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Project	**Insurance contracts**		
Paper topic	Discount rate – Contracts' whose cash flows to which mirroring does not apply to but are affected by expected asset returns		
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What is this paper about?

1. Some insurance contracts provide an investment return to the policyholder that is affected by the performance of assets. Consequently, the amount, timing or uncertainty of some of the cash flows of those insurance liabilities is affected by the performance of the assets. For some of these contracts there is a contractual linkage to specified underlying assets and others do not have such a contractual linkage.

2. The boards have tentatively decided the "mirroring approach", that addresses the accounting mismatch between assets and insurance liabilities, should apply only to a subset of contracts with participation features that provide policyholders with the *contractual right* to share in the return from specified underlying items (see Appendix A for a summary of the "mirroring approach"). We refer to that subset of contracts to which the mirroring approach applies as "participating contracts". For example, the policyholders might have a contractual right to:

   (a) share in the performance of a specified pool of insurance contracts;

   (b) the performance of a specified pool of assets; or

(c) the profit or loss of the entity that issues the contract[1].

3. This paper addresses the discount rate for cash flows to which the mirroring approach does *not* apply but are nonetheless affected by expected asset returns. This includes:

(a) contracts which provide returns affected by the performance of assets but returned (or credited) to the policyholder at the insurer's discretion. An example of such contracts includes universal life contracts where the interest credited to the policyholder is solely or predominantly at the insurer's discretion[2]. Consequently, the insurer has a right to change the amount or timing of cash flows. Factors that influence the insurer's decisions include asset yields, expenses, and management and policyholder reaction to economic scenarios[3]. Additionally, the amounts credited to policyholders' accounts will often be a function of various other factors (e.g., competitors' crediting rates, mortality and expense experience)[4]. The result of the insurer applying discretion may result in cash flows that are comparable to those arising from non-discretionary performance-linked participation features for which the variable cash flows are contractually tied to performance of underlying assets and liabilities[5]. However, there is no contractually enforceable requirement to pass on the performance of the underlying assets and

[1] This does not include contract features that adjust cash flows based on the loss experience of the individual contract: for example, retrospective premium adjustments and other experience based refunds, and mandatory reinstatement premium provisions in reinsurance. Pursuant to the April 2012 tentative decisions of the boards, cash flows arising from such contractual features would be treated in the same way as the other cash flows arising from the contract.

[2] For universal life insurance, the crediting rate is applied to the account value embedded in the insurance contract liability (i.e., not to the entire insurance contract liability).

[3] Universal life insurance also frequently gives policyholders significant discretion over the amount and timing of premium payments.

[4] The existence of guaranteed returns is common in both universal life and participating contracts. Notwithstanding the asset performance effect on the probabilities of the guarantees being in the money, the characteristics of the cash flows themselves that result from these guarantees are not considered to reflect any asset dependency.

[5] Each of these types of features differ from the features of traditional life insurance contracts that contractually obligate insurers to pay a fixed death benefit upon an insured event.

liabilities to the policyholder. (See Appendix B for further details regarding universal life insurance contracts.); and

(b) contracts that provide contractual right to the performance of specified investments when that right is not linked to underlying assets that the insurer holds (for example, index-linked contracts where the policyholder participates in the market values of items as observed in markets or other external indices) to the extent that the index-linked feature is not separately accounted for as a derivative. Although the insurer may choose to hold the assets underlying an index-linking feature to reduce its own risk exposure, the payment to the policyholder under these contracts does not depend on whether the insurer actually holds those assets.

4. The purpose of this paper is to consider the treatment of contract's whose cash flows that are affected by expected asset returns for which the mirroring approach does not apply. For those contracts, the staff propose to:

(a) clarify how the tentative decisions made to date regarding the discount rate might be applied to cash flows that are affected by expected asset returns. This paper seeks to eliminate the confusion on how cash flows affected by expected asset returns should be discounted; and

(b) consider whether, and if so, when, the discount rate used to present interest expense in profit or loss should be reset from the discount rate at inception of the insurance contract. Based on tentative decisions, the interest expense in profit loss is presented using the discount rate at inception.

Staff recommendation

5. The staff recommends that for contracts whose cash flows are not subject to mirroring and are affected by asset returns:

   (a) The boards should clarify that the discount rate that reflects the characteristics of the contract's cash flows shall reflect the extent to which the estimated cash flows are affected by the return from those assets. This would be the case regardless of whether the:

      (i) transfer of the expected returns of those assets are the result of the exercise of insurer's discretion; or

      (ii) the specified assets are not held by the insurer.

   (b) Upon any change in expectations of the crediting rate used to measure the insurance contracts liability, an insurer shall reset the locked-in discount rate that is used to present interest expense.

Structure of the paper

6. The paper is structured as follows:

   (a) Paragraphs 7-22 considers the discount rate used for the measurement of cash flows to which the mirroring approach does *not* apply but which are affected by expected asset returns; and

   (b) Paragraphs 23-52 considers the presentation of the effects of discount rate changes for those cash flows.

Discount rate used for the measurement of cash flows affected by expected asset returns to which the mirroring approach does not apply

7. This section is structured as follows:

   (a) background on previous decisions of the boards for discounting cash flows arising from insurance contracts (paragraphs 8-12); and

(b) staff analysis on the appropriate discount rate for cash flows to which the mirroring approach does *not* apply but which are affected by expected asset returns (paragraphs 13-22).

Background

Exposure Draft/Discussion Paper

8. The boards have tentatively decided that discount rates used in measurement of an insurance contracts liability should reflect the characteristics of the cash flows of that liability (rather than how the insurer funds the liability). The IASB's Exposure Draft, *Insurance Contracts*, (ED) and the FASB's Discussion Paper, *Preliminary Views on Insurance Contracts*, (DP) explained that, for contracts that do not depend on the performance of specific assets, the principle could be satisfied by using a bottom-up determination of the discount rate that starts with a risk-free interest rate and adds an adjustment for illiquidity.

Tentative decisions

9. The IASB and the FASB tentatively decided on February 17, 2011 that they would not prescribe a method for determining the discount rate. Consequently, an insurer could use either a top-down approach or a bottom-up approach to determine discount rates that reflect the characteristics of the insurance contract liability. In April 2011, the boards tentatively decided that, in applying the top-down approach, an insurer should adjust for risks inherent in the actual or reference portfolio of assets that are not inherent in the liability. For example, an insurer would typically need to adjust the asset yield curve to remove any element representing expected and unexpected asset defaults.

Discount rate for contracts with participation features

10. In the March 15, 2011 joint meeting, the boards discussed the discount rate for insurance contracts that contain *participation features* and tentatively decided

that, to the extent that the amount, timing, or uncertainty of the cash flows arising from insurance contracts depends wholly or partly on the performance of specific assets, the insurer should adjust those cash flows using a discount rate that reflects that dependency. In arriving at this tentative decision, the boards clarified that the objective of the discount rate used to measure participating insurance contracts should be consistent with the objective of the discount rate used to measure non-participating insurance contracts (i.e., to reflect the characteristics of the cash flows of the liability).

11. Some in the industry have questioned how these discounting rate decisions would apply to contracts that contain cash flows that are affected by asset returns but for which there is no contractual linkage to specified underlying assets (i.e., cash flows to which the mirroring approach would not apply). Previous board papers have sometimes used the term "participating contracts" inconsistently to mean: 1) all contracts where the cash flow amounts are affected by asset returns; and to sometimes mean 2) the narrower subset of contracts where there is a contractual linkage to underlying assets.

12. A prominent example of the type of contract discussed in this paper (i.e., a contract with cash flows that are affected by asset returns but for which there is no contractual linkage) is a universal life contract. Such contracts are common in some jurisdictions (e.g., the US, China). The staff do not think universal life contracts meet the definition of a participating contract. Consequently, these contracts are not subject to any tentative decisions specifically aimed at participating contracts (e.g., the "mirroring approach" to measure the performance-linked feature consistently with the underlying assets). This paper seeks to clarify how such a contract's cash flows should be discounted.

Staff analysis

13. As noted above in paragraph 3(a), some of the cash flow features addressed within this paper provide returns from underlying items (e.g., the overall general

accounts of the insurer[6]) to the policyholder at the insurers' discretion. Consequently, that discretion provides management with the ability to adjust the returns (or other benefits or charges) based on the economic or competitive environment. If that discretionary return is affected by the performance of assets (i.e., some or all of the asset risks are borne by the policyholders), then the assets' risks are at least partially embedded within the characteristics of the insurance contracts liability cash flows. For some contracts, this discretion is limited to the extent of underlying assets' return passed through to the policyholder[7]. Other contracts, for example universal life, contain no contractual linkage to specific assets. However, the method for determining the cash flows of the insurance liability will include the returns credited to the policyholder which often still depends, at least partly, on the performance of assets[8].

14. To the extent that the amounts of the liability's cash flows are *affected* by the cash flows or other performance of an asset or group of assets, the staff think that at least part of the performance of those assets is implicitly part of the characteristics of the insurance contracts liability. The staff thinks that this idea formed part of the basis in the boards' earlier decisions on the discount rate discussed in paragraph 10, although some staff think that those decisions were limited to contracts with a contractual linkage to the return from underlying items.

15. Consequently, in determining the appropriate discount rate to discount insurance contract liability that is affected by the performance of assets, the insurer should reflect the extent of these asset risks the policyholder assumes. The extent of the asset risks that is assumed by policyholders will be a function of the sensitivity of the crediting rate to changes in the asset value. The crediting rates for universal

[6] "General accounts" refers to the assets of the insurer as opposed to "separate accounts', which are legally segregated assets for the policyholders.

[7] See paragraph A4 in Appendix A for a description of how the IASB and FASB tentative mirroring decisions apply to one type of contract. The analysis and recommendations in this paper are limited to those cash flows not subject to the measurement under those mirroring decisions.

[8] The crediting rate for universal life contracts is generally set based on an expected asset yield of the general account assets (vs. a designated pool of specific assets) and is not adjusted for short term movements in the fair value of the assets. Rather the crediting rate is generally adjusted as the yield on the portfolio of assets change (e.g., through reinvestment at a higher or lower rate) or the estimates of expected and unexpected defaults change.

life contracts typically are not adjusted for short term changes in asset fair value. Consequently, any premium included within assets' market yield for the volatility in the price of an asset would typically not be part of a discount rate reflective of the characteristics of the liability. Similarly, because universal life contracts generally don't debit an account balance for negative asset performance (i.e., interest crediting is either positive or zero[9]) any risk of a negative return from *the portfolio of assets* (e.g., due to defaults, losses on equity securities, etc.) is implicitly retained by the insurer. Also, the crediting rate is almost always set at a rate that allows the insurer to earn a spread on the assets (i.e., the rate is set below the expected asset yield). The determination of the discount rate should be based on consideration of each of these factors and any others that affect the amount of asset risks the policyholder assumes in the contract.

16. Importantly though the staff think the discount rate that reflects the characteristics of the liability does not depend on whether the characteristics of the identical cash flows estimated to be paid to policyholders arise from a non-discretionary contractual obligation, or those cash flows arise out of the estimated exercise of a discretionary feature of the contract[10]. That said, as discussed in the previous paragraph there may often be an indirect effect on the discount rate to the extent more or less than 100% of the asset default risk is borne by policyholders (i.e., in which case the cash flows themselves would not be identical). The staff similarly think that the characteristics of a liability that requires payment linked to the performance of specified investments are not affected by whether an insurer happens to hold those investments or not.

17. In application of a top-down approach to determine the discount rate, an insurer's adjustments to the asset yield curve for expected and unexpected defaults should

[9] Universal life contracts typically allow for insurer discretion as to the amount of fees and expenses that may be charged to an account balance, which would allow for some possibility to recover negative investment experience. However, the contracts typically contain a maximum rate that can be charged for these fees and expenses.

[10] This comparison isn't intended to suggest that the tentative decisions regarding mirroring should not be applied to account for the cash flows of a participating contract or that mirroring be applied to contracts without a contractual linkage to underlying items; rather its inclusion is to illustrate the similarity between the characteristics of cash flows that are similarly affected by asset returns.

be limited to the amount of risk associated with such defaults that is retained by the insurer (i.e., not borne by the policyholder). If an insurer's probability weighted estimate of cash flows reflected a pass through of 100% of the asset default risk then there should be no adjustment to the asset yield curve for default risk. Because at least in some scenarios the insurer will likely credit the insurer more or less than the asset returns (e.g., to react to competitors' crediting rates or to earn a spread on the assets) and for each of the other reasons described in paragraph 15, the discount rate should be adjusted to reflect the extent of asset risks not present in those scenarios' cash flows.

18. If the discount rate for the cash flows is being separately determined for each probability weighted scenario, an insurer should consider the extent to which the liability and asset react similarly to the stimuli existing in that scenario. For any scenarios where the liability (or portion of it, such as the account balance) behaves in the same way as the asset, the discount rate used for the liability (or that portion) should be the same as the asset yield. For any scenario where the liability behaves differently than the asset, these differences need to be evaluated to determine the appropriate discount rate.

19. Similarly, when applying the bottom-up approach to determining the discount rate, the rate applied to any cash flows that are affected by asset performance should reflect the degree of those asset's risks that are borne by the policyholder. Accordingly, an adjustment for asset default risk should be added to the risk free plus liquidity rate that reflects the extent of asset dependence.

20. The staff recommend clarifying that, for contracts whose cash flows are not subject to mirroring and are affected by asset returns, the discount rate that reflects the characteristics of the contract's cash flows shall reflect the extent to which the estimated cash flows are affected by the return from those assets. This would be the case regardless of whether the:

    (a) transfer of the expected returns of those assets are the result of the exercise of insurer's discretion; or

    (b) the specified assets are not held by the insurer.

21. The staff thinks that such expected returns on the assets are relevant to the insurance contract liability (the associated asset risks are present in the liability to the extent they are borne by the policyholder). The staff also think that the principle that underpins this guidance is consistent with the principle to be applied for discounting cash flows in general under the building blocks model, including the appropriate discount rate for participating contracts.

22. The staff do not recommend a prescriptive method be required in determining the extent of this asset risk factored into the discount rate but recommend that application guidance highlight the need to make an explicit adjustment to reflect what is expected to be passed through to the policyholders. This is consistent with the boards' earlier decision not to prescribe the method used to determine the discount rate for non-participating contracts (discussed in paragraph 9).

Question 1 Determination of the discount rate for cash flows contracts whose cash flows are not subject to mirroring and are affected by expected asset returns

Do the boards agree to clarify that for contracts whose cash flows are not subject to mirroring and are affected by asset returns, the discount rate that reflects the characteristics of the contract's cash flows shall reflect the extent to which the estimated cash flows are affected by the return from those assets. This would be the case regardless of whether the:

(i) transfer of the expected returns of those assets are the result of the exercise of insurer's discretion; or

(ii) the specified assets are not held by the insurer.

Presentation of changes in discount rate for contracts whose cash flows to are not subject to the mirroring approach and are affected by asset returns

23. This section is structured as follows:

    (a) background of relevant decisions of the boards for presenting changes in the insurance liability arising from changes in the discount rate (paragraphs 24-26); and

    (b) staff analysis on how changes in the discount rate should be presented for cash flows affected by expected asset returns to which the mirroring approach does not apply (paragraphs 27-52).

Background

OCI

24. In May 2012, the boards tentatively decided that an insurer should:

    (a) Present in Other Comprehensive Income (OCI) changes in the insurance liability arising from changes in the discount rate (subject to a future discussion on the treatment of participating insurance contracts);

    (b) Not present in OCI changes in the insurance liability arising from changes in interest-sensitive cash flow assumptions; and

    (c) Present in profit or loss interest expense using the discount rate *locked in at inception of the insurance contract*.

Participating contracts

25. At that May meeting, the boards' tentative decisions were subject to a future discussion on the treatment of "participating insurance contracts". In the October 2012 joint board meeting, the boards discussed participating contracts and noted that the mirroring decision would take precedence over the tentative decision that

an insurer should present in other comprehensive income changes in the insurance contract liability arising from the effect of changes in the discount rate[11].

26. As a result, for cash flows arising from participation features for which the mirroring decision applies, an insurer would present changes in the insurance contract liability in the statement of comprehensive income ("SCI") consistently with the presentation of changes in the directly linked underlying items. The resulting SCI presentation for insurance contracts subject to the mirroring decision serves to reduce accounting mismatches between the insurance contracts liability and the assets it is dependent upon.

How should changes in the discount rate be presented for contracts whose cash flows are not subject to the mirroring approach and are affected by expected asset returns?

27. Based on tentative decisions, the effect of changes in the discount rate would be required to be presented in OCI for those cash flows affected by expected asset returns to which the mirroring decision does not apply. Importantly, part of the basis for the boards' tentative decision to present in OCI changes in the insurance liability arising from changes in the discount rate was that these changes will reverse over time. Consequently including the impact of discount rate changes in OCI in each period would allow transparency of the underwriting results in profit or loss.

28. The cash flow amounts for non-participating contracts generally are not affected by movements in interest rates. In contrast, the cash flow amounts of universal life and other contracts with cash flows impacted by asset returns *are affected* by movements in market interest rates. Those movements also affect the discount rate used to measure the insurance contract. Consider the following example:

> **Example 1**
>
> Assume a non-participating contract that credits 100% of the cash flows resulting from an underlying pool of assets to the policyholder (e.g., not

[11] The FASB tentatively decided that for contracts to which the mirroring decisions do not apply and where the contractual obligation to the policyholder is directly linked to the fair value of the underlying items, changes in the insurance liability should be presented in profit or loss.

contractually based but rather as a result of insurer discretion). At the inception of the five year contract premiums of CU 100 are paid, the discount rate and asset yield are 5%. For simplicity, there is no risk adjustment or margin associated with this component of the insurance contracts liability. At the end of the first year, the assets mature and the CU 105 of proceeds are reinvested at a 10% asset yield (based on a shift in the risk free rate). There are no further changes in the discount rate. (Errors may occur due to rounding.)

The undiscounted estimated cash flows, the present value of these cash flows based on a rate locked in at contract recognition, and the liability (based on the current rate) initially and at the end of years 1 and 2 is as follows:

		undiscounted		PV at locked-in rate	PV at current rate	PV differences
		(A)		(B)	(C)	(B)-(C)
initial liability		128		100	100	-
liability at the end of year 1		154	*	126	105	21
liability at the end of year 2		154		133	116	17
* 105 X 1.1 ^ 4						

The statements of comprehensive income and financial position based on the tentative decisions would appear as follows:

with changes in disc rate in OCI	year 1	year 2
underwriting income	(21)	-
investment income	5	11
interest expense	(5)	(6)
net investment income	-	4
net income	(21)	4
OCI **	21	(4)
comprehensive income	-	-
	12/31/X1	12/31/X2
investment	105	116
insurance contracts liability	(105)	(116)
accumulated deficit	(21)	(17)
AOCI	21	17
** the OCI amounts in years' 1 and 2 represent the impact from the change in the discount rate (CU 21 in year 1) and the beginning of the		

29. Example 1 illustrates why presenting the interest expense in profit or loss at the discount rate locked-in at inception may be less useful when the cash flow amounts (vs. solely time value) are affected by changes in the performance of assets, including interest rates. Specifically, the amounts recognized as interest expense as the discount on the insurance contracts liability unwinds are inconsistent with the variable rate nature of the financing. The amounts credited to the policyholder account balance are akin to the interest payments on the amounts "borrowed" by the insurer. Because these payments vary with changes in interest rates (i.e., to the extent of their effect on the amounts credited to the policyholder, which are often highly correlated), portraying the interest expense as if it resulted from fixed rate financing would seem to be inconsistent with the overall objective of presenting changes in the insurance liability in a way that provides useful information to users. It would also be inconsistent with the accounting for floating rate debt instruments not marked to market through profit and loss (eg at Fair value through OCI (FVOCI)), for which the "locked in" discount rate used to present interest expense is reset upon changes in interest rates.

30. The staff thinks that the issues identified in paragraph 29 require a modification to the tentative OCI decisions specifically for cash flows affected by expected asset returns for which the mirroring decision does not apply. These cash flows' features are such that both the actual amounts of policyholder benefits and the discount rate on these cash flows are affected by interest rates or other asset risks[12]; these two changes may have an offsetting effect on the measurement of

[12] As part of the discussion leading to the tentative OCI decisions, the boards discussed the possibility of (but did not support) the use of OCI for changes in variables that are sensitive to interest rate movements (i.e., in addition to changes in the discount rate). Two examples of cash flows sensitive to interest rate assumptions that were prominent in those discussions are interest rate guarantees and lapse assumptions (due to the behavioral element). The effect of interest rate movements in these examples is a result of the change in the assumptions and probabilities of various possible scenarios rather than a change in the benefit itself. When interest rates go down, the surrender and lapse rates of liabilities also go down but the benefit available to a policyholder upon lapse is not directly affected. The guarantee can be thought of the same way. When the interest rate goes down it is more likely that the insurer will pay the fixed amount guaranteed rather than the participating benefit. In contrast to these examples, the value of the benefit itself increases or decreases as a result of the interest rate change. As described in paragraph 29 these benefits are economically similar to variable interest payments on an account balance "borrowed" by the insurer. For these reasons the participating features addressed by this paper bear much closer

insurance contracts liabilities. The remainder of this paper explores approaches that would modify the tentative OCI decisions for these cash flows by considering if the locked-in rate used to present interest expense in profit or loss should be reset and if so, when.

31. In assessing those approaches, the staff considered whether a viable alternative for addressing these issues might be to simply expand the scope of the tentative mirroring decisions to include the participation features discussed in this paper but chose not to further pursue that alternative. In arriving at this conclusion, the staff considered: each of the boards' bases for the scope of their tentative mirroring decisions—that mirroring is appropriate to reflect the liability's to those underlying assets as specified and that contracts such as those described in paragraph 3(b) that provide contractual right to the performance of specified investments but where the insurer doesn't hold the assets could not apply mirroring (i.e., there would be no assets to mirror the accounting of).

Alternatives available

32. Staff notes that these cash flows are analogous to those of floating debt instruments. As stated in paragraph 29, the discount rate applied to determine the interest expense in profit or loss for these financial instruments at FVOCI is reset when there is a change in interest rates. Staff thinks that periodically resetting the discount rate applied in determining interest expense for cash flows that are affected by the return from assets to which mirroring does not apply would result in more useful information.

33. Specifically, resetting of the discount rate used to present interest expense in profit or loss allows for a presentation of underwriting income, interest expense, and amounts of OCI that is a better reflection of the economics of the affected cash flows. The rate could be reset based as follows:

resemblance to the cash flows of participating contracts that are not subject to the tentative OCI decisions than to the interest sensitive cash flows that were discussed in arriving at the tentative OCI decisions for non-participating contracts.

(a) Alternative 1a – Upon any change in the crediting rate (paragraphs 38-41);

(b) Alternative 1b – Upon any change in expectations of the crediting rate (paragraphs 42-44); or

(c) Alternative 2 – Upon any change in book yield to the book yield (paragraphs 45-46).

The rest of the paper uses 'crediting rate' to mean the rate used to determine the amounts allocated to the policyholder's account balance for its share in the net performance of underlying items (e.g., assets, mortality and lapse experience.

34. Under Alternatives 1a and 1b, upon the occurrence of a triggering event, the locked-in rate used to present interest expense would be reset to the current discount rate that reflects the characteristics of the cash flows used to determine the liability's amount on the statement of financial position. Resetting the rate the interest expense is recognized at (to reflect the implicit financing element of an insurance contract) upon a change in the crediting rate might be considered to be analogous to changing the rate at which interest is accrued at for a variable rate debt obligation upon the date the variable rate is reset. The difference between Alternatives 1a and 1b is the triggering event for the reset.

35. Alternative 2 would reset the locked-in rate upon any change in book yield to the book yield (explained in paragraphs 45-46). That book yield may have different characteristics than the current discount rate that reflects the characteristics of the cash flows used in the measurement of the liability.

36. All of these alternatives affect the presentation of interest expense in profit or loss and the amounts presented in OCI. These alternatives do *not* affect the discount rate that is applied to the measurement of the insurance contracts liability recognised on the statement of financial position, which is at a current, updated discount rate.

37. All the alternatives in paragraph 33 would be a modification to the boards' decision to present interest expense using the rate at inception of the contract,

discussed in paragraph 24, for only cash flows affected by expected asset returns to which the mirroring approach does not apply.

Alternative 1a – Reset the rate upon any change in the crediting rate

38. Updating the locked-in rate upon changes in the crediting rate (Alternative 1a) might align the timing of changes in the passed through cash flows with the changes in asset yields that affect both those cash flows and the discount rate on those cash flows.

39. To the extent that the expected asset returns change and the crediting rate does not, this may indicate that the insurer does not expect to transfer the expected asset return to the policyholder. However, in some circumstances though the insurer may just not yet have updated the crediting rate to reflect the asset return it intends to pass through to the policyholder. Under this alternative some think that the amounts in OCI would reflect movements in discount rates that may reverse over time because the insurer has not reflected the expected asset returns in the actual crediting rates. Those that support this alternative argue that the insurer is exposed to some of the investment performance in this interim period, even if only temporarily (e.g., if the contract lapsed prior to the crediting rate being updated).

40. However, a disadvantage to Alternative 1a is that some think that, when there is a lag between the recognition of the change in the expected asset returns in the measurement of the liability and the insurer''s actual adjustment to the crediting rate, the amounts presented in the statement of comprehensive income are inconsistent with the economics of the contract. For example, the crediting rate might only be adjusted once a year, prospectively for amounts to be credited for the next year. In between the adjustment to the crediting rates, the expected asset returns might change such that the effect on the future crediting rate is reasonably determinable (and the liability might often be expected to be updated accordingly). This could lead to an inconsistency between 1) the investment income from the assets and 2) the *interest expense* for the liability, which would

continue to be based on a rate reflecting the time value of money from an earlier period (ie the date of the last adjustment of the crediting rate).

41. Additionally under Alternative 1(a), if there is a lag between the expected asset returns in the measurement of the liability and the insurers actual adjustment to the crediting rate, during that period any changes in estimates of the amounts to be credited will also affect *the amount of underwriting gains or losses* in profit or loss despite a component of those amounts being more reflective of a financing cost that should be presented as part of interest expense. This may result in an over or understatement of the underwriting performance of that contract. Said another way the change in the interest rate that impacts both the change in the discount rate and the expected amount of (undiscounted) cash flows would, for periods where the crediting rate still lags the discount rate, be reflected partially as an underwriting gain or loss even if the discounted liability remains unchanged.

Alternative 1b – Upon any change in expectations of the crediting rate

42. In Alternative 1b, the insurer shall reset the locked-in discount rate used to present interest expense in profit or loss upon a change in *expectations* of the crediting rate. Alternative 1b builds off of Alternative 1a but revises it such that it would align the timing of the reset of the locked-in discount rate with the timing of

    (a) recognition of the changes in expected cash flows; and

    (b) the change in the discount rate used for the measurement of the liability in the statement of financial position (i.e., the change in the expected asset returns will contemporaneously affect the discount rate used to measure the liability in the statement of financial position and the discount rate used to present the interest expense in profit or loss).

    Consequently, the effects of changes in discount rate for these cash flows will be fully presented in profit or loss rather than OCI.

43. In circumstances where the expected returns of the assets are credited to the policyholders (such as in Example 1 above), the change in expected returns of the assets affects both the assets and the insurance contract where the cash flows are

impacted by the expected return from those assets. Accordingly, one way to reflect the impact from changes in asset yields on both the cash flows and the discount rate used to measure the liability is to reset the locked-in discount rate used to present interest expense in profit and loss to 10% when the cash flows are updated to reflect the higher expected crediting rate.

44. Some think Alternative 1b results in information in the statement of comprehensive income that is a better reflection of the nature of those cash flows affected by expected asset returns. Under this alternative, the interest expense reflects the variable rate nature of the financing implicit in the insurance contract cash flows.[13].

Alternative 2 – Reset upon any change in book yield to the current book yield

45. Some preparers have suggested that the locked-in rate used to present interest expense be reset to the book yield upon any changes in the current portfolio book yield of the assets that the insurance contract are backed by. The current portfolio book yield is consistent with how assets are reported in the SCI (i.e., market yield for assets held at fair value through profit or loss (FVPL) and an amortised cost-based yield for assets held at amortised cost or FVOCI). The current portfolio book yield includes adjustments for expected/unexpected defaults and expected reinvestment rates in situations of an asset-liability mismatch[14]. In contrast to Alternatives 1a and 1b, the locked-in rate used for presenting interest expense is the current portfolio book yield. This rate is likely to be different than the discount rate reflecting the characteristics of the cash flows affected by expected asset returns used for measurement of the liability on the balance sheet.

46. Similar to Alternative 1a, Alternative 2 would allow for an objective determination of when the rate is to be reset although this alternative may require

[13] The financing component of the insurance contract that the interest expense represents is analogous to a variable rate loan in that the interest credited reflects changes in asset yields.

[14] The current portfolio book yield discount rate is conceptually consistent with the "mirroring" approach, as it leads to a consistent reporting of assets and liabilities in the profit or loss. However, it does not result in consistent reporting in the amounts in OCI nor the balance sheet in some circumstances.

a insurer to exercise judgment about the future trend of interest rate curves (related to asset reinvestment) and default risk (related to asset reinvestment and any existing asset liability mismatch).

47. Alternative 2 implicitly assumes that changes in the book yield will trigger a change in the interest credited to policyholders, which is generally but not necessarily the case for universal life contracts. Depending on how the assets are measured, the book yield may have even less impact on the crediting rates for index-linked contracts and similar type contracts. For example, in a contract that makes payments index-linked to the FTSE100, the insurer need not hold equity instruments but may back those contracts with a mixture of assets at their discretion. Resetting the locked-in discount rate to present interest expense equal to the book yield may, if the book yield does not actually result in changes in the crediting rate, inadvertently result in recognition of underwriting gains and losses (i.e., arising out of differences between the change in the liability and the amount of interest expense recognized) that are difficult for users to understand.

48. Additionally, because the amount of interest expense is a function of the accounting basis for the underlying assets, the amount of interest expense cumulatively recognized might not be equal to the amount of discount actually unwound on the liability. For example, this would occur in circumstances where any amortized cost or FVOCI assets are recognized prior to the liability being recognized (assuming the market yield on those assets changed between these dates). In these circumstances, the initial investment income will be based on a book yield that may differ from the rate used to discount the liability. Consequently, that difference will represent a "permanent" difference between the interest expense cumulatively recognized and the amount of discount actually unwound on the liability[15].

49. Finally, it may be difficult to identify the assets held by the insurers to back these insurance liabilities. Some insurers back these insurance liabilities at higher level (eg a 'grouping' of assets could be used to back several portfolios).

[15] A possible solution to this issue might be to utilize the market yield as the initial "base" rate and to adjust this base rate by the amount of any subsequent changes in the book yield.

Staff recommendation

50. Staff does not recommend Alternative 2 because of the disadvantages discussed in paragraphs 47-49.

51. Alternatives 1a and 1b will result in some discount rate volatility in profit or loss because of the resetting of the locked-in discount rate in presenting interest expense. In addition, some think that resetting the discount rate for the presentation of interest expense results in more complexity in the proposed requirements. However, presenting interest expense using the rate at inception is likely to be more confusing for cash flows that are affected by expected asset returns (as discussed in paragraph 29).

52. Of the alternatives identified by the staff, we think Alternative 1b aligns the SCI presentation with the change in the liability recognised on the statement of financial position in the most useful way. The interest expense for these contracts will reflect the variable rate nature of the financing implicit in the insurance contract cash flows. Consequently, the recommendation limits the amounts reported in OCI to changes in the insurance liability that reverse over time for contracts whose cash flows are **not** affected by expected asset returns.

Question 2 Resetting the discount rate used to present interest expense
Do the boards agree that for contracts whose cash flows are not subject to mirroring and are affected by asset returns, upon any change in expectations of the crediting rate used to measure the insurance contracts liability, an insurer shall reset the locked-in discount rate that is used to present interest expense?

Appendix A: Summary of the “mirroring approach" for participating insurance contracts

A1. As noted in the body of his paper, the boards have tentatively decided the “mirroring approach” should apply only to participating contracts, which contain participation features that provide policyholders with the contractual right to share in the return from specified underlying items. The recommendations in this paper apply to participation features that are *not* subject to the “mirroring approach” described in this appendix, which is included to provide context to the scope of the staff recommendations. Paragraphs A2 through A3 that follow have been reproduced from Agenda paper 2F/90F September 2011.

A2. Under the ”mirroring approach”, in order to avoid accounting mismatches, the insurer measures and presents the part of the obligation that relates to the underlying items on the same basis as it measures and presents those underlying items. To achieve this overall objective, the boards tentatively decided the following:

(a) The IASB tentatively decided that the measurement of the fulfilment cash flows relating to the policyholder’s participation should be based on the measurement in the IFRS financial statements of the underlying items in which the policyholder participates. An insurer should present changes in the insurance contract liability in the statement of comprehensive income consistently with the presentation of changes in the linked item.

(b) The FASB tentatively decided that the obligation due to the performance-linked participation features should be measured based on an insurer’s contractual obligation incurred to date adjusted to eliminate accounting mismatches that reflect timing differences between the contractual obligation and the measurement of the underlying items in the U.S. GAAP statement of financial position that are expected to reverse within the boundary of the insurance contract. Any changes in

the liability for performance-linked participation features should be presented in the same way in the statement of comprehensive income as the changes in the underlying item.

A3. The boards' respective decisions on the "mirroring approach" are designed to achieve the same overall objective (ie to measure and present the part of the obligation that relates to the underlying items on the same basis as those underlying items). In most cases, the different decisions should produce the same outcome. However, there are situations where, in accordance with the IASB's tentative decisions, mirroring would apply but in accordance with the FASB's tentative decisions, mirroring would not apply. For example:

(a) If payments to a policyholder are contractually based on the fair value of real estate but the real estate is measured at cost in the financial statements of the insurer, then:

(i) In accordance with the IASB's tentative decision, the insurance liability would reflect the cost based measurement of the underlying real estate.

(ii) In accordance with the FASB's decision, no adjustment would be made to the measurement of the insurance liability. The FASB does not consider that the difference between the expected payment to policyholders (which is based on the fair value of the real estate) and the cost based measurement of the real estate is a timing difference that is expected to reverse within the boundary of the insurance contract when the contractual basis of payments to policyholders is fair value. This is because the insurer may use other funds to pay the policyholder rather than sell the real estate or transfer the real estate to the policyholder. If the insurer did sell the real estate, the obligation to the policyholder would not change and the cumulative losses on the insurance obligation recognised in previous periods would be offset by the gain on the sale of the real estate.

(b) If payments to a policyholder are contractually based on the net fair value of a pool of investments (i.e., the fund in which a policyholder elects to invest as part of their variable insurance contract) but all or some of the investments in the pool are measured at amortized cost in the financial statements of the insurer, then:

(i) In accordance with the IASB's tentative decision, the insurance liability would reflect the amortised cost based measurement of the underlying pool or assets.

(ii) In accordance with the FASB's tentative decision, no adjustment would be made to the insurance liability. The FASB does not believe that the difference between the expected payment to policyholders (which is based on the net fair value of the pool of investments) and the amortized cost of the underlying investments, will necessarily reverse when payments are made to the policyholder. This is different from when the contractual obligation is based on amortised cost and the insurer measures the underlying assets at fair value. If the insurer were to sell the underlying asset, the insurer would be required to share with the policyholder any difference between the fair value of the asset and its amortised cost. Consequently, the FASB believe that adjusting the measurement of the liability in these circumstances to reflect the fair value measurement of the assets results in the insurer correctly reporting equity and the obligation.

A4. Participating contracts in which the policyholder participation in an underlying item is partially through a contractual right and partially through the exercise of insurer discretion is another example (i.e., in addition to those listed in subparagraphs A3(a)and (b)) where, in accordance with the IASB's tentative decisions, mirroring would apply but in accordance with the FASB's tentative decisions, mirroring would not apply. For example, a contract that requires an insurer to credit the policyholder a minimum of 90% of the return from a specified pool of assets held by the insurer, but for which the insurer expects to credit 93%

of the return from these assets is such a contract. Under the IASB's tentative decisions, all of the cash flows representative of the 93% return would be subject to "mirroring" whereas under the FASB's tentative decisions only the non-discretionary 90% return would be subject to "mirroring" with the remaining 3% return accounted for as a fulfillment cash flow but not subject to the mirroring decisions.

Appendix B: Details on features of Universal Life contracts

A1. A universal life contract can be defined as a permanent life insurance policy with terms that are not fixed or guaranteed with respect to premium amounts, expense assessments, or benefits accruing to the contract holder. The policy includes a cash value, which is referred to as an account balance and serves as the basis for determining the amount of insurance protection and against which the policyholder can withdraw or borrow. The death benefit, savings element, and premiums can be reviewed and altered as the policyholder's circumstances change within certain limits stated in the policy. The cash value may grow at a variable rate that may be adjusted as frequently as monthly (sometimes it is pegged to a financial index such as a stock, bond or other interest rate index) or at a minimum rate specified in the contract.

A2. Universal life contracts originated as a response to policyholder demand for products that offered more flexibility than whole life insurance by allowing the policy owner to shift money between insurance and savings components of the policy. The product essentially combines term life insurance and a savings element (like whole life insurance) which is invested to provide a cash value accumulation.

A3. Currently, insurers treat universal life premiums paid as deposits that are accumulated in a notional account. This account is periodically increased by credited interest and decreased by various charges (e.g., mortality, expenses, etc.).

A4. Universal life premiums may be fixed by the terms of the contract, but many contracts allow for the timing and amount of the premiums to be varied by the policyholder within wide parameters. These contracts with variable premium require a minimum premium to keep the policy in force and provide coverage at the specified amount. Within the same product design, it is possible for one policyholder to be paying minimum premiums and effectively purchasing term insurance, whereas another policyholder could be accumulating a significant account balance. Many products allow for extra dump-in premiums (i.e., lump

sum payments) in addition to regularly scheduled premiums that might entitle the policyholder to additional death benefits, for example.

A5. Issuers of universal life contracts typically use what is called the contribution method for allocating dividends / interest among policies. In applying that method, an insurer takes into account mortality, interest and expenses, gains and losses, and other miscellaneous items. Those components are measured by comparing actual to expected experience. For some of these components (e.g., mortality) an insurer wouldn't necessarily recognize a change in the dividend scale from year to year. Typically, the most important contributor to the determination of a dividend is the investment return. In practice, management might decide how much surplus it wants to retain at the end of the year and then sets the dividend formula accordingly (usually by adjusting the interest rate credited to the policy). However, for competitive or other reasons the company might decide not to lower dividends in a year when interest is falling if it would put it in a bad position. Similarly, despite an actual or expected favourable change in investment experience, an insurer might not increase the dividend scale if management determines it is not needed for customer retention or to protect the brand.

A6. The amount of both the interest crediting and the various charges for universal life contracts are, generally, subject to the discretion of the insurer but subject to certain contractual constraints. The death benefit can be level (referred to as "Type A" contracts) or can increase as the account balance increases (referred to as "Type B" contracts). A cost of insurance charge and, generally, some form of expense charge is deducted from the account balance. Some products offer persistency or other bonuses that are also credited to the account value. The policy may contain other options and guarantees, such as, the right to convert to a paid-up policy, the right to settle the account balance under a specified settlement option, or a *secondary guarantee*, where if certain minimum premium payments are made for a given period, the policy will remain in force for the guarantee period even if the cash value drops to zero (i.e., a no lapse guarantee).

Appendix C: Illustration of how an insurer might calculate the discount rate for cash flows to which the mirroring approach does not apply but are affected by expected asset returns

A1. The following simplified example is included for illustrative purposes as to one way how an insurer *might* calculate the discount rate for cash flows affected by expected asset returns to which the mirroring decisions do not apply (e.g., a universal life contract). Further adjustments to the results might be required to ensure that the value of the guarantee is fully reflected in the discount rate reflecting the characteristics of the liability

Example 2

Assume a one year contract that the policyholder pays CU 100,000 at the inception of the contract. Further assume that the insurer has no contractual obligation to pass through an asset return but for which it determines the amount it credits to the policyholder based on the return of an asset with a 7% coupon less a spread of up to 0.75% of the asset cash flows, subject to a guaranteed minimum crediting rate of 6%.

The following table identifies the insurer's probability-weighted expectations for the asset return[16], reflecting observable market prices for the assets and estimates of default risks:

[16] The example uses 'real-world' probabilities rather than 'risk-neutral probabilities'. The term most commonly used to describe an estimate of the likelihood of occurrence, unadjusted for risk, is "real-world" probability. For simplicity, the example assumes identical market risk premiums in all the scenarios. The term most commonly used to describe the probabilities determined considering the market risk premium is "risk-neutral" probabilities.

Asset scenarios	*Scenario 1*	*Scenario 2*	*Scenario 3*	*Scenario 4*	Mean
scenario probability:	25%	25%	25%	25%	
Asset gross redemption yield (i.e., YTM based on contractual cash flows)	7.00%	7.00%	7.00%	7.00%	7.00%
Expected defaults	0.00%	0.60%	0.90%	1.50%	0.75%
Expected asset return*	7.00%	6.40%	6.10%	5.50%	6.25%
Reward for default risk (i.e., risk actual defaults exceed expected defaults)	0.25%	0.25%	0.25%	0.25%	0.25%
Risk adjusted return**	6.75%	6.15%	5.85%	5.25%	6.00%
** for simplicity, this example assumes that there are no expected illiquidty losses (i.e., upon a forced sale) or management expenses that affect the insurer's expected asset return and that the market risk premium is the same in all the scenarios. Normally, the market risk premium is likely to be different in each scenairo.*					
*** this rate should be representative of a top-down approach determined discount rate for liability cash flows whose duration matches those of the asset but are NOT dependent on the performance of specified assets (this example assumes there are no additional components to the market price, such as, market sentiments, market inefficiencies, unidentified elements, etc.)*					
Crediting Rate Determination	*Scenario 1*	*Scenario 2*	*Scenario 3*	*Scenario 4*	Mean
Expected asset return	7.00%	6.40%	6.10%	5.50%	6.25%

Further assume that based on the above expectations for the asset return, the insurer estimates the amount it will credit the policyholder as follows:

Crediting Rate Determination	*Scenario 1*	*Scenario 2*	*Scenario 3*	*Scenario 4*	Mean
Expected asset return	7.00%	6.40%	6.10%	5.50%	6.25%
Targeted spread	0.80%	0.80%	0.80%	0.79%	0.80%
Any other adjustments (e.g., due to assessment of competition)	0.00%	0.00%	0.00%	0.00%	0.00%
Adjustment due to guaranteed minimum	0.00%	-0.40%	-0.70%	-1.29%	-0.60%
Expected crediting rate	6.20%	6.00%	6.00%	6.00%	6.05%
Expected cash outflow	106,198	106,000	106,000	106,000	106,049
Expected cash inflow from asset	107,000	106,400	106,100	105,500	106,250
Insurer expected spread	803	400	100	(500)	201
Spread as a % of expected asset CF	0.75%	0.38%	0.09%	-0.47%	0.19%
Credit losses absorbed by insurer	0.00%	0.00%	0.00%	-0.47%	-0.12%
Expected cash outflow for scenarios where policyholder return greater than guarantee	106,198	-	-	-	26,549

In these circumstances, the insurer might determine the discount rate for the above cash flows by separating these cash flows into two categories, one deemed asset dependent and one not deemed asset dependent. In this example, the expected cash outflows for the scenario where the return exceeds the guaranteed minimum return are characterized as asset

dependent (i.e., CU 26,549) and discounted at the expected asset return of 6.25% and the remaining cash flows (i.e., CU 79,500 or CU 106,049 less CU 26,549) are characterized as non-asset dependent and discounted at the non-asset dependent discount rate of 6.0%.

(Discount rate based on…)	asset affected	non-asset affected
Expected cash outflow	26,549	79,500
Discount rate	6.25%	6.00%
	24,988	75,000
Insurance liability		99,988

Further adjustments to the results might be required to ensure that the value of the guarantee is fully reflected in the discount rate reflecting the characteristics of the liability.