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## **Approaches for Return-Based Pension Plans Issues Paper**

### **Objective**

- 1 The objective of this paper is to illustrate the different approaches that have been favoured by EFRAG TEG and the EFRAG Pensions Plans Advisory Panel (EFRAG PAP) that could be considered for the accounting for return-based pension plans.
- 2 The different approaches are illustrated by more complex examples than in previous papers. The new examples could thus result in additional aspects of the approaches being considered. In addition, the insurance approach has been modified in accordance with suggestions of the EFRAG PAP.
- 3 The paper will ask for EFRAG TEG members':
  - (a) Comments on the features used to assess the various approaches.
  - (b) Comments on the different approaches illustrated.
  - (c) Suggestions for next steps.

### **Approaches**

- 4 The approaches that will be considered in this paper are, in addition to the current IAS 19 model:
  - (a) A model where the pension obligation is measured by reference to the underlying assets;
  - (b) A model where the estimated returns are capped to a rate of return equal to the discount rate specified under IAS 19;
  - (c) A model where the pension obligation is measured based on fair value;
  - (d) A fulfilment value model similar to IFRS 17 *Insurance Contracts*; and
  - (e) A defined contribution approach.
- 5 EFRAG TEG and EFRAG PAP have previously considered a model where the assets are measured by reference to the pension obligation. However, neither EFRAG TEG nor EFRAG PAP thought this approach was recommendable. This model has, accordingly, not been considered in this paper.

### **Features of useful information about pensions**

- 6 The EFRAG Secretariat is developing a list of criteria to assess the usefulness of the information produced under each approach. The EFRAG Secretariat has consulted EFRAG PAP and the EFRAG User Panel on the list and will also consult the EFRAG Academic Panel.
- 7 The list is inspired by the characteristics of useful information in the Conceptual Framework, previous arguments presented by EFRAG when commenting on the

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IASB's current revision of the Conceptual Framework and comments made by the IASB in its discussion of different approaches for hybrid pension plans.

- 8 The list includes the following features, which sometimes may create trade-offs:
- (a) Is the information useful for predicting future cash flows?
    - (i) Does the information reflect how the pension obligation will be settled? Information that reflects how a pension obligation is likely to be settled is more relevant for predicting future cash flows than information reflecting a hypothetical settlement.
    - (ii) Does the information reflect the link between the pension asset and the pension obligation? If such a link is reflected, it would mean that the pension asset and the pension obligation is measured at a similar, but not necessarily identical, amount when the pension asset can and is used to settle the pension obligation.
    - (iii) Does the information reflect a deficit in the pension plan? If the liability cannot be fully settled by the value of the plan assets, this should be reflected in the measurement of the plan assets and the pension obligation.
    - (iv) Does the accumulated amount recognised in comprehensive income equal the accumulated amount of net cash flows? It could also be argued that if comprehensive income (or profit or loss) should be used to predict future cash flows, there should ultimately be a link between comprehensive income (or profit or loss) and outflows of resources. The link would generally exist when preparing financial statements in accordance with IFRS. However, IFRS 2 *Share-based Payment* does not reflect the relationship.
  - (b) Is the information relevant for assessing stewardship?
  - (c) Is the information useful for assessing solvency? If the measurement of a pension obligation when it is due does not reflect the amount needed to settle the liability, the measurement may not be useful for assessing solvency. Similarly, if a pension asset is used to settle a pension obligation, the net amount should reflect any additional amount that would have to be transferred to settle the liability or any amount that would be left when the liability has been settled.
  - (d) Does the approach result in a faithful representation?
    - (i) Is the information presented complete? To be complete, elements that meet the definition of a liability (and the supporting guidance) and the recognition criteria should be included in the statement of financial position. The revised Conceptual Framework will (likely) define a liability as a present obligation of the entity to transfer an economic resource as a result of past events. 'As a result of past events' means that the entity has performed an activity or received the benefits that will or may oblige it to transfer an economic resource that it would not otherwise have had to transfer. An entity has a present obligation when the entity has no practical ability to avoid the transfer.
    - (ii) Would it generally be possible to make reliable estimates?
    - (iii) Would economically similar pension plans be accounted for similarly? That is, when applying the approach, would it be possible that two arrangements that are economically similar would be accounted for differently?
  - (e) Would the measurement of the assets/liabilities be prudent, in particular, would there be a higher threshold to reduce a liability (or increase an asset)

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- than to increase a liability (or decrease an asset) – an application of ‘asymmetric prudence’?
- (f) Will the information be comparable? If a new approach for accounting for types of pension plans is introduced, this may reduce comparability between financial years of an entity (unless restatement of prior financial statements is made). Whether the information will be comparable with past years will therefore partly depend on the transition requirements, but also on whether it would be possible to gather the information necessary to restate previous years in accordance with the new requirements. It should also be possible to compare the financial statements of different entities. In this regard, it should accordingly be assessed whether the new approach provides information that is comparable with the information resulting from applying IAS 19 to pension plans outside the scope of the project. In assessing this, it is considered whether similar elements of pension plans are accounted for similarly under a proposed new approach and IAS 19. For example, if a return-based pension plan included a minimum return guarantee, would the information under the alternative approach and IAS 19 be similar in those circumstances when the guarantee would *de facto* determine the amount to pay (so that the return-based element is insignificant)?
  - (g) Is the information easy to understand? Information is assessed to be easy to understand if it is easy to explain what it means. In addition, it is assessed that information that can be explained by other means than how it is ‘computed’ is easier to understand than information that can only be explained by the manner it is ‘computed’.
  - (h) Is the information costly to provide? Information is assessed to be costlier when it needs to be updated in subsequent accounting periods. Also, information is costlier the more judgement is involved in providing it. Finally, it is assessed that when many input are required, the information will be costlier to produce.
- 9 As the first step of the project is focusing on the measurement of assets and liabilities (and effect on total comprehensive income), the list does not include any features related to the information presented in profit or loss. At a later stage, additional features could be included, for example, it could be included whether the approach results in recognising expenses as the entity receives the benefits from the employee’s service (to produce information useful for predicting future cash flows).

### Question for EFRAG TEG

- 10 When consulting the EFRAG Academic Panel on the factors, the EFRAG Secretariat plans to ask whether the panel members would include the following features:
- (a) Reflecting the uncertainty/risk in the measurement of a pension obligation would enhance the relevance of the information (i.e. when there is a high amount of uncertainty about the cash flows, a pension obligation is measured at a higher amount than when there is less uncertainty).
  - (b) Reflecting current market conditions would in all cases enhance the relevance of the information.
- 11 Do EFRAG TEG members have comments on the assessing criteria?

### Cases

- 12 To illustrate the effects of the different models, the EFRAG Secretariat has applied the various approaches to four variations of a plan with a return-linked promise.

*The pension scheme*

- 13 The starting point for the different cases is a pension scheme that applies to all employees of Entity X with an annual gross salary above a given salary threshold. The threshold salary is dynamic and is currently at EUR 50 000 per year. The threshold is adjusted every year based on inflation.
- 14 Each year, Entity X makes a basic (minimum) contribution to each employee's (i.e. beneficiary's) pension account. In the first five years of employment, the basic contribution is 0.5 per cent of the salary that is below the salary threshold (see paragraph 13 above) and 2.5 per cent of the salary above the salary threshold. After the first five years, the basic contribution equals 1 per cent of the salary below the salary threshold and 5 per cent of the salary above the salary threshold.
- 15 Any beneficiary covered by the scheme can make a supplementary contribution per year. These supplementary contributions cannot exceed 30 per cent of the employee's gross salary for the year.
- 16 Entity X will make an additional matching contribution corresponding to the supplementary contribution made by the beneficiary as long as the matching contribution does not exceed its own minimum contribution. Entity X will not match supplementary contributions exceeding its own minimum contribution.
- 17 The pension accounts of each beneficiary are held by Entity X. Entity X also makes the decisions about how the funds on these accounts should be invested. The accumulated amount becomes the property of the beneficiary at retirement. Retirement occurs when the beneficiary turns 65. If the beneficiary dies before retirement, the benefits are paid to the entitled heir.
- 18 The accumulated amount consists of the contributions made by Entity X and the beneficiary and the return generated. The amount that will be available to the beneficiary thus depends on the total contributions made and the return on the assets in which the contributions have actually been invested. However, if the total return generated when the time of pension occurs is less than a guaranteed return of 1% p.a., Entity X will supplement the accumulated amount to ensure that the return on the contributions is the guaranteed return per year. The beneficiary will accordingly at retirement receive the 'higher of' the actual return on the plan and the guaranteed return.
- 19 The beneficiary or, in case the beneficiary is dead, the entitled survivor, will receive the amount accumulated on the pension plan when the beneficiary is turning (or would have turned) 65 years, i.e. at the end of year 11.
- 20 In cases where the beneficiary stops working for Entity X until retirement because of death or invalidity, Entity X will continue to provide contributions to the pension plan based on the payments made at the end of the employment, until the beneficiary's retirement date. In other cases, Entity X will stop making any new contributions to the plan of the beneficiary and the guaranteed return of 1 per cent will only apply until the end of employment.
- 21 At retirement, the employee or the heir can choose to have the benefits paid in one immediately or over a number of years. If the employee chooses to receive the payments over a number of years, the one per cent guaranteed return (see paragraph 18 above) continues to apply to each payment as long as the accumulated return related to the payments already made does not exceed 1 per cent.
- 22 The employer has the right to reduce or terminate the future pension contributions, with the exception of the supplementary contributions, in limited circumstances such as when the economic situation of the employer has deteriorated.
- 23 The employer has taken up an insolvency insurance.

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- 24 The contributions to the plan by Entity X and the employee are made at the end of the year.

### *Return assumptions*

- 25 In order to illustrate the different approaches under different circumstances, the following assumptions have been made about the expected and actual returns.

Year	Actual return	Expected future return	Below guaranteed return?
1	11.42%	11.42%	No
2	1.50%	8.11%	No
3	0.90%	4.61%	No
4	0.50%	0.97%	Yes
5	1.05%	0.82%	Yes
6	10.00%	3.85%	No
7	0.50%	3.85%	No
8	-8.00%	0.83%	Yes
9	1.50%	-2.00%	Yes
10	10.00%	1.17%	No
11	1.00%	4.17%	No

- 26 The expected future return is calculated as the average of the actual return for the three preceding years. In Year 1 and the years before, the actual return is assumed to be 11.42 per cent, which is the average return on the S&P 500 index from 1928 to 2016. The column 'Below guaranteed return?' indicates whether the total expected actual return is above or below the guaranteed total return of 1 per cent per year in the examples used in this paper. If the examples in this paper had included multiple employees, whether the guaranteed return would be higher than the actual return would have had to be determined individually for each employee. The reason is that the guaranteed return in the cases relates to the total return on the plan for each person (and not to the return each year) and that the pattern of contributions to the plan would be different for each person.

### *Assumptions around the beneficiary*

- 27 The paper illustrates the application of the different approaches listed in paragraph 4 above for an individual beneficiary. The person joins Entity X at the beginning of Year 1 at 55 years of age. The person retires at the end of Year 11. Entity X accordingly makes its first contribution to the person's pension scheme at the end of Year 1, and the last contribution is made at the end of Year 11.
- 28 When the person joins Entity X, it is expected that her salary will increase by inflation every year. In addition, every second year her salary will increase by approximately 2.1 per cent (in addition to the inflation). The first increase is therefore expected to take place for the salary for Year 3.
- 29 The starting salary is EUR 57 000. The salary is regulated to EUR 59 394 in Year 2 and to EUR 60 582 in Year 3. The actual increases in the salary in Year 2 and Year 3 differ from the increases initially expected. In the following years, the actual

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salaries correspond to the expectations about the future salaries in Year 3. That is, the salaries in the following years will be regulated to reflect inflation and every second year, it will, in addition, increase by approximately 2.1 per cent.

- 30 The beneficiary makes supplementary contributions equal to the maximum amount Entity X will match. In rounded figures, in the first three years, the supplementary contributions amount to:

EUR	Year 1	Year 2	Year 3
Supplementary contribution	425	431	467

- 31 This means that Entity X makes the following total contributions in the first three years (rounded figures):

EUR	Year 1	Year 2	Year 3
Entity X's contributions	850	861	935

### Actuarial assumptions

- 32 It is expected that the beneficiary will work for the entity until retirement. This assumption is not changed during the years.
- 33 The projected inflation in the first five years is shown in the table below. After Year 5 it is expected to be 3.8 per cent per year (the development in the inflation is derived from a forecast of the inflation in Australia<sup>1</sup>).

Year 1	Year 2	Year 3	Year 4	Year 5
1.3%	1.5%	2.0%	3.0%	3.8%

- 34 In the example, the actual inflation corresponds to the initial assumption.

#### Case 1

- 35 The first case is based on the information provided above in paragraphs 13 - 29.

#### Case 2

- 36 In the second case, the contributions to the pension scheme are constant in all the years. In all the years, the entity thus contributes EUR 1 500 and the employee contributes EUR 750.

#### Case 3

- 37 The third case corresponds to Case 1 except that the entity is not investing in any assets. Accordingly, the entity can use the contributions of the employee for any business purpose. However, when the employee retires, the entity will need to pay an amount corresponding to the value the investments would have had.

## IAS 19 – Defined benefit plans

### The approach

- 38 IAS 19 distinguishes between two types of post-employment benefit plans:
- (a) Defined contribution plans which are post-employment benefit plans under which an entity pays fixed contributions into a separate entity (a fund) and will have no legal or constructive obligation to pay further contributions if the fund

<sup>1</sup> Inflation estimations from Australia have been used as Australian data on the forward rate on high quality bonds has been used.

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- does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods.
- (b) Defined benefit plans which are post-employment benefit plans other than defined contribution plans.
- 39 The plans covered by this project would (typically) not meet the definition of a defined contribution plan, and would therefore have to be accounted for as defined benefit plans.
- 40 Accounting for a defined benefit plan in accordance with IAS 19 involves the following steps:
- (a) Using the projected unit credit method to determine the present value of the defined benefit obligations and the benefits earned in the current and prior periods. The defined benefit obligation is measured on a basis that reflects:
    - (i) The benefits set out in the terms of the plan (or resulting from any constructive obligation) at the end of the reporting period;
    - (ii) Any estimated future salary increases that affect the benefits payable;
    - (iii) The effect of any limit on the employer's share of the cost of the future benefits;
    - (iv) Contributions from employees or third parties that reduce the ultimate cost to the entity of those benefits; and
    - (v) Under some circumstances, estimated future changes in the level of any state benefits that affect the benefits payable under a defined benefit plan.
  - (b) Benefits should be attributed to periods of service under the plan's benefit formula. However, if an employee's service in later years will lead to a materially higher level of benefit than in earlier years, an entity shall attribute benefit on a straight-line basis;
  - (c) Discounting the benefit to determine the present value of the defined benefit obligation and the current service costs;
  - (d) Determining the fair value of any plan assets;
  - (e) Determining the deficit or surplus as the difference between the defined benefit obligation and fair value of plan assets, adjusted for any effect of limiting a net defined benefit asset to the asset ceiling;
  - (f) Determining the amount to be recognised in profit or loss which is the total of current service cost, past service cost, any gain or loss on settlement, and net interest on the net defined benefit liability (or asset);
  - (g) Determining the remeasurement of net defined benefit liability (asset) to be recognised in OCI, being actuarial gains and losses, return on plan assets in excess of the implied return, and any change in the effect of the asset ceiling.
- 41 In Case 1 and Case 3, the employee's service in later years will lead to a materially higher level of benefit than in earlier years, because the increase in the contribution percentage (see paragraph 14 above). In Case 2, the benefits are not higher in the later years (see (b) above). Accordingly, in Case 1 and Case 3, to calculate the (gross) pension obligation and the effect on comprehensive income:
- (a) The expected salary for each of the 11 years of service (as of Year 1) was initially calculated using the actuarial assumptions listed in paragraphs 32 - 34 above;

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- (b) Based on the expected salary the basic contribution, the supplementary contribution and the matching contribution for each year was calculated using the assumptions listed in paragraph 30 above<sup>2</sup>;
- (c) The final benefit to be paid in Year 11 was then calculated as the sum of the contributions and the higher of the expected / actual return on the plan assets and the minimum guaranteed return;
- (d) The amount that will be paid in Year 11 was then allocated to each year of service on a straight-line basis;
- (e) The total cost in Year 1 is the present value of the portion allocated to Year 1 excluding the supplementary contribution made by the employee;
- (f) The pension obligation at the end of Year 1 is the present value of the portion allocated to Year 1 including the supplementary contribution;
- (g) In Year 2 (and the following years) the actuarial assumptions are updated. The expense recognised in comprehensive income is the total of:
  - (i) The present value of the portion allocated to Year 2 (using the updated actuarial assumptions) excluding the supplementary contribution made by the employee;
  - (ii) The actuarial gain or loss. That is the difference between:
    - What the pension obligation would have been at the end of Year 2 if the updated actuarial assumptions had been used to calculate the obligation in Year 1; and
    - What the pension obligation would have been had the update in actuarial assumptions only been applied for Year 2.
- (h) The 'interest expense' resulting from the unwinding of the discount on the balance at the end of Year 1;
- (i) Interest income from plan assets (only relevant in Case 1 and Case 2);
- (j) In Year 2 the (gross) pension obligation is the opening balance, plus the expenses recognised in comprehensive income in Year 2 plus the supplementary contribution.

#### **Case 1**

42 The following table shows the amount of the plan assets, the pension obligation, cash flows, current service costs and the effect on comprehensive income of the pension plan in Case 1 when the requirements of IAS 19 related to defined benefit plans are applied.

Year	Plan assets	Pension obligation	Cash flows	Current service cost	Comprehensive income
1	1 275	2 836	-850	2 411	-2 411
2	2 710	5 570	-944	2 313	-2 243
3	4 193	7 307	-973	1 949	-1 226
4	5 702	8 933	-992	1 737	-1 110
5	7 392	11 642	-1 087	1 785	-2 106

<sup>2</sup> The figures listed in the tables in paragraphs 30 and 31 above are the actual contributions made by the entity. In Year 1 and in Year 2, the expectations about the future contributions will be different than the actual contributions in the following years.



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6	11 516	16 190	-2 256	1 570	-2 680
7	15 299	19 451	-2 484	1 537	-1 962
8	17 942	21 111	-2 578	1 350	-1 595
9	22 458	24 762	-2 831	1 336	-1 966
10	29 112	29 894	-2 939	1 520	-1 417
11	0	0	-3 222	1 501	-2 440

- 43 The cash flows reported, are the “payments” from the entity which are invested in the pension assets. The payments from the employee, which are also invested in pension assets, are not included.
- 44 Current service costs are calculated by estimating the total pension obligation at the end of Year 11 based on the past returns and expected returns on pension assets (or when higher, the guaranteed total return). The total pension obligation includes estimations of the contributions to be made by employees. The total pension obligation is then allocated on a straight-line basis over the 11 years of service. The current service cost is the present value of the amount allocated to a particular year minus the contribution made by the employee in (and for) that year. The current service cost does not include interest on the liability (unwinding of the present value). As contributions made by the employee are not allocated on a straight-line basis, the current service cost will generally be higher in the first five years than in the last years.
- 45 In Year 4, Year 5, Year 8 and Year 9, the expected total actual return is lower than the guaranteed return. For those years, the calculations are accordingly based on the guaranteed return.
- 46 The total costs are highest in Year 6, where the actuarial losses peaks at EUR 1 353. The total costs are lowest in Year 4 where there is an actuarial gain of EUR 918 and low expectations about expected total returns (see paragraph 25 above).
- 47 In all the years, the pension obligation is higher than the pension assets. However, in a case where the discount factor would be somewhat higher than the expected future return, the liability could be lower than the pension assets.

**Case 2**

- 48 In Case 2, where the contributions are constant (and the benefits accordingly are not straight-lined), the amount of the plan assets, the pension obligation, cash flows, current service costs and the effect on comprehensive income of the pension plan are as shown in the table below.

Year	Plan assets	Pension obligation	Cash flows	Current costs	service	Comprehensive income
1	2 250	4 372	-1 500		3 622	-3 622
2	4 534	6 285	-1 500		2 369	-1 130
3	6 825	7 008	-1 500		1 561	68
4	9 109	7 314	-1 500		1 051	-1 316
5	11 454	9 485	-1 500		1 110	-1 500
6	14 850	14 560	-1 500		1 456	-1 500

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7	17 174	16 905	-1 500	1 465	-1 500
8	18 050	16 948	-1 500	1 285	-1 500
9	20 571	19 782	-1 500	1 361	-1 500
10	24 878	24 140	-1 500	1 433	-1 500
11	0	0	-1 500	1 500	-1 500

49 The cash flows reported, are the “payments” from the entity which are invested in the pension assets. The payments from the employee, which are also invested in pension assets, are not included in the cash flows in the table above.

50 The significant drops in the (expected) return on the plan assets results in significant actuarial gains in Year 3, Year 4 and Year 8. In Year 5 and Year 9 there are no actuarial gains and losses as the measurement of the liability is based on the guaranteed return, which is unchanged from the preceding years. From Year 4, the asset ceiling requirements in IAS 19 reduce the net pension asset reported to nil. The asset ceiling affects the comprehensive income. This is the reason why the expenses recognised in comprehensive income from Year 5 correspond to the contribution of the employer in those periods.

51 As there is no ‘straight-lining’ of the expected total obligation, the plan assets and the pension obligation are generally closer to each other than in Case 1 above. However, in cases where contributions are increasing, not ‘straight-lining’ the benefits increases the chance that the pension obligation will be measured at a lower amount than the pension assets. In such cases, and when the expected return on assets is lower than the discount rate, no ‘straight-lining’ will result in pension liabilities being measured at an amount that is more below the measurement of the plan assets than if ‘straight-lining’ would take place. However, due to the asset ceiling, a net pension asset of nil will be reported.

**Case 3**

52 Case 3 is similar to Case 1, except that the entity does not invest in any assets. There are therefore no pension assets. In addition, the entity does not have any cash outflows related to the investment in assets, but has cash inflows from the employee who provides a yearly contribution.

53 The following table shows the amount of the plan assets, the pension obligation, cash flows received/(paid) by employer, current service costs and the effect on comprehensive income of the pension plan in Case 3.

Year	Plan assets	Pension obligation	Cash flows	Current service cost	Comprehensive income
1	0	2 836	425	2 411	-2 411
2	0	5 570	472	2 313	-2 262
3	0	7 307	486	1 949	-1 251
4	0	8 933	496	1 737	-1 131
5	0	11 642	543	1 785	-2 166
6	0	16 190	1 128	1 570	-3 419
7	0	19 451	1 242	1 537	-2 020

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8	0	21 111	1 289	1 350	-371
9	0	24 762	1 416	1 336	-2 235
10	0	29 894	1 470	1 520	-3 663
11	0	0	-32 625	1 501	-2 731

- 54 The pension obligation and the current service cost are the same as in Case 1. The difference in the comprehensive income between Case 1 and Case 3 is caused by the missing return on pension assets in Case 3.

#### *Observations*

- 55 The EFRAG Secretariat has considered how the outcome of the IAS 19 approach on the new examples meet the features of useful information listed in paragraph 8 above. The initial assessment is that:
- (a) The information reflects an estimate of the resources needed to fulfil the obligation to the employee, and not the amount that the entity would pay to transfer the obligation and the associated risks to a third party. The approach could thus be assumed to reflect the most likely manner of settlement for most pensions, but not for all of them.
  - (b) In Case 1, in most of the years, it is expected that the final pension obligation will equal the fair value of the plan assets at the end of Year 11. However, the pension obligation is, particularly in the first years, measured at a significantly higher amount than the assets. The link between the pension asset and the pension obligation is thus not reflected. As noted in paragraph 51, the pension asset and the pension obligation may be measured at more similar amounts in many cases if the benefits would always be attributed to the periods of service under the plan's benefit formula.
  - (c) Because of the asset ceiling, a net defined pension asset of nil is reported in many of the years in Case 2. However, in Year 4, Year 5, Year 8 and Year 9, the accumulated guaranteed balance exceeds the fair value of the plan assets. It could thus be argued that the plan assets are insufficient to cover the pension obligation and this deficit will not be presented in the financial statements. A contra argument could be that there is no deficit, as the return on the plan assets could increase and in Year 11, the plan assets would thus be sufficient to fulfil the pension obligation. In Case 2, however, this contra argument does not seem to hold, as the total expected return in the relevant years (by coincidence) is also expected to be below the total guaranteed return.
  - (d) The accumulated amount recognised in comprehensive income will equal the accumulated amount of net cash flows.
  - (e) The measurement of the pension obligation reflects the amount needed to settle the obligation when the pension obligation is due.
  - (f) The liability recognised in accordance with IAS 19 meets the definition in the Conceptual Framework because the entity has no practical ability to avoid the transfer and has received the benefits from the service of the employee. The measurement of the obligation may, however, exceed the amount that the entity has have no practical ability to avoid transferring because it includes the expectation of future salary increases (Case 1 and Case 3).
  - (g) The IAS 19 approach is currently used. The approach involves actuarial estimates. Changes in the actuarial estimates made in subsequent period can be significant. This, however, does not necessarily mean that the estimates

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were wrong when they were made. It is therefore assessed that it is generally possible to make sufficiently reliable estimates.

- (h) A pension plan that only vests after the employee has been working for an entity for several years could be constructed in a manner where the benefits are mainly allocated to the first years of service and a plan where the benefits are allocated on a straight-line basis. The pension obligation and the effect on comprehensive income will be different from the two plans although they may have similar economic consequences. In practice, however, benefits are likely not mainly allocated to the first years of service.
- (i) It appears from Case 2 (see (c) above), that the approach will not always reflect when plan assets are insufficient to cover the pension obligation. This is considered to be imprudent. It should be noted that 'asymmetric prudence' is only a preferred feature in some cases – when it results in more relevant information. This paper does not include an assessment about whether 'asymmetric prudence' is relevant in the particular case – only whether it is present or not.
- (j) The amount of the pension obligation is not easy to explain. This is partly because the amount reflects expectations about expected salary increases and assumptions such as the entity does not terminate the plan.
- (k) The information is assessed to be relatively costly to provide. It is necessary to update actuarial assumptions, which require judgement and many input in subsequent accounting periods.

56 The EFRAG Secretariat's tentative assessment is summarised in the table below.

Symbol	Explanation
✗	The approach does not have the stated effect.
✓	The approach results in the stated effect.
🌀	The approach results to some extent in the stated effect / whether the approach results in the stated effects depends on the circumstances.
?	The EFRAG Secretariat is uncertain about whether the approach results in the stated effect.
N/A	The effect is not relevant to consider for the model.

  

The approach reflects how the liability will be settled	✗
Link between pension assets and pension liabilities reflected	✗
Inadequate funding is reflected	✗
Effect on comprehensive income equals net cash outflow	✓
Measurement reflects the amount needed to fulfil the liability	✓
The definition of a liability and recognition guidance in the revised Conceptual Framework are reflected	✓
Possible to make reliable estimates	✓

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Similar pension plans are accounted for similarly	✗
Asymmetric prudence is reflected	✗
Possible to apply new requirements retrospectively	N/A
Similar elements of pension plans are accounted for similarly to plans under the IAS 19	N/A
It is easy to explain what the information means	✗
Information does not need to be updated	✗
Insignificant amount of judgement is needed	✗
The approach requires only a limited amount of input	✗

### Question for EFRAG TEG

- 57 Does EFRAG TEG have any comments to the assessment of the IAS 19 requirements and the examples or any suggestions on how to improve the assessment?

### A model where the pension obligation is measured by reference to the plan assets

#### *The approach*

- 58 As illustrated above, one of the problems with applying the IAS 19 approach to return-based pension plans is that the measurement does not fully reflect the linkage between the plan assets and the pension liabilities.
- 59 One way to address this alleged mismatch could be to measure the liability of a return-based pension plan by reference to the fair value of the plan assets. Measuring pension obligations by reference to the plan assets would (generally) not make use of the projected unit credit method. If the pension plan would include vesting conditions, the measurement of the liability could, however, take into account the probability that some employees might not satisfy the vesting conditions.
- 60 A model where the obligation is measured by reference to the plan assets was proposed in the IFRIC Draft Interpretation D9 *Employee Benefit Plans with a Promised Return on Contributions or Notional Contributions* from 2004 ('D9').
- 61 D9 required entities to measure benefits with a variable return at the fair value of the plan assets. If a pension plan included a minimum guaranteed return, the entity would also have to measure that promise using the IAS 19 model. The entity would then compare the two obligations, and if the variable return obligation exceeded the guaranteed return obligation, the entity would recognise an additional liability over the amount for the minimum return obligation determined under IAS 19.

#### Case 1

- 62 The following table shows the amount of the plan assets, the pension obligation, cash flows, current service costs and the effect on comprehensive income of the D9 approach for Case 1.

Year	Plan assets	Pension obligation	Cash flows	Current service cost	Comprehensive income
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1	1 275	1 898	-850	1 473	-1 473
2	2 710	4 277	-944	1 667	-1 888
3	4 193	6 426	-973	1 656	-1 639
4	5 702	8 933	-992	1 737	-1 990
5	7 392	11 642	-1 087	1 785	-2 106
6	11 516	14 566	-2 256	1 300	-1 056
7	15 299	17 718	-2 484	1 289	-1 852
8	17 942	21 111	-2 578	1 350	-3 329
9	22 458	24 762	-2 831	1 336	-1 966
10	29 112	29 122	-2 939	1 399	-635
11	0	0	-3 222	1 380	-3 222

- 63 In Case 1, the employee's service in later years will lead to a materially higher level of benefit than in earlier years. Accordingly, the benefits related to the guaranteed minimum return are attributed on a straight-line basis when the minimum return obligation is calculated in accordance with IAS 19. For this reason, the pension obligation is measured at a higher amount than the pension asset for most of the years, even though the expected total return is higher than the guaranteed minimum return. Only in Year 10 and just before the liability is settled in Year 11, the variable return obligation is higher than the guaranteed minimum return obligation calculated in accordance with IAS 19.

**Case 2**

- 64 As shown in the table below, the situation is almost opposite in Case 2.

Year	Plan assets	Pension obligation	Cash flows	Current service cost	Comprehensive income
1	2 250	2 250	-1 500	888	-1 500
2	4 534	4 534	-1 500	941	-1 500
3	6 825	6 825	-1 500	995	-1 500
4	9 109	9 109	-1 500	1051	-1 500
5	11 454	11 454	-1 500	1 110	-1 500
6	14 850	14 850	-1 500	1 170	-1 500
7	17 174	17 174	-1 500	1 232	-1 500
8	18 050	18 643	-1 500	1 295	-1 500
9	20 571	21 079	-1 500	1 361	-1 500
10	24 878	24 878	-1 500	1 430	-1 500
11	0	0	-1 500	1 500	-1 500

## *Approaches for Return-Based Pension Plans*

- 65 In Case 2, the effect on comprehensive income equals the contributions of the entity in all the years. The reason is that in all the years – even in the years where the total guaranteed return is higher than the total expected actual return - the liability related to the variable component is higher than the liability resulting from the guarantee component calculated in accordance with IAS 19. The reason is that the guaranteed return in those cases is not much higher than the actual return and the guaranteed return is lowered as the discount rate is higher than the guaranteed return of 1 per cent. The changes in the liability accordingly equals changes in the pension asset and the only net expense for the entity is its contribution.
- 66 The current service cost is solely based on the guaranteed return part of the liability. The amount is rising steadily over the years reflecting that the discount rate is higher than the guaranteed return rate.

### *Case 3*

- 67 The following table shows the amount of the plan assets, the pension obligation, cash flows received/(paid) by employer, current service costs and the effect on comprehensive income of the pension plan in Case 3 under the D9 approach.

Year	Plan assets	Pension obligation	Cash flows	Current service cost	Comprehensive income
1	0	1 898	425	1 473	-1 473
2	0	4 277	472	1 667	-1 907
3	0	6 426	486	1 656	-1 663
4	0	8 933	496	1 737	-2 011
5	0	11 642	543	1 785	-2 166
6	0	14 566	1 128	1 300	-1 796
7	0	17 718	1 242	1 289	-1 910
8	0	21 111	1 289	1 350	-2 105
9	0	24 762	1 416	1 336	-2 235
10	0	29 122	1 470	1 399	-2 881
11	0	0	-32 625	1 380	-3 513

- 68 The pension obligation and the current service cost are the same as in Case 1. The difference in the comprehensive income between Case 1 and Case 3 is caused by the missing return on pension assets in Case 3.

### *Observations*

- 69 Based on the examples, an initial assessment of the extent to which the D9 approach reflects the features listed in paragraph 8 is that:
- (a) Similar to under IAS 19, the information reflects an estimate of the resources needed to fulfil the obligation to the employee, and not the amount that the entity would pay to transfer the obligation and the associated risks to a third party. The approach reflects how most pension obligations are settled, but may not always reflect the most likely manner of settlement for all plans.
  - (b) When compared with the effects of applying IAS 19, the link between the pension asset and the pension obligation is clearer from the D9 approach.

## *Approaches for Return-Based Pension Plans*

However, Case 1 shows that there are still some differences in the measurement, when the D9 approach results in the measurement of the pension obligation is based on the guaranteed return promise (measured in accordance with IAS 19).

- (c) Case 2 shows that the approach may not reflect when pension assets are insufficient to settle the pension obligation.
- (d) Like under IAS 19, the accumulated amount recognised in comprehensive income will equal the accumulated amount of net cash flows.
- (e) The measurement of the pension obligation will reflect the amount needed to settle the obligation when the pension obligation is due.
- (f) The liability recognised in accordance with the D9 approach meets the definition in the Conceptual Framework because the entity has no practical ability to avoid the transfer and has received the benefits from the service of the employee. The measurement of the obligation, however, may exceed the amount that the entity has no practical ability to avoid transferring because it includes the expectation of future salary increases.
- (g) Above, it was assessed that the liability measured in accordance with IAS 19 could generally be measured reliably, as well as the fair value of pension assets. Therefore, the pension obligation measured in accordance with the D9 approach can generally be measured reliably.
- (h) As the approach would not consider vesting conditions in relation to recognition, economically similar plans where the contributions are made in different periods/with different benefit formulas could be accounted for differently under the approach.
- (i) As illustrated in Case 2, the approach may result in inadequate funding not being reflected. It is therefore assessed that the approach does not reflect asymmetric prudence.
- (j) If an entity has access to the actuarial assumptions used when calculating the pension obligation in accordance with IAS 19 and the fair value on the past reporting dates of the assets on which the variable return is determined, it should be able to apply the approach retrospectively. However, an entity may not have access to this information if there have been changes in the pension scheme.
- (k) During its discussions, the IFRS Interpretations Committee noted that one issue with the D9 model was to determine a suitable scope that would both improve the accounting for a sufficient population of plans and limit any unintended consequences arising from making an arbitrary distinction between otherwise similar plans. In other words, the IFRS Interpretations Committee was concerned that similar pension plans would not be accounted for similarly. The EFRAG Secretariat has not (yet) examined the issue related to the scope of a new approach. Currently, the EFRAG Secretariat is only considering whether the guaranteed return (i.e. the 'fixed part') of the pension plan is accounted for in accordance with IAS 19. Under the D9 approach, this element is accounted for similarly as under IAS 19. The variable element is accounted for differently under the approach than how it would be under IAS 19. However, if this 'variable' element is considered sufficiently different from other elements accounted for in accordance with IAS 19, a different accounting treatment may not impair comparability.
- (l) The amount of the pension obligation is the 'higher of' the fair value of the pension assets and the amount resulting from applying IAS 19 on the guaranteed minimum return. The value may thus be even more difficult to explain than the amount resulting from IAS 19.



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- (m) In theory, the approach would be costlier than only applying IAS 19 as the entity should first apply IAS 19 to the minimum guarantee and then add the liability for the variable promise, when applicable. In practice, however, it may often be easy to assess whether the obligation measured in accordance with IAS 19 exceeds the fair value of the plan assets. When this is not the case, the measurement of the liability is likely less costly to apply than the IAS 19 approach – depending on the nature of the plan assets. Still, however, it is necessary to update the measure. It may also require judgement and a significant number of input.

70 The EFRAG Secretariat's tentative assessment is summarised in the table below.

The approach reflects how the liability will be settled	✗
Link between pension assets and pension liabilities reflected	🟡
Inadequate funding is reflected	✗
Effect on comprehensive income equals net cash outflow	✔
Measurement reflect the amount needed to fulfil the liability	✔
The definition of a liability and recognition guidance in the revised Conceptual Framework are reflected	✔
Possible to make reliable estimates	✔
Similar pension plans are accounted for similarly	✗
Asymmetric prudence is reflected	✗
Possible to apply new requirements retrospectively	🟡
Similar elements of pension plans are accounted for similarly to plans under the IAS 19	✔
It is easy to explain what the information means	✗
Information does not need to be updated	✗
Insignificant amount of judgement is needed	✗
The approach requires only a limited amount of input	✗

### **Questions for EFRAG TEG members**

- 71 Does EFRAG TEG have any comments to the assessment of the D9 approach and the examples or any suggestions on how to improve the assessment?
- 72 When comparing the effects of applying the D9 approach with the effects of applying IAS 19, it appears that the current service costs are lower when applying the D9 approach than when applying IAS 19. The reason is that under the D9 approach, the service costs are only based on the guaranteed return promise. The result is accordingly that the current service costs could be lower in a pension scheme including a minimum return promise, than in a scheme that does not include a minimum return promise. Does EFRAG TEG consider this to be an issue, that should be considered in forthcoming discussions?

**A model where the estimated returns are capped to a rate of return equal to the discount rate specified under IAS 19**

*The approach*

- 73 One main criticism of the application of IAS 19 to return-based pension plans is that benefits are projected using the expected rate of return and then discounted using the yields on high quality corporate bonds.
- 74 A relatively simple solution could therefore be to cap the expected rate of return on to the yields on high quality corporate bonds.

*Case 1*

- 75 The approach has been applied to Case 1 (where the discount factor is higher than the guaranteed return) in the following manner:
- (a) In years where the total guaranteed return is higher than the actual expected return, the pension obligation has been calculated using the guaranteed return.
- (b) In years where the total guaranteed return is lower than the actual expected return, the pension obligation has been calculated using the higher of the guaranteed return and the capped expected return.
- 76 The effects of applying the approach on Case 1 is illustrated in the table below.

Year	Plan assets	Pension obligation	Cash flows	Current cost	service	Comprehensive income
1	1 275	2 141	-850		1 716	-1 716
2	2 710	4 816	-944		1 936	-2 184
3	4 193	7 216	-973		1 919	-1 889
4	5 702	8 933	-992		1 737	-1 200
5	7 392	11 642	-1 087		1 785	-2 106
6	11 516	16 190	-2 256		1 570	-2 680
7	15 299	19 451	-2 484		1 537	-1 962
8	17 942	21 111	-2 578		1 350	-1 595
9	22 458	24 762	-2 831		1 336	-1 966
10	29 112	29 894	-2 939		1 520	-1 417
11	0	0	-3 222		1 501	-2 440

- 77 In all the years, the pension obligation is measured at a higher amount than the plan assets. This is due to the allocation of the benefits on a straight-line basis when measuring the pension obligation.
- 78 When comparing the effects with the effects of applying the IAS 19 model, it appears that the pension obligation is lower in the first three years than under the IAS 19 model. The reason is that the cap is reducing the total expected pension obligation. In Year 4, Year 5, Year 8 and Year 9, the total pension obligation is based on the guaranteed return. The pension obligations in those years accordingly correspond to the pension obligations when applying IAS 19. In Year 6, Year 7 and Year 10, the expected future return is lower than the discount factor. Accordingly, the cap does

### *Approaches for Return-Based Pension Plans*

not affect the results. Accordingly, the pension obligations in those years corresponds to the obligations when applying IAS 19.

#### Case 2

79 The effects of applying the approach on Case 2 is illustrated in the table below.

Year	Plan assets	Pension obligation	Cash flows	Current service cost	Comprehensive income
1	2 250	2 250	-1 500	1 500	-1 500
2	4 534	4 534	-1 500	1 500	-1 500
3	6 825	6 825	-1 500	1 500	-1 500
4	9 109	7 314	-1 500	1 051	-1 500
5	11 454	9 485	-1 500	1 110	-1 500
6	14 850	14 560	-1 500	1 456	-1 500
7	17 174	16 905	-1 500	1 465	-1 500
8	18 050	16 948	-1 500	1 295	-1 500
9	20 571	19 782	-1 500	1 361	-1 500
10	24 878	24 140	-1 500	1 433	-1 500
11	0	0	-1 500	1 500	-1 500

- 80 In Year 1 – Year 3, the expected actual return is higher than the guaranteed return and the yield on high quality bonds. The expected return is accordingly capped to the yield on high quality bonds, and the service costs accordingly equals the entity's contributions. The pension obligation equals the pension assets and the effect on comprehensive income equals the entity's contributions.
- 81 In Year 4 and Year 5, the guaranteed return is higher than the expected actual return. When calculating the pension obligation, the future return is accordingly projected using the guaranteed return and discounted using the higher high-quality bond yield. The pension obligation is accordingly lower than the pension assets and the current service cost is lower than in Year 1 – Year 3. In Year 4, the comprehensive income and the pension liabilities are affected by a significant gain resulting from the reduction in the expectation of the pension liabilities at retirement. In Year 5, there are no actuarial gains and losses as the pension obligation develops in accordance with the guaranteed (unchanged) return.
- 82 In Year 6 – Year 7, the guaranteed return is higher than the guaranteed return, but lower than the yield on high-quality bonds. Accordingly, the current service costs are lower than in Year 1 – Year 3. In Year 6, however, the comprehensive income is affected by the loss resulting from the increase in the total expected pension obligation.
- 83 From Year 4, when the balance of the plan assets exceeds the pension obligation, the asset ceiling requirements in IAS 19 have been applied. This means that no net pension asset is presented. In addition, the asset ceiling affects the expenses recognised in comprehensive income. Without the asset ceiling the effect on comprehensive income would thus have been different from Year 4. When taking the asset ceiling into account, the effect on comprehensive income equals the contribution of the entity in each year.

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### Case 3

84 The effects of applying the approach on Case 3 is illustrated in the table below.

Year	Plan assets	Pension obligation	Cash flows	Current service cost	Comprehensive income
1	0	2 141	425	1 716	-1 716
2	0	4 816	472	1 936	-2 203
3	0	7 216	486	1 919	-1 914
4	0	8 933	496	1 737	-1 221
5	0	11 642	543	1 785	-2 116
6	0	16 190	1 128	1 570	-3 419
7	0	19 451	1 242	1 537	-2 020
8	0	21 111	1 289	1 350	-371
9	0	24 762	1 416	1 336	-2 235
10	0	29 894	1 470	1 520	-3 663
11	0	0	-32 625	1 501	-2 731

85 Compared with Case 1, the net expenses included in total comprehensive income are higher in Case 3 as the entity does not hold any plan assets which could generate return. The entity could, however, have invested in other types of assets, and it can therefore not be concluded that it is less expensive for an entity to run a funded pension scheme.

### *Observations*

86 The EFRAG Secretariat has considered how the outcome of this approach meets the information objectives listed in paragraph 8 above. The initial assessment is that:

- (a) The information reflects an estimate of the resources needed to fulfil the obligation to the employee, and not the amount that the entity would pay to transfer the obligation and the associated risks to a third party. The approach reflects how most pension obligations are settled, but may not always reflect the most likely manner of settlement for all plans.
- (b) The link between the pension assets and the pension obligation is not fully reflected, but is more effective than under IAS 19 in Case 1 where the plan assets are sufficient to fulfil the obligation.
- (c) In Year 3, Year 4, Year 8 and Year 9, where it is expected that the guaranteed return will determine the return on the pension scheme, the accumulated (to date) balance of the guaranteed return exceeds the actual return. It could therefore be argued that the pension assets are insufficient to settle the pension obligation and that the inadequate funding is not reflected under the approach.
- (d) Like under IAS 19, the accumulated amount recognised in comprehensive income equals the accumulated amount of net cash flows.
- (e) Under the approach, the measurement of the pension obligation will reflect the amount needed to settle the obligation when the pension obligation is due.

## *Approaches for Return-Based Pension Plans*

- (f) The liability recognised in accordance with IAS 19 in both Case 1 and Case 2 meets the definition in the Conceptual Framework because the entity has no practical ability to avoid the transfer and has received the benefits from the service of the employee.
- (g) In paragraph 55(g) above, it is assessed that pension obligations can be measured reliably by applying the guidance included in IAS 19. Application of a cap on the expected return is not assessed to result in the measurement being less reliably measured.
- (h) The calculation of the pension obligation is based on IAS 19. It could be possible to develop two different plans that would have the same economical effect (see paragraph 55(h)).
- (i) As illustrated in Case 2, the approach may in some periods result in a net pension asset of nil being recognised when the funding could be argued to be inadequate. This does not reflect 'asymmetric prudence'.
- (j) An entity may need to re-perform previous calculations to apply the cap. Redoing previous calculations would require access to all the data used for those computations. Normally, this data will be available.
- (k) The approach would only account differently for the expected returns on which return-based promises are based. Accordingly, the approach would not change the accounting for items that would also exist in pension plans outside the scope of the approach.
- (l) Introducing the cap would not make the approach and resulting figures easier to explain than the current requirements in IAS 19.
- (m) The approach would require the pension obligation to be measured in accordance with IAS 19 – only with a capped return rate - and would, accordingly, be as costly as IAS 19 to apply.

87 The EFRAG Secretariat's tentative assessment is summarised in the table below:

The approach reflects how the liability will be settled	✗
Link between pension assets and pension liabilities reflected	👉
Inadequate funding is reflected	✗
Effect on comprehensive income equals net cash outflow	✓
Measurement reflect the amount needed to fulfil the liability	✓
The definition of a liability and recognition guidance in the revised Conceptual Framework are reflected	✓
Possible to make reliable estimates	✓
Similar pension plans are accounted for similarly	✗
Asymmetric prudence is reflected	✗
Possible to apply new requirements retrospectively	✓
Similar elements of pension plans are accounted for similarly to plans under the IAS 19	✓
It is easy to explain what the information means	✗

Information does not need to be updated	✗
Insignificant amount of judgement is needed	✗
The approach requires only a limited amount of input	✗

**Questions for EFRAG TEG members**

- 88 Does EFRAG TEG have any comments to the assessment of the approach where the estimated returns are capped to a rate of return equal to the discount rate specified under IAS 19 and the examples or any suggestions on how to improve the assessment?
- 89 When comparing the effects of applying the approach where the estimated returns are capped with the effects of applying IAS 19, it appears that the current service costs are lower. Does EFRAG TEG consider this to be an issue, that should be considered in forthcoming discussions?

**A model where the pension obligation is measured at fair value**

*The approach*

- 90 It could be argued that measuring both plan assets and pension liabilities at fair value would reduce or remove accounting mismatches.
- 91 It is possible to measure the full plan at fair value. However, it may be considered most relevant only to consider the liability for the completed service period. So, rather than allocating the full fair value on a straight-line basis, the fair value could be calculated under the plan formula.
- 92 IFRS 13 *Fair Value Measurement* defines fair value of a liability as the price that would be paid to transfer the liability in an orderly transaction. Accordingly, a 'pure' fair value measurement should, for example, take into account the likelihood of any possible modification to the terms of the plan. In its Discussion Paper *Preliminary Views on Amendments to IAS 19 Employee Benefits* (March 2008), the IASB argued that a measurement that would reflect possible changes in the plan would misrepresent the entity's obligation.
- 93 Therefore, it may be possible to consider a modified fair value, that for instance excludes the following:
- (a) Own credit risk; and
  - (b) Likelihood of modifications or curtailments.
- 94 It would also be possible to only include vested benefits in a fair value measurement approach.
- 95 Another issue is if the plan would be fair valued in its entirety, or if one of the promises in a 'higher of' plan would be bifurcated and accounted for as a separate financial instrument. In the case considered in this paper, this would mean that it should be determined whether to treat the plan as a variable return plan with a fixed return option or as a fixed return plan with a variable return option.
- 96 Measuring a pension obligation at fair value would mean that the measurement would be based on an expected value approach where the probability of different outcomes is reflected in the measurement. In cases where only a small number of employees are covered by a pension plan, this measurement may not be the best estimate of what will be the ultimate cost of providing the post-employment benefit.

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When considering a fair value approach, it could therefore be decided to include actuarial assumptions in the measurement on a 'most likely outcome' basis.

- 97 Similarly, when a pension plan includes a 'higher of' option (e.g. the employee will receive the higher of the actual return on pension assets or 1 per cent return), the modified fair value could reflect the most likely outcome (e.g. the actual return or the 1 per cent return) or reflect the value of the option in the measurement.
- 98 As it appears above, there are many different ways pension obligations could be measured based on fair value. There is, accordingly, not a single 'fair value method'.
- 99 Unless, an entity is going to pay another party to transfer the obligation, a fair value measurement would not reflect how the obligation is settled, but a modified fair value (as described above) could reflect this. Such a modified fair value could make use of relevant market factors when, for example, considering the time value of money and at the same time take into account how the entity is most likely to settle the obligation.

### *Case 1*

- 100 The table below illustrates the results of applying a modified fair value approach on Case 1. The modified fair value applied does not reflect the entity's own credit risk and the likelihood of modifications or curtailments. When disregarding the guaranteed minimum return, the measurement of the pension obligation equals the fair value of the assets on which the return is based under the chosen measurement approach. Accordingly, the difference between the value of the plan assets and the pension obligation is caused by the fair value of the guaranteed return feature.
- 101 In this example, it has not been attempted to calculate a correct value of the guaranteed return feature. A rough estimate has been made by using the volatility in the expected returns in the example and elements of the Black-Scholes model. The rough estimate is thus based on an estimate of the value of a European put option (or a receiver swaption) that can be exercised at the end of Year 11.
- 102 The value of the guaranteed return feature only reflects the benefits already earned by the employee. It does thus, for example, not reflect the value of the right, the employee has on the balance sheet date, to be guaranteed the minimum return on future contributions to the plan.

Year	Plan assets	Pension obligation	Cash flows	Intrinsic value of guarantee	Comprehensive income
1	1 275	1 275	-850	-797	-850
2	2 710	2 710	-944	-1 245	-944
3	4 193	4 205	-973	-1 029	-985
4	5 702	6 079	-992	30	-1 356
5	7 392	7 877	-1 087	96	-1 195
6	11 516	11 559	-2 256	-2 062	-1 815
7	15 299	15 382	-2 484	-2 148	-2 524
8	17 942	19 210	-2 578	864	-3 763
9	22 458	24 731	-2 831	2 128	-3 836
10	29 112	29 315	-2 939	-1 371	-868

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11	0	0	-3 222	-1 338	-3 020
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103 In the table above, the column 'intrinsic value of guarantee' has been included instead of 'current service costs'. The reason is that 'current service costs' are not calculated in the fair value approach. The column does not provide the intrinsic value of the guarantee as an option – but as a future as an option would not have a negative value. The purpose of the column is to illustrate how far in-the-money or out-of-the-money the option is.

104 The data show that the difference between the pension assets and pension liabilities is higher when the guaranteed return is higher than the actual expected return and as the amount 'covered' by the guaranteed return becomes higher. Because of the time value of the guaranteed return feature, the pension obligation is also measured at a slightly higher amount than the pension asset when the intrinsic value of the guarantee is negative.

**Case 2**

105 The effects of the modified fair value approach described above are illustrated in the table below for Case 2.

Year	Plan assets	Pension obligation	Cash flows	Intrinsic value of guarantee	Comprehensive income
1	2 250	2 250	-1 500	-1 407	-1 500
2	4 534	4 534	-1 500	-2 083	-1 500
3	6 825	6 844	-1 500	-1 675	-1 520
4	9 109	9 708	-1 500	48	-2 080
5	11 454	12 204	-1 500	149	-1 650
6	14 850	14 895	-1 500	-2 806	-795
7	17 174	17 243	-1 500	-2 653	-1 524
8	18 050	19 201	-1 500	685	-2 582
9	20 571	22 540	-1 500	1 819	-2 319
10	24 878	25 010	-1 500	-1 377	337
11	0	0	-1 500	-1 351	-1 368

106 Again, the results show that pension assets and pension obligations are measured at similar amounts when the fair value of the guaranteed element is negligible. The effects on comprehensive income corresponds to the contributions of the entity adjusted for the change in the fair value of the guaranty.

**Case 3**

107 In Case 3, the entity does not invest in the assets used for determining the pension obligation.

Year	Plan assets	Pension obligation	Cash flows	Intrinsic value of option	Comprehensive income
1	0	1 275	425	-797	-850



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2	0	2 710	472	-1 245	-963
3	0	4 205	486	-1 029	-1 009
4	0	6 079	496	30	-1 377
5	0	7 877	543	96	-1 255
6	0	11 559	1 128	-2 062	-2 555
7	0	15 382	1 242	-2 148	-2 581
8	0	19 210	1 289	864	-2 539
9	0	24 731	1 416	2 128	-4 105
10	0	29 315	1 470	-1 371	-3 114
11	0	0	-32 625	-1 338	-3 311

- 108 The comprehensive income is affected by: the employer's contribution to the pension, the return on the underlying assets and the change in the fair value of the minimum return guarantee.

#### *Observations*

- 109 The EFRAG Secretariat has considered how the outcome of this approach meets the information objectives listed in paragraph 8 above. The initial assessment is that:
- (a) The modified fair value approach considered in the examples above, would not reflect how a pension obligation is likely to be settled. A 'pure' fair value model would reflect what an entity would need to pay to an external party to take over the pension obligation. Another modified fair value approach could, however, take into consideration how the pension obligation would be settled.
  - (b) The link between the pension assets and the pension obligation would be reflected in the measurement of the obligation at its fair value. The link is clear from the examples when the guaranteed minimum return element is insignificant.
  - (c) In Year 3, Year 4, Year 8 and Year 9, the pension assets are insufficient to settle the pension obligation in the examples. This is reflected in the measurement of the obligation compared with the measurement of the asset.
  - (d) Like under IAS 19, the accumulated amount recognised in comprehensive income equals the accumulated amount of net cash flows.
  - (e) In theory, the measurement of the pension obligation will reflect the amount needed to settle the obligation when the pension obligation is due. The measurement would reflect the price of transferring the obligation to a third party. However, when the obligation is due, there is no uncertainty about the amount, and the measurement of the obligation should therefore, in theory, equal the amount that should be paid to the employee (plus a fee for payment, perhaps).
  - (f) The liability recognised meets the definition in the Conceptual Framework because the entity has no practical ability to avoid the transfer and has received the benefits from the service of the employee.
  - (g) Since in most cases there are no observable market prices for pension obligations, the fair value needs to be estimated. This estimation may be more complex than the estimations required under IAS 19, and potentially less reliable.

### *Approaches for Return-Based Pension Plans*

- (h) The examples used do not include any vesting conditions. When vesting conditions exist, it would have to be chosen whether to reflect these in recognition and/or measurement. If vesting conditions are not reflected plans with similar economic outcomes could be reflected differently in the financial statements.
- (i) The approach would not reflect 'asymmetric prudence'.
- (j) It may be difficult to apply the approach retrospectively. Part of the information needed would be available from the calculation required under IAS 19, but some input may be more difficult to collect retrospectively.
- (k) Modified fair value is different from IAS 19, so some elements of the pension obligation would be accounted for differently than similar elements in a pension scheme accounted for under IAS 19.
- (l) The pension obligation would represent the amount that the entity would have to pay to transfer the obligation to a third party, without considering own credit risk and likelihood of modifications or curtailment. It would thus be relatively easy to explain what the figure represents.
- (m) The modified fair value may need to use some unobservable input and could be costlier than the estimations required under IAS 19.

110 The tentative assessment is summarised in the table below:

The approach reflects how the liability will be settled	🟡
Link between pension assets and pension liabilities reflected	✔️
Inadequate funding is reflected	✔️
Effect on comprehensive income equals net cash outflow	✔️
Measurement reflect the amount needed to fulfil the liability	✔️
The definition of a liability and recognition guidance in the revised Conceptual Framework are reflected	✔️
Possible to make reliable estimates	🟡
Similar pension plans are accounted for similarly	🟡
Asymmetric prudence is reflected	❌
Possible to apply new requirements retrospectively	🟡
Similar elements of pension plans are accounted for similarly to plans under the IAS 19	❌
It is easy to explain what the information means	✔️
Information does not need to be updated	❌
Insignificant amount of judgement is needed	❌
The approach requires only a limited amount of input	❌

**Questions for EFRAG TEG**

- 111 What fair value model(s) does EFRAG TEG assess should be considered (e.g. a pure fair value model or a modified fair value model (as in the example))? If, EFRAG TEG thinks a modified fair value model should be considered, what should the modifications be?
- 112 In relation to the example above, does EFRAG TEG assesses that only the 'earned' part of the minimum return guarantee should be reflected (as in the illustration, or does EFRAG TEG assesses that the fair value of the 'entire' guarantee should be reflected (e.g. should the fair value of the guarantee component reflect that the employee, in the future, can transfer money to the pension schemes which will be covered by the minimum return guarantee)?

**A fulfilment value model as per IFRS 17 Insurance Contracts**

*The approach*

- 113 An alternative approach to measure pension obligations could be based on fulfilment cash flows, similar to IFRS 17 *Insurance Contracts* ('IFRS 17').
- 114 In IFRS 17, the fulfilment cash flows are defined as an unbiased and probability-weighted estimate (i.e. expected value) of the present value of future cash outflows minus the present value of future cash inflows that will arise as the entity fulfils the insurance contract. It includes a risk adjustment for non-financial risk. The entity would estimate all cash inflows and outflows that may arise from the coverage period of the contract. The risk adjustment represents the uncertainty about the amount and timing of the cash flows as the entity fulfils the contract.
- 115 At inception, the residual amount from calculating the fulfilment cash flows, provided that it is above zero, is the contractual service margin ('CSM') and this is the unearned profit that the entity will recognise in the profit or loss statement as it provides services under the insurance contract. The CSM could be seen as 'deferred income' and recognised in profit or loss over the life of the contract.
- 116 When determining the fulfilment cash flows, current discount rates are used and the entity needs to look at a full range of possible outcomes. The fulfilment cash flows are updated at each reporting date.
- 117 The current discount rates should reflect the characteristics of the cash flows including liquidity characteristics and should be consistent with observable current market prices (if any) for financial instruments that have similar characteristics to insurance contracts. For cash flows that vary based on the returns on underlying items, the discount rate should reflect that variability.
- 118 As stated above, the fulfilment cash flows also include a risk adjustment reflecting the uncertainty in the amount and timing of the cash flows. The risk adjustment is measured separately from the cash flows and the entity can choose an estimation technique to measure it.
- 119 The CSM is reported as a liability and an amount of CSM is recognised in profit or loss to reflect the services provided in a period. On subsequent measurement, any changes that relate to future periods adjust the CSM. Any changes which relate to the current period are charged to profit or loss, e.g. the unwinding of the discount rate and release of part of the CSM on the basis of the passage of time. If the CSM goes below zero, it is immediately recognised in profit or loss.
- 120 The fulfilment cash flows are reported as a liability. On subsequent measurement, any changes to the cash flows and risk adjustment that relate to future periods adjust the fulfilment cash flows. Any changes which relate to the current period, e.g. the unwinding of the discount rate, release of cash outflow provisions and changes to the risk adjustment are recognised in comprehensive income.

## Approaches for Return-Based Pension Plans

121 More information about IFRS 17 is available on the [IASB's website](#).

### *Similarities between IFRS 17 and pension plans in scope of this project*

122 There are a number of similarities between the accounting for insurance contracts in IFRS 17 and pension plans in scope of this project including the following:

- (a) Both insurance contracts and the pension plans in the scope of this project may have a coverage period for many years (long-term);
- (b) Both include actuarial estimations about financial and non-financial risk. There are estimations on cash inflows and outflows over the life of the insurance contract or pension plan which are discounted; and
- (c) There are insurance contracts whereby in addition to insurance coverage, the policyholder receives a benefit based on the returns from assets. Therefore, there is a link between the promise and the expected returns on the assets. This is the case for the pension plans in scope of this project.

### *Additional assumptions related to the fulfilment value model as per IFRS 17 Insurance Contracts applicable for Cases 1 to 3*

123 In addition to the assumptions stated from paragraphs 13 to 37, the expected cash inflows consist of contributions from both the employee and the employer. In other words, the liability at inception and at the end of each period consists of the present value of: (a) cash inflows relating to all estimated future contributions of the employee and employer; less (b) cash outflows which the employee will receive (i.e. the past contributions that were made by the employee and employer and the accumulated returns on the assets).

124 There is no risk adjustment in Cases 1 to 3 (see paragraphs 146 - 148 below).

125 The asset rate is used as a starting point to compute the discount rate for the pension liability. In IFRS 17, this discount rate is adjusted to reflect the variability of the asset returns for the effect of the guarantee, even if the guaranteed amount is lower than the expected asset returns. In order to reflect the effect of the guarantee, the EFRAG Secretariat has adjusted the liability discount rate in all Cases in order to be 10% lower than the actual asset return for simplicity purposes. Refer to the table below for the rates used.

Year	1	2	3	4	5	6	7	8	9	10	11
Actual asset return (%)	11.42	1.50	0.90	0.50	1.05	10.00	0.50	-8.00	1.50	10.00	1.00
Actual Liability discount rate (%)	10.28	1.35	0.81	0.45	0.95	9.00	0.45	-7.20	1.35	9.00	0.90

126 Changes in estimates of the contribution from both the employer and employee are recognised in comprehensive income. This would be recognised in CSM in IFRS 17.

### *Case 1 – Assets held, Guarantee kicks in years 4, 5, 8 and 9*

127 The following table shows the amount of the plan assets, the pension liability, cash outflows made by the employer, employer contribution recognised in comprehensive income and the effect on comprehensive income of the pension plan in Case 1. The comprehensive income includes expenses such as the accretion of the liability, the impact of changes in discount rates and changes in estimates of the contribution from both the employee and employer.

*Approaches for Return-Based Pension Plans*

Year	Plan assets	Pension obligation	Cash flows	Employer contribution in comprehensive income (expense)	Comprehensive income
1	1 275	2 079	-850	850	-1 654
2	2 710	11 496	-944	944	-8 926
3	4 193	8 619	-973	973	3 388
4	5 702	6 302	-992	992	2 834
5	7 392	7 461	-1 087	1 087	-556
6	11 516	7 549	-2 256	2 256	1 779
7	15 299	18 319	-2 484	2 484	-9 471
8	17 942	25 422	-2 578	2 578	-7 038
9	22 458	22 973	-2 831	2 831	4 134
10	29 112	27 020	-2 939	2 939	-332
11	0	0	-3 222	3 222	-5 314

128 At inception, as the discount rate of the liability is not the same as on the asset side, there is a 'loss' of EUR 729 which in the table is immediately recognised in comprehensive income. However, it may be argued that this amount represents the value of the future services to be provided by the employee, and therefore it should be spread over the period of service (the EFRAG Secretariat has not considered what the amortisation pattern should be). Alternatively, the pension plan could be separated and accounted for in individual coverage units for each year of service. This would, however, increase significantly the complexity of the calculation.

129 Every year the liability fluctuates because the discount rate used to discount the liability also fluctuates (refer to paragraph 125 above). For example, at the end of year 2, the liability increases from EUR 2 079 to EUR 11 496 mainly because the liability discount rate decreased significantly from 10.28% to 1.35%, therefore there is an expense to comprehensive income because of a change in the discount rate of EUR 10 622.

*Case 2 - Assets held, Guarantee kicks in years 4, 5, 8 and 9, no backloading (fixed contributions of EUR 750)*

130 The following table shows the amount of the plan assets, the pension obligation, cash outflows made by the employer, employer contribution recognised in comprehensive income and the effect on comprehensive income of the pension plan. The Comprehensive income includes expenses such as the accretion of the liability, the impact of changes in discount rates and changes in estimates of the contribution from both the employee and employer.

Year	Plan assets	Pension obligation	Cash flows	Employer contribution in comprehensive income (expense)	Comprehensive income
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*Approaches for Return-Based Pension Plans*

1	2 250	3 266	-1 500	1 500	-2 516
2	4 534	14 181	-1 500	1 500	-10 132
3	6 825	11 673	-1 500	1 500	3 299
4	9 109	9 750	-1 500	1 500	2 708
5	11 454	11 533	-1 500	1 500	-937
6	14 850	10 803	-1 500	1 500	2 625
7	17 174	20 084	-1 500	1 500	-8 457
8	18 050	24 713	-1 500	1 500	-5 253
9	20 571	20 926	-1 500	1 500	4 807
10	24 878	23 090	-1 500	1 500	643
11	0	0	-1 500	1 500	-3 288

131 At inception, as the discount rate of the liability is not the same as on the asset side, there is a 'loss' of EUR 921 which is immediately recognised in comprehensive income.

132 Similar to Case 1, every year the liability fluctuates because the discount rate used to discount the liability also fluctuates.

*Case 3 – Same as Case 1 but no assets are held*

133 Case 3 is similar to Case 1, except that the entity does not invest in any assets. There are therefore no pension assets and no asset returns. However, the entity still has the obligation to pay an amount considering that the investment of assets had been made.

134 The following table shows the amount of the plan assets, the pension obligation, cash flows received/(paid) by employer, employer contribution recognised in comprehensive income and the effect on comprehensive income of the pension plan. The Comprehensive income includes expenses such as the accretion of the liability, the impact of changes in discount rates and changes in estimates of the contribution from both the employee and employer.

Year	Plan assets	Pension obligation	Cash flows	Employer contribution in comprehensive income (expense)	Comprehensive income
1	0	2 079	425	850	-1 654
2	0	11 496	472	944	-8 945
3	0	8 619	486	973	3 364
4	0	6 302	496	992	2 813
5	0	7 461	543	1 087	-616
6	0	7 549	1 128	2 256	1 040

### *Approaches for Return-Based Pension Plans*

7	0	18 319	1 242	2 484	-9 528
8	0	25 422	1 289	2 578	5 814
9	0	22 973	1 416	2 831	3 865
10	0	27 020	1 470	2 939	-2 578
11	0	0	-32 625	3 222	-5 605

- 135 The pension obligation is the same as in Case 1. The comprehensive income is lower than in Case 1 because there is no interest income as no assets have been invested.

#### *Observations*

- 136 The EFRAG Secretariat has considered how the outcome of this approach meets the information objectives listed in paragraph 8 above. Our initial assessment is that:
- (a) Similar to under IAS 19, the information reflects an estimate of the resources needed to fulfil the obligation to the employee, and not the amount that the entity would pay to transfer the obligation and the associated risks to a third party. The approach reflects how most pension obligations are settled, but may not always reflect the most likely manner of settlement for all plans.
  - (b) In both Case 1 and Case 2, there is a linkage between the pension asset and pension obligation in terms of the liability cash outflows varying with the returns of the assets until the guarantee kicks in. However, this linkage may not appear from the figures above. (In Case 3, no assets are held, therefore there is no link).
  - (c) In all Cases, in years 4, 5, 8 and 9, the pension assets are insufficient to settle the pension obligation and this is reflected in the measurement. The cash outflow reflects the guaranteed amount and not the asset returns which are lower than the guarantee.
  - (d) Under this approach, the accumulated amount recognised in comprehensive income equals the accumulated amount of net cash flows.
  - (e) The approach involves actuarial estimates for a plan that could be for many years. Changes in the actuarial estimates made in subsequent periods can be significant but this does not necessarily mean that the estimates were wrong when they are made. Assumptions are reviewed and updated each reporting period to take into account current conditions at the end of the reporting period. It is therefore assessed that it is generally possible to make sufficiently reliable estimates.
  - (f) The pension obligation as a result of the scope of this project would result in economically similar pension plans being accounted for similarly, even if structured differently, because they would apply the same measurement basis.
  - (g) In applying IFRS 17, any 'losses' (i.e. as a result of the CSM being below zero), are taken immediately to profit or loss while this is not the case for any upsides which goes to CSM if it relates to the future. However, in our examples, all amounts that would have gone to CSM are recognised in the Statement of Comprehensive Income. Therefore, the EFRAG Secretariat does not consider that the approach reflects 'asymmetric prudence'. In addition, it appears from Case 1 and Case 2 that pension obligations may be measured at a lower amount than the plan assets even when the plan assets are just sufficient to cover the pension obligations.

*Approaches for Return-Based Pension Plans*

- (h) The entity may be able to apply the new requirements retrospectively but it would depend on the extent to which an entity has information e.g. relating to the cash flows from prior years.
- (i) The treatment of similar elements of pension plans under IAS 19 and under the fulfilment value model are different as follows:

IAS 19	The fulfilment value model
Attributions of benefits on a straight-line basis when an employee's service in later years will lead to a materially higher level of benefit than in earlier years.	No allocation of service cost to comprehensive income.
Pension assets measured at fair value.	Assets measured under IFRS 9 <i>Financial Instruments</i> or IAS 40 <i>Investment Property</i>
Discount rate HQCB	Discount rate reflects current markets and the extent to which there is dependence on the asset returns.

- (j) The amount of the pension obligation may not be easy to explain. This is partly because the amount reflects expectations about future salary and various assumptions, for example, assumptions relating to the pension obligation discount rate.
- (k) The information is assessed to be relatively costly to provide. It is necessary to update actuarial assumptions, which require judgement and different scenarios would have to be considered.

137 The EFRAG Secretariat's tentative assessment is summarised in the table below:

The approach reflects payment to another party to take over the liability	✗
Link between pension assets and pension liabilities reflected	✓
Inadequate funding is reflected	✓
Effect on comprehensive income equals net cash outflow	✓
Measurement reflect the amount needed to fulfil the liability	✓
The definition of a liability and recognition guidance in the revised Conceptual Framework are reflected	✓
Possible to make reliable estimates	✓
Similar pension plans are accounted for similarly	✓
Asymmetric prudence is reflected	✗
Possible to apply new requirements retrospectively	🔄
Similar elements of pension plans are accounted for similarly to plans under the IAS 19	✗



It is easy to explain what the information means	✗
Information does not need to be updated	✗
Insignificant amount of judgement is needed	✗
Only few pieces of information need to be collected	✗

*Considerations*

138 Below are a few aspects to be considered when further developing the fulfilment value model:

*Including as inflows both the employee and employer contributions when computing the pension obligation*

139 In computing the insurance liability, IFRS 17 requires an entity to estimate all cash inflows and outflows that may arise from the coverage period of the contract.

140 The EFRAG Secretariat had considered two alternatives when determining what the cash inflows should be for the pension obligation:

(a) Alternative 1 - Including only the employee contributions as the cash inflow; and

(b) Alternative 2 - Including *both* the employee and employer contributions.

In Cases 1 to 3, Alternative 2 has been applied.

141 When a contract is onerous at inception, IFRS 17 requires to recognise the loss immediately in profit or loss. In both alternatives stated in the above paragraph, there would be a 'loss' at inception. However, the 'loss' for Alternative 1 would be much greater than for Alternative 2.

142 Including the employer's contributions in the inflows may be debatable, because in substance the entity would treat its own payments as a reduction in the liability. In other words, the measurement of the liability would not be affected by how the contributions are split between the parties – it would not matter if the employee pays 0% or 100% of the contributions. On the other side, the employee is required to provide future services so that the benefits can vest; the employer's future contributions could be used to *measure* the value of the future services that cannot be directly measured. The EFRAG Secretariat notes that a similar approach is used in IFRS 2 *Share-based payments* where the value of the instruments granted by the entity is used to measure the services received over the vesting period.

143 If the employer's contributions were excluded, the liability would increase significantly. In that case, the question would arise on whether the entity should recognise an asset and amortise it over the expected period of service.

144 In the February 2017 meeting, a few EFRAG TEG members considered that the cash inflows should include *both* the employee and employer contributions. This was because it was a better presentation of what was happening in terms of income and expense of the organisation.

145 In addition, in its April 2017 meeting, EFRAG PAP indicated that the cash inflows should include *both* the employee and employer contributions. This was because the employer makes a promise to the employee of the matching contribution. An EFRAG PAP member who is a user stated that including *both* employer and employee contributions would be closer to economic reality.

## *Approaches for Return-Based Pension Plans*

### *Risk adjustment*

- 146 The risk adjustment relates to non-financial risk inherent in insurance contracts. It is included in the fulfilment cash flows and it represents the uncertainty about the amount and timing of the cash flows as the entity fulfils the contract.
- 147 In insurance accounting, there may be an uncertainty of the amount as, for example, the claims could be higher than estimated. There is also uncertainty in the timing, for example, the claims incurred could take longer to resolve or the entity has to pay claims earlier than estimated.
- 148 The EFRAG Secretariat would like to ask EFRAG TEG whether any risks not captured by the cash flow projections or estimations should be captured.

### *Discount rate for the pension liability*

- 149 The discount rate for the pension liability is different from IAS 19. Current discount rates are used in IFRS 17 which should reflect the characteristics of the cash flows including liquidity characteristics and should be consistent with observable current market prices (if any) for financial instruments that have similar characteristics to insurance contracts. For cash flows that vary based on the returns on underlying items, the discount rate should reflect that variability.
- 150 IFRS 17 does not require an entity to divide estimated cash flows into those that vary based on the returns on underlying items and those that do not. If an entity does not divide the estimated cash flows in this way, the entity shall apply discount rates appropriate for the estimated cash flows as a whole; for example, using stochastic modelling techniques or risk-neutral measurement techniques. The EFRAG Secretariat understands that a 'blended' rate could be used.
- 151 IFRS 17 states that cash flows that vary with returns on underlying items with variable returns, but that are subject to a guarantee of a minimum return, do not vary solely based on the returns on the underlying items, even when the guaranteed amount is lower than the expected return on the underlying items. Hence, an entity shall adjust the rate that reflects the variability of the returns on the underlying items for the effect of the guarantee, even when the guaranteed amount is lower than the expected return on the underlying items.

### *No service cost as per IAS 19*

- 152 The EFRAG Secretariat notes that the concept of 'service cost' that is in IAS 19 is not applicable in the fulfilment value model. Therefore, there is no expense recognised in comprehensive income as the entity benefits from the employee's service. We understand from the EFRAG PAP members that the service cost is an important element in the Statement of Comprehensive Income.
- 153 If Alternative 1 stated in paragraph 140 above would be used, then one could recognise the 'loss' in profit or loss over the life of the pension plan. This amount in profit or loss could be a 'service cost'.
- 154 If Alternative 2 stated in paragraph 140 above would be used, then one could consider the employer contribution that is recognised in profit or loss to be a type of 'service cost'.

### *What replaces CSM?*

- 155 In IFRS 17, the CSM represents the unearned profit for the contract, which is released to profit or loss as the entity provides services under the contract. In addition, all changes in estimates which relate to the future go to the CSM.
- 156 An entity would not expect to earn revenue when providing pension benefits to its employee, therefore, CSM will not be relevant to calculate the pension liability. Instead, any amount that would normally be recognised in CSM under IFRS 17 could go to comprehensive income instead.

- 157 In Cases 1 to 3, all amounts that would have been recognised in CSM were recognised in comprehensive income. Therefore, comprehensive income could be seen to replace CSM.

**Questions for EFRAG TEG**

- 158 Does EFRAG TEG have any comments on the assessment made in paragraph 136 above or any suggestions on how to improve that assessment?
- 159 Referring to paragraphs 146 to 148, does EFRAG TEG consider that any risks not captured by the cash flow projections or estimations should be captured?
- 160 Does EFRAG TEG have any other comments on the 'Considerations' section from paragraphs 138 to 157?

**A defined contribution approach**

*The approach*

- 161 A return-based pension scheme has some similarities to a defined contribution scheme when the contributions are used to buy the assets on which the pension will be based. In that case, the entity's obligation should be fully covered by the assets purchased. Investment in the assets may thus have the same function as a contribution to a contribution based pension scheme. The guidance in IAS 19 for defined contribution plans might accordingly be used for 'pure' return-based pension schemes in order to solve the mismatch issue.
- 162 When a return-based pension scheme includes a promise of a minimum return, the entity's obligation is not settled by buying the assets on which the return-based leg of the pension scheme is based. If a defined contribution approach should be used for the return-based leg, it would therefore be necessary to separate the 'settled' return-based leg and the 'non-settled' element (in this case the minimum return guarantee).
- 163 The minimum return guarantee should then be accounted for separately. One option could be to measure the promise at fair value.
- 164 In the version of the approach illustrated in the following paragraphs, the promise of a minimum return is considered as a special type of put option or 'swaption'. This option could either be considered to be:
- (a) Given to the employee when the employee starts working at Entity X. In this case, the swaption will not be for a specific amount, but the amounts that in total would be contributed to an employee's pension scheme (both by the employee and the entity). Such an approach might be closest to the requirements on financial instruments included in IFRS.
  - (b) Related to the contribution 'earned' by the employee. In Year 1, for example, the option would thus only relate to swapping the actual return on the contributions of Year 1 to the guaranteed return in Year 11 (and not consider the possible future contributions). Such an approach might be closest to the requirements in IAS 19 for defined benefit obligations.
- 165 In the examples below, the approach mentioned in (b) above has been illustrated. This approach could also be seen as an example of a fair value approach where only the guaranteed return component is measured at fair value.

**Case 1**

- 166 The approach is illustrated below for Case 1.

Year	Plan assets	Pension obligation	Cash flows	Intrinsic value of option	Comprehensive income
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*Approaches for Return-Based Pension Plans*

1	0	0	-850	0	-850
2	0	0	-861	0	-861
3	0	12	-935	0	-947
4	0	376	-953	30	-1 317
5	0	484	-1 046	96	-1 154
6	0	43	-2 171	0	-1 730
7	0	83	-2 394	0	-2 434
8	0	1 268	-2 485	864	-3 670
9	0	2 273	-2 733	2 128	-3 737
10	0	202	-2 837	0	-766
11	0	0	-3 113	0	-2 911

167 The illustration shows that the only liability recognised is the 'swaption' related to the promised minimum return.

168 The effect on comprehensive income is similar to when the modified fair value approach described in paragraphs 90 - 102 above is applied. The net pension liability is also similar under the two approaches. However, even though the two approaches may be presented similarly in the statement of financial position and in total comprehensive income, there is an essential difference between the two approaches. Under the modified fair value approach, it is considered that the entity has an asset and an obligation. The asset and the obligation can be netted, but in the notes to the financial statements they can be presented separately. Under the defined contribution approach the entity only has a liability related to the guaranteed return feature. Accordingly, there will be no gross assets and liabilities to disclose in the notes to the financial statements.

169 In the table above, the intrinsic value of the option is also presented, as the measuring the 'swaption' at the intrinsic value may be considered as a sufficient and less costly alternative than estimating a fair value.

**Case 2**

170 The table below shows the effects of applying the approach on Case 2.

Year	Plan assets	Pension obligation	Cash flows	Intrinsic value of option	Comprehensive income
1	0	0	-1 500	0	-1 500
2	0	0	-1 500	0	-1 500
3	0	20	-1 500	0	-1 520
4	0	599	-1 500	48	-2 080
5	0	749	-1 500	149	-1 650
6	0	45	-1 500	0	-795
7	0	69	-1 500	0	-1 524

### *Approaches for Return-Based Pension Plans*

8	0	1 151	-1 500	685	-2 582
9	0	1 970	-1 500	1 819	-2 319
10	0	132	-1 500	0	337
11	0	0	-1 500	0	-1 368

171 Again, the effect on comprehensive income is similar to the effect reflected in the table in paragraph 105.

#### **Case 3**

172 In Case 3, the entity does not hold the assets on which the pension return is based. Accordingly, the defined contribution approach would not fit this case.

#### **Observations**

173 Considering the approach for defined benefit obligations against the factors listed in paragraph 8 above it appears that:

- (a) Similar to the fair value approach, the defined contribution approach illustrated in the examples above, does not reflect how the entity is expected to settle the obligation with the employer.
- (b) The link between the pension assets and the pension obligation would be reflected. In both Case 1 and Case 2 the effect is similar to a situation where the assets and the liabilities have been netted.
- (c) In Year 4, Year 5, Year 8 and Year 9, the pension assets are insufficient to settle the pension obligation. In this case, the measurement of the obligation reflects the inadequate funding.
- (d) Like under IAS 19, the accumulated amount recognised in comprehensive income equals the accumulated amount of net cash flows.
- (e) The measurement of the pension obligation will not reflect the amount needed to settle the obligation when due. The net amount of the obligation and the pension assets will, however, reflect the amount the entity would have to transfer to the employee in addition to the pension assets.
- (f) The approach would not reflect the gross liability an entity would have towards its employees that can be said to arise as the entity has used the benefits of the employee and when it has no practical ability to avoid.
- (g) It will not be possible to find direct market data on the fair value of the swaption. The value will have to be estimated. The complexity will depend on the particular terms of a guaranteed return. In some cases, the reliability of the estimation may therefore be questioned.
- (h) Plans having the same economic effects might be measured at very different amounts at a given point in time under the approach. The reason is that the amount an entity is contributing in a given year affects the amount recognised as an expense for the particular period. If the employee has to work for an entity for three years before the pension benefits are vested, the employer could contribute a small amount each of the first three years or a big amount in the third year. The two scenarios would be accounted for differently although they could have the same economic effect.
- (i) The approach would not reflect asymmetric prudence.
- (j) It may be difficult to apply the approach retrospectively. Part of the information needed would be available from the calculation required under IAS 19, but some input may be more difficult to collect retrospectively.

### *Approaches for Return-Based Pension Plans*

- (k) The manner the guaranteed return feature would be measured is different from how it would be measured under IAS 19. Applying the defined contribution approach for some plans will therefore result in similar features being accounted for differently depending on whether a pension scheme would be covered by the scope of a new approach or not.
- (l) Under the approach the pension obligation would represent the fair value of any guaranteed minimum return. It would thus be relatively easy to explain what the figure represents.
- (m) As it would not be possible to find direct market data on the fair value of the 'swaption', the measurement will have to be estimated. The costs will vary depending on the specific scheme.

174 The observations are summarised in the table below.

The approach reflects how the liability will be settled	✗
Link between pension assets and pension liabilities reflected	✓
Inadequate funding is reflected	✓
Effect on comprehensive income equals net cash outflow	✓
Measurement reflect the amount needed to fulfil the liability	🟡
The definition of a liability and recognition guidance in the revised Conceptual Framework are reflected	✗
Possible to make reliable estimates	🟡
Similar pension plans are accounted for similarly	✗
Asymmetric prudence is reflected	✗
Possible to apply new requirements retrospectively	🟡
Similar elements of pension plans are accounted for similarly to plans under the IAS 19	✗
It is easy to explain what the information means	✓
Information does not need to be updated	✗
Insignificant amount of judgement is needed	✗
Only few pieces of information need to be collected	✗

**Questions for EFRAG TEG**

175 EFRAG PAP has requested a defined contribution approach to be considered. Members of the EFRAG User Panel have considered that in situations similar to Case 1 and Case 2, where the pension assets are held by a separate and independent fund, the entity should only account for the guaranteed return promise (i.e. similar to the defined contribution approach illustrated above). EFRAG User Panel have not provided any preference as to whether the return guaranty should be measured at fair value or at intrinsic value. However, EFRAG User Panel members wanted the value of the assets on which the return would be determined to be disclosed.

- (a) Does EFRAG TEG have any comments to the analysis presented in paragraphs 161 - 174 above?
- (b) Does EFRAG TEG have any preference for the measurement of the guaranteed return promise under a defined contribution approach?

176 In this paper, the use of the defined contribution approach has only been assessed for situations where the assets, based on which the return is calculated, are held. Does EFRAG TEG consider that the approach could be used in other circumstances? If so, how should the approach be modified?

**Next steps**

**Question for EFRAG TEG**

177 Does EFRAG TEG have any additional approaches (or different cases) that should be examined by the EFRAG Secretariat?