in the new scheme is lower than in the old scheme

#### **Delta Net Profit**

Net Profit can be defined as:

# Net profit = net profit new scheme -/- net profit current scheme

Which can be broken down into:

Net profit = 
$$(A - B) - (C - D) = (A - C) - (B - D)$$

A = Market value benefits SPR

B = Market value contribution SPR

C = Market value benefits Final Pay / APR/ASP

D = Market value contribution Final Pay / APR/ASP

The delta Net Profit, which is used is defined as:

Delta net profit = 
$$((A - B) - (C - D))/C$$

## Which insights can be obtained from delta Net Profit results?

Delta Net Profit insights are mandatory in the transition to a Wtp pension scheme. In our opinion, it is not advisable to draw conclusion for the balanced interests solely on the insights of the delta Net Profit. Insights in expected benefits (including extra returns due to risks) under the real world (P-set) measure are also relevant information.

- Net Profit gives a different perspective
  - Net Profit takes pension benefit and contribution into account. The same benefit for a higher contribution will result in a lower Net Profit. Net Profit takes the distribution of outcomes of the expected benefits also into account. A greater probability of a lower pension gives a lower Net Profit. Net Profit also provides insights in the redistribution between generation and groups within the members of the fund.
- Net Profit is complex to interpret



o It can be possible that a generation has a higher expected pension benefit but a lower Net Profit, due to changed pension scheme. For example, a higher risk will not lead to higher return in Net Profit. The results are dependent on economic assumptions and the extent to which policy is designed to deal with extreme circumstances.

## Example

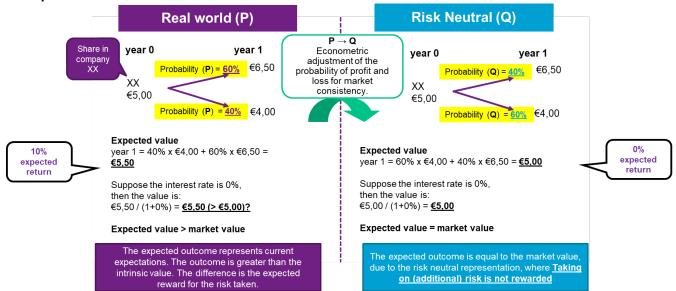


Figure 56



#### 2. Net Profit effects

## 2.a Net Profit effects - Final Pay

#### Delta Net Profit

#### Final Pay - Retired

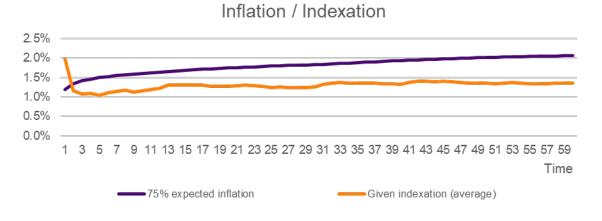
For retirees, the focus is on the Net Profit, or the market value of the benefits. The positive Net Profit can be explained as follows:

Under the SPR scheme, it is assumed that all members will receive 75% of the projected CPI curve, with a maximum of 3%. This is the maximum indexation ambition in the current scheme, and it is therefore guaranteed in the new scheme.

There are numerous scenarios where this maximum indexation target would not be achieved in the current scheme. Figure 58 supports this argument, showing that the average indexation granted is lower than the 75% of the expected inflation curve.



## Figure 57



#### Figure 58

## Extra information

The expected inflation curve derived from the real and nominal interest rate the DNB published for 31-12-2023. This curve gives an inflation expectation for every year. These expected inflations are used by the calculations of TFR2AB, furthermore are these indexations given at moment of conversion (a guarantee).



While in every state (each scenario) of the fictive world, Net Profit calculations, the indexation is dependent on the Funding Ratio of the Fund (conditional), and the inflation in that state. Despite that both used inflations are published by DNB, there is a mismatch between them.

#### Delta Net Profit

#### Final Pay - Deferred

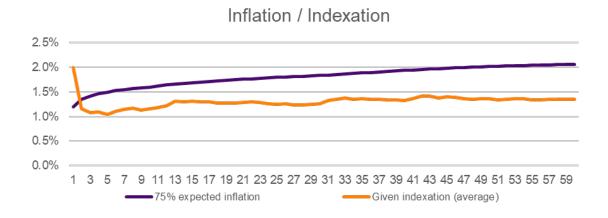
For deferred, the focus is on the Net Profit, or the market value of the benefits. The positive Net Profit can be explained similarly as the retirees.

Additionally, the slightly lower delta Net Profit for deferred members compared to retirees is primarily due to the fact that retirees are directly protected against benefit reductions through the solidarity reserve. As a result, they derive value from the reserve.

Deferred members, however, must wait until their retirement date to obtain any value derived from the solidarity reserve.



#### Figure 59



## Figure 60

#### Final Pay - Active

The delta Net Profit will be explained in two steps. First the orange line, is the delta "Net Profit", when only the market value of the benefits is taken into account

• For older members the same logic applies as for deferred and retired members — the maximum indexation guarantee of 75% of CPI, with a maximum of 3%. For older members,



who have already accrued substantial pension. The value obtained from the guaranteed indexation at conversion date is significantly higher than for younger members. This results in a positive Net Profit, meaning the market value from the new scheme is higher than under the current scheme.

 For younger members, the guaranteed indexation applies to a smaller entitlement, resulting in a lower absolute value. The backservice effect plays a key role here, offering much greater value compared to the new accrual in the new scheme, which leads to a negative delta Net Profit for younger members.

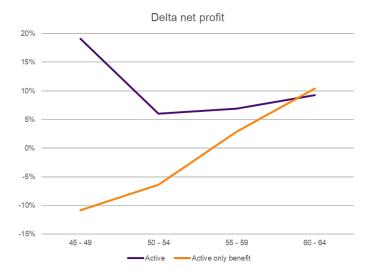


Figure 61

Secondly, when looking at the delta Net Profit including contribution, the effect is mainly for the younger members different. This can be explained by:

- Over time the Finaly Pay population decreases and becomes older. This results in a higher market value of the contributions due backservice effects. This has a substantial reducing effect on the Net Profit of the current Final Pay plan. It results in an increase the delta Net Profit.
- In the first few years, the fund's financial position is capable to provide a full premium discount. This is evidenced by the only minimal difference between the delta Net Profit for pension benefits alone and the total delta Net Profit, for the older members. It is only after a few years that contribution costs start to become evident. As the fund depletes and contribution costs rise—partly due to the expensive backservice effect—the delta Net Profit of the current scheme declines, resulting in an improvement in the delta Net Profit delta, particularly for younger members.



Contribution within a DB scheme: For young people, the contribution is more than actuarial needed, and for older people the contribution is less than actuarial needed. This will be amplified because this is a Final Pay plan, with "expensive" back service.

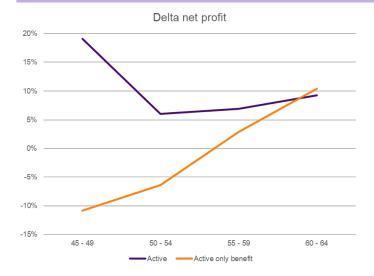


Figure 62

## Final Pay - Overview

The overall delta Net Profit is between 5% and 20% on cohort level.

Only the young actives are noticeable different. This can be explained by high back service "cost" that have substantial reducing impact on the Net Profit of the Final Pay plan.

Note that due to the relatively small group of active members, cohort effects may lead to volatile fluctuations.

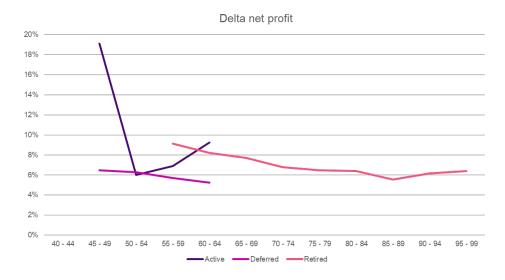


Figure 63



Cohort	Active	Deferred	Retired	Active (only benefit)
45 - 49	19%	6%	-	-11%
50 - 54	6%	6%	-	-6%
55 - 59	7%	6%	9%	3%
60 - 64	9%	5%	8%	10%
65 - 69	-	-	8%	-
70 - 74	-	-	7%	-
75 - 79	-	-	6%	-
80 - 84	-	-	6%	-
85 - 89	-	-	6%	-
90 - 94	-	-	6%	-
95 - 99	-	-	6%	-

Table 54

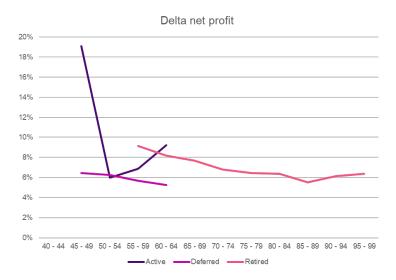


Figure 64



## 2.b Net Profit effects – ARP/ASP

#### **Delta Net Profit**

#### ARP/ASP - Deferred

- The cause of the negative value of the young deferred can be mainly explained by the ARP interest rate which guarantees (if the buffer allows it) 0%, even if the return is negative.
- This argumentation is less explanatory for the older population, mainly because the time in the ARP/ASP plan of which they benefit from the guarantees is shorter.
- The main reason of the positive effect of the older members can be explained by that in the benefit phase of ARP/ASP the purchase of the constant nominal pension benefit is used, and a variable benefit in the SPR. In scenarios where interest rates rise sharply, causing benefits to increase significantly in the SPR scheme, these extreme scenario's weight heavily in delta Net Profit calculations. As a result, buying a nominally constant pension could lead to a loss in Net Profit.
- The solidarity reserve is initially funded at 1%. In adverse scenarios, it can offer protection
  during the early years especially. Therefore, it adds value for members near retirement age in
  particular.



## Figure 65

## ARP/ASP - Active members

Younger members face a negative delta in Net Profit. This is primarily due to the guarantee offered under the current scheme, along with the time horizon in which they will be able to take advantage of these guarantees (guarantee of 0%, ambition of CPI+3%, maximum of 13%).

The increase in delta Net Profit can be explained by the compensation at the time of conversion, which closely resembles the compensation as a percentage of the pension base.



# 

Actives

Figure 66

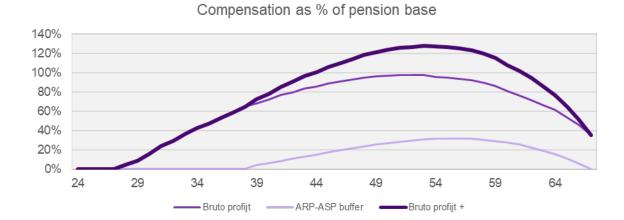


Figure 67

The delta Net Profit for the members of ARP/ASP are between -10% and 11%.

For the younger members, the guarantee of the ARP plan results in a negative delta Net Profit.

For the older members, the compensation at conversion in combination with the added value obtained from the solidarity reserve results in a positive delta Net Profit.



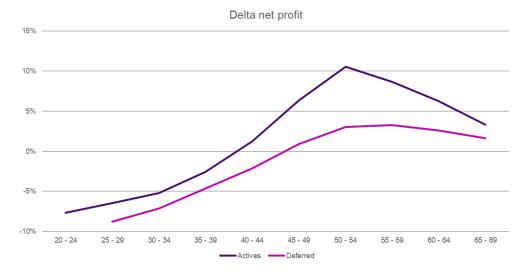


Figure 68

# ARP/ASP - Overview

Cohort	Active	Deferred
20 - 24	-8%	-
25 - 29	-6%	-9%
30 - 34	-5%	-7%
35 - 39	-3%	-5%
40 - 44	1%	-2%
45 - 49	6%	1%
50 - 54	11%	3%
55 - 59	9%	3%
60 - 64	6%	3%
65 - 69	3%	2%

Table 55



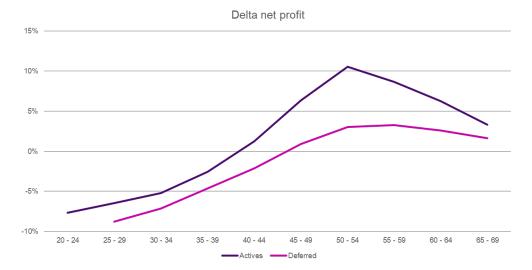


Figure 69

# 3. Sensitivity interest rate

## 3.a. Final Pay – RTS + 100bps

Final pay - Retired

#### **Delta Net Profit**

The effect of the positive interest rate shock on the delta Net Profit for retirees is shown on the right. It is evident that the effect is only limited.

The interest rate shock also impacts the real interest rate, and thus the indexation to be given at moment of the transition.

The indexation ambition of 75% of the expected inflation is presented below. This deviates only minimally from the regular interest rate in the first few years, it follows roughly the same pattern. The granted indexations under the current scheme are also shown, and it is evident that they remain roughly unchanged. The overall effect for retirees remains therefore only limited.

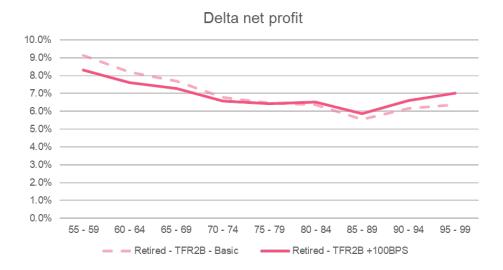
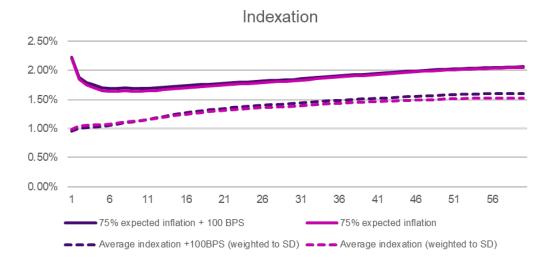


Figure 70





## Figure 71

## Final pay - Deferred

On the right, the results for the delta Net Profit for deferred members are highlighted. The positive interest rate shock has a positive effect on the delta Net Profit. This is primarily due to the timing effect.

The average risk-neutral interest rate increases more in this scenario compared to the regular scenario set, reducing the value assigned to future benefits. The average present value factor is shown in the lower right corner. As future benefits become less valuable, the current scheme performs worse, as it gains more value over time from future indexations.

In the new scheme, most value is obtained immediately at the time of the transition. This is why the SPR scheme exhibits an enhanced delta Net Profit compared to the basic variant.

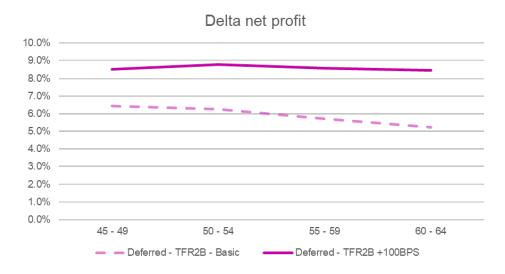


Figure 72



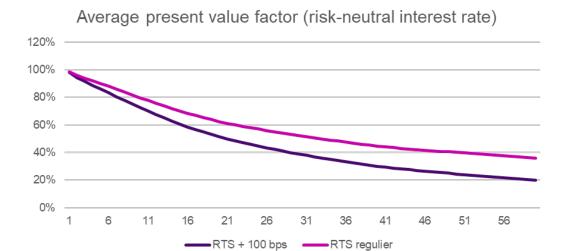


Figure 73

## Final pay - Active members

The same reasoning applies to active members as to deferred members:

Focusing on the benefits only (orange) the effect of future indexations and accruals loses value due to the interest rate increase, leading to a sharper decline in the present value factor. In the new scheme, members immediately receive the value of the transition bonus along with the compensations, which enhances their Net Profit.

Including the market value of future contribution (purple) the same logic applies. Moreover, due to rising interest rates more contribution discounts can be facilitated which leads to a more narrowing effect between the purple and orange line. The overall effect is a rise in the delta Net Profit.

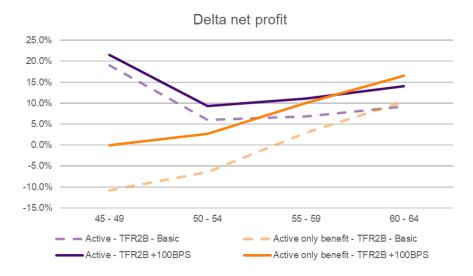


Figure 74





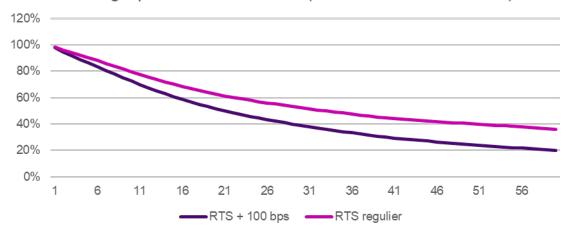


Figure 75

## 3.b ARP/ASP - RTS + 100 bps

## ARP/ASP - Deferred

On the right, the delta Net Profit for deferred members is shown. A significant increase in delta Net Profit is observed. The main reason for this is the value derived from the MUP buffer, which is displayed below.

The MUP buffer guarantee creates a negative value for all members in the risk-neutral world, where the interest rate is initially positively shocked and increases significantly over time on average. This reduces the Net Profit under the current scheme, which in turn results in a favourable outcome for the delta Net Profit.

The interest rate shock does not influence the Net Profit in the SPR as much as the initial conversion capital is not dependent on the interest rate. The main driver of the delt Net Profit is the MUP guarantee.

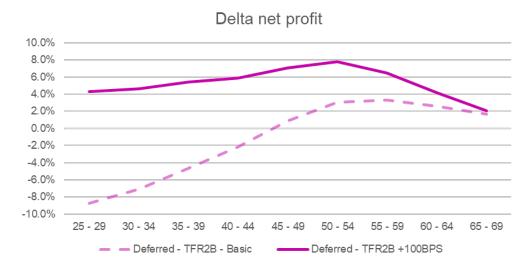


Figure 76



# Value buffer per 1,000 euro

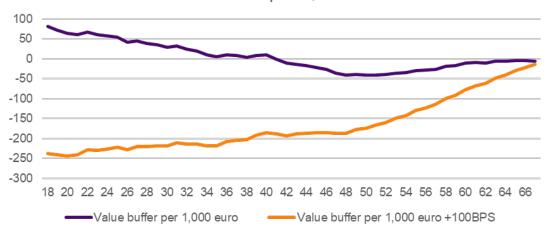


Figure 77

## ARP/ASP - Actives

The same reasoning can be used for the active members.

Even tough, the value derived from the MUP guarantee is for most members positive. Compared with the basic variant the value obtained from the buffer is reduced. It results in an increase in the delta Net Profit compared to the basic variant.

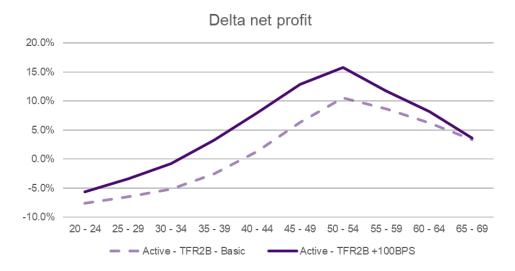


Figure 78



# Value buffer per 1,000 euro 500 400 300 200 100 0 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 Value buffer per 1,000 euro Value buffer per 1,000 euro +100BPS

Figure 79

# **3.c Final pay - RTS -/- 100 bps**

## Final Pay - Retired

Under a negative interest rate shock, we observe that the 75% expected inflation in the scenario remains roughly unchanged.

However, the underlying interest rate has lowered. This results in substantially higher capital values obtained at the transition. This difference in delta Net Profit between the basic variant and the negative interest rate shoch is particularly evident for younger retirees. As cumulatively, this effect becomes more pronounced, increasing the divergence.

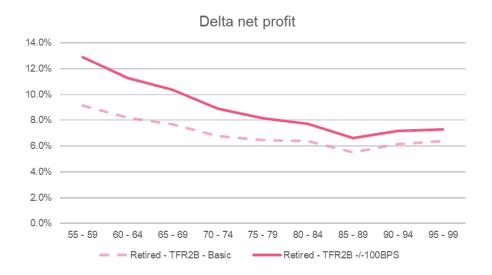
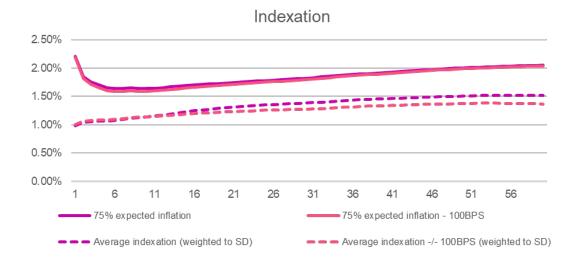


Figure 80





## Figure 81

## Final Pay - Deferred

A rise in the delta Net Profit can be observed, young, deferred members in particular.

The average risk-neutral interest rate increases less in this scenario compared to the regular scenario set, reducing the value assigned to future benefits. The average present value factor is shown in the lower right corner. As future benefits become more valuable, the current scheme performs better compared to the basic variant, as it gains more value over time from future indexations. However, the average indexation given reduces over time compared to the basic variant. Cumulatively, this effect becomes more pronounced. It increases the difference in delta Net Profit compared to the basic variant.

In the new scheme, most value is obtained immediately at the time of the transition. By a lower interest rate the conversion capitals are higher, due to the discounting effect. This will give a higher benefit in the new pension plan, which result in a higher delta Net Profit.

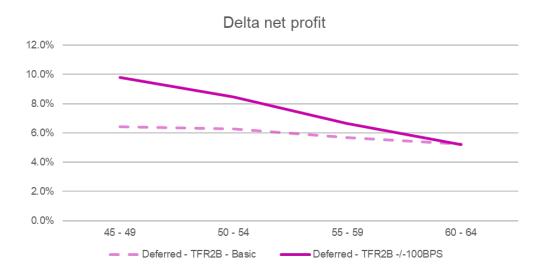


Figure 82







## Figure 83

## Final Pay - Actives

For active members, the primary driver of value is the new accrual along with the backservice effect. When focusing solely on Net Profit from benefits, we see an improvement in the Net Profit of the current scheme. Due to the lower interest rate, the value of future accruals increases compared to the full indexation guarantee granted at the transition. It results in a lower delta Net Profit compared to the basic variant.

Taking into account future contribution costs, a rise in delta Net Profit is observed. Due to the lower interest rate, the costs of new accrual increase. To what extent contribution discounts can be facilitated will be reduced significantly. This leads to higher contribution cost, which place downward pressure on the Net Profit of the current scheme. Consequently, this results in an increase in the delta Net Profit.

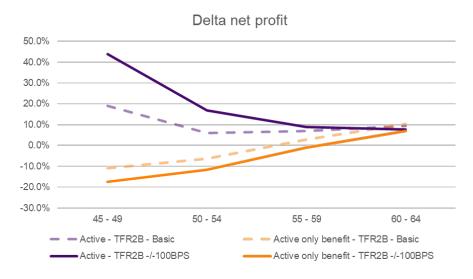


Figure 84



# Average present value factor (risk-neutral interest rate)

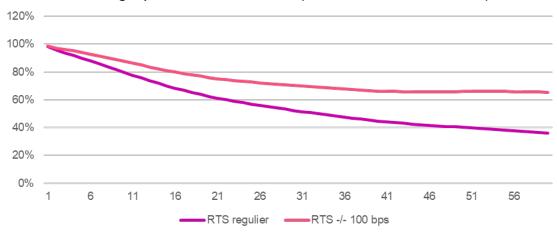


Figure 85

# 3.d ARP/ASP - RTS -/- 100 bps

# ARP/ASP - Deferred

The value of the ARP buffer is greater under the lower interest rate. This results in a better Net Profit for the ARP/ASP plan, which decrease the Net Profit.



Figure 86



# Value buffer per 1,000 euro 500 400 300 200 100 0 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 Value buffer per 1,000 euro Value buffer per 1,000 euro -100BPS

Figure 87

## ARP/ASP - Actives

The value of the ARP buffer is greater under the lower interest rate. This results in a better Net Profit for the ARP/ASP plan, which decrease the Net Profit.

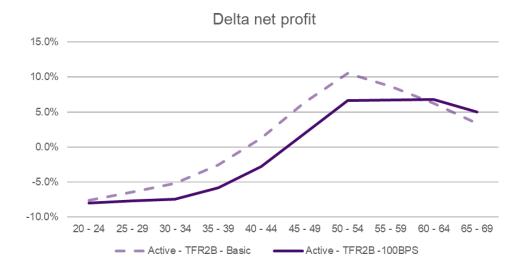


Figure 88



# Value buffer per 1,000 euro

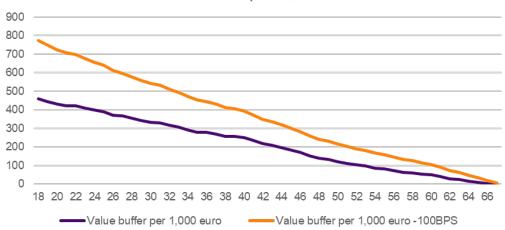
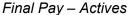


Figure 89

# 3.e Final pay - Overview - sensitivity interest rate



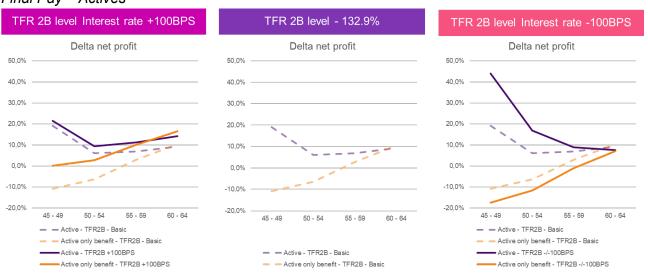


Figure 90

The conversion capital is dependent on the interest rate, lower interest rate means more conversion capital. This increases the delta Net Profit. Another effect is that contribution to the Final Pay plan becomes more expensive, this decreases the Net Profit of Final pay, and thus increase delta Net Profit.

Overall the delta Net Profit is positive which means there is a redistribution of assets to the actives in comparison of the Final Pay plan, where this capital will remain within the fund. Furthermore, the compensation the actives will receive from the company increases the delta Net Profit.



Cohort	TFR 2B level interest rate +100 BPS	TFR 2B level	TFR 2B level interest rate - /-100 BPS
20 - 24	-	-	-
25 - 29	-	-	-
30 - 34	-	-	-
35 - 39	-	-	-
40 - 44	-	-	-
45 - 49	22%	19%	44%
50 - 54	9%	6%	17%
55 - 59	11%	7%	9%
60 - 64	14%	9%	8%
65 - 69	-	-	-
70 - 74	-	-	-
75 - 79	-	-	-
80 - 84	-	-	-
85 - 89	-	-	-
90 - 94	-	-	-
95 - 99	-	-	-

Table 56

## Actives - benefit only

Cohort	TFR 2B level interest rate +100 BPS	TFR 2B level	TFR 2B level interest rate - /-100 BPS
20 - 24	-	-	-
25 - 29	-	-	-
30 - 34	-	-	-
35 - 39	-	-	-
40 - 44	-	-	-
45 - 49	0%	-11%	-17%
50 - 54	3%	-6%	-12%
55 - 59	10%	3%	-1%
60 - 64	17%	10%	7%
65 - 69	-	-	-
70 - 74	-	-	-
75 - 79	-	-	-
80 - 84	-	-	-
85 - 89	-	-	-
90 – 94	-	-	-
95 - 99	-	-	-

Table 57



## Final Pay - Deferred

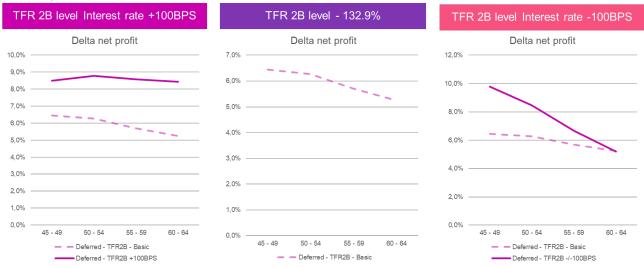


Figure 91

The value of getting the future indexation at moment of transaction is greater with a higher interest rate than during retirement. Even though the conversion capital becomes smaller, the delta Net Profit increases.

For the younger, lower interest rate grants more conversion capital.

The overall conclusion is that the interest rate does not have a big effect on the delta Net Profit for the deferred Final Pay members.

Cohort	TFR 2B level interest rate +100 BPS	TFR 2B level	TFR 2B level interest rate - /-100 BPS
20 - 24	-	-	-
25 - 29	-	-	-
30 - 34	-	-	-
35 - 39	-	-	-
40 - 44	-	-	-
45 - 49	9%	6%	10%
50 - 54	9%	6%	8%
55 - 59	9%	6%	7%
60 - 64	8%	5%	5%
65 - 69	-	-	-
70 - 74	-	-	-
75 - 79	-	-	-
80 - 84	-	-	-
85 - 89	-	-	-
90 - 94	-	-	-
95 - 99	-	-	-

Table 58



## Final Pay - Retired

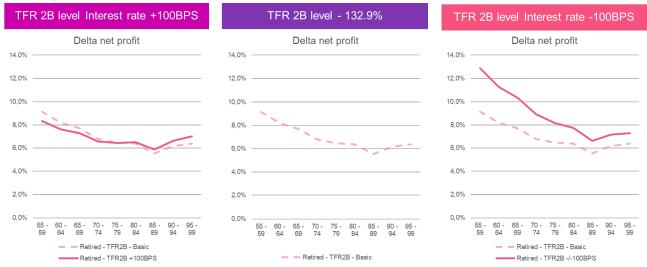


Figure 92

The biggest effect for retired members is that if the interest rate is lower, the conversion capitals will increase. This results in a greater result for the new plan.

The effect of a higher interest rate is limited for this population.

Overall is the delta Net Profit positive which means there is a redistribution of asset to the actives in comparison of the Final Pay plan, where this capital will remain within the fund.

Cohort	TFR 2B level interest rate +100 BPS	TFR 2B level	TFR 2B level interest rate - /-100 BPS
20 - 24	-	-	-
25 - 29	-	-	-
30 - 34	-	-	-
35 - 39	-	-	-
40 - 44	-	-	-
45 - 49	-	-	-
50 - 54	-	-	-
55 - 59	8%	9%	13%
60 - 64	8%	8%	11%
65 - 69	7%	8%	10%
70 - 74	7%	7%	9%
75 - 79	6%	6%	8%
80 - 84	7%	6%	8%
85 - 89	6%	6%	7%
90 - 94	7%	6%	7%
95 - 99	7%	6%	7%

Table 59



# 3.f ARP/ASP - Overview - sensitivity interest rate

## ARP/ASP - Actives



Figure 93

The main driver of the difference in delta Net Profit is the ARP buffer. By a higher interest rate, this buffer has a lesser value. This results in a lower Net Profit for ARP/ASP.

By a lower interest rate, the opposite is true.

Cohort	TFR 2B level interest rate +100 BPS	TFR 2B level	TFR 2B level interest rate - /-100 BPS
20 - 24	-6%	-8%	-8%
25 - 29	-3%	-6%	-8%
30 - 34	-1%	-5%	-7%
35 - 39	3%	-3%	-6%
40 - 44	8%	1%	-3%
45 - 49	13%	6%	2%
50 - 54	16%	11%	7%
55 - 59	12%	9%	7%
60 - 64	8%	6%	7%
65 - 69	4%	3%	5%
70 - 74	-	-	-
75 - 79	-	-	-
80 - 84	-	-	-
85 - 89	-	-	-
90 - 94	-	-	-
95 - 99	-	-	-

Table 60



## ARP/ASP - Deferred

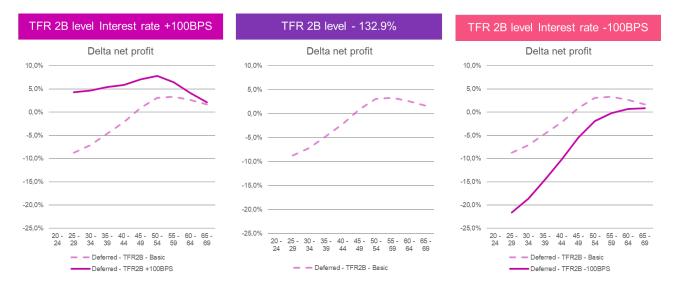


Figure 94

The main driver of the difference in delta Net Profit is the ARP buffer. By a higher interest rate, this buffer has a lesser value. This results in a lower Net Profit for ARP/ASP.

By a lower interest rate, the opposite is true.

Cohort	TFR 2B level interest rate +100 BPS	TFR 2B level	TFR 2B level interest rate - /-100 BPS
20 - 24	-	-	-
25 - 29	4%	-9%	-22%
30 - 34	5%	-7%	-19%
35 - 39	5%	-5%	-15%
40 - 44	6%	-2%	-10%
45 - 49	7%	1%	-5%
50 - 54	8%	3%	-2%
55 - 59	6%	3%	0%
60 - 64	4%	3%	1%
65 - 69	2%	2%	1%
70 - 74	-	-	-
75 - 79	-	-	-
80 - 84	-	-	-
85 - 89	-	-	-
90 - 94	-	-	-
95 - 99	-	-	-

Table 61



# 4. Sensitivity Funding Ratio

# 4.a TFR2A – Final Pay

## Final pay - Retired

If the Funding Ratio is equal to TFR2A the retired members will receive less conversion capital, only the half of the indexation ambition is given at the moment of conversion.

This will result in a lower Net Profit for the SPR, which lowers the delta Net Profit. Cumulatively, this effect becomes more pronounced for younger retirees.

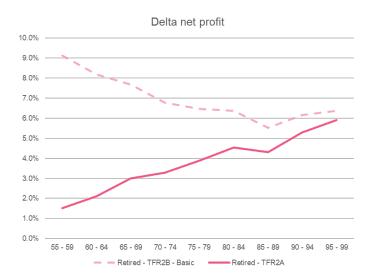


Figure 95

## Final pay - Deferred

For deferred members, the same applies as for the retired members. they receive less conversion capital, which results in a decrease in Net Profit for the SPR scheme.

Cumulatively, this effect becomes more significant, which is why we observe a lower change in Net Profit for younger deferred members compared to older ones.

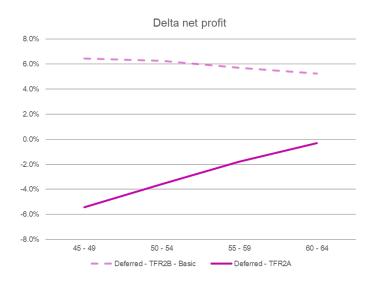


Figure 96



## Final pay - Actives

First, the orange line, the delta Net Profit with only the benefits affected will be higher with a lower FR than with the basic variant.

Facilitating only 50% of the indexation ambition at moment of the transition has a negative effect on active members. However, it increases the guarantee to compensate up to TFR3 levels, which has a significantly positive impact on the Net Profit under the new scheme. In the current scheme, the lower funding ratio reduces the indexation potential. As a result, we observe a positive delta Net Profit for active members.

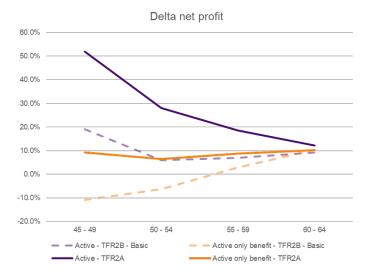


Figure 97

If in the calculation the contribution is considered, the lower FR increases the delta Net Profit for the younger members. This can be explained by the less contribution discount that can be given by the Fund. This results in an increase in the market value of future contributions, thereby limiting the Net Profit under the current scheme. However, this has a positive effect on the delta Net Profit.

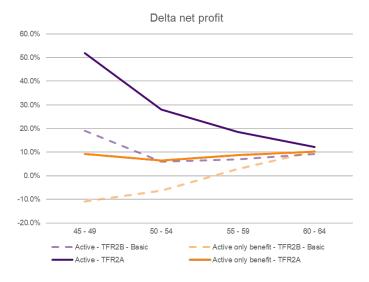


Figure 98

## 4.b TFR2A - ARP/ASP

#### ARP/ASP - Deferred

The Funding ratio has less of an effect on the ARP/ASP population than the Finaly Pay population:



- Their conversion capital is not dependent on the FR;
- Their compensation is not significantly dependent on the FR;

Therefore, the difference in delta Net Profit compared with the basic variant is only minimal.



## Figure 99

## ARP/ASP - Actives

For the active ARP/ASP members the same explanation as for the deferred can be used. There is not an effect of the FR on the conversion capital of these members.

Therefore, the difference is only marginal.



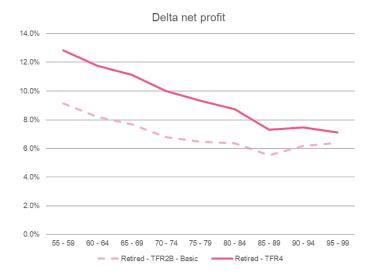
Figure 100

# 4.c TFR4 - Final Pay

## Final Pay - Retired

The main difference between TFR2B and TFR4 is the solidarity reserve for the retired members. Because the reserve is fully funded, retirees can benefit more from protection in adverse scenarios compared to the basic variant. Retirees benefit from value they obtain from the reserve. It has a positive impact on the Net Profit of the SPR scheme.

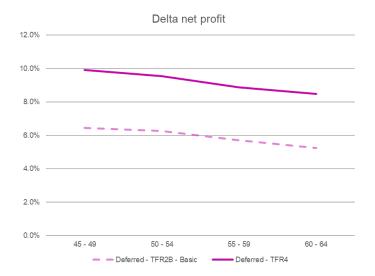




## Figure 101

## Final Pay - Deferred

For the deferred member, the same logic applies. The main difference between TFR2B and TFR4 is the solidarity reserve. With a greater initial filling, the reserve can protect the benefit in the new plan. This will increase the Net Profit of the new plan, even though these members need to retire first to benefit from the protection facilitated by the solidarity reserve.



## Figure 102

#### Final Pay - Actives

When only looking at the benefits (orange line) the same explanation can be applied as by the deferred members. Higher solidarity reserve can give a better protection in the future and therefore, an enhanced Net Profit.

Considering, the delta Net Profit (purple line), a decrease is observed compared with the basic variant. This can be explained by mainly the change in Net Profit of the Final Pay plan.

If the FR is high the Final Pay plan allows contribution discounts (lowers D). This will increase the Net Profit (C-D), which will decrease the delta Net Profit. This effect is the greatest for the younger members, the older members have only a few years left in which the contribution (discount) will play a role.



# Delta net profit = ((A - B) - (C - D))/C

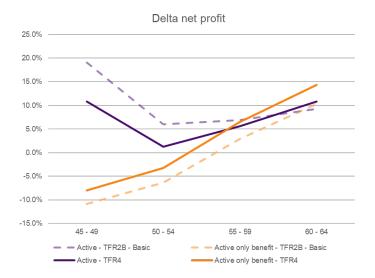


Figure 103

# 4.d TFR4 - ARP/ASP

#### ARP/ASP - Deferred

The difference in delta Net Profit can be explained by the extra filling of the solidarity reserve by a FR of TFR4. This can protect benefits more, which results in a higher Net Profit of the new plan.



Figure 104

## ARP/ASP - Active

For the active members, the same logic applies. The solidarity reserve increase the Net Profit in the new plan. This effect is smaller than for the deferred member due to the damping effect of the future accrual of the actives.



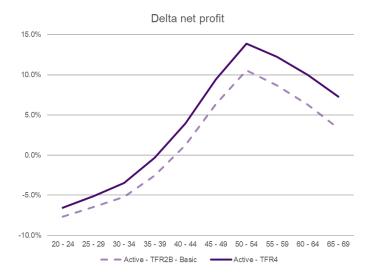


Figure 105

# 4.e Final pay – overview – sensitivity funding ratio

Final Pay - Actives

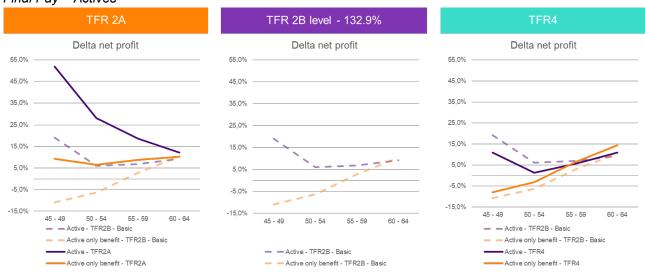


Figure 106

For actives, the delta Net Profit is dependent on the ability to give contribution discount in Final Pay. By a higher FR there can be given more discount which increases the value of Net Profit of Final Pay. This result in a lower delta Net Profit.

Overall is the delta Net Profit positive which means there is a redistribution of asset to the actives in comparison of the Final Pay plan, it is possible that not the entire fund's assets will be distributed due to fiscal capping.



Cohort	TFR 2A level	TFR 2B level	TFR 4 level
20 - 24	-	-	-
25 - 29	-	-	-
30 - 34	-	-	-
35 - 39	-	-	-
40 - 44	-	-	-
45 - 49	52%	19%	11%
50 - 54	28%	6%	1%
55 - 59	19%	7%	6%
60 - 64	12%	9%	11%
65 - 69	-	-	-
70 - 74	-	-	-
75 - 79	-	-	-
80 - 84	-	-	-
85 - 89	-	-	-
90 - 94	-	-	-
95 - 99	-	-	-

Table 62

Actives - benefit only

Cohort	TFR 2A level	TFR 2B level	TFR 4 level
20 - 24	-	-	-
25 - 29	-	-	-
30 - 34	-	-	-
35 - 39	-	-	-
40 - 44	-	-	-
45 - 49	9%	-11%	-8%
50 - 54	6%	-6%	-3%
55 - 59	9%	3%	6%
60 - 64	10%	10%	14%
65 - 69	-	-	-
70 - 74	-	-	-
75 - 79	-	-	-
80 - 84	-	-	-
85 - 89	-	-	=
90 - 94	-	-	-
95 - 99	-	-	-

Table 63



## Final Pay - Deferred

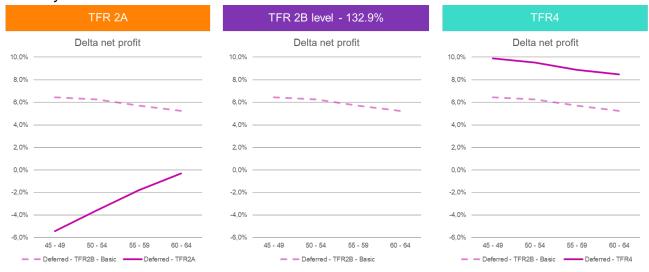


Figure 107

For deferred Final Pay members the FR is important because it determines the conversion capital. The lower FR results in a negative delta Net Profit.

If the solidarity reserve is fully filled, the deferred member gain a better benefit in SPR, which result in a better delta Net Profit.

If the FR is greater of equal to TFR2B, the delta Net Profit is positive which means there is a redistribution of asset to the deferred in comparison of the Final Pay plan, where it is possible that not the entire fund's assets will be distributed due to fiscal capping.

Cohort	TFR 2A level	TFR 2B level	TFR 4 level
20 - 24	-	-	-
25 - 29	-	-	-
30 - 34	-	-	-
35 - 39	-	-	-
40 - 44	-	-	-
45 - 49	-5%	6%	10%
50 - 54	-4%	6%	10%
55 - 59	-2%	6%	9%
60 - 64	0%	5%	8%
65 - 69	-	-	-
70 - 74	-	-	-
75 - 79	-	-	-
80 - 84	-	-	-
85 - 89	-	-	-
90 - 94	-	-	-
95 - 99	-	-	-

Table 64



## Final Pay - Retired

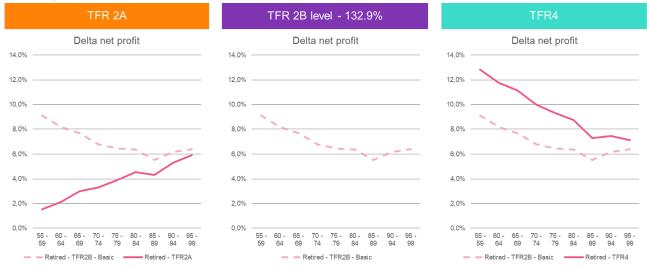


Figure 108

For retired Final Pay members, the FR is important because it determines the conversion capital. The lower FR results in a negative delt Net Profit.

If the solidarity reserve is fully filled, the deferred member gain a better benefit in SPR, which result in a better delta Net Profit.

Overall is the delta Net Profit positive which means there is a redistribution of asset to the retirees in comparison of the Final Pay plan, where it is possible that not the entire fund's assets will be distributed due to fiscal capping.

Cohort	TFR 2A level	TFR 2B level	TFR 4 level
20 - 24	-	-	-
25 - 29	-	-	-
30 - 34	-	-	-
35 - 39	-	-	-
40 - 44	-	-	-
45 - 49	-	-	-
50 - 54	-	-	-
55 - 59	-	-	-
60 - 64	2%	9%	13%
65 - 69	2%	8%	12%
70 - 74	3%	8%	11%
75 - 79	3%	7%	10%
80 - 84	4%	6%	9%
85 - 89	5%	6%	9%
90 - 94	4%	6%	7%
95 - 99	5%	6%	7%

Table 65



## 4.f ARP/ASP - Overview

## ARP/ASP - Actives

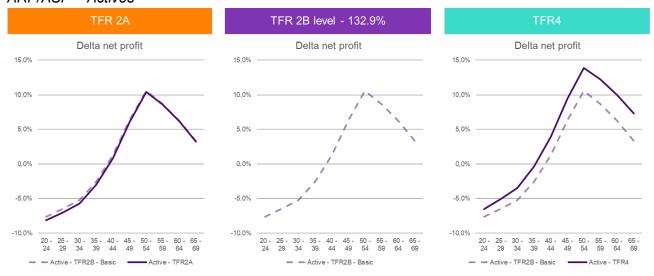


Figure 109

As mentioned before, the effect of the FR on the ARP/ASP member is limited. Only if the FR is higher than TFR2B, which will fill the solidarity reserve more than 1%, the ARP/ASP members will benefit from the enhanced protection facilitated by the solidarity reserve.

The negative delta Net Profit for the younger members, can be seen as the price for the abolishment of the guarantee of the ARP buffer systematic. Within the Q-set this guarantee has a value.

The older members have less of this effect due to the short active time.

Cohort	TFR 2A level	TFR 2B level	TFR 4 level
20 - 24	-8%	-8%	-7%
25 - 29	-7%	-6%	-5%
30 - 34	-6%	-5%	-3%
35 - 39	-3%	-3%	0%
40 - 44	1%	1%	4%
45 - 49	6%	6%	9%
50 - 54	10%	11%	14%
55 - 59	9%	9%	12%
60 - 64	6%	6%	10%
65 - 69	3%	3%	7%
70 - 74	-	-	-
75 - 79	-	-	-
80 - 84	-	-	-
85 - 89	-	-	-
90 - 94	-	-	-
95 - 99	-	-	-

Table 66



## ARP/ASP - Deferred

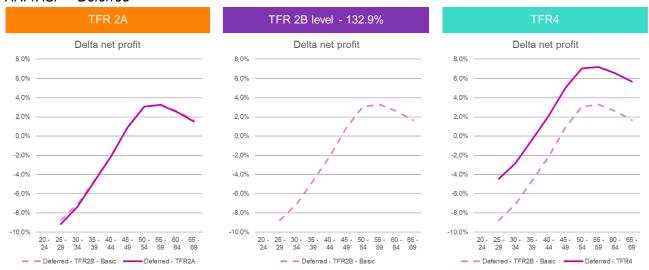


Figure 110

As mentioned before, the effect of the FR on the ARP/ASP member is limited. Only if the FR is higher than TFR2B, which will fill the solidarity reserve more than 1%, the ARP/ASP members will benefit from the enhanced protection facilitated by the solidarity reserve.

The negative delta Net Profit for the younger members, can be seen as the price for the abolishment of the guarantee of the ARP buffer systematic. For which deferred members are not compensated.

The older members have less of this effect due to the short time until retirement.

Cohort	TFR 2A level	TFR 2B level	TFR 4 level
20 - 24	-	-	-
25 - 29	-9%	-9%	-4%
30 - 34	-7%	-7%	-3%
35 - 39	-5%	-5%	0%
40 - 44	-2%	-2%	2%
45 - 49	1%	1%	5%
50 - 54	3%	3%	7%
55 - 59	3%	3%	7%
60 - 64	2%	3%	7%
65 - 69	2%	2%	6%
70 - 74	-	-	-
75 - 79	-	-	-
80 - 84	-	-	-
85 - 89	-	-	-
90 - 94	-	-	-
95 - 99	-	-	-

Table 67



# 4.g Bandwidth

For the relative difference in Net Profit, all the calculated bandwidths per scenario (pessimistic, expected, optimistic) and variant (see below) are combined in one table to assess whether they fall within the defined bandwidth by the social partners. For the lower border the minimum value is taken of the following variants:

- Basic variant TFR2B
- TFR2B Interest rate +100BPS
- TFR2B Interest rate -/-100BPS
- TFR2A
- TFR4

e.g.: minimum (22%, 19%, 44%, 52%, 11%) = 11%

The upper border has the same method, with the maximum value of these variants.

Final Pay - Actives

TFR 2B level interest rate +100 BPS		TFR 2B level	TFR 2B level interest rate -/-100 BPS	
45 - 49	22%	19%	44%	
50 - 54	9%	6%	17%	

#### Table 68

Cohort	TFR 2A level	TFR 2B level	TFR 4 level
45 - 49	52%	19%	11%
50 - 54	28%	6%	1%

#### Table 69

Active members		Deferred members		Retired members		
Age cohort (years)	Lower border	Upper border	Lower border	Upper border	Lower border	Upper border
45 - 49	11%	52%	-5%	10%	-	-
50 - 54	1%	28%	-4%	10%	-	-

## Table 70

## Final Pay

-	Active n	nembers	Deferred	members	Retired r	nembers
Age cohort (years)						Upper border
45 - 49	11%	52%	-5%	10%	-	-
50 - 54	1%	28%	-4%	10%	-	-
55 - 59	6%	19%	-2%	9%	2%	13%
60 - 64	8%	14%	0%	8%	2%	13%
65 – 69	-	-	-	-	2%	12%
70 – 74	-	-	-	-	3%	11%
75 – 79	-	-	-	-	3%	10%
80 – 84	-	-	-	-	4%	9%
85 – 89	-	-	-	-	5%	9%
90 – 94	-	-	-	-	4%	7%
95 - 99	-	-	-	-	5%	7%

## Table 71

The wide bandwidth for several age cohort is explained by, among other things, small cohorts. Outlier members, due to for instance a value transfer, have significant impact on small age cohorts.



## ARP/ASP

	Active n	nembers	Deferred	members
Age cohort (years)	Lower border	Upper border	Lower border	Upper border
20 – 24	-8%	-6%	-	-
25 – 29	-8%	-3%	-22%	4%
30 - 34	-7%	-1%	-19%	5%
35 – 39	-6%	3%	-15%	5%
40 – 44	-3%	8%	-10%	6%
45 – 49	2%	13%	-5%	7%
50 – 54	7%	16%	-2%	8%
55 – 59	7%	12%	0%	7%
60 - 64	6%	10%	1%	7%
65 – 69	3%	7%	1%	6%

Table 72

