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Project **Insurance Contracts**  
Topic **Embedded derivatives**

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### **Purpose**

1. This paper discusses the accounting treatment for derivatives embedded within an insurance host contract.
2. This paper does not address the following issues, which we will consider separately:
  - (a) The treatment of the embedded guarantees and options that arise in participating insurance contracts because the payout to the policyholder is the higher of a guaranteed amount and a participating amount.
  - (b) Embedded options for additional insurance coverage or goods and services unrelated to insurance. This topic will be discussed at a future meeting.
3. The body of the paper is very short. It contains lengthy appendices designed to give board members an idea of the range of embedded derivatives that exist within insurance contracts and of the complexity that may arise if the boards decide that entities should separate these derivatives from the host insurance contract. The staff provides the appendices as background and will not ask the boards to discuss them during the meeting. The staff does not expect board members to study the appendices in detail. The appendices are as follows:
  - (a) Appendix A: Background information on embedded derivatives
  - (b) Appendix B: Definition of derivative in US GAAP and IFRS
  - (c) Appendix C: Excerpt from IFRS 4 (Implementation Guidance)
  - (d) Appendix D: Excerpt from application guidance in IAS 39

### **Summary of the staff's recommendation**

4. The staff recommends that derivatives embedded in an insurance contract be measured using the same measurement approach applied to an insurance contract.

## Analysis

5. This paper is divided into the following sections:
  - (a) Measurement objective for derivatives (paragraph 6)
  - (b) Differences between fair value and the measurement proposed for insurance contracts (paragraphs 7 through 10)
  - (c) How should embedded derivatives in insurance host contracts be measured? (paragraphs 11 through 13)

### *Measurement objective for derivatives*

6. Both IFRS and US GAAP generally require entities to measure derivatives at fair value. This achieves the following benefits:
  - (a) Consistency of financial variables (for example, discount rates, equity market prices) with observable market data.
  - (b) Capturing both the intrinsic value of options and their time value.
  - (c) Changes in the carrying amount of the derivatives are recognised in profit or loss.

### *Differences between fair value and the measurement proposed for insurance contracts*

7. The measurement proposed in Agenda Paper 7A (FASB Memorandum 32A) for insurance contracts also achieves the benefits noted in paragraphs 6(a) and (b). However, unlike that measurement, fair value:
  - (a) requires a market participant view for all variables, not just for financial market variables. For other variables (such as mortality, frequency and severity of insured losses), the measurement proposed for insurance contracts requires an entity to consider all available information and does not require the entity to estimate how market participants would view those variables. In the staff's view, in practice there will not often be clear evidence that market participants would form a view that differs from the entity's view, but it is at least a theoretical possibility and a fair value measurement would need to consider it.

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- (b) incorporates an entity's own credit risk. In the staff's view, inclusion of an entity's own credit risk is a by-product of using fair value measurement, but is not the primary motivation for, or benefit from, measuring derivatives at fair value.
  - (c) does not incorporate a residual margin<sup>1</sup>. This difference will have a practical effect only if the boards decide that an entity should adjust the residual margin when there is a change in the estimate of the expected present value of cash flows (see Agenda Paper 7B (FASB Memorandum 32B)).
8. If the boards agrees that changes in the carrying amount of derivatives embedded in a host insurance contract should be presented in profit or loss, this achieves the benefit noted in paragraph 6(c). The IASB will discuss on December 15<sup>th</sup> whether changes in the liability should be displayed in other comprehensive income. The FASB plans to discuss this topic in the near future.
9. In considering how the recommended measurement model would deal with financial market variables, it is worth referring to the notion of a *replicating portfolio*. The boards have not discussed this notion. Paragraph F8 of the discussion paper on insurance contracts gave the following explanation.

In some cases, a replicating asset exists for some or all of the contractual cash flows arising from an insurance contract. A replicating asset is one whose cash flows exactly match those contractual cash flows in amount, timing and uncertainty. The current exit value of those contractual cash flows equals the fair value of the replicating asset. Thus, if the fair value of the replicating asset is observable or determinable, the insurer can estimate the current exit value of those contractual cash flows without estimating their expected present value and without determining an explicit risk margin.

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<sup>1</sup> Under proposals in the IASB's exposure draft *Fair Value Measurement*, an entity would defer any gain or loss that arises on initial recognition of a financial instrument at fair value, unless that fair value is evidenced by comparison with other observable current market transactions or based on a valuation technique whose variables include only data from observable markets. That deferred gain or loss could be viewed as similar to the residual margin discussed in the papers for this meeting. Existing requirements in IAS 39 *Financial Instruments: Recognition and Measurement* have a similar effect, but the deferred gain or loss is treated as part of fair value, rather than as something separate from fair value.

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10. In the staff's view, the measurement proposed for insurance contracts requires an entity to deal with embedded derivatives using a replicating portfolio approach, or any other approach that would, in principle, produce the same result. For example, suppose an insurance contract contains an embedded option to put a basket of traded assets. The replicating portfolio for those cash flows would be an option with the same features. The entity would observe or estimate the fair value of that option and include that amount in the measurement of the entire insurance contract. Applying that technique might be similar to separating the embedded option. However, the entity could use other techniques if they would, in principle, achieve the same measurement of the contract as a whole. For example, other techniques may be more robust or easier to implement if there are significant interdependencies between that embedded option and other features of the contract. Deciding which approach best meets the objective in practice in particular circumstances is an implementation issue, not a standard-setting issue.

### ***How should embedded derivatives in insurance host contracts be measured?***

11. The staff considered two views about measuring embedded derivatives:
  - (a) **View A:** Measure at fair value (using existing guidance on when to bifurcate)
  - (b) **View B:** Measure consistent with the proposed measurement used for the insurance host contract
12. Supporters of View A argue that:
  - (a) Fair value is the only relevant measurement basis for derivatives. It is the only method that provides sufficient transparency in the financial statements.
  - (b) Contractual rights and obligations that create similar risk exposures should be treated in the same way whether or not they are embedded in a non-derivative contract. Without such requirements, entities might seek to avoid the requirement to measure derivatives at fair value by embedding a derivative in a non-derivative contract.

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- (c) IAS 39's and Statement 133's requirements for embedded derivatives (that are financial liabilities) apply to a host contract of any kind. Exempting host insurance contracts from those requirements would be a retrograde step.

### 13. Supporters of View B argue that:

- (a) The result of the measurement proposed in Agenda Paper 7A (FASB Memorandum 32A) achieves the main benefits that fair value measurement achieves. Eliminating the remaining differences would not provide users with significant additional benefits.
- (b) Separating these derivatives would be costly and burdensome.
- (c) Some of these derivatives are intertwined with the host insurance contract in a way that would make separate measurement arbitrary. The fair value of the whole contract might differ from the sum of the fair values of its components. Moreover, some insurance contracts have multiple embedded derivatives. Interaction between these derivatives within a single contract could make bifurcation complex and arbitrary.
- (d) It would be contradictory to require a fair value measurement of an insurance contract (that is, an insurance derivative or a hybrid insurance-financial derivative [see Appendix A]) embedded in a larger contract if such measurement is not required for a stand-alone insurance contract.

## Staff recommendation

- 14. A majority of the staff recommends that derivatives embedded in an insurance host contract be measured using the same measurement approach applied to the insurance contract. Although measuring derivative instruments at fair value provides significant benefits to users of financial statements, we can achieve most if not all of those benefits using the measurement approach proposed for insurance contracts. Moreover, bifurcating an embedded derivative from an insurance contract creates significant complexity. We can avoid that complexity through using one measurement for insurance contracts.

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15. Some staff recommend that embedded derivatives in an insurance host contract should be bifurcated and measured at fair value through profit or loss. These staff members believe that fair value is the only appropriate measure for all derivatives and all derivatives should be measured using a consistent measurement attribute. In addition, these staff members believe that significant pressure will be placed on the definition of an *insurance contract* and entities will have an incentive to meet the definition to avoid accounting for derivatives at fair value.

### Question for the boards

For insurance contracts with embedded derivatives, what view do the boards support:

**View A:** Fair value

**View B:** A measurement consistent with the proposed measurement used for the insurance host contract?

A1. This appendix provides the boards with background information concerning the types of embedded derivatives contained in host insurance contracts, current accounting relevant to this topic, the views expressed in the discussion paper on insurance contracts, and comments received from field testing.

***Types of embedded derivatives contained in host insurance contracts***

A2. Many insurance contracts contain embedded options, guarantees or other types of embedded derivative. Paragraphs IG 3 and 4 and the related IG example 2 of the *Guidance on Implementing IFRS 4* explains how the existing requirements apply for 20 different types of embedded derivative. Appendix B to this paper reproduces that material, which will give board members a feel for the range of embedded derivatives in insurance contracts.

A3. Three categories of embedded derivatives exist in insurance contracts:

- (a) financial derivatives: derivatives that would, if they were stand-alone instruments, be derivatives in the scope of IAS 39.
- (b) insurance derivatives: derivatives for which the underlying is mainly insurance-related.
- (c) hybrid insurance-financial derivatives: derivatives that contain both a significant insurance-related underlying and a significant financial underlying.

*Financial derivatives*

A4. Financial derivatives are derivatives that would, if they were stand-alone instruments, be derivatives in the scope of IAS 39. Examples are:

- (a) an equity-indexing feature of a life insurance contract if that feature applies equally to all benefits payable on death, maturity and surrender.
- (b) a guaranteed minimum return on an index-linked investment contract.

A5. Financial derivatives must be classified as ‘at fair value through profit or loss’.

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### *Insurance derivatives*

- A6. Insurance derivatives are derivatives for which the underlying is mainly insurance-related. Examples are:
- (a) Guaranteed insurability options.
  - (b) Options to surrender an insurance contract, or to suspend or cease premiums.
  - (c) Options to convert one form of contract for another at prices constrained by the original contract.
  - (d) Insurance swaps (eg a swap of Japanese earthquake risks for California earthquake risks)
  - (e) Insurance features embedded in catastrophe bonds with an indemnity trigger (ie a trigger that requires an adverse affect on the issuer). However, catastrophe bonds with a parametric trigger (ie with no requirement for an adverse effect) do not meet the definition of an insurance contract in IFRS 4.

### *Hybrid insurance-financial derivatives*

- A7. Some embedded derivatives contain both a significant insurance-related underlying and a significant financial underlying. These embedded derivatives could be described as hybrid insurance-financial derivatives. Examples are:
- (a) A guaranteed annuity option. An example is a contract where the policyholder pays a fixed monthly premium for thirty years. At maturity, the policyholder can elect to take either (i) a lump sum equal to the accumulated investment value or (ii) a lifetime annuity at a rate fixed at inception (ie when the contract started). Fixing the annuity price at inception exposes the insurer to both interest rate risk and significant insurance risk (mortality risk).
  - (b) A guaranteed minimum death benefit. An example is a contract where the policyholder pays a fixed monthly premium for 30 years. Most of the premiums are invested in a mutual fund. The rest is used to buy life cover and to cover expenses. On maturity or surrender, the insurer pays



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the value of the mutual fund units at that date. On death before final maturity, the insurer pays the greater of (i) the current unit value and (ii) a fixed amount. The host contract is a mutual fund investment and the embedded derivative is a feature that pays a death benefit equal to the fixed amount less the current unit value (but zero if the current unit value is more than the fixed amount).

A8. In developing IFRS 4, the Board was concerned that insurers need not, during phase I of that project, recognise some potentially large exposures to hybrid insurance-financial derivatives creating risks that many regard as predominantly financial. To go some way to meeting those concerns, IFRS 4 requires an insurer:

- (a) to disclose information about ‘exposures to interest rate risk or market risk under embedded derivatives contained in a host insurance contract if the insurer is not required to, and does not, measure the embedded derivative at fair value.’
- (b) to consider embedded options and guarantees in carrying out a liability adequacy test. Although the Board’s objective was not to develop a detailed liability adequacy test for phase I, the Board decided that the minimum requirements for an existing liability adequacy test should include considering cash flows resulting from embedded options and guarantees. The Board did not specify how those cash flows should be considered but noted that an insurer would consider this matter in developing disclosures of its accounting policies. If an existing liability adequacy test does not meet the minimum requirements, a comparison is made with the measurement that IAS 37 would require. IAS 37 refers to the amount that an entity would rationally pay to settle the obligation or transfer it to a third party. Implicitly, this amount would consider the possible effect of embedded options and guarantees.

### **Current accounting literature**

A9. IFRS 9, *Financial Instruments*, defines embedded derivatives as follows:

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An embedded *derivative* is a component of a hybrid contract that also includes a non-derivative host—with the effect that some of the cash flows of the combined instrument vary in a way similar to a stand-alone derivative. An embedded derivative causes some or all of the cash flows that otherwise would be required by the contract to be modified according to a specified interest rate, financial instrument price, commodity price, foreign exchange rate, index of prices or rates, credit rating or credit index, or other variable, provided in the case of a non-financial variable that the variable is not specific to a party to the contract. A derivative that is attached to a *financial instrument* but is contractually transferable independently of that instrument, or has a different counterparty, is not an embedded derivative, but a separate financial instrument.

- A10. The scope of IFRS 9 is all assets within the scope of IAS 39, *Financial Instruments: Recognition and Measurement*. IFRS 9 removed the need to bifurcate derivatives embedded in a host financial asset. However, most embedded derivatives found within an insurance host are liabilities. Consequently, aside from editorial changes made to IAS 39 by IFRS 9, IFRS 9 is not relevant to the discussion.
- A11. IAS 39 requires an entity to classify embedded derivatives as ‘at fair value through profit or loss’. To achieve this, if an entity does not classify the entire hybrid (combined) contract as ‘at fair value through profit or loss’, the entity must separate the embedded derivative from the host contract.
- A12. However, the separation (bifurcation) requirement described in the previous paragraph does not apply:
- (a) if the economic characteristics and risks of the embedded derivative are closely related to the economic characteristics and risks of the host contract.<sup>2</sup>
  - (b) if the embedded derivative:
    - (i) itself meets the definition of an insurance contract, or
    - (ii) is a policyholder’s option to surrender an insurance contract (or a financial instrument containing a discretionary participation feature) for a fixed amount (or

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<sup>2</sup> see paragraph AG33 of IAS 39 for examples of embedded derivatives that are closely related to their host contract and paragraph AG30 of IAS 39 for examples of embedded derivatives that are not closely related.

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for an amount based on a fixed amount and an interest rate).<sup>3</sup>

- A13. If an entity cannot measure separately an embedded derivative that it is required to separate, it must designate the entire hybrid (combined contract) as at fair value through profit or loss.
- A14. Sometimes, an embedded derivative and the host insurance contract are so interdependent that an entity cannot measure the embedded derivative separately. IAS 39 gives this as an example of when an embedded derivative is closely related to the host insurance contract.<sup>4</sup>
- A15. Codification Topic 815-15 addresses the accounting for embedded derivatives under US GAAP. Topic 815-15 defines embedded derivatives as “Implicit or explicit terms that affect some or all of the cash flows or value of other exchanges required by a contract in a manner similar to a derivative instrument.” For purposes of the discussion in this paper, that guidance is not significantly different from IAS 39. Differences do exist with regard to (a) when the assessment to separate an embedded derivative occurs and (b) the guidance about “closely related” (IAS 39) and “clearly and closely related.”

### ***Discussion Paper and Respondent Comments***

- A16. The discussion paper did not devote a significant amount of discussion to embedded derivatives because the views on the appropriate measurement attribute for insurance contracts suggested current exit value (similar to, if not the same as, fair value). However, the discussion paper briefly mentioned insurance contracts with embedded options and guarantees in the context of using a building block approach to measurement. Paragraph 42 of the discussion paper states:

Many insurance liabilities contain significant embedded options and guarantees. Most accounting models have, until recently, attributed no value to embedded options or guarantees that have no ‘intrinsic value’ because they are currently out of the money. However, such embedded options and guarantees

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<sup>3</sup> IFRS 4, paragraphs 8 and 9

<sup>4</sup> IAS 39, paragraph AG33(h)

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also have a 'time value' because they could be in the money at expiry. [footnote removed] Because the expected present value approach considers all possible outcomes, it incorporates both the intrinsic value and time value of embedded options and guarantees. Therefore, it represents their economic substance more faithfully.

A17. Additionally, paragraph 91(f) of the discussion paper states as one of the benefits of using the building block approach:

...no need to separate embedded derivatives... because the measurement includes a market-consistent estimate of both their intrinsic value and their time value. If features of the embedded derivatives and of the host contract are interdependent, separating them may be arbitrary and costly.

A18. Many respondents to the discussion paper did not agree with measuring insurance contracts at current exit value. Consequently, respondents did not specifically comment about the benefit of eliminating the need for bifurcating embedded derivatives from insurance host contracts.

### ***Comments received from field test***

A19. The staff has performed limited field testing about embedded derivatives. The purpose of the field test on embedded derivatives was to determine how often separation of embedded derivatives occurs in practice. More than half of the participants that responded did not have embedded derivatives or were not required to bifurcate embedded derivatives in an insurance host contract. One participant supported separating equity-indexed derivatives because, on the asset side, the offsetting position is a freestanding derivative that is measured at fair value through profit or loss. Other participants supported not separating embedded derivatives, arguing that the measurement being developed in the insurance contracts project is close enough to fair value that the costs to bifurcate exceed the benefits.

B1. This appendix provides a comparison of the definition of a derivative instrument between IFRS and U.S. GAAP.

B2. IAS 39 defines a derivative as:

**A derivative is a financial instrument or other contract within the scope of this Standard (see paragraphs 2–7) with all three of the following characteristics:**

- (a) its value changes in response to the change in a specified interest rate, financial instrument price, commodity price, foreign exchange rate, index of prices or rates, credit rating or credit index, or other variable, provided in the case of a non-financial variable that the variable is not specific to a party to the contract (sometimes called the ‘underlying’);
- (b) it requires no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors; and
- (c) it is settled at a future date.

B3. Accounting Standards Codification Topic 815-15-83 defines a derivative instrument as:

A derivative instrument is a financial instrument or other contract with all of the following characteristics:

a. Underlying, notional amount, payment provision. The contract has both of the following terms, which determine the amount of the settlement or settlements, and, in some cases, whether or not a settlement is required:

- 1. One or more underlyings
- 2. One or more notional amounts or payment provisions or both.

b. Initial net investment. The contract requires no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors.

c. Net settlement. The contract can be settled net by any of the following means:

- 1. Its terms implicitly or explicitly require or permit net settlement.
- 2. It can readily be settled net by a means outside the contract.
- 3. It provides for delivery of an asset that puts the recipient in a position not substantially different from net settlement.

C1. This appendix is an excerpt of example 2 (Embedded derivatives) in Guidance on Implementing IFRS 4, *Insurance Contracts*.

### **Embedded derivatives**

IG3 IAS 39 requires an entity to separate embedded derivatives that meet specified conditions from the host instrument that contains them, measure the embedded derivatives at fair value and recognise changes in their fair value in profit or loss. However, an insurer need not separate an embedded derivative that itself meets the definition of an insurance contract (paragraph 7 of the IFRS). Nevertheless, separation and fair value measurement of such an embedded derivative are not prohibited if the insurer's existing accounting policies require such separation, or if an insurer changes its accounting policies and that change meets the criteria in paragraph 22 of the IFRS.

IG4 IG Example 2 illustrates the treatment of embedded derivatives contained in insurance contracts and investment contracts. The term 'investment contract' is an informal term used for ease of discussion. It refers to a financial instrument that does not meet the definition of an insurance contract. The example does not illustrate all possible circumstances. Throughout the example, the phrase 'fair value measurement is required' indicates that the issuer of the contract is required:

- (a) to measure the embedded derivative at fair value and include changes in its fair value in profit or loss.
- (b) to separate the embedded derivative from the host contract, unless it measures the entire contract at fair value and includes changes in that fair value in profit or loss.

<b>IG Example 2: Embedded derivatives</b>			
<b><i>Type of embedded derivative</i></b>		<b><i>Treatment if embedded in a host insurance contract</i></b>	<b><i>Treatment if embedded in a host investment contract</i></b>
2.1	Death benefit linked to equity prices or equity index, payable only on death or annuitisation and not on surrender or maturity.	The equity-index feature is an insurance contract (unless the life-contingent payments are insignificant), because the policyholder benefits from it only when the insured event occurs. Fair value measurement is not required (but not prohibited).	Not applicable. The entire contract is an insurance contract (unless the life-contingent payments are insignificant).

<b>IG Example 2: Embedded derivatives</b>			
<b><i>Type of embedded derivative</i></b>		<b><i>Treatment if embedded in a host insurance contract</i></b>	<b><i>Treatment if embedded in a host investment contract</i></b>
2.2	<p>Death benefit that is the greater of:</p> <p>(a) unit value of an investment fund (equal to the amount payable on surrender or maturity); and</p> <p>(b) guaranteed minimum.</p>	<p>Excess of guaranteed minimum over unit value is a death benefit (similar to the payout on a dual trigger contract, see IG Example 2.19). This meets the definition of an insurance contract (unless the life-contingent payments are insignificant) and fair value measurement is not required (but not prohibited).</p>	<p>Not applicable. The entire contract is an insurance contract (unless the life-contingent payments are insignificant).</p>
2.3	<p>Option to take a life-contingent annuity at guaranteed rate (combined guarantee of interest rates and mortality charges).</p>	<p>The embedded option is an insurance contract (unless the life-contingent payments are insignificant). Fair value measurement is not required (but not prohibited).</p>	<p>Not applicable. The entire contract is an insurance contract (unless the life-contingent payments are insignificant).</p>
2.4	<p>Embedded guarantee of minimum interest rates in determining surrender or maturity values that is at or out of the money on issue, and not leveraged.</p>	<p>The embedded guarantee is not an insurance contract (unless significant payments are life-contingent<sup>a</sup>). However, it is closely related to the host contract (paragraph AG33(b) of Appendix A of IAS 39). Fair value measurement is not required (but not prohibited).</p>	<p>Fair value measurement is not permitted (paragraph AG33(b) of IAS 39).</p>

<b>IG Example 2: Embedded derivatives</b>			
<b><i>Type of embedded derivative</i></b>		<b><i>Treatment if embedded in a host insurance contract</i></b>	<b><i>Treatment if embedded in a host investment contract</i></b>
		<p>If significant payments are life-contingent, the contract is an insurance contract and contains a deposit component (the guaranteed minimum). However, an insurer is not required to unbundle the contract if it recognises all obligations arising from the deposit component (paragraph 10 of the IFRS).</p> <p>If cancelling the deposit component requires the policyholder to cancel the insurance component, the two cancellation options may be interdependent; if the option to cancel the deposit component cannot be measured separately (ie without considering the other option), both options are regarded as part of the insurance component (paragraph AG33(h) of IAS 39).</p>	
2.5	<p>Embedded guarantee of minimum interest rates in determining surrender or maturity values: in the money on issue, or leveraged.</p>	<p>The embedded guarantee is not an insurance contract (unless the embedded guarantee is life-contingent to a significant extent). Fair value measurement is required (paragraph</p>	<p>Fair value measurement is required (paragraph AG33(b) of IAS 39).</p>



<b>IG Example 2: Embedded derivatives</b>			
<b>Type of embedded derivative</b>		<b>Treatment if embedded in a host insurance contract</b>	<b>Treatment if embedded in a host investment contract</b>
		AG33(b) of IAS 39).	
2.6	Embedded guarantee of minimum annuity payments if the annuity payments are contractually linked to investment returns or asset prices:		
	(a) guarantee relates only to payments that are life-contingent.	The embedded guarantee is an insurance contract (unless the life-contingent payments are insignificant). Fair value measurement is not required (but not prohibited).	Not applicable. The entire contract is an insurance contract (unless the life-contingent payments are insignificant).
	(b) guarantee relates only to payments that are not life-contingent.	The embedded derivative is not an insurance contract. Fair value measurement is required (unless the guarantee is regarded as closely related to the host contract because the guarantee is an unleveraged interest floor that is at or out of the money at inception, see paragraph AG33(b) of IAS 39).	Fair value measurement is required (unless the guarantee is regarded as closely related to the host contract because the guarantee is an unleveraged interest floor that is at or out of the money at inception, see paragraph AG33(b) of IAS 39).
	(c) policyholder can elect to receive life-contingent payments or payments that are not life-contingent, and the	The embedded option to benefit from a guarantee of life-contingent payments is an insurance contract	Not applicable. The entire contract is an insurance contract (unless the life-contingent payments are

<b>IG Example 2: Embedded derivatives</b>			
<i>Type of embedded derivative</i>		<i>Treatment if embedded in a host insurance contract</i>	<i>Treatment if embedded in a host investment contract</i>
	<p>guarantee relates to both. When the policyholder makes its election, the issuer cannot adjust the pricing of the life-contingent payments to reflect the risk that the insurer assumes at that time (see paragraph B29 of the IFRS for discussion of contracts with separate accumulation and payout phases).</p>	<p>(unless the life-contingent payments are insignificant). Fair value measurement is not required (but not prohibited).</p> <p>The embedded option to receive payments that are not life-contingent ('the second option') is not an insurance contract. However, because the second option and the life-contingent option are alternatives, their fair values are interdependent. If they are so interdependent that the issuer cannot measure the second option separately (ie without considering the life-contingent option), the second option is closely related to the insurance contract. In that case, fair value measurement is not required (but not prohibited).</p>	<p>insignificant).</p>
2.7	<p>Embedded guarantee of minimum equity returns on surrender or maturity.</p>	<p>The embedded guarantee is not an insurance contract (unless the embedded guarantee is life-contingent to a significant extent) and is not closely related to the host insurance</p>	<p>Fair value measurement is required.</p>

<b>IG Example 2: Embedded derivatives</b>			
<b><i>Type of embedded derivative</i></b>		<b><i>Treatment if embedded in a host insurance contract</i></b>	<b><i>Treatment if embedded in a host investment contract</i></b>
		contract. Fair value measurement is required.	
2.8	Equity-linked return available on surrender or maturity.	The embedded derivative is not an insurance contract (unless the equity-linked return is life-contingent to a significant extent) and is not closely related to the host insurance contract. Fair value measurement is required.	Fair value measurement is required.
2.9	Embedded guarantee of minimum equity returns that is available only if the policyholder elects to take a life-contingent annuity.	The embedded guarantee is an insurance contract (unless the life-contingent payments are insignificant), because the policyholder can benefit from the guarantee only by taking the annuity option (whether annuity rates are set at inception or at the date of annuitisation). Fair value measurement is not required (but not prohibited).	Not applicable. The entire contract is an insurance contract (unless the life-contingent payments are insignificant).
2.10	Embedded guarantee of minimum equity returns available to the policyholder as either (a) a cash payment, (b) a period-certain annuity	If the guaranteed payments are not contingent to a significant extent on survival, the option to take the life-contingent	Fair value measurement is required.

<b>IG Example 2: Embedded derivatives</b>			
<i>Type of embedded derivative</i>	<i>Treatment if embedded in a host insurance contract</i>	<i>Treatment if embedded in a host investment contract</i>	
	<p>or (c) a life-contingent annuity, at annuity rates prevailing at the <b>date of annuitisation</b>.</p>	<p>annuity does not transfer insurance risk until the policyholder opts to take the annuity. Therefore, the embedded guarantee is not an insurance contract and is not closely related to the host insurance contract. Fair value measurement is required.</p> <p>If the guaranteed payments are contingent to a significant extent on survival, the guarantee is an insurance contract (similar to a pure endowment). Fair value measurement is not required (but not prohibited).</p>	
2.11	<p>Embedded guarantee of minimum equity returns available to the policyholder as either (a) a cash payment (b) a period-certain annuity or (c) a life-contingent annuity, at annuity rates set at <b>inception</b>.</p>	<p>The whole contract is an insurance contract from inception (unless the life-contingent payments are insignificant). The option to take the life-contingent annuity is an embedded insurance contract, so fair value measurement is not required (but not prohibited).</p> <p>The option to take the cash payment or the period-certain annuity</p>	Not applicable.

<b>IG Example 2: Embedded derivatives</b>			
<i>Type of embedded derivative</i>	<i>Treatment if embedded in a host insurance contract</i>	<i>Treatment if embedded in a host investment contract</i>	
	<p>(‘the second option’) is not an insurance contract (unless the option is contingent to a significant extent on survival), so it must be separated. However, because the second option and the life-contingent option are alternatives, their fair values are interdependent. If they are so interdependent that the issuer cannot measure the second option separately (ie without considering the life-contingent option), the second option is closely related to the host insurance contract. In that case, fair value measurement is not required (but not prohibited).</p>		
2.12	<p>Policyholder option to surrender a contract for a cash surrender value specified in a schedule (ie not indexed and not accumulating interest).</p>	<p>Fair value measurement is not required (but not prohibited: paragraph 8 of the IFRS).</p> <p>The surrender value may be viewed as a deposit component, but the IFRS does not require an insurer to unbundle a contract if it recognises all its obligations arising under the deposit component (paragraph</p>	<p>The surrender option is closely related to the host contract if the surrender value is approximately equal to the amortised cost at each exercise date (paragraph AG30(g) of IAS 39). Otherwise, the surrender option is measured at fair value.</p>

<b>IG Example 2: Embedded derivatives</b>			
<b><i>Type of embedded derivative</i></b>		<b><i>Treatment if embedded in a host insurance contract</i></b>	<b><i>Treatment if embedded in a host investment contract</i></b>
		10).	
2.13	Policyholder option to surrender a contract for account value based on a principal amount and a fixed or variable interest rate (or based on the fair value of a pool of interest-bearing securities), possibly after deducting a surrender charge.	Same as for a cash surrender value (IG Example 2.12).	Same as for a cash surrender value (IG Example 2.12).
2.14	Policyholder option to surrender a contract for a surrender value based on an equity or commodity price or index.	The option is not closely related to the host contract (unless the option is life-contingent to a significant extent). Fair value measurement is required (paragraphs 8 of the IFRS and AG30(d) and (e) of IAS 39).	Fair value measurement is required (paragraph AG30(d) and (e) of IAS 39).
2.15	Policyholder option to surrender a contract for account value equal to the fair value of a pool of equity investments, possibly after deducting a surrender charge.	If the insurer measures that portion of its obligation at account value, no further adjustment is needed for the option (unless the surrender value differs significantly from account value) (see paragraph AG33(g) of IAS 39). Otherwise, fair value measurement is required.	If the insurer regards the account value as the amortised cost or fair value of that portion of its obligation, no further adjustment is needed for the option (unless the surrender value differs significantly from account value). Otherwise, fair value measurement is required.

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2.16	Contractual feature that provides a return contractually linked (with no discretion) to the return on specified assets.	The embedded derivative is not an insurance contract and is not closely related to the contract (paragraph AG30(h) of IAS 39). Fair value measurement is required.	Fair value measurement is required.
2.17	Persistency bonus paid at maturity in cash (or as a period-certain annuity).	The embedded derivative (option to receive the persistency bonus) is not an insurance contract (unless the persistency bonus is life-contingent to a significant extent). Insurance risk does not include lapse or persistency risk (paragraph B15 of the IFRS). Fair value measurement is required.	An option or automatic provision to extend the remaining term to maturity of a debt instrument is not closely related to the host debt instrument unless there is a concurrent adjustment to the approximate current market rate of interest at the time of the extension (paragraph AG30(c) of IAS 39). If the option or provision is not closely related to the host instrument, fair value measurement is required.
2.18	Persistency bonus paid at maturity as an enhanced life-contingent annuity.	The embedded derivative is an insurance contract (unless the life-contingent payments are insignificant). Fair value measurement is not required (but not prohibited).	Not applicable. The entire contract is an insurance contract (unless the life-contingent payments are insignificant).
2.19	Dual trigger contract, eg contract requiring a payment that is contingent on a breakdown in power	The embedded derivative is an insurance contract (unless the first trigger lacks commercial	Not applicable. The entire contract is an insurance contract (unless the first trigger lacks commercial

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	supply that adversely affects the holder (first trigger) and a specified level of electricity prices (second trigger). The contingent payment is made only if both triggering events occur.	substance).  A contract that qualifies as an insurance contract, whether at inception or later, remains an insurance contract until all rights and obligations are extinguished or expire (paragraph B30 of the IFRS). Therefore, although the remaining exposure is similar to a financial derivative after the insured event has occurred, the embedded derivative is still an insurance contract and fair value measurement is not required (but not prohibited).	substance).
2.20	Non-guaranteed participating dividend contained in a life insurance contract. The amount is contractually at the discretion of the insurer but is contractually based on the insurer's actual experience on the related block of insurance contracts.	The contract contains a discretionary participation feature, rather than an embedded derivative (paragraph 34 of the IFRS).	Not applicable. The entire contract is an insurance contract (unless the life-contingent payments are insignificant).
a Payments are life-contingent if they are contingent on death or contingent on survival.			



D1. The following is an excerpt from the application guidance of IAS 39 (amended for IFRS 9) regarding embedded derivatives.

Embedded derivatives (paragraphs 10–13)

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- AG27 If a host contract has no stated or predetermined maturity and represents a residual interest in the net assets of an entity, then its economic characteristics and risks are those of an equity instrument, and an embedded derivative would need to possess equity characteristics related to the same entity to be regarded as closely related. If the host contract is not an equity instrument and meets the definition of a financial instrument, then its economic characteristics and risks are those of a debt instrument.
- AG28 An embedded non-option derivative (such as an embedded forward or swap) is separated from its host contract on the basis of its stated or implied substantive terms, so as to result in it having a fair value of zero at initial recognition. An embedded option-based derivative (such as an embedded put, call, cap, floor or swaption) is separated from its host contract on the basis of the stated terms of the option feature. The initial carrying amount of the host instrument is the residual amount after separating the embedded derivative.
- AG29 Generally, multiple embedded derivatives in a single hybrid contract are treated as a single compound embedded derivative. However, embedded derivatives that are classified as equity (see IAS 32) are accounted for separately from those classified as assets or liabilities. In addition, if a hybrid contract has more than one embedded derivative and those derivatives relate to different risk exposures and are readily separable and independent of each other, they are accounted for separately from each other.
- AG30 The economic characteristics and risks of an embedded derivative are not closely related to the host contract (paragraph 11(a)) in the following examples. In these examples, assuming the conditions in paragraph 11(b) and (c) are met, an entity accounts for the embedded derivative separately from the host contract.
- (a) A put option embedded in an instrument that enables the holder to require the issuer to reacquire the instrument for an amount of cash or other assets that varies on the basis of the change in an equity or commodity price or index is not closely related to a host debt instrument.
  - (b) A call option embedded in an equity instrument that enables the issuer to reacquire that equity instrument at a specified price is not closely related to the host equity instrument from the perspective of the holder (from the issuer's perspective, the call option is an equity
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instrument provided it meets the conditions for that classification under IAS 32, in which case it is excluded from the scope of this Standard).

- (c) An option or automatic provision to extend the remaining term to maturity of a debt instrument is not closely related to the host debt instrument unless there is a concurrent adjustment to the approximate current market rate of interest at the time of the extension. If an entity issues a debt instrument and the holder of that debt instrument writes a call option on the debt instrument to a third party, the issuer regards the call option as extending the term to maturity of the debt instrument provided the issuer can be required to participate in or facilitate the remarketing of the debt instrument as a result of the call option being exercised.
- (d) Equity-indexed interest or principal payments embedded in a host debt instrument or insurance contract—by which the amount of interest or principal is indexed to the value of equity instruments—are not closely related to the host instrument because the risks inherent in the host and the embedded derivative are dissimilar.
- (e) Commodity-indexed interest or principal payments embedded in a host debt instrument or insurance contract—by which the amount of interest or principal is indexed to the price of a commodity (such as gold)—are not closely related to the host instrument because the risks inherent in the host and the embedded derivative are dissimilar.
- (f) An equity conversion feature embedded in a convertible debt instrument is not closely related to the host debt instrument from the perspective of the holder of the instrument (from the issuer's perspective, the equity conversion option is an equity instrument and excluded from the scope of this Standard provided it meets the conditions for that classification under IAS 32).
- (g) A call, put, or prepayment option embedded in a host debt contract or host insurance contract is not closely related to the host contract unless the option's exercise price is approximately equal on each exercise date to the amortised cost of the host debt instrument or the carrying amount of the host insurance contract. From the perspective of the issuer of a convertible debt instrument with an embedded call or put option feature, the assessment of whether the call or put option is closely related to the host debt contract is made before separating the equity element under IAS 32.
- (h) Credit derivatives that are embedded in a host debt instrument and allow one party (the 'beneficiary') to transfer the credit risk of a particular reference asset, which it may not own, to another party (the 'guarantor') are not closely related to the host debt instrument. Such credit derivatives allow the guarantor to assume the credit risk associated with the reference asset without directly owning it.

AG31 An example of a hybrid contract is a financial instrument that gives the holder a right to put the financial instrument back to the issuer in

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exchange for an amount of cash or other financial assets that varies on the basis of the change in an equity or commodity index that may increase or decrease (a 'puttable instrument'). Unless the issuer on initial recognition designates the puttable instrument as a financial liability at fair value through profit or loss, it is required to separate an embedded derivative (ie the indexed principal payment) under paragraph 11 because the host contract is a debt instrument under paragraph AG27 and the indexed principal payment is not closely related to a host debt instrument under paragraph AG30(a). Because the principal payment can increase and decrease, the embedded derivative is a non-option derivative whose value is indexed to the underlying variable.

- AG32 In the case of a puttable instrument that can be put back at any time for cash equal to a proportionate share of the net asset value of an entity (such as units of an open-ended mutual fund or some unit-linked investment products), the effect of separating an embedded derivative and accounting for each component is to measure the hybrid contract at the redemption amount that is payable at the end of the reporting period if the holder exercised its right to put the instrument back to the issuer.
- AG33 The economic characteristics and risks of an embedded derivative are closely related to the economic characteristics and risks of the host contract in the following examples. In these examples, an entity does not account for the embedded derivative separately from the host contract.
- (a) An embedded derivative in which the underlying is an interest rate or interest rate index that can change the amount of interest that would otherwise be paid or received on an interest-bearing host debt contract or insurance contract is closely related to the host contract unless the combined instrument can be settled in such a way that the holder would not recover substantially all of its recognised investment or the embedded derivative could at least double the holder's initial rate of return on the host contract and could result in a rate of return that is at least twice what the market return would be for a contract with the same terms as the host contract.
  - (b) An embedded floor or cap on the interest rate on a debt contract or insurance contract is closely related to the host contract, provided the cap is at or above the market rate of interest and the floor is at or below the market rate of interest when the contract is issued, and the cap or floor is not leveraged in relation to the host contract. Similarly, provisions included in a contract to purchase or sell an asset (eg a commodity) that establish a cap and a floor on the price to be paid or received for the asset are closely related to the host contract if both the cap and floor were out of the money at inception and are not leveraged.
  - (c) An embedded foreign currency derivative that provides a stream of principal or interest payments that are denominated in a foreign currency and is embedded in a host debt instrument (eg a dual

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currency bond) is closely related to the host debt instrument. Such a derivative is not separated from the host instrument because IAS 21 requires foreign currency gains and losses on monetary items to be recognised in profit or loss.

- (d) An embedded foreign currency derivative in a host contract that is an insurance contract or not a financial instrument (such as a contract for the purchase or sale of a non-financial item where the price is denominated in a foreign currency) is closely related to the host contract provided it is not leveraged, does not contain an option feature, and requires payments denominated in one of the following currencies:
  - (i) the functional currency of any substantial party to that contract;
  - (ii) the currency in which the price of the related good or service that is acquired or delivered is routinely denominated in commercial transactions around the world (such as the US dollar for crude oil transactions); or
  - (iii) a currency that is commonly used in contracts to purchase or sell non-financial items in the economic environment in which the transaction takes place (eg a relatively stable and liquid currency that is commonly used in local business transactions or external trade).
- (e) An embedded prepayment option in an interest-only or principal-only strip is closely related to the host contract provided the host contract (i) initially resulted from separating the right to receive contractual cash flows of a financial instrument that, in and of itself, did not contain an embedded derivative, and (ii) does not contain any terms not present in the original host debt contract.
- (f) An embedded derivative in a host lease contract is closely related to the host contract if the embedded derivative is (i) an inflation-related index such as an index of lease payments to a consumer price index (provided that the lease is not leveraged and the index relates to inflation in the entity's own economic environment), (ii) contingent rentals based on related sales or (iii) contingent rentals based on variable interest rates.
- (g) A unit-linking feature embedded in a host financial instrument or host insurance contract is closely related to the host instrument or host contract if the unit-denominated payments are measured at current unit values that reflect the fair values of the assets of the fund. A unit-linking feature is a contractual term that requires payments denominated in units of an internal or external investment fund.
- (h) A derivative embedded in an insurance contract is closely related to the host insurance contract if the embedded derivative and host insurance contract are so interdependent that an entity cannot measure the embedded derivative separately (ie without considering the host contract).

Instruments containing embedded derivatives

- AG33A When an entity becomes a party to a hybrid (combined) contract that contains one or more embedded derivatives, paragraph 11 requires the entity to identify any such embedded derivative, assess whether it is required to be separated from the host contract and, for those that are required to be separated, measure the derivatives at fair value at initial recognition and subsequently. These requirements can be more complex, or result in less reliable measures, than measuring the entire instrument at fair value through profit or loss. For that reason this Standard permits the entire hybrid contract to be designated as at fair value through profit or loss.
- AG33B Such designation may be used whether paragraph 11 requires the embedded derivatives to be separated from the host contract or prohibits such separation. However, paragraph 11A would not justify designating the hybrid (combined) contract as at fair value through profit or loss in the cases set out in paragraph 11A(a) and (b) because doing so would not reduce complexity or increase reliability.