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IFRS 17 Insurance Contracts

Illustrative example of the Variable Fee Approach

I. Objective and background

- 1 The objective of this paper is to provide EFRAG TEG members with an illustrative example of the Variable Fee Approach ('VFA') following the principles expected to be established in the forthcoming IFRS 17 *Insurance Contracts* ('IFRS 17').
- 2 The EFRAG Secretariat has included more background on the workings of the insurer's fee and how these have affected the development of the example.
- 3 In developing these examples, the EFRAG Secretariat has closely worked with the IASB in order to ensure that the outcomes presented in this paper are in line with IFRS 17. Also, in advance of this meeting, this paper has been shared with an industry expert whose comments are incorporated throughout the document.
- 4 This example discusses the following elements:
 - (a) Use of mutualisation;
 - (b) Accounting for time value of options and guarantees;
 - (c) Occurrence of a loss component;
 - (d) Use of a mixed measurement asset portfolio; and
 - (e) Change of the underlying portfolio.
- 5 The structure of this paper is as follows:
 - (a) Objective and background;
 - (b) Key differences between General Model and Variable Fee Approach;
 - (c) Explanation of the example;
 - (d) Appendix I: Accounting entries – VFA;
 - (e) Appendix II: Analytical part; and
 - (f) Appendix III: Feedback from the EFRAG IAWG meeting held on 6 December 2016 on the General Model example that impacts the Variable fee example.
- 6 Questions for EFRAG TEG are included in paragraph 58.

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II. Key differences between General Model and Variable Fee Approach

What is the Variable Fee Approach?

- 7 The Variable Fee Approach ('VFA') is a modification of the General Model. The General Model is applied to insurance contracts without participation features or to insurance contracts with participation features that fail the Variable fee scope test.
- 8 Thus, the VFA is applied to insurance contracts with direct participation features that contain the following conditions at *initial recognition*:
- (a) the contractual terms specify that the policyholder participates in a share of a clearly identified pool of underlying items;
 - (b) the entity expects to pay to the policyholder an amount equal to a substantial share of the returns from the underlying items; and
 - (c) a substantial proportion of the cash flows the entity expects to pay to the policyholder should be expected to vary with cash flows from the underlying items.
- 9 In order to be in scope of the VFA, an insurance contract would need to meet all the three eligibility criteria stated in paragraph 8 above, and this eligibility test is only performed at inception. In addition, it is noted that the definition refers only to the terms of the insurance contract, and therefore it is not necessary that the entity holds the identified pool of underlying items.
- 10 In contracts that qualify for the VFA, the entity has an obligation to pay to the policyholder an amount equal to the share of the return on the fair value of the underlying items less an insurer's fee in exchange for the future services provided by the insurance contract.
- 11 Any changes to the insurer's fee (as a result of changes arising from financial risk and non-financial risk that affect the underlying items) are taken to the contractual service margin ('CSM') and recognised in profit or loss via the release/allocation of the CSM to profit or loss.

Differences between the Variable Fee Approach and the General Model

- 12 The differences between the VFA and the General Model are explained below.
- 13 Overview:

	General Model	Variable Fee Approach
Accretion of interest on CSM	Locked-in rate	Current rate
Changes in market variables including options and guarantees	Recognised in either (a) profit or loss or (b) profit or loss and OCI	Changes in shareholders' share of underlying items including options and guarantees are recognised in CSM (unless CSM reaches zero)
Changes in market variables – Application of risk mitigation	IFRS 9 hedge accounting techniques are applicable, subject to fulfilment of conditions ¹ .	Subject to specific criteria, an entity can elect not to recognise in CSM changes in shareholders' share or the effect of financial guarantees

¹ This overview shows there is no lack of hedge accounting solutions across the different insurance models. However, the EFRAG Secretariat notes that the application of IFRS 9 hedge accounting is not limited to the General Model, it can be used wider as long as the conditions are fulfilled.

Locked-in rate for the General Model versus current rates for the VFA when determining the CSM

- 14 In the General Model, the CSM is accreted in each reporting period using the discount rate at inception of the insurance contract (i.e. a locked-in rate).
- 15 However, there is no explicit accretion of the CSM under the VFA. Under the VFA, the total liability is adjusted, through the Statement of Comprehensive Income, to reflect the change in the value of all the underlying items, including those underlying items ascribed to the shareholder (shareholders share). The portion of this change attributable to the shareholders' share captures both the effect of the passage of time, and the change in the value of the underlying assets. Therefore, the CSM for the VFA is considered to be based on *current* discount rates.

Treatment of changes in market variables, including those relating to options and guarantees

- 16 Under both the General Model and the VFA, entities can make an accounting policy choice between:
 - (a) Inclusion of insurance finance income or expenses in profit or loss; or
 - (b) Disaggregation of insurance finance income or expenses.
- 17 Determining how to disaggregate insurance finance income or expenses differs between a defined subset of contracts accounted for under the VFA and all other contracts. Under both approaches, the disaggregation is between profit or loss and other comprehensive income. Under both approaches, the disaggregation has the purpose to include in profit or loss an amount that partly or wholly eliminates accounting mismatches with the finance income or expenses on assets held. In general, the entity is required to predetermine which portfolios of liabilities will be disaggregated, and which will not. However, for contracts under the Variable Fee Approach, if the entity elects or is required to hold the underlying assets on its balance sheet, then in that specific circumstance, the entity will determine the disaggregation for the liability based on the disaggregation outcome for those underlying assets. In those circumstances, this results in amounts recognised in other comprehensive income equalling to zero.

Comment 1 from the industry expert

Under the Variable Fee Approach, where the entity holds the underlying items and chooses to disaggregate insurance finance income or expenses between P&L and OCI, the finance income or expenses included in P&L will exactly match that on the underlying items resulting in nil investment margin in P&L. In practice, it is common for there to be a non-zero OCI balance, e.g. where there are assets valued at amortised cost or where there are duration mismatches between assets and liabilities.

- 18 As an illustration, consider the treatment of changes in the financial risk relating to options and guarantees embedded in an insurance contract. For example, a change in the discount rate may change the value of the options and guarantees.
 - (a) In the General Model, an entity may choose to either account for this in (a) profit or loss or in (b) profit or loss and other comprehensive income.
 - (b) In the VFA, the effect of changes in financial risk on options and guarantees is regarded as part of the variability of the insurer's fee for future service, and hence recognised in CSM, unless CSM becomes zero. At that moment, the effect of the financial guarantee is recognised in the statement of comprehensive income under both the General Model and the VFA.
- 19 In addition, under the VFA, the CSM is unlocked for the effect of all changes in the fulfilment cash flows, other than changes that arise from changes in the underlying

items. Consequently, changes in, for example, the value of options and guarantees are treated as a change to the balance of CSM, and are not recorded in comprehensive income. Under the general model, these changes would flow through the Statement of Comprehensive Income.

Hedging adjustment for the Variable Fee Approach

- 20 As stated in paragraph 15 above, in the VFA, the CSM is adjusted for the effect of changes in financial risk, for example interest rates, on the entity's share of the underlying items or on the fulfilment cash flows.
- 21 However, if, as part of its risk management activities, an entity hedges itself against financial market risks using a derivative, the entity may choose to adjust profit or loss for the effect of those changes in financial risk. This will address the accounting mismatch that would have been created because the effects of the changes in value of the derivative are recognised in profit or loss, while changes in the value of a guarantee embedded in the insurance contract would adjust the CSM under the VFA. This option has the purpose to bring the VFA closer to the General Model.
- 22 In the General Model, there is an accounting policy choice for the effect of changes in financial risk. That is, an entity may choose to either account for this in (a) profit or loss or in (b) both profit or loss and other comprehensive income. Hedge accounting under IFRS 9 *Financial Instruments* can be used to resolve the accounting mismatches resulting from the effects of changes in financial risk.

III. Explanation of the example

Scenario modelling

- 24 The EFRAG Secretariat notes that this example has been developed based on a single economic scenario for reasons of simplification. In practice, insurers would consider a weighted average outcome of many different economic scenarios producing different outcomes. The EFRAG Secretariat acknowledges this and notes that this may influence the example in some areas.

Assumptions for the VFA

Cash flows arising from the contracts

- 25 Company A (the “Company”) signs 6-year life insurance contracts with an Insurer for its 100 employees (the “policyholders”). At inception, the Company pays the Insurer a single premium of CU 1.000.000 (CU 10.000 per employee). During the life of the contract:
- (a) The policyholders will receive the higher of:
 - (i) a minimum guaranteed amount of 3,00% over the premium, paid every year; and
 - (ii) 85% of the returns of the underlying assets. The remaining 15% of the asset returns is considered as the fee for the Insurer. For a description of how the Insurer’s fee is determined, refer to paragraphs 44 and 45 below.
 - (b) The Insurer promises that it will pay back 120% of the nominal amount (CU 12.000) per policyholder in case of death, even if adverse economic scenarios have affected the initial nominal investment. The Insurer estimates that 1,00% of the policyholders present at inception will die annually. The policyholder also receives the minimum guarantee during the year of his/her death;
 - (c) In case of a policyholder leaving the company (i.e. the policy lapsing), the Insurer promises that the policyholder receives the premium paid (CU 10.000), even if adverse economic scenarios have affected the initial nominal investment. The Insurer estimates that 1,00% of the policyholders present at inception will leave the Company annually. Any policyholder whose contract lapses is not entitled to the minimum guarantee during the year of his/her lapse, and instead that amount is paid in the year of the lapse occurring to the remaining policyholders in the portfolio²; and
 - (d) The portfolio benefits from cash flows coming from another portfolio when the asset returns are insufficient to pay for the minimum guaranteed amount, i.e. this mutualisation only covers the minimum guarantee, not the principal amount of the premium paid. No mutualisation payments to the other portfolio need to be made.
- 26 At the end of year 6, the Insurer will make a terminal pay-out to each remaining policyholder based on the premium outstanding, if any, i.e. the Insurer pays out CU 10.000 in case the asset returns over the life of the contract allow to do so. It is noted that any positive return is paid out separately as part of the top-up return (see paragraph 25 above).

² Note that only the minimum guarantee from the *unexpected* lapses are paid to the remaining policyholders and this is not applicable to the *expected* lapses. This is part of the assumptions taken in this example.

- 27 All events and changes in discount rates occur at the end of each reporting period except for:
- (a) the payment of the premiums by the Company, which happens at inception of the contract;
 - (b) the investment in financial assets made by the Insurer, which happens immediately after receiving the premiums at the start of the contracts;
 - (c) the determination of the expected credit loss allowance for the bonds accounted for by the Insurer at fair value through other comprehensive income ('FVOCI'), which happens at initial recognition of the financial assets; and
 - (d) The change from equity pool A to equity pool B which takes place at the beginning of year 20X5.
- 28 The contracts in the example are contracts with discretionary participation features.
- 29 The Insurer considers that the 100 insurance contracts form a group of contracts for the purpose of measurement.

Underlying assets

- 30 Immediately after receiving the premiums from the Company, the Insurer invests 65% of the premiums in a pool of equities³ of country A, measured at fair value through profit or loss ('FVPL') under IFRS 9. The remaining 35% of the premiums is invested in a pool of fixed-rate bonds with an annual interest rate of 3.50%, measured at FVOCI under IFRS 9. These assets collectively form the underlying items promised to the policyholders, and are held on the balance sheet.
- 31 At inception, the Insurer expects that the returns of both the equities and bonds will be sufficient to pay at least the minimum guarantee promised to the policyholders. Each year, in case of a death or a lapse occurring and if the cash inflows from asset returns and mutualisation are not sufficient to pay the promised amounts to the policyholders, the Insurer sells part of the equities in order to pay these claims.
- 32 Every year, the Insurer estimates the weighted average rate of the asset returns of the underlying assets based on the fixed rate of the bonds and an estimated change in fair value of the equities.
- 33 In case of death, the Insurer will pay the mortality component of the payment to the policyholder (CU 2.000) from the cash account comprising the accumulated fees.
- 34 At the end of year 20X3, the Insurer notes that the equity investments of country A are insufficient for the Insurer to pay out a minimum guarantee of 3.00% to the policyholders. As a result, the mutualisation clause is triggered and the deficit in pay-out is covered by the mutualised cash flows coming from another portfolio.
- 35 At the end of year 20X4, the Insurer estimates that the equity investments of country A are now expected to continue to fail to cover the minimum guarantee to the policyholders. Consequently, the Insurer transfers the pool of equities – at the beginning of year 20X5 - to its general fund at fair value, and replaces those equities with a pool from country B with better prospects, also at fair value. The actual asset returns for each year are as follows:

³ Please note that payments of dividends are ignored in this example because they are considered to be immaterial.

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Actual asset returns ⁴	20X1	20X2	20X3	20X4	20X5	20X6
Equities from country A	4,50%	4,00%	2,55%	3,55%	N/A	N/A
Equities from country B	N/A	N/A	N/A	N/A	3,75%	3,80%
Bonds	3,50%	3,50%	3,50%	3,50%	3,50%	3,50%

36 The roll-forward of the assets is split into investment in equities, investment in bonds and the Insurer's bank account as follows⁵:

Investment in bonds

Actual	Inception	20X1	20X2	20X3	20X4	20X5	20X6
Opening balance	350.000	350.000	349.000	354.537	355.313	351.555	349.290
Fair value change (**)	-	-	5.537	776	(3.758)	(2.265)	(290)
Interest return (*)	-	12.250	12.250	12.250	12.250	12.250	12.250
Payments to policyholders	-	(12.250)	(12.250)	(12.250)	(12.250)	(12.250)	(12.250)
Derecognition of the Bonds	-	-	-	-	-	-	(350.000)
Expected Credit Losses	-	(1.000)	-	-	-	-	1.000
Closing balance	350.000	349.000	354.537	355.313	351.555	349.290	-

(*) Calculated as an annual 3.5% over CU 350.000

(**) Calculated as the present value of future estimated asset returns, in each reporting period, compared with the opening balance

Investment in equities

Actual	Inception	20X1	20X2	20X3	20X4	20X5	20X6
Opening balance	650.000	650.000	630.000	600.000	580.000	550.000	530.000
Fair value change	-	29.250	25.200	15.300	20.590	20.625	20.140
Sales	-	(49.250) ⁶	(55.200)	(35.300)	(50.590)	(40.625)	(40.140)
Derecognition of Equities	-	-	-	-	-	-	(510.000)
Closing balance	650.000	630.000	600.000	580.000	550.000	530.000	-

⁴ Note that the discount rates each year are subsequent actual changes and are not expectations from inception.

⁵ Note that these roll-forwards are actual amounts for each year and not estimations.

⁶ During 20X1 the Insurer is paying CU 63.500 to the policyholder of which CU 2.000 (mortality component) will be paid with the Insurer's own money. To face these, payments the Insurer is receiving CU 12.250 from the bonds so it needs to sell equities for an amount of CU 49.250 to cover the difference. Note the fair value change of the bonds is ignored following the decision not to sell any of the bonds.

Insurer's Bank account

Actual	Inception	20X1	20X2	20X3	20X4	20X5	20X6
Initial Cash	1.000.000	-	4.225	7.843	5.843	6.769	9.700
Investments purchased	(1.000.000)	-	-	-	-	-	860.000
Cash in from investments							
- Bonds		12.250	12.250	12.250	12.250	12.250	12.250
- Equities		49.250	55.200	35.300	50.590	40.625	40.140
Cash out to policyholders		(61.500)	(67.450)	(47.550)	(62.840)	(52.875)	(912.390)
Cash in from other portfolio ⁷	-	-	-	650	-	-	-
Cash out to policyholders	-	-	-	(650)	-	-	-
Net Insurer's fee	-	6.225	5.618	-	4.926	4.931	4.859
Mortality component of the payments in case of death	-	(2.000)	(2.000)	(2.000)	(4.000)	(2.000)	(2.000)
Closing balance	-	4.225	7.843	5.843	6.769	9.700	12.559

Insurance contract liabilityDiscounting

37 The expected future cash flows are initially discounted at 3,77% at inception. That discount rate reflects the returns of the underlying assets and is calculated as a weighted average effective interest rate ('EIR'). This is done as follows⁸:

- (a) First, the future equity return rates for the entire duration of the contract are estimated. In the example, the arithmetic average of this future estimated return rates equals 3,92% at inception. The future interest return rate of the bonds are as the coupon is fixed and equals 3,50%, and this rate is also the average. Even when the bonds are held in a business model for both collecting cash flows and selling the assets, it is assumed that the bonds will be held till maturity and will not be sold to take advantage of any fair value change.
- (b) Second, estimated return rates of both the equities and the bonds are weighted (65% equities, 35% bonds in year 1) in order to define the overall discount rate for the total asset portfolio.

38 As a result, the actual discount rate in each year for the liability is adapted as follows. It is noted that the actual asset mix is not updated for determining the annual weighted average EIR.

	20X1	20X2	20X3	20X4	20X5	20X6
Weighted average EIR	3,77 %	3,31%	3,09%	3,36%	3,68%	3,68%

39 The EFRAG Secretariat understands that *theoretically* one should discount the cash flows that vary directly based on the underlying items separately from the ones that do not vary directly based on the underlying items (in this example, the mortality risk of CU 2.000 per policyholder, the cash flows expected to be paid under the guarantee and the expected cash flows as a consequence of mutualisation). The former cash flows would be discounted at a rate that reflects the variability arising from the underlying assets, while the latter cash flows would be discounted at a rate that reflects the characteristics of those cash flows. The EFRAG Secretariat further understands that the future IFRS 17 will *not* require the entity to split the estimated cash flows for discounting. Instead, the standard requires that the discount rate reflect the characteristics of all the cash flows, and leaves it to the entity to determine what method best achieves this. The EFRAG Secretariat also notes that, for

⁷ Note that the mutualisation cash flows are included in the line 'cash out to policyholders'. For educational purposes they have been mentioned separately.

⁸ For a detailed explanation see paragraphs 17 to 26 of Appendix 2 below.

purposes of determining an average EIR over time, an entity should weigh the rate for the expected occurrence of cash flows over that time period.

- 40 In this example, the EFRAG Secretariat has separately measured the guarantee and mutualisation cash flows (the uncertainty of whether these will be activated being reflected in the TVOG). The EFRAG Secretariat understands this is consistent with what the Standard requires. However, for reasons of simplicity and materiality, the EFRAG Secretariat has used a weighted average EIR derived from the expected asset returns as a discount rate for all cash flows (i.e., a discount rate that completely reflects the underlying items).
- 41 Because the Insurer holds the assets, it is allowed to make an accounting policy choice to account for the effect of the change in discount rates eliminating accounting mismatches arising with the underlying assets held.

Death benefits and lapses

- 42 At inception, the Insurer expects 1,00% of the initial group to die each year (i.e. one death pa). The Insurer also expects 1,00% of the initial group to lapse each year (i.e. one lapse pa). In the case of a lapse, the policyholder is not entitled to the minimum guarantee during the year of his/her lapse.

Mutualisation

- 43 The portfolio benefits from cash flows coming from another portfolio. When the asset returns are insufficient to pay for the minimum guaranteed amount, the policyholders from the other portfolio cover the difference by providing additional cash flows up to the amount of the minimum guarantee. The mutualisation clause is part of the contract from inception. The EFRAG Secretariat’s understanding of how mutualisation would work can be found in paragraph 46 of Appendix 2 below.

Insurer’s fee

- 44 The Insurer’s fee is 15% of the asset returns. However, this fee is constrained by the effect of the minimum guarantee. If the asset returns are not sufficient to cover both the guarantee and the Insurer’s fee, the Insurer’s fee is limited to the amount available after paying the guarantee. If the asset returns are less than or equal to the minimum guarantee, the Insurer receives no fee.
- 45 At inception, the CSM is lower than the net present value of the expected Insurer’s fee. This is because the CSM represents the unearned profit after considering the insurers’ fee, the insurance cash outflows, insurance risk and the value of financial guarantees and options in the contract. For an analysis of the ratio CSM compared to Insurer’s fee see paragraphs 1 to 9 of Appendix 2 below.

Risk adjustment

- 46 The risk adjustment is estimated at CU 4.000 at inception of the contract and remeasured, on a yearly basis. As a simplification, the risk adjustment is allocated, based on the number of policyholders remaining in the Company in each reporting period, to the Statement of Profit or Loss – Underwriting, as follows. Note that the accounting treatment for the risk adjustment is done the same way as in the General Model example considered at a previous meeting. Also, note that these figures are actual amounts for Year 20X1 and are not estimations.

20X1	CU
Opening balance	4.000
Unwinding the discount rate for Risk (*)	151
Allocation of Risk in P&L (**)	(728)

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Closing balance	3.423
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(*) Calculation using 3.77% over the opening balance

(**) Calculation made based on the number of contracts in force, at the start of 20X1 (100 policyholders)

Time value of options and guarantees

- 47 Since the Insurer promises a minimum guaranteed amount of 3,00% of the premium to be paid every year to the policyholders, there is uncertainty of the amount of loss the Insurer may incur due to market performance. This is sometimes referred to as a measure of the time value of options and guarantees ('TVOG'). As a result, at inception, the Insurer assigns an amount CU 100⁹ as the TVOG. This is not part of the risk adjustment.
- 48 Note that, for simplicity reasons, the accounting treatment of the TVOG is the same as for the risk adjustment and is illustrated as follows. Note that these figures are actual amounts for Year 20X1 and are not estimations.

20X1	CU
Opening balance	100
Unwinding the discount rate for TVOG (*)	4
Allocation of TVOG in P&L (**)	(18)
TVOG Closing balance	86

(*) Calculation using 3,77% over the opening balance

(**) Calculation made based on the number of contracts in force, at the start of 20X1 (100 policyholders)

Fulfilment cash flows

- 49 The above assumptions are reflected in the following fulfilment cash flows at inception, which are discounted at 3,77% (see assumptions, paragraph 25 above). These are estimations at inception.

Estimated Fulfilment Cash Flows at Inception		Inception	20X1	20X2	20X3	20X4	20X5	20X6
Cash Inflows	Premiums	(1.000.000)	-	-	-	-	-	-
Cash Outflows	Terminal pay-out	-	-	-	-	-	-	880.000
	Top up return	-	11.800	8.350	6.930	6.770	4.900	7.000
3.00%	Min. Guarantee	-	29.700	29.100	28.500	27.900	27.300	26.700
1.00%	Expect. of death (capital amount)	-	10.000	10.000	10.000	10.000	10.000	10.000
	Expect of death (mortality)	-	2.000	2.000	2.000	2.000	2.000	2.000
1.00%	Expect. of lapse	-	10.000	10.000	10.000	10.000	10.000	10.000
	Insurer's fee	-	(6.225)	(5.618)	(5.315)	(5.201)	(4.830)	(5.055)
Risk		4.000	-	-	-	-	-	-
TVOG		100	-	-	-	-	-	-
TOTAL		(995.900)	57.275	53.833	52.116	51.470	49.370	930.645

- 50 The net present value (NPV) of these estimated cash outflows at inception amounts to CU 982.540. Cash outflows are discounted at 3,77%.

⁹ Note that this amount is an assumption and has not been determined using valuation techniques that are consistent with the requirements in IFRS 17.

- 51 The EFRAG Secretariat understands that the asset returns are taken into account *in the projection of cash outflows* in the determination of policyholder’s benefit and the Insurer’s fee. This is because the obligation to the policyholder is related to the asset returns – in contrast to the General Model – and the determination of the discount rate that is being used.

Contractual service margin (CSM)

- 52 Based on the previous estimated fulfilment cash flows, the contractual service margin (‘CSM’), at inception, is determined as follows:

Calculation of CSM at inception	CU
Present value of cash inflows	(1.000.000)
Present value of cash outflows	982.540
Risk adjustment	4.000
TVOG	100
Fulfilment cash flows	(13.360)
CSM	13.360

- 53 The CSM is allocated to the Statement of Profit or Loss – Underwriting result based on the number of policyholders remaining in the Company in each reporting period, as follows. Note that these figures are actual amounts for Year 20X1 and are not estimations.

20X1	CU
Opening balance	13.360
Change in value of underlying assets	41.500
Change in value of fulfilment cash flows	(37.206)
Unlocking for effect of changes relating to underlying items – note no experience adjustment in Y20X1	4.583
Allocation of CSM in P&L (*)	(3.901)
CSM Closing balance	18.336

(*) Calculation made based on the number of contracts in force, at the start of 20X1 (100 policyholders)

- 54 In summary, the actual changes over the years are as follows:

Year 20X1	Everything happens as expected.
Year 20X2	Change in actual asset return rate of the underlying assets of equities from 4,50% to 4,00%, change in discount rate for the future cash flows liability from 3,77% to 3,31%, unexpected additional lapse, increase in risk adjustment of CU 400 and increase in TVOG of CU 15.
Year 20X3	Change in actual asset return rate of the underlying assets of equities from 4,00% to 2,55% and for the future cash flows liability from 3,31% to 3,09%. Asset return is insufficient to cover minimum guarantee, therefore, deficit is covered by mutualised cash flows. There is an increase in TVOG of CU 30. In addition, the entity recognises a loss and creates a loss component tracked separately ¹⁰ . Insurer receives no fee.

¹⁰ Please refer to Appendix 2, paragraph 39 and following.

Year 20X4	Change in actual asset return rate of the underlying assets of equities from 2,55% to 3,55%, change in discount rate for the future cash flows liability from 3,09% to 3,36%, unexpected additional death and increase in risk adjustment of CU 440. Asset return is sufficient to cover minimum guarantee and CSM recovers. Loss component is reversed.
Year 20X5	As asset returns insufficient to cover minimum guarantee, equity portfolio A is prospectively replaced with equity portfolio B which has an asset return rate of 3,75%. Change in liability discount rate from 3,36% to 3,68%. There is a decrease in TVOG of CU 45.
Year 20X6	Change in equity portfolio B return from 3,75% to 3,80%.

Changes resulting from the IASB November 2016 meeting

- 55 In developing this example, the EFRAG Secretariat has taken into account the tentative decisions taken by the IASB in the November 2016 meeting. This implies that the workings differ to some extent from those developed for the General Model example that was presented during EFRAG TEG in October 2016. In particular, the EFRAG Secretariat took into account:

The IASB members tentatively decided that for contracts accounted for using the VFA, the following should be recognised in profit or loss, rather than adjusting the CSM:

- (a) *experience adjustments arising from non-financial risk that do not affect the underlying items; and*
- (b) *any directly caused changes in the estimates of the present value of future cash flows.*

All 11 IASB members agreed with these decisions.

- 56 The EFRAG Secretariat also took into account Issue 5 of the “sweep issues”: Order of the unlocking and release of the contractual service margin.

The Board agree with the staff recommendations in Agenda Paper 2G on the remaining sweep issues. Board members did not raise any other topics for staff to consider at a future meeting.

All 11 Board members agreed with these decisions.

<p><i>A few test participants expressed concern that unlocking the contractual service margin before releasing an amount to profit or loss for the transfer of services would cause unnecessary operational burdens.</i></p> <p><i>Unlocking the contractual service margin before releasing an amount for the transfer or services means that the amount released, and hence revenue for that period, includes the effect of changes relating to future service. One test participant questioned whether that was appropriate.</i></p>	<p><i>The comment was made in the context of the draft requirements to adjust the contractual service margin for the combined effect of experience adjustments and consequential changes to the estimates of future cash flows. In Agenda Paper 2D, the staff recommend that such combined effects should not adjust the contractual service margin, so this operational complexity will not arise.</i></p> <p><i>The staff note that under the VFA, it is necessary to remeasure (i.e. unlock) the contractual service margin before</i></p>
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	<p><i>releasing an amount to profit or loss, in order to include the effect of the change in the entity's share of the underlying items in the period. The staff think that under the General Model, the order is essentially arbitrary, and having a consistent order is better than having a different order in the General Model and the VFA. No action proposed.</i></p>
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- 57 The EFRAG Secretariat notes that the effect of tentative decision in paragraph 56 can be seen in years 20X2 and 20X4 of the example as a result of the unexpected lapse and death events occurring.

Question for EFRAG TEG

- 58 Do EFRAG TEG members have questions or comments about the example on the VFA?

VFA – Statement of Comprehensive Income, Balance Sheet and Cash Flow Statement

STATEMENT OF COMPREHENSIVE INCOME							
	20X1	20X2	20X3	20X4	20X5	20X6	
Underwriting Result -	4.648	2.928	(801)	759	2.628	2.397	
Allocation of CSM to P&L	3.901	2.075	-	68	1.623	1.380	
Release of the Provision	2.000	2.000	2.000	2.000	2.000	2.000	
Release of the Risk adjustment+TVOG	746	853	862	1.027	1.005	1.018	
Insurance Revenue	6.648	4.928	2.862	3.096	4.628	4.397	
Payment of claims	(2.000)	(2.000)	(2.000)	(2.000)	(2.000)	(2.000)	
Loss component	-	-	(1.663)	-	-	-	
Recovery of loss component	-	-	-	1.663	-	-	
Changes in cash flows	-	-	-	-	-	-	
Experience adjustments - Release of the provision	-	-	-	(2.000)	-	-	
Investment Result -	(1.000)	-	-	-	-	1.000	
Changes in FV of Assets	41.500	37.450	27.550	32.840	32.875	32.390	
Interest Expense Fulfilment cash flows	(42.500)	(37.450)	(27.550)	(32.840)	(32.875)	(31.390)	
- Unwinding the discount rate for Future cash flows	(37.051)	(36.115)	(31.288)	(28.785)	(30.221)	(32.272)	
- Unwinding the discount rate for Risk Adjustment+TVOG	(155)	(132)	(106)	(76)	(66)	(36)	
- Changes in discount rates	-	(9.851)	(5.018)	894	446	(289)	
- Entities share	(4.294)	8.648	8.862	(4.872)	(3.034)	207	
Payment of claims	(55.275)	(61.833)	(48.200)	(59.914)	(47.944)	(907.532)	
Release of the Provision	55.275	61.833	48.200	59.914	47.944	907.532	
Expected Credit Losses	(1.000)	-	-	-	-	1.000	
OCI -	-	-	-	-	-	-	
Changes in discount rates	-	(5.537)	(776)	3.758	2.265	289	
Changes in fair value of Assets	-	5.537	776	(3.758)	(2.265)	(289)	
Net Results	3.648	2.928	(801)	759	2.628	3.397	
BALANCE SHEET							
	Inception	20X1	20X2	20X3	20X4	20X5	20X6
Assets -							
Cash	-	4.225	7.843	5.843	6.769	9.700	12.559
Investment asset	1.000.000	979.000	954.537	935.313	901.555	879.289	-
Liabilities -							
Insurance Liability Future cash flows	982.540	957.733	944.808	932.904	899.693	877.259	-
Insurance Liability CSM	13.360	18.336	7.793	-	131	1.587	-
Insurance liability Risk adjustment+TVOG	4.100	3.509	3.203	2.477	1.967	982	-
Equity -							
P&L for the period	-	3.648	2.928	(801)	759	2.628	3.397
Accumulated profit/(loss)	-	-	3.648	6.576	5.775	6.534	9.162
CASH FLOW STATEMENT							
	Inception	20X1	20X2	20X3	20X4	20X5	20X6
Opening balance	-	-	4.225	7.843	5.843	6.769	9.700
Cash flows from/(to) Operating activities -							
Premiums Received	1.000.000	-	-	-	-	-	-
Expected cash flows to policyholders	-	(57.275)	(53.833)	(50.200)	(51.914)	(49.944)	(929.532)
Unexpected cash flows to policyholders	-	-	(10.000)	-	(10.000)	-	20.000
Cash flows from/(to) Investment activities -							
Amounts invested - Returns	(1.000.000)	12.250	12.250	12.250	12.250	12.250	12.250
Amounts invested - Sales	-	49.250	55.200	35.300	50.590	40.625	900.140
Cash inflows from mutualisation	-	-	-	650	-	-	-
Closing balance	-	4.225	7.843	5.843	6.769	9.700	12.559

Comment 2 from the industry expert

In this example the impact of mortality and lapse experience adjustments has been taken to CSM. The IASB tentatively decided at its November 2016 IASB meeting that experience adjustments arising from non-financial risk that do not affect the underlying items should not adjust the CSM but should be recognised in profit or loss. In this example the mortality and lapse variances are not part of underlying items (they do not impact the benefits paid to policyholders) so the impact of mortality and lapse experience adjustments should be taken to P&L.

The EFRAG Secretariat notes that *in this example* the cash outflows relating to the mortality and lapses *are considered to vary with* the underlying asset returns and hence are accounted for in CSM.

Comment 2 of the industry expert relates to the question which cash flows are considered to vary with the underlying assets and which not. This ties in with the analysis provided in paragraph 14 of Appendix 2 and the role of the TVOG discussed in paragraphs 39 and 40 of the main document.

Appendix 1: Accounting entries – VFA

- 1 This Appendix discusses the accounting entries for years three and five only since the unexpected insurance events relating to years two and four have already been addressed in the General Model example.

Reporting period 20X3

- 2 In the reporting period 20X3, no unexpected events occur from an insurance risk perspective (i.e. deaths or lapses). Instead, the unexpected events explained below relate to the assets supporting the insurance liability.
- 3 At the end of reporting period 20X3, the equity returns are insufficient to cover the minimum guaranteed amount. This triggers the mutualisation clause incorporated in the insurance contract from inception. Policyholders from another portfolio will pay the difference between the asset return earned and the minimum guarantee to be paid out.
- 4 The Insurer re-estimates the expected future cash flows of the contracts, as follows:

		Past			Future		
Estimated Cash Flows at 31 December 20X3		20X1	20X2	20X3	20X4	20X5	20X6
Mutualisation Cash Outflows		-	-	(650)	-	-	-
	Terminal pay-out	-	-	-	-	-	870.000
	Top up to return on underlying assets	11.800	8.350	-	5.240	2.050	3.670
3%	Minimum Guarantee	29.700	29.100	28.200	27.600	27.000	26.400
1%	Expectations of death (capital amount)	10.000	10.000	10.000	10.000	10.000	10.000
	Expectations of death (mortality)	2.000	2.000	2.000	2.000	2.000	2.000
1%	Expectations of lapse	10.000	10.000	10.000	10.000	10.000	10.000
	Additional lapse		10.000				
	Insurer's fee	(6.225)	(5.618)	-	(4.926)	(2.050)	(3.670)
TOTAL CASH OUTFLOWS		57.275	63.833	49.550	49.914	49.000	918.400

- 5 The NPV of estimated cash outflows at the end of year 3 amounts to CU 932.904 using 3.09%.

Assets

- 6 The Insurer estimates the asset returns and compares it to the estimated minimum guarantee to determine whether cash flows as a result of mutualisation is needed:

		Past			Future		
Estimated Asset returns at 31 December 20X3		20X1	20X2	20X3	20X4	20X5	20X6
Cash Inflows	Asset returns ¹¹	41.500	37.450	27.550	32.840	29.050	30.070
	Mutualisation	-	-	650	-	-	-
TOTAL Cash Inflows		41.500	37.450	28.200	32.840	29.050	30.070
Greater than (>) or equal (=)		>	>	=	>	>	>
3%	Minimum Guarantee	29.700	29.100	28.200	27.600	27.000	26.400

¹¹ This consists of the interest return of the bonds and the fair value change of the equities. Note that the fair value change of the bond is not considered an available cash flow as a result of the decision not to sell any of the bonds.

- 7 The Insurer obtains the following return on investment assets. The fair value of equities increases by CU 15.300 (Accounting entry Y3.1). The interest return from the fixed-rate bonds amounts to CU 12.250 (Accounting entry Y3.2). The fair value of the bonds increases by CU 776 (Accounting entry Y3.3). Therefore, total asset return is CU 28.326. However, in order to consider the obligation towards the policyholders, the asset returns of 27.550 are taken into account (excluding the fair value change of the bonds).
- 8 In Year 20X3, the asset return of CU 27.550 is not sufficient to pay the minimum guarantee of CU 28.200. Ignoring the fair value of the bonds as discussed above, a difference of CU 650 comes from mutualised cash flows from another portfolio (Accounting entry Y3.4). Considering the asset returns, an amount of CU 650 is necessary to be able to pay the minimum guaranteed amount. The mutualised cash inflows, in this example, are treated as cash amounts which go to the Insurer's bank account. However, the EFRAG Secretariat considers that there may be alternative ways to do the accounting for the mutualised cash flows.
- 9 In doing the estimations for future periods, the Insurer also tests whether the shareholders will be able to receive the Variable fee entirely. That is, the Insurer tests whether the amounts to be paid as minimum guarantee are lower than or at least equal to 85% of the asset returns in all periods. The Insurer's estimates reveal that for Years 20X5 and 20X6, the asset returns will be insufficient to pay out the minimum guarantee with 85% of the asset returns.
- 10 Therefore, in this example, the Insurer chooses to reduce its fee with the amounts of the shortfall in both periods. In the table in paragraph 4 of Appendix 1, the Insurer's fee for Years 20X5 and 20X6 is therefore reduced to CU 2.050 and CU 3.670 respectively.
- 11 The Insurer has to pay the policyholders a total amount of CU 50.200 (Payments of minimum guarantee of CU 28.200, lapse of CU 10.000 and death of CU 12.000) (Accounting entry Y3.9). In order to pay this amount, the Insurer does the following:
- (a) In order to pay the remaining minimum guarantee of CU 27.550¹², the Insurer receives interest from the bonds of CU 12.250 (Accounting entry Y3.2) and the remaining part is funded via a sale of equities.
 - (b) The Insurer needs to also fund the claims relating to the lapse and death. Therefore, it sells additional equities amounting to CU 20.000 (this amount represents the lapse payment of CU 10.000 and death payment – capital amount of CU 10.000).
 - (c) Note that the asset returns are only sufficient to cover the minimum guarantee and as a result, the policyholders do not receive a top-up over the minimum guarantee nor does the Insurer receive its fee in year 20X3.
 - (d) Part of the payment amounting to CU 650 comes from mutualisation to cover the minimum guarantee (refer to paragraph 6 of Appendix 1).
- 12 The total equities sold are CU 35.300¹³ (Accounting entry Y3.5). Note that the Insurer has to pay CU 12.000 and not CU 10.000 to the policyholder that died, the extra CU 2.000 is paid from the Insurer's bank account. This amount comes from the Insurer's 'own pocket' as this represents an adverse outcome of the insurance risk the insurer has agreed to take and this is reflected in Accounting entry Y3.9.

¹² CU 28.200 – CU 650 = CU 27.550

¹³ (CU 27.550 – CU 12.250) + CU 20.000

13 In summary:

To be paid to policyholders	50.200
Cash available from mutualisation	(650)
Cash available from interest on bonds	(12.250)
Amount Insurer pays from its ‘own pocket’	(2.000)
Equities to be sold	35.300

Insurance contract liability – Future Cash Flows

14 The table below is a reconciliation of the future cash flows for year 20X3:

20X3	CU
Carrying amount of the future cash flows at end of 20X2	944.808
Effect of the passage of time	31.288
Effect of actual payments of claims	(50.200)
Effect of mutualisation	650
Effect of change in discount rate	5.794
Changes in estimates relating to the future	564
Carrying amount of future cash flows at end of 20X3	932.904

Discounting

- 15 The discount rate changes *at the end of the reporting period*, i.e. at the end of year 3, the discount rate used by the Insurer to determine the present value of the re-estimated future cash flows changes from 3,31% to 3,09%.
- 16 The Insurer qualifies to use the current period book yield approach since it holds the assets and has chosen to do so, hence the Insurer disaggregates insurance finance income or expenses for the period to include in the statement of profit or loss an amount that eliminates accounting mismatches with the finance income or expenses arising on the underlying items held. It is recalled that part of the underlying assets is invested in equities held at FVPL, another part is invested in bonds held at FVOCI.
- 17 The discount rate for the insurance liability future cash flows is unwound for an amount of CU 31.288 using the current rate for the year of 3,31% (Accounting entry Y3.6). This amount goes to the Statement of Profit or Loss – Investment results.

Changes in estimates related to the future

- 18 In order to determine the change in estimates related to the future for the year-end 20X3 of CU 564 (Accounting entry Y3.7), one estimates the future cash flows using the rate of the year 3,31% and compares that to the cash flows that were estimated at the end of year 20X2 using the same rate of 3,31%, as follows:

IFRS 17 – Insurance Contracts – Illustrative example on the Variable Fee Approach

Estimated present value of cash flows 31 December 20X3 using 3.31%		NPV using future cash flows at end of Y3	NPV using future cash flows at end of Y2	Difference CSM
Mutualisation Cash Outflows		-	(261)	
	Terminal pay-out	788.993	788.993	
	Top up to return on underlying assets	10.321	5.249	
3%	Minimum Guarantee	75.954	75.954	
1%	Expectations of death (capital amount)	28.118	28.118	
	Expectations of death (mortality)	5.624	5.624	
1%	Expectations of lapse	28.118	28.118	
	Insurer's fee	(10.018)	(5.249)	
TOTAL		927.110	926.546	(564)

Minimum guarantee of 3.00%, death benefit and lapse

- 19 Referring to paragraph 11 in Appendix 1, CU 50.200 needs to be paid to the policyholders.
- 20 Therefore, the liability for remaining coverage related to provision for the lapse, minimum guarantee of 3,00% and death benefit is released for an amount of CU 50.200. That amount represents investment component for an amount of CU 48.200 and insurance component for CU 2.000 (Accounting entry Y3.8).
- 21 The same amount CU 50.200 is paid to the policyholders (Accounting entry Y3.9). This amount represents investment component for an amount of CU 48.200 and insurance component for CU 2.000.

Changes in discount rates

- 22 In order to determine the effect of the change of discount rate from 3,31% to 3,09% for the future cash flows, one calculates the NPV of re-estimated future cash flows at the end of year 20X3 using 3,31% and compares the same future cash flows using 3,09%, as follows:

Estimated present value of cash flows 31 December 20X3		NPV of future cash flows (**)	NPV of future cash flows (*)	Difference is change in discount rate
Mutualisation Cash				
	Terminal pay-out	788.993	794.191	
	Top up to return on underlying assets	10.321	10.362	
3.00%	Minimum Guarantee	75.954	76.281	
1.00%	Expectations of death (capital amount)	28.118	28.240	
	Expectations of death (mortality)	5.624	5.648	
1.00%	Expectations of lapse	28.118	28.240	
	Insurer's fee	(10.018)	(10.058)	
TOTAL		927.110	932.904	5.794

(*) Calculation using 3,09% (rate end of year) for the above cash flows

(**) Calculation using 3,31% (rate for the year) for the above cash flows

- 23 CU 5.794 represents the effect of the change in discount rates from 3,31% to 3,09% of future cash flows (Accounting entry Y3.10).

Insurance contract liability – Risk Adjustment

- 24 The risk adjustment is unwound using current rates (3,31%) for an amount of CU 103 (Accounting entry Y3.11).
- 25 The risk adjustment is allocated to profit or loss for an amount of CU 832 based on the number of contracts in force at the start of the year (Accounting entry Y3.12).

Insurance contract liability – TVOG

- 26 As mentioned in the assumptions, as a simplification, the TVOG is accounted for in the same way as the risk adjustment.
- 27 The TVOG is unwound using current rates (3,31%) for an amount of CU 3 (Accounting entry Y3.13).
- 28 In year 20X3, as the asset returns are not enough to cover the minimum guarantee, the Insurer considers that there is an uncertainty of the amount of loss it may incur in the future due to market performance. Therefore, the Insurer decides to increase the TVOG by CU 30 (Accounting entry Y3.14) and as this relates to the future, it is debited to CSM.
- 29 The TVOG is allocated to profit or loss for an amount of CU 30 based on the number of contracts in force at the start of the year (Accounting entry Y3.15). Please note that this CU 30 is not the same as CU 30 explained in paragraph 28 of Appendix 1. It is, by coincidence, the same amount.

Comment 3 from the industry expert

If the TVOG is calculated on a market consistent basis then its change would not depend on the expected asset returns but on the expected volatility of the cash flows, which would only change if the asset mix changes.

CSM

- 30 The change in the value of the Insurer's share of underlying items is accounted for in CSM for a net amount of negative CU 8.862 (Accounting entry Y3.16). That amount is composed of the following gross amounts:
- (a) the change in value of the underlying assets is accounted for in CSM for an amount of CU 28.326 (refer to paragraph 7 of Appendix 1); and
 - (b) the unwind of the discount rates for the future cash flows liability CU 31.288, risk adjustment CU 103 and TVOG CU 3 and the effect of changes in liability discount rates CU 5.794 are accounted in CSM for a total amount of negative CU 37.188.
- 31 The CSM is adjusted for a change in future estimates amounting to negative CU 564 (refer to paragraph 18 of Appendix 1).
- 32 CSM is debited for an amount of CU 30 due to an increase in the TVOG (refer to paragraph 28 of Appendix 1).
- 33 As a result of the above, there is a loss of CU 1.663 and this loss goes to the Statement of Comprehensive Income – Underwriting result but it does not form part of revenue (Accounting entry Y3.17).
- 34 The EFRAG Secretariat understands that CSM cannot be negative and in such situations, the standard requires an entity to create a separate loss component of the liability and allocate on a systematic basis the subsequent changes in fulfilment cash flows between the liability for remaining coverage and the liability for the loss component. In this example, the loss for an amount of CU 1.663 compared to the total liability for fulfilment cash flows at the end of year 3 for an amount of CU 935,381 is considered to be immaterial. Hence, the EFRAG Secretariat has not

made allocation of subsequent changes in fulfilment cash flows recognised in statement of comprehensive income for simplicity reasons.

- 35 Instead, the EFRAG Secretariat has reversed the loss component in the next period in profit or loss because in the following year, the CSM is naturally re-built.

Statement of comprehensive income

Determination of the underwriting result in profit or loss

- 36 There is no allocation of CSM to profit or loss because there is no positive CSM. The loss is accounted directly to the Statement of Comprehensive Income - Underwriting result (Accounting entry Y3.17). This loss is not part of revenue but is part of the underwriting result.
- 37 The annual allocation of the risk adjustment CU 832 and TVOG CU 30 to profit or loss is accounted for as part of the underwriting result (Accounting entries Y3.12 and Y3.15).
- 38 Part of the release of the provision of the future cash flows liability that is related to the insurance component is accounted for as revenue (Accounting entry Y3.8). That is, an amount of CU 2.000 is the insurance component. The same amount is presented as claims paid. (refer to paragraph 20 of Appendix 1) (Accounting entry Y3.9).
- 39 The total revenue for the year 20X3 is CU 2.862, the incurred claims are negative CU 2.000 and the impact of the loss component is negative CU 1.663 resulting in an underwriting loss of CU 801.

Determination of the investment result in profit or loss

- 40 The assets generate a return of CU 27.550 which is accounted for as part of the investment result (Accounting entries Y3.1 and Y3.2). This comprises the fair value change of the equities and the interest income from the bonds.
- 41 The unwinding of the discount rate for the insurance liability future cash flows of CU 31.288 (Accounting entry Y3.6), the risk adjustment of CU 103 (Accounting entry Y3.11) and the TVOG for an amount of CU 3 (Accounting entry Y3.13) are accounted for as part of the investment result.
- 42 The EFRAG Secretariat notes that under the VFA the entity's share of the fair value of the underlying assets is part of the consideration and, as such, any change is recognised in CSM. Thus, the change in value of the Insurer's share of underlying items of CU 8.862 is also accounted for as part of the investment result (refer to paragraph 30 of Appendix 1) against CSM.
- 43 Furthermore, as the Insurer holds the underlying assets it shall include in profit or loss and/or OCI, expenses or incomes that exactly match the income or expenses included in profit or loss and/or OCI for the underlying items, resulting in the net of the two separate items being nil in profit or loss and/or OCI. Thus, the investment result is adjusted for the change in discount rates relating to the liability future cash flows for a net amount of negative CU 5.018 (Accounting entry Y3.10). That net amount is composed of the change in discount rates for an amount of negative CU 5.794 and an adjustment to OCI for an amount of CU 776 in order to resolve the accounting mismatch with the fair value change of the bonds.

44 The adjustment to OCI of CU 776 is computed as follows:

Changes in the fulfilment cash flows liability for 20X3 (*)	CU
Unwinding of discount rate for future cash flows liability (paragraph 30)	31.288
Unwinding of discount rate for risk adjustment (paragraph 24)	103
Unwinding of discount rate for TVOG (paragraph 27)	3
Changes in discount rates (paragraph 23)	5.794
Total	37.188
Asset returns in P&L (paragraph 7)	27.550
plus Insurer's share of the value of the underlying items (paragraph 30)	8.862
Asset returns less Insurers' share	36.412
Difference goes to OCI	776

(*) All references to paragraphs in the table refer to Appendix 1

- 45 As part of the investment result, there is a release of the future cash flows provision of CU 48.200 (refer to paragraph 20 of Appendix 1) and payment of claims of the same amount (refer to paragraph 21 of Appendix 1).
- 46 Overall, this results in an investment result of CU 0 for the year 20X3 due to the elimination of accounting mismatches.
- 47 Therefore, overall the loss is CU 801 (i.e. CU 801 underwriting loss and CU 0 investment result).

Determination of other comprehensive income

- 48 The fair value of the bonds is adjusted for an amount of CU 776. As the financial assets are held at FVOCI, the amount is credited to OCI (Accounting entry Y3.3).
- 49 Also, changes in discount rates for the liability future cash flows of negative CU 776 goes to OCI resolving the accounting mismatch (Accounting entry Y3.10) (refer to paragraph 44 of Appendix 1).
- 50 Overall, this results in a total OCI-amount of CU 0 for the year 20X3.
- 51 The total comprehensive result for the year 20X3 is therefore a loss of CU 801 (i.e. CU 801 overall loss and OCI CU 0).

Reporting period 20X5

- 52 In reporting period 20X5, no unexpected events occur from an insurance risk perspective (i.e. deaths or lapses). Instead, the unexpected events explained below relate to the assets supporting the insurance liability.
- 53 This is because, at the end of reporting period 20X4, the internal analysis from the Insurer’s asset-liability management function shows that the asset return of equity portfolio A has worsened compared to what was expected and is now expected to stay insufficient to cover the minimum guarantee.
- 54 The Insurer decides to prospectively reallocate the supporting equity portfolio. As a result equity portfolio A is, at the beginning of year 5, prospectively replaced with equity portfolio B which has better prospects based on analysis from the Insurer’s asset-liability management function. Therefore, there is a change in discount rate from 3,36% to 3,68%. The bond portfolio remains unchanged.
- 55 Because of the reallocation of the underlying equity portfolio, the uncertainty on achieving sufficient asset returns to pay out the minimum guarantee has decreased for the current and following periods. Thus, the time value of options and guarantees (TVOG) decreases with an amount of CU 45.

Comment 4 from the industry expert

- 56 In case the TVOG would be calculated on a market consistent basis then its change would not depend on the expected asset returns but on the expected volatility of the cash flows, which would only change if the asset mix changes.

- 57 The Insurer re-estimates the expected future cash flows of the contracts, as follows:

Estimated Cash Flows at 31 December 20X5		Past					Future
		20X1	20X2	20X3	20X4	20X5	20X6
Mutualisation		-	-	(650)	-	-	-
Cash	Terminal pay-out		-	-	-	-	860.000
	Top up return on underlying assets	11.800	8.350	-	5.240	6.175	6.290
3.00%	Minimum guarantee	29.700	29.100	28.200	27.600	26.700	26.100
1.00%	Expectations of death (capital amount)	10.000	10.000	10.000	10.000	10.000	10.000
	Expectations of death (mortality)	2.000	2.000	2.000	4.000	2.000	2.000
1.00%	Additional death	-	-	-	10.000	-	-
	Expectations of lapse	10.000	10.000	10.000	10.000	10.000	10.000
	Additional lapse	-	10.000	-	-	-	-
	Insurer’s fee	(6.225)	(5.618)	-	(4.926)	(4.931)	(4.859)
TOTAL		57.275	63.833	49.550	61.914	49.944	909.532

- 58 The NPV of estimated cash outflows at the end of year 5 amounts to CU 877.259 using 3,68%.

Assets

59 The Insurer estimates the following regarding the asset returns and compares it to the estimated minimum guarantee to determine whether cash flows as a result of mutualisation is needed:

		Past					Future
Estimated Asset returns at 31 December 20X5		20X1	20X2	20X3	20X4	20X5	20X6
Cash Inflows	Asset returns	(41.500)	(37.450)	(27.550)	(32.840)	(32.875)	(32.390)
	Mutualisation	-	-	(650)	-	-	-
TOTAL		(41.500)	(37.450)	(28.200)	(32.840)	(32.875)	(32.390)
Greater than (>) or equal (=)		>	>	=	>	>	>
3.00%	Minimum Guarantee	29.700	29.100	28.200	27.600	26.700	26.100

60 The Insurer obtains the following return on the investment assets (Accounting entries Y5.1 till Y5.3). A positive fair value return on the equities of CU 20.625 and a negative fair value return of CU 2.265 on the bonds. In addition, the bonds provide an interest return of CU 12.250. Therefore, total asset return is CU 30.610. However, in order to consider the obligation towards the policyholders, the asset returns of 32.875 are taken into account (excluding the fair value change of the bonds). The equities are accounted for at FVPL, the bonds are accounted for at FVOCI.

61 The Insurer has to pay to the policyholders a total gross amount of CU 54.875¹⁴. In order to pay this, the Insurer does the following:

- (a) In order to pay for the minimum guarantee and the top-up return, the Insurer uses the interest income from the bonds CU 12.250 and for the remaining difference sells equities;
- (b) The Insurer also needs to pay the claims relating to the lapse and death. Therefore, it sells further equities. The total amount of equities sold to fulfil the liabilities in this paragraph and the paragraph above is CU 40.625. (Accounting entry Y5.4) This amount is determined as follows:

To be paid to policyholders	54.875
Cash available from interest on bonds	(12.250)
Amount Insurer pays from its 'own pocket'	(2.000)
Equities to be sold	40.625

- (c) Finally, the Insurer is entitled to a fee for the amount of CU 4.931, which is deducted from the gross amount due (see paragraph 57 Appendix 1) resulting in a net payment to policyholders of CU 49.944. This amount represents mostly the investment component for an amount of CU 47.944 and insurance component for an amount of CU 2.000. This is because the CU 2.000 represents insurance risk and is being paid from the Insurer's fee earned.

Insurance contract liability – Future Cash Flows

62 The table below is a reconciliation of the future cash flows for year 20X5.

20X5	CU
Carrying amount of the future cash flows at the end of 20X4	899.693
Effect of the passage of time	30.221
Effect of actual payments of claims	(49.944)
Effect of change in discount rate	(2.711)
Carrying amount of future cash flows at the end of 20X5	877.259

¹⁴ 12.000 + 10.000 + 26.700 + 6.175

Discounting

- 63 The discount rate changes *at the end of the reporting period*, i.e. at the end of year 5 the discount rate used by the Insurer to determine the present value of the estimated future cash flows changes from 3,36% to 3,68%.
- 64 The Insurer qualifies to use the current period book yield approach, and has elected to do so, hence the Insurer disaggregates insurance finance income or expenses for the period to include in the statement of profit or loss an amount that eliminates accounting mismatches with the finance income or expenses arising on the underlying items held. It is recalled that part of the underlying assets is invested in equities held at FVPL, another part is invested in bonds held at FVOCI.
- 65 The discount rate for the insurance liability future cash flows is unwound for an amount of CU 30.221 using the current rate for the year of 3,36% (Accounting entry Y5.5). This amount goes to the Statement of Profit or Loss – Investment result.

Minimum guarantee of 3,00%, top-up return over the guarantee, death benefits and lapses

- 66 At the end of year 20X5, one policyholder leaves the Company and is paid CU 10.000 and there is one death resulting in a payment of CU 12.000. In addition, the minimum guarantee of CU 26.700 needs to be paid out to the policyholders. The Insurer retains a fee of CU 4.931, note that the latter amount is deducted from the amount being paid out to the policyholders.
- 67 Therefore, the liability for remaining coverage related to the provision for the lapses, minimum guarantee of 3,00%, the top-up return over the guarantee and the death benefits is released for an amount of CU 49.944 (Accounting entry Y5.6). That amount represents mostly investment component for an amount of CU 47.944 and insurance component for CU 2.000. The insurance component will be presented as part of revenue.
- 68 The minimum guarantee of 3,00%, the top-up return over the guarantee, death benefits and lapses for year 20X5 amounting to CU 49.944 are paid out to the policyholders (Accounting entry Y5.7). This amount represents mostly investment component for an amount of CU 47.944 and insurance component for CU 2.000.

Changes in discount rates

- 69 In order to determine the effect of the change of discount rate from 3,36% to 3,68% for the future cash flows, the NPV of future cash flows at the end of year 20X5 is calculated using 3,36% and compares to the same future cash flows using 3,68% as follows:

Estimated present value of Cash Flows at 31 December 20X5		NPV of future cash flows (*)	NPV of future cash flows (**)	Difference is change in discount rate
Cash Outflows	Terminal pay-out	832.050	829.485	
	Top up return	6.086	6.067	
3.00%	Minimum guarantee	25.252	25.174	
1.00%	Expectations of death (capital amount)	9.675	9.645	
	Expectations of death (mortality)	1.935	1.929	
1.00%	Expectations of lapse	9.675	9.645	
	Insurer's fee	(4.701)	(4.686)	
TOTAL		879.972	877.259	(2.711)¹⁵

(*) Calculation using 3,36% (rate for the year) for the above cash flows

(**) Calculation using 3,68% (rate at the end of year) for the above cash flows

- 70 Negative CU 2.711 represents the effect of the change in discount rates from 3.36% to 3,68% of future cash flows (Accounting entry Y5.8).

Changes in estimates related to the future

- 71 In order to determine the change in estimates related to the future for the year-end 20X5, the future cash flows are estimated using the rate of the year 3.36% and compares that to the cash flows that were estimated at the end of year 20X4 using the same rate of 3,36%. For year 20X5, the comparison results in a zero difference.

Estimated present value of cash flows 31 December 20X5 using 3,36%		NPV using future cash flows at end of Y5	NPV using future cash flows at end of Y4	Difference CSM
Mutualisation Cash Outflows	Terminal pay-out	832.050	832.050	
	Top up to return on underlying assets	6.086	6.086	
3.00%	Minimum Guarantee	25.252	25.252	
1.00%	Expectations of death (capital amount)	9.675	9.675	
	Expectations of death (mortality)	1.935	1.935	
1.00%	Expectations of lapse	9.675	9.675	
	Insurer's fee	(4.701)	(4.701)	
TOTAL		879.972	879.972	-

Insurance contract liability – Risk adjustment

- 72 The risk adjustment is unwound using current rates (3,36%) for an amount of CU 64 (Accounting entry Y5.9).

¹⁵ Please note there is a rounding error of CU 2.

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- 73 The risk adjustment is allocated to profit or loss for an amount of CU 998 based on the number of contracts in force at the start of the year (Accounting entry Y5.10)

Insurance contract liability – TVOG

- 74 The TVOG is unwound using current rates (3,36%) for an amount of CU 2 (Accounting entry Y5.11).
- 75 As a result of the reallocation of the supporting equity portfolio, the uncertainty of being able to pay out the minimum guarantee has decreased. As a result, the Insurer decreases the TVOG with CU 45 (Accounting entry Y5.12).
- 76 The TVOG is allocated to profit or loss for an amount of CU 8 based on the number of contracts in force at the start of the year (Accounting entry Y5.13).

CSM

- 77 For year 20X5, the Insurer earned a net amount of CU 3.034. This “change in the value of the entity’s share of underlying items” unlocks CSM (Accounting entry Y5.14). That amount is composed of the following gross amounts:
- (a) the change in value of the underlying assets is accounted for an amount of CU 30.610; and
 - (b) the unwind of the discount rates for the insurance liability, risk adjustment and TVOG and the effect of changes in discount rates for a negative amount of CU 27.576.
- 78 As a result of the change in allocation of the underlying equity portfolio, the decrease of TVOG results in a credit in CSM for an amount of CU 45 (Accounting entry Y5.15).
- 79 Finally, the CSM is allocated to profit or loss for an amount of CU 1.623 based on the contracts in force at the start of the year (Accounting entry Y5.16).

Statement of comprehensive income

Determination of the underwriting result in profit or loss

- 80 The annual allocation of CSM to profit or loss of CU 1.623 (Accounting entry Y5.16) is accounted for as part of the underwriting result, just as the annual allocation of the risk adjustment of CU 998 and the TVOG for an amount of CU 8 (Accounting entries Y5.10 and Y5.13).
- 81 Part of the release of the provision for the insurance liability related to the insurance component (Accounting entry Y5.6) is accounted for as revenue. The same amount of CU 2.000 is presented as claims paid (Accounting entry Y5.7).
- 82 The total revenue for the year 20X5 is CU 4.628, the incurred claims are CU 2.000 resulting in an underwriting profit of CU 2.628.

Determination of the investment result in profit or loss

- 83 The fair value change in the equity instruments and the interest income from bond assets amount respectively to CU 20.625 and CU 12.250 which are accounted for as part of the investment result (Accounting entries Y5.1 and Y5.3).
- 84 The unwinding of the discount rate for the insurance liability future cash flows of CU 30.221 (Accounting entry Y5.5), the risk adjustment of CU 64 (Accounting entry Y5.9) and the TVOG for an amount of CU 2 (Accounting entry Y5.11) are accounted for as part of the investment result.
- 85 The EFRAG Secretariat notes that under the VFA the entity’s share of the fair value of the underlying assets is part of the consideration and, as such, any change is recognised in CSM. Thus, the change in value of the Insurer’s share of underlying

items of negative CU 3.034 is also accounted for as part of the investment result (refer to paragraph 77 of Appendix 1) against CSM.

86 Furthermore, as the Insurer holds the underlying assets it shall include in profit or loss and/or OCI, expenses or incomes that exactly match the income or expenses included in profit or loss and/or OCI for the underlying items, resulting in the net of the two separate items being nil in profit or loss and/or OCI. Thus, the investment result is adjusted for the change in discount rates relating to the liability future cash flows for a net amount of CU 446 (Accounting entry Y5.8). That net amount is composed of the change in discount rates for an amount of CU 2.711 and an adjustment to OCI for an amount of CU 2.265 in order to resolve the accounting mismatch with the fair value change of the bonds.

87 The adjustment to OCI of CU 2.265 is computed as follows:

Changes in the fulfilment cash flows liability in 20X5 (*):	CU
Unwinding of discount rate for future cash flows liability (paragraph 65)	30.221
Unwinding of discount rate for risk adjustment (paragraph 72)	64
Unwinding of discount rate for TVOG (paragraph 74)	2
Changes in discount rates (paragraph 69)	(2.711)
Total	27.576
Asset returns in P&L (paragraph 60)	32.875
less Insurer's share of the value of the underlying items (paragraph 77)	3.034
Asset returns less Insurers' share	29.841
Difference goes to OCI to mirror the asset returns in P&L	(2.265)

(*) Refer to Appendix 1 for all references to paragraphs in the table

88 As part of the investment result, there is a release of the future cash flows provision of CU 49.944 (refer to paragraph 67 of Appendix 1) and payment of claims of the same amount (refer to paragraph 68 of Appendix 1).

89 Overall, this results in an investment result of CU 0 for the year 20X5.

90 Therefore, overall the profit is CU 2.628 (i.e. CU 2.628 underwriting profit and CU 0 investment result).

Determination of Other Comprehensive Income

91 The effects of changes of the discount rate amounting to CU 2.265 (Accounting entry Y5.8) for the liability future cash flows and negative CU 2.265 (Accounting entry Y5.2), representing the fair value change of the bond assets, balance each other out in OCI, resolving the accounting mismatch.

92 Overall, this results in a total OCI-amount of CU 0 for year 20X5.

93 The total comprehensive income for the year 20X5 is therefore CU 2.628 (i.e. CU 2.628 overall profit and OCI CU 0).

IFRS 17 – Insurance Contracts – Illustrative example on the Variable Fee Approach

VFA – Year 20X3

Y3.1	Investments equities (BS)	Dr	15.300		Fair value change on equities
	Investment result (P&L)	Cr		15.300	
Y3.2	Bank (BS)	Dr	12.250		Interest return on bonds
	Investment result (P&L)	Cr		12.250	
Y3.3	Investments bonds (BS)	Dr	776		Fair value change on bonds
	OCI	Cr		776	
Y3.4	Cash from another portfolio	Dr	650		Cash inflows from mutualisation to pay the minimum guarantee
	Insurance Liability future cash flows (BS)	Cr		650	
Y3.5	Bank (BS)	Dr	35.300		Sale of equities
	Investments equities (BS)	Cr		35.300	
Y3.6	Investment result (P&L)	Dr	31.288		Unwinding of the discount rate for the insurance liability future cash flows
	Insurance Liability future cash flows (BS)	Cr		31.288	
Y3.7	Insurance Liability future cash flows (BS)	Dr	564		Change in estimates relating to the future
	CSM (BS)	Cr		564	
Y3.8	Insurance Liability future cash flows (BS)	Dr	50.200		Release of provision for lapses, minimum guarantee and death benefits for the year
	Underwriting result (P&L)	Cr		2.000	
	Investment result (P&L)	Cr		48.200	
Y3.9	Underwriting result (P&L)	Dr	2.000		Payment of the lapses, minimum guarantee and death benefits for the year
	Investment result (P&L)	Dr	48.200		
	Cash from another portfolio	Cr		650	
	Bank (BS)	Cr		49.550	
Y3.10	Investment result (P&L)	Dr	5.018		Effect of change in discount rate
	OCI	Cr	776		
	Insurance Liability future cash flows (BS)	Cr		5.794	
Y3.11	Investment result (P&L)	Dr	103		Unwind of discount rate for risk adjustment
	Risk adjustment (BS)	Cr		103	
Y3.12	Risk adjustment (BS)	Dr	832		Allocation of risk adjustment to profit or loss
	Underwriting result (P&L)	Cr		832	
Y3.13	Investment result (P&L)	Dr	3		Unwind of discount rate for TVOG
	TVOG (BS)	Cr		3	
Y3.14	TVOG (BS)	Dr	30		Increase in TVOG
	CSM (BS)	Cr		30	
Y3.15	TVOG (BS)	Dr	30		Allocation of TVOG to profit or loss
	Underwriting result (P&L)	Cr		30	
Y3.16	CSM (BS)	Dr	8.862		Change in the value of the Insurer's share of underlying items
	Investment result (P&L)	Cr		8.862	
Y3.17	Underwriting result (P&L)	Dr	1.663		Creation of a loss component
	CSM (BS)	Cr		1.663	

IFRS 17 – Insurance Contracts – Illustrative example on the Variable Fee Approach

VFA – Year 20X5

Y5.1	Investment equities (BS)	Dr	20.625		Fair value change of the equity assets
	Investment result (P&L)	Cr		20.625	
Y5.2	OCI	Dr	2.265		Fair value change of the bond assets
	Investment bonds (BS)	Cr		2.265	
Y5.3	Bank (BS)	Dr	12.250		Interest return of the bond assets
	Investment result (P&L)	Cr		12.250	
Y5.4	Bank (BS)	Dr	40.625		Sale of equities
	Investment equities (BS)	Cr		40.625	
Y5.5	Investment result (P&L)	Dr	30.221		Unwinding of the discount rate for the insurance liability future cash flows
	Insurance Liability future cash flows (BS)	Cr		30.221	
Y5.6	Insurance Liability future cash flows (BS)	Dr	49.944		Release of provision for lapse, death benefit, minimum guarantee and top-up over minimum guarantee
	Underwriting result (P&L)	Cr		2.000	
	Investment result (P&L)	Cr		47.944	
Y5.7	Underwriting result (P&L)	Dr	2.000		Payment of lapse, death benefit, minimum guarantee and top-up over minimum guarantee
	Investment result (P&L)	Dr	47.944		
	Bank	Cr		49.944	
Y5.8	Insurance Liability future cash flows (BS)	Dr	2.711		Effects of changes in discount rates
	OCI	Dr		2.265	
	Investment result (P&L)	Cr		446	
Y5.9	Investment result (P&L)	Dr	64		Unwind of discount rate for risk adjustment
	Risk adjustment (BS)	Cr		64	
Y5.10	Risk adjustment (BS)	Dr	998		Allocation of risk adjustment to profit or loss
	Underwriting result (P&L)	Cr		998	
Y5.11	Investment result (P&L)	Dr	2		Unwind of discount rate for TVOG
	TVOG (BS)	Cr		2	
Y5.12	TVOG (BS)	Dr	45		Decrease of the TVOG
	CSM (BS)	Cr		45	
Y5.13	TVOG (BS)	Dr	8		Allocation of TVOG to profit or loss
	Underwriting result (P&L)	Cr		8	
Y5.14	Investment result (P&L)	Dr	3.034		Unlocking of CSM for the change in the value of the entity's share of underlying items
	CSM (BS)	Cr		3.034	
Y5.15	TVOG (BS)	Dr	45		Unlocking CSM for decrease in TVOG
	CSM (BS)	Cr		45	
Y5.16	CSM (BS)	Dr	1.623		Allocation of CSM to profit or loss
	Underwriting result (P&L)	Cr		1.623	

Appendix 2 - Analytical part

EFRAG Secretariat’s views on the meaning of the Insurer’s fee

- 1 The contractual service margin (‘CSM’) represents, together with the risk adjustment (‘RA’) and the TVOG, if any, the unearned profit that the Insurer expects to realise as it provides services under the insurance contract. Consistent with the General Model, the CSM together with the release of the provision for non-investment component future cash flows comprise the Insurance Revenue which is recognised as the services are provided. The insurer’s fee is the amount that the Insurer retains and is usually funded from the returns on the underlying items for the services provided.

Comment 5 from the industry expert

In practice the Insurer’s fee for some products represents a percentage of the amounts in excess of guarantees distributed to the policyholders. Also, it is considered common in some jurisdictions for policyholders to participate in, in addition to the asset returns, to mortality profits on the participating contracts themselves or the profits on non-participating contracts written in a participating fund.

The EFRAG Secretariat has not assessed whether such contracts qualify for the Variable Fee Approach.

- 2 In developing this example, the question arose on how these two concepts, i.e. the CSM and the insurer’s fee, are interlinked in the VFA model.
- 3 The EFRAG Secretariat considers that *at inception*:

$$\text{NPV of net}^{16} \text{ expected}^{17} \text{ insurer’s fees (EIF)/ (CSM + RA + TVOG) = 1}$$

- 4 Additionally, *at maturity* where there are experience adjustments (i.e., the impact of variances between actual amounts and expectations):

Cumulative Insurer’s fees earned

= 1

**Cumulative Insurance Revenue* +
experience adjustments¹⁸**

*[CSM + RA + TVOG + release of provision for future cash flows (expected)] and excluding the investment component

- 5 The EFRAG Secretariat considers that adjustments may need to be made to both the numerator and denominator depending if there are costs which are to be paid out of the Insurer’s fee.

¹⁶ In this specific example NET expected insurer’s fee represents the 15% of the expected asset returns minus the costs (mortality risk, CU 2.000 on a yearly basis) paid by the Insurer.

¹⁷ In assessing the insurer’s fee at the end of the life of the contract, please refer to paragraph 8 of Appendix 2.

¹⁸ During the November 2016 meeting, IASB changed the recognition of experience adjustments (impact of differences between emerging experiences and initial assumptions) in the statement of profit or loss. This is now recognised as part of the underwriting result in profit or loss instead of the contractual service margin and therefore it is presented outside of Insurance Revenue but still within the underwriting result in the statement of profit or loss.

- 6 Taking these two assumptions as principals, the EFRAG Secretariat is of the view that the ratio mentioned in paragraph 3 of Appendix 2 should be close, if not equal, to 1 to be in the position to conclude that the estimated future cash flows made by the Insurer at inception is correct.
- 7 The EFRAG Secretariat has found the above considerations useful in enhancing its understanding and analysis of the VFA but notes that these are not IFRS 17 requirements. The above considerations may be used as a management tool or as an audit tool.
- 8 Additionally, at maturity, the real insurer's fee retained over the life of the contracts equals CU 26.558 (excluding the death benefits of CU 2.000 per policyholder). This amount matches the insurance revenue over the life of the contracts when being corrected for the experienced adjustments (unexpected events happening, lapse and death), so the ratio in paragraph 4 of Appendix 2, at maturity, equals to 1.
- 9 Consequently, the EFRAG Secretariat is of the view that both terms CSM and insurer's fee are inter-related and represent the same expected profit. The adjective 'expected' is important as it clarifies the corrections for risk adjustment, TVOG and the unexpected events happening during the life of the contracts.

Comments 6 and 7 from the industry expert

In considering the above formula, the industry expert noted that the TVOG is part of the best estimate liability (BEL), determined on a stochastic basis (i.e. considering a large number of economic scenarios). If the expected fees are determined on the same basis (i.e. across the same scenarios), the TVOG will be assumed to be paid out to policyholders and will not form part of the entity's profits. In contrast, if the expected fees are calculated on a single deterministic scenario, or a different set of scenarios to those used to determine the TVOG, some or all of the TVOG is expected to emerge into profit.

In addition, the industry expert noted that when mortality costs are part of the underlying items (e.g. when mortality profits are shared in addition to the sharing of investment returns) then they would be part of revenue but would not be netted off with the fees. Therefore, the extent to which the cumulative Insurer's fees earned should be adjusted in this equation (e.g. for mortality costs) will depend on the nature of the profit sharing arrangement.

Testing for the scope of the VFA

- 10 Insurance contracts with direct participation features would be in scope of the VFA if:
 - (a) the contractual terms specify that the policyholder participates in a share of a clearly identified pool of underlying items (Criterion 1);
 - (b) the entity expects to pay to the policyholder an amount equal to a substantial share of the returns from the underlying items (Criterion 2); and
 - (c) a substantial proportion of the cash flows that the entity expects to pay to the policyholder should be expected to vary with cash flows from the underlying items (Criterion 3).
- 11 *Criterion 1* – In this example, the EFRAG Secretariat assumes that the contract signed by the Company specifies policyholder participation in an identified pool of assets. In this case, the underlying items are a pool of identified equities and bonds. Therefore, the EFRAG Secretariat considers that this criterion has been met.
- 12 *Criterion 2* – This criterion requires an entity to compare the extent to which expected returns from the underlying items will be paid to the policyholder. In this example, the Insurer expects to pay 85% of the asset returns to the policyholders.

The EFRAG Secretariat considers that the term ‘substantial’ has not been defined by IFRS 17, but the EFRAG Secretariat considers that 85% represents a substantial share of the returns from the underlying items. Therefore, the EFRAG Secretariat considers that this criterion has been met.

- 13 *Criterion 3* – This assessment requires an entity to compare the changes in the cash flows which arise from the underlying items, relative to the changes in the amounts the entity expects will be paid to the policyholder. This test focuses on the changes, and therefore requires the entity to consider what changes might occur in both the cash flows from the underlying items and the cash flows paid to the policyholder.
- 14 The EFRAG Secretariat notes that the draft standard requires that an entity should assess the variability in the expected cash flows over the whole life of the group of contracts, and on a probability-weighted average basis, not a best or worst outcome basis. Thus, this analysis requires the consideration of at least two scenarios. However, it only requires realistic scenarios, and it requires that the scenarios chosen be weighted for their probability. For example, in a contract where a policyholder participates in 90% of the returns of the underlying assets, subject to a minimum guarantee, and the entity estimates that it will achieve a better than guarantee outcome in at least 95% of the scenarios it considers, then 95% of the time, the cash flows that the ‘entity expects to pay to the policyholder are expected to vary with the cash flows from the underlying item’s’. In the other 5% of the scenarios, the cash flows will not vary with the return from the underlying items. If, in other 10% of the scenarios, the entity expects to pay policyholders an amount based on an unrelated event, for example a death claim, then in those other scenarios, the cash flows will also not vary with the underlying items.
- 15 In this example, for simplicity reasons, the EFRAG Secretariat has considered only one scenario. In this one scenario, the EFRAG Secretariat considers that the cash flows that the entity expects to pay to the policyholder are expected to vary 85% with the cash flows from the underlying items. As a result, the EFRAG Secretariat considers that criterion 3 has been met.

Use of discounting – background on asset returns

Introduction

- 16 In the example, the EFRAG Secretariat has determined the (estimated) asset returns for each specific reporting period and projected these asset returns in the measurement of the liability.

Determination of the asset returns

- 17 In the VFA, the asset returns play an important role as they are projected into the cash outflows of the liability. In this chapter, additional background is provided on the asset returns and how these are calculated.
- 18 As mentioned in paragraph 30 below, 65% of the premiums received are invested in a pool of equity instruments of country A, measured at fair value through profit or loss, 35% is invested in a pool of fixed-rate bonds with an annual interest rate of 3.50%, measured at fair value through other comprehensive income (‘OCI’) under IFRS 9.
- 19 The minimum guarantee offered in the contract is 3,00%, which implies that the asset returns, on average, should be higher to ensure profitability.
- 20 The estimation of the interest returns of the bond are straightforward as these are fixed interest rate payments for a rate of 3,50%.
- 21 Equity returns are by definition variable. In this case, for discounting purposes, the asset return for every period is to be estimated, or an average effective interest rate can be used. The EFRAG Secretariat has chosen the latter in this example.

22 At inception, the estimated asset returns of the equity portfolio are:

20X1	20X2	20X3	20X4	20X5	20X6
4,50%	4,00%	3,80%	3,80%	3,50%	3,90%

23 This results in average effective interest rate for the equity portfolio A of 3,92% at inception. For simplification purposes, an arithmetic average has been used.

24 The weighted average EIR for the complete portfolio, at inception, is 3.77%¹⁹.

25 This exercise is done every year again, based on new estimations from the asset and liability management from the Insurer. During the life of the contract, equities are being sold to cover the cash shortfalls in paying out the policyholders. Thus, the weighted average will shift as the weights of the underlying asset classes will differ over time. For reasons of simplification, the EFRAG Secretariat has not incorporated this in the example. The following returns are being used. These are actual figures and not estimations.

	20X1	20X2	20X3	20X4	20X5
EIR equities (65%)	3,92%	3,21%	2,86%	3,28%	3,78%
Return bonds (35%)	3,50%	3,50%	3,50%	3,50%	3,50%
Weighted average return used to discount the liability	3,77%	3,31%	3,09%	3,36%	3,68%

26 The table below presents the estimated asset returns for every year which have been used in this example.

	20X1	20X2	20X3	20X4	20X5	20X6
Guarantee	3,00%	3,00%	3,00%	3,00%	3,00%	3,00%
Average change in FV Portfolio A (EQUITY) Year 1	4,50%	4,00%	3,80%	3,80%	3,50%	3,90%
Average change in FV Portfolio A (EQUITY) Year 2		4,00%	3,00%	2,75%	3,00%	3,30%
Average change in FV Portfolio A (EQUITY) Year 3			2,55%	2,60%	3,00%	3,30%
Average change in FV Portfolio A (EQUITY) Year 4				3,55%	3,00%	3,30%
Average change in FV Portfolio A (EQUITY) Year 5					2,30%	2,00%
Average change in FV Portfolio B (EQUITY) Year 5					3,75%	3,80%
Return on Portfolio (BONDS)	3,50%	3,50%	3,50%	3,50%	3,50%	3,50%
Discounting (Weighted Average EIR)	3,77%	3,31%	3,09%	3,36%	3,68%	

Determining the liability discount rate

27 The EFRAG Secretariat understands that the Standard does not require allocating and using different discount rates to different types of cash flows within a contract. Refer to paragraph 39 of the main document for the detailed explanation. As a result, in discounting back the liability to its present value, the EFRAG Secretariat has chosen to use an average EIR of the estimated asset returns (refer to paragraph 25 of Appendix 2).

The asset roll-forward

28 In determining the asset roll-forward, two points need to be considered:

- Decay in the number of coverage units over time; and
- The assumption taken in this example that no bonds will be sold in case of cash shortfalls.

¹⁹ (65%*3,92%) EQUITIES + (35%*3,50%) BONDS

Comment 8 from the industry expert

Coverage units are relevant for liabilities. The asset roll-forward is impacted by actual cash flows.

Decay of the number of coverage units over time

- 29 The portfolio starts out with covering 100 policyholders and ends in Year 20X6 with 86 policyholders which, in this example, represent the coverage units. In order to avoid paying out interest to policyholders that have left, the returns of the portfolio are adapted taking into account the change in coverage units. Please recall that in this example the asset returns are taken into account in the projection of cash outflows.

No bonds being sold in case of asset shortfalls

- 30 When calculating how much equities need to be sold in order to fulfil the annual cash shortfall, the fair value movements of the bonds are being disregarded. This is because the assumption is taken that pay-out is being done on available cash flows. As the bonds are never sold, the fair value change is irrelevant to determine the cash flows available. Only the fair value change of the equities and the interest income from the bonds are considered.
- 31 As the interest revenue of the bonds remains fixed over time, the decay of the number of coverage units relating to the portion of bonds, is assigned to the equity portfolio. So the equity portfolio return (even if only representing 65% of the invested portfolio at inception) absorbs 100% of the decay of coverage units.
- 32 In the following paragraphs, an example is provided how the asset returns have been calculated. In year 20X2, the actual total asset return is CU 37.450 (see statement of comprehensive income – investment result). This amount is composed as follows:

20X2	CU
Return of equities	25.200
Interest on the bonds	12.250
Total	37.450

- 33 The interest on the bonds is calculated as CU 350.000 * 3,50% = CU 12.250.
- 34 The return on the equities is calculated as CU 630.000* 4,00% = CU 25.200.
- 35 In year 20X2, the Insurer has an obligation to pay a total of CU 67.450 to the policyholders less an insurer’s fee.

Top up to return on underlying assets	8.350
Minimum Guarantees	29.100
Expectations of death (capital amount) ²⁰	10.000
Expectations of lapse	10.000
Real lapses over expectation	10.000
Total	67.450

- 36 Part of CU 67.450 is paid from the interest on the bonds of CU 12.250. Note that in determining the pay-outs to the policyholders, the fair value change on the bonds is not considered. Therefore, the Insurer needs to sell CU 55.200 of equities.

²⁰ Note that the Insurer pays a total of CU 12.000 as death benefit. Therefore, the extra CU 2.000 comes from the Insurer’s ‘own-pocket’ and not from the sale of equities.

37 The actual roll-forward for the equities in 20X2 is thus as follows:

20X2	CU
Opening balance 20X2	630.000
Change in fair value equities 20X2	25.200
Sale of equities 20X2	(55.200)
Closing balance 20X2	600.000

38 Alternatively:

20X2	CU
Opening balance 20X2	630.000
Decay of coverage units: $630.000 - (630.000/98) * 95^{21}$ 20X1	(19.286)
Subtotal	610.714
Absorption of decay from bonds: $350.000 - (350.000/98) * 95$	(10.714)
Closing balance 20X2	600.000

Comment 9 from the industry expert

It is more intuitive to show asset movements in terms of cash flows than coverage units. The roll-forward based on coverage units in paragraph 38 only works because all of the policies are identical.

Loss component in year 20X3

39 At the end of year 20X3, there is a loss recognised in profit or loss of CU 1.663. This amount is presented outside of revenue. Furthermore, the EFRAG Secretariat understands that the Insurer has to allocate this loss to a loss component of the liability for remaining coverage.

40 The Insurer has to calculate the loss component in order to:

- (a) not recognise this part of the liability for remaining coverage as revenue (loss component was not covered by the premium); and
- (b) know how much of the loss could be recovered through profit or loss statement (as reversals of losses) before the contractual service margin could be reinstated.

41 The EFRAG Secretariat understands that in order to calculate the carrying value of the loss component, the Insurer needs to allocate:

- (a) on a systematic basis subsequent changes to the fulfilment cash flows recognised in the statement of comprehensive income between the loss component of the liability and the liability for remaining coverage excluding the loss component.
- (b) Subsequently, decrease in fulfilment cash flows related to future services are allocated to the loss component, if any, until it is reduced to zero.

42 As a simplification and also because the loss component is not material compared to the total insurance liability, the EFRAG Secretariat did not allocate changes in fulfilment cash flows recognised in the statement of comprehensive income to the loss component in the following period. Instead, the loss component of CU 1.663 was reversed in Year 20X4.

²¹ At the start of year 20X2, there are 98 coverage units. At the end of 20X2, there are 95 coverage units as three have left.

Insurance revenue

43 In assessing insurance revenue, the EFRAG Secretariat compared how the Insurer’s fee was earned over time with the revenue recognised in profit or loss. This results in the following comparison²²:

	20X1	20X2	20X3	20X4	20X5	20X6	Total
Insurer’s fee (a)	6.225	5.618	-	4.926	4.931	4.859	26.558
Revenue (b)	6.648	4.928	2.862	3.096	4.628	4.397	26.558
Test (a–b)							-

Mutualisation

44 The following is an extract of the IASB tentative decisions of November 2016:

45 The IASB Board tentatively decided:

- (a) *To retain the definition of a portfolio in draft IFRS 17 Insurance Contracts, i.e. that a portfolio is a group of contracts subject to similar risks and managed together as a single pool. IFRS 17 would provide guidance that contracts within each product line, such as annuities or whole-life, would be expected to have similar risks, and hence contracts from different product lines would not be expected in the same portfolio.*
- (b) *To require entities to identify onerous contracts at inception and group them separately from contracts not onerous at inception. IFRS 17 would provide guidance that entities could measure contracts together if the entity can determine that those contracts can be grouped with others based on available information at inception.*
- (c) *To require entities to measure insurance contract not onerous at inception by dividing the portfolio into two groups – a group of contracts that have no significant risk of becoming onerous and a group of other profitable contracts.*
...
- (d) *Prohibit entities from grouping contracts issued more than one year apart.*
- (e) ...

46 The EFRAG Secretariat understands that mutualisation may interact with the level of aggregation for the determination of a group of onerous contracts and for the allocation of the CSM. The EFRAG Secretariat understands that the term mutualisation is when the returns from the underlying items is reduced for policyholders in order to pay other policyholders who share the returns from the same identified pool of underlying items.

Comment 10 from the industry expert

In practice there can be mutualisation between portfolios that do not share the returns on the same identified pool of underlying items.

The EFRAG Secretariat notes that the term “mutualisation” used in comment 10 from the industry expert may not be in line with how it is to be read in the future IFRS 17. Instead it seems to refer to current practices.

47 In cases where contracts affect the cash flows to policyholders in other groups, entities would adjust the cash flows of each group to take into account these mutualisation effects. In case where an entity is able to identify the mutualisation effect only at a higher level of aggregation than the groups of contracts identified, the effect of the change is allocated to each group on a systematic and rational basis.

²² Note that these figures are actual amounts and are not estimates.

Appendix 3: Feedback from the EFRAG IAWG meeting held on 6 December 2016 on the General Model example that impacts the Variable fee example

59 EFRAG IAWG members were presented with the General Model example in the meeting of 6 December 2016 updated for the IASB tentative decisions taken in the November 2016 meeting. Some of the comments on the General Model also impact the VFA. The example of the VFA has been adapted accordingly. The changes/comments as a result of the EFRAG IAWG meeting are as follows.

Allocation of CSM to profit or loss

60 In the General Model, for example in year 20X1, the CSM was computed as follows:

	20X1
Opening balance	46.669
Unwinding the discount rate for CSM (*)	1.960
Allocation of CSM in the Statement of Profit or Loss (**)	(8.541)
Closing balance	40.088

(*) Calculation using 4,2% (locked-in rate) over the opening balance

(**) Calculation made based on the number of contracts in force, at the end of 20X1 (98 policyholders)

61 At the start of 20X1, there were 100 contracts in-force. The allocation of CSM to the statement of profit or loss at the end of 20X1 took into consideration 98 contracts in-force because there had been one death and one lapse during the year. However, some EFRAG IAWG members indicated that service has been provided in year 20X1 even for those contracts where there was the death and the lapse. Therefore, the allocation of CSM to profit or loss should be based on 100 contracts in year 20X1 and not 98 contracts. That is, it should be based on the number of policyholders in-force at the start of each reporting period. Therefore, the following years needed to be adjusted as well.

62 This allocation of CSM is also applicable for the VFA and has been adapted in this example. A point to note is that since the risk adjustment and the TVOG is accounted for in the same way as the CSM, these have also been adapted accordingly in this example.

Impact of the 3,00% fixed amount for the additional lapse in year 20X2

63 In the General Model, there is an additional unexpected lapse in year 20X2. As a result, the policyholder, whose contract has lapsed, does not receive the fixed amount of 3,00% over the premium paid in year 20X2, i.e. CU 300.

64 Therefore, some EFRAG IAWG members indicated that CU 300 should be reflected in the profit or loss statement as the insurer would receive it.

65 In the VFA example, the EFRAG Secretariat has assumed that the CU 300 would be paid, in the year of the lapse occurring, to the remaining policyholders in the portfolio but exclusively for this period.

Presentation of insurance revenue in the profit or loss statement

66 The insurance revenue in the profit or loss statement of the General Model example was as follows:

IFRS 17 – Insurance Contracts – Illustrative example on the Variable Fee Approach

STATEMENT OF COMPREHENSIVE INCOME	20X1	20X2	20X3	20X4	20X5	20X6
Underwriting Result -	9,273	9,037	9,662	7,622	10,022	10,198
Allocation of CSM to P&L	8,541	8,638	8,811	8,837	9,003	9,169
Changes in cashflows	-	(433)	-	(2,226)	-	-
Release of the liability future cash flows Provision	2,000	2,000	2,000	4,000	2,000	2,000
Release of the Risk adjustment	732	832	850	1,011	1,019	1,029
Insurance Revenue	11,273	11,037	11,662	11,622	12,022	12,198

- 67 Some EFRAG IAWG members questioned whether the line ‘Changes in cash flows’ in years 20X2 and 20X4 above should be part of insurance revenue because this related to unexpected events which were not part of the estimations of the future cash flows. This also related to the line ‘Release of the liability future cash flows Provision’ in year 20X4. Therefore, these members questioned whether the insurance revenue should be computed based on expected cash flows or actual cash flows.
- 68 The EFRAG Secretariat understands from the example in the November IASB staff paper 2D and the relating tentative decisions that the insurance revenue should be computed based on expected claims and expenses. As a result, any variances between the actual and expected cash flows would form part of the underwriting result but this variance would not be part of revenue. The VFA example has been adapted to reflect this.

How to derecognise CSM for contracts that are no longer in-force

- 69 Some of the EFRAG IAWG members stated that there needed to be derecognition of the CSM for the contracts that are no longer in-force. That is, all the CSM relating to those contracts that are not in-force should be recognised in profit or loss. If this is so, then the risk adjustment (and the TVOG for the VFA example) relating to those contracts also need to be derecognised.
- 70 The EFRAG Secretariat considers that applying this derecognition of CSM would imply tracking of the individual contracts and we understand that the level of aggregation criteria no longer requires tracking of individual contracts. In order to take on board the decrease in the contracts in-force, the EFRAG Secretariat allocates the CSM based on the number of policyholders at the start of each reporting period. Therefore, the EFRAG Secretariat understands that revising the number of contracts in-force each year, in order to release the CSM into profit or loss, is taking derecognition *implicitly* into account.
- 71 Due to the above reasons, the EFRAG Secretariat has not adapted the VFA example to incorporate the above comment.

Comment 11 from the industry expert

The derecognition requirements of the draft IFRS 17 standard require an insurance contract to be derecognised when it is extinguished. This could be interpreted to require all liabilities (BEL, risk adjustment and CSM) to be released into P&L on death or lapse. It is not entirely clear how these requirements interact with the allocation of CSM to P&L over the coverage period and with the level of aggregation. In the illustrative example, the CSM allocated to P&L in year 1 is the CSM rolled forward * $100/(100+98+96+94+92+90)$. However, a possible alternative interpretation is that when 2 policies are fully derecognised, with the CSM for the remaining policies amortised in accordance with the passage of time, the CSM allocated to P&L would be the CSM rolled forward * $[2/100 + 98/(98+96+94+92+90+88)]$. This interpretation would increase the amount of CSM recognised in P&L by c. 10%.